LEADERSHIP AND MOTIVATION IN HOSPITALITY

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ABSTRACT

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Leadership and motivation in hospitality

Customer contact service employees in hospitality organisations have a critical role to play in satisfying customers' expectations. However, it is recognised that hospitality service jobs are often associated with low pay, long and anti-social hours, unstable and seasonal employment, low job status, a lack of career opportunities and poor levels of benefits. In the light of factors such as these, which are likely to militate against high levels of motivation - and consequently to reduce the quality of customer service - addressing hospitality customer service employees' motivation can be viewed as a priority for hospitality management.

Inspirational, motivational leaders can motivate employees to 'perform beyond expectations' and previous studies of leadership in hospitality have demonstrated a number of positive outcomes related to the presence of inspirational leaders. No studies have been identified, however, that have measured the specific influence of motivational leadership on hospitality service employees' job performance.

To evaluate the contribution of motivational leadership to employee work motivation, work motivation was measured using both employee attitudes and job performance. Data were collected from a sample of non-supervisory waiting staff in hotel businesses in the UK. In total, two hundred and thirteen usable survey forms were returned from twenty seven UK hotels with table service restaurants. All of the participating organisations were rated as three or four stars and the mean number of non-supervisory waiting staff in these hotels was twenty three.

The study finds that motivational leadership, alongside employee perceptions of empowerment and employees' work orientations, contributes positively to both work attitudes and job performance.

The research also finds that motivational leadership enhances employees' work meaning and understanding of organisational goals (mission clarity).

In addition to its empirical dimensions, the research contributes to hospitality studies theory by critically appraising the leadership-related hospitality literature and making recommendations for the future progress of hospitality leadership studies.

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This thesis is dedicated to our wonderful daughters, Lowena and Iona, who arrived just as the final edits were being made.

DECLARATION

Figure 2-1 from Van Seters and Field (1990: 33) is reproduced with permission from Emerald Group Publishing Ltd.

Commonly used abbreviations

General

TL	Transformational leadership
MLQ	Multi-factor Leadership Questionnaire
FRLM	Full-Range Leadership Model
LMX	Leader-Member-Exchange

The constructs

WV	Work Values
EM	Employee Empowerment
ML	Motivational Leadership
ME	Work Meaning
JS	Job Satisfaction
AOC	Affective Organisational Commitment
SS	Social Support
JP	Job Performance
DSB	Discretionary Service Behaviour
SQ	Service Quality

Statistics

SEM	Structural Equation Modelling
χ^2	Chi Square
CFI	Comparative Fit Index
RMSEA	Root Mean Square Error of Approximation
SRMR	Standardised Root Mean Residual
PNFI	Parsimony Normed Fit Index
CN	(Hoelter's) Critical N
CR	Multivariate kurtosis critical ratio. Equivalent to Mardia's (1970) normalised estimate of multivariate kurtosis
d.f.	Degrees of Freedom
SRC	Standardised Residual Covariance
SRCM	Standardised Residual Covariance Matrix
MI	Modification Index

1 INTRODUCTION

1.1 Background and rationale

The performance of front-line staff has been recognised as being critical for service-orientated organisations in general (e.g. Schneider *et al.* 1980: 423) and also for hospitality organisations (e.g. Hartline and Ferrell 1996: 52-53; Lashley 1996: 334; Wilkins *et al.* 2007). Concerns surrounding service employees' job performance and service quality are at the heart of hospitality management (e.g. Davidson 2003: 72; Wilkins *et al.* 2007: 841), not least owing to the inseparable nature of production and consumption in services. This concept describes how, unlike goods, services are produced and consumed simultaneously; services, therefore, cannot readily be quality-assured prior to delivery. This means that, to a large extent, the quality of the customer's experience is determined at the point of delivery and based on the performance of the service delivery employee (Go *et al.* 1996: 5). Carlzon (1987) described these service encounters between employees and customers as 'moments of truth', the point at which the success or failure of a service organisation is determined.

In addition to customer satisfaction, Buttle (1996: 8) describes a number of other productive organisational outcomes associated with quality of service in hospitality such as profitability, costs, customer retention and positive word-of-mouth customer evaluations. Given the critical role of hospitality service personnel, there is some irony that many front-line hospitality service jobs offer relatively low pay, long and unsociable hours, poor levels of job stability and a lack of promotional opportunities (Hesselink *et al.* 2004: 11; Wildes 2007: 5-6; Wong and Ko 2009: 195). Wood provided a particularly unflattering picture, describing hospitality work as often being:

> ...largely exploitative, degrading, poorly paid, unpleasant, insecure and taken as a last resort or because it can be tolerated in the light of wider social and economic commitments and constraints
>
> (Wood 1997: 198)

According to Herzberg's Two-Factor theory of motivation (Herzberg 1966), characteristics such as these militate against employees enjoying high levels of motivation and Keegan, with reference to improving hospitality jobs through

redesign and enrichment, writes that:

> ...most of the jobs in the hospitality industry do not lend themselves to such improvements. The challenge for us is not so much to change the job, but to provide the managerial leadership that would create an environment in which the employee's real needs are satisfied.
>
> (1983: 92-93)

Against this background, it is argued that inspirational, motivational leaders are a key organisational resource for motivating service staff in hospitality organisations.

Within the broader field of organisational psychology, researchers have been studying leadership for around 100 years (Antonakis *et al.* 2004a: 4) generating a body of work containing thousands of empirical studies (Alvesson and Sveningsson 2003: 359), hundreds of definitions (Rost 1991), dozens of theories (see e.g. Lowe and Gardner 2000; Yukl 2010) and several overarching research paradigms (Van Seters and Field 1990; Bryman 1992).

In recent years considerable attention has focused on the 'new leadership' approaches (charismatic / transformational leadership theories) (Lowe and Gardner 2000; Antonakis *et al.* 2004a) that emerged during the 1980s and have focused on leader charisma, vision and inspiration. The pattern of leadership research in hospitality contexts has followed this trend with transformational leadership theory emerging as the dominant research approach in this area. Transformational leadership valorises (among other leader attributes) inspirational-motivational behaviour and posits this as a key platform from which leaders can engender improved employee performance.

This research aims to evaluate the role of motivational leadership in enhancing hospitality service staff motivation and performance. Conceptually and empirically (through the use of structural equation modelling with latent variables), motivational leadership is located within a wider organisational / motivational context. In this way the research seeks to build a nuanced understanding of the role of motivational leaders in influencing employee work motivation (measured using both employee work attitudes and job performance) in hospitality services. Such an approach also addresses calls in the broader leadership (Lowe and Gardner 2000: 496-498) and organisational studies (Johns 2001; Rousseau and Fried 2001) literature for more integrated research

approaches that can improve our understanding of the linkages between phenomena in the workplace (see also Antonakis *et al.* 2004b: 60). Measuring the relationship between leadership and job performance also addresses a significant knowledge gap in the hospitality leadership literature (Section 3.8 describes how no published studies have measured the relationship between leadership and job performance in a hospitality context).

1.2 Aims, objectives and research design

Against this background, the research **aims** to:

- explore and evaluate the contribution of motivational leadership to employee work motivation in hospitality services.

The research design locates motivational leadership within the broader organisational / motivational context by also measuring how a number of non-leadership phenomena contribute to employee work motivation.

The specific **objectives** of the research are to:

1. critically evaluate the field of hospitality leadership studies to identify relevant issues and inform the research design;
2. develop a theoretical framework to:
    a. locate the variables of interest in relation to existing organisational psychology theories;
    b. articulate the likely linkages between variables; and
    c. guide the formulation of specific hypotheses;
3. identify/generate measurement scales for the latent variables;
4. refine the measurement scales; and
5. test and evaluate the relationships between variables using survey data collected from hotel restaurant waiting staff.

Literature reviews of the generic and hospitality-specific leadership literatures satisfy the requirements for Objective 1. The theoretical framework (Objective 2) is developed by integrating the identified variables of interest within the broader frameworks of work motivation and organisational psychology / organisational behaviour research. With regard to Objective 3, the applied hospitality and services-related leadership and organisational studies literatures are interrogated

to: guide the operationalisation and measurement of the latent variables; identify additional relevant variables; and further inform the development of hypotheses for the survey research.

The work undertaken in pursuit of Objectives 1 to 3 (a) contributes to the selection of the variables of interest and the methods for measuring these, and (b) underpins the development of the theoretical framework that is used to guide the specification of the causal relationships between variables i.e. the formulation of the research hypotheses.

Ambrose and Kulik (1999: 232) describe how work motivation can be measured using both attitudinal (e.g. job satisfaction) and behavioural (e.g. job performance) measures. This research employs both attitudinal (job satisfaction, affective organisational commitment and work meaning) and behavioural measures of work motivation.

Two principal job performance measures are employed, the first - Job Performance (JP) - is a respondent self-assessment measure of extra effort and the second - Discretionary Service Behaviour (DSB) - is a peer-assessment of extra effort based on earlier work by Blancero and Johnson (1997, 2001) and by Simons and Roberson (2003). An exploratory third measure of job performance is included that utilises a specially-developed scale which attempts to measure performance based on service quality.

Aside from motivational leadership, the research assess the role of employee work orientations and employee perceptions of empowerment as predictors of employee attitudes. Social support (peer support) is also assessed as a predictor of job performance.

Objectives 4 and 5 are achieved through the use of data collected using a respondent-completed postal questionnaire distributed to a range of UK hotels that agreed to assist with the research. The population of interest is non-supervisory foodservice employees (waiting staff) working in hotels with table service restaurants. Hotel businesses were chosen as a focus for this research owing to the opportunities hotels provide for access to: (i) large numbers of foodservice employees in relatively few sites; (ii) businesses with existing connections to Bournemouth University's School of Tourism; and (iii) a population

working in a relatively homogenous service context (restaurants in commercial hotels).

The research design follows a positivistic organisational psychology / organisational behaviour approach wherein relevant variables and psychometric methods of quantifying these are identified from reviews of the relevant literature. The key variables in this research are latent (unobservable) constructs (also referred to as *latent variables*, *latent factors*, or *factors*) which are operationalised and measured using multiple indicator variables. Structural equation modelling (SEM) is chosen as the analytical method because this technique makes it possible to measure relationships between latent variables. Further advantages of SEM include its capacity to (i) estimate models containing multiple dependent and independent variables and (ii) to incorporate mediating variables (see e.g. Raykov and Marcolides 2006: 7).

Analysis of data is undertaken using IBM SPSS and AMOS (the IBM SPSS module for SEM analysis; both SPSS and AMOS Version 18) using structural regression models (Kline 2005: 209). The modelling method is based on Anderson and Gerbing's (1988) two-step procedure (measurement model followed by structural model) with each step following the five stages (specification, identification, estimation, testing and modification) described by Schumaker and Lomax (2004).

The research employs a Model Generating (MG) approach in which the model is modified and tested again using the same data (Jöreskog 1993: 295; Raykov and Marcolides 2006: 7). Whilst structural equation models are specified and tested in a hypothetico-deductive manner – that is, each causal or correlational relationship is posited in the form of an *a priori* hypothesis which is then tested statistically – the Model Generating or theory development approach means that at a broader level the research operates in a somewhat exploratory mode. On this matter, Raykov and Marcolides write:

> In theory development, repeated applications of SEM are carried out, often on the same data set, in order to explore potential relationships between variables of interest. In contrast to the confirmatory mode of SEM applications, theory development assumes that no prior theory exists—or that one is available only in a rudimentary form—about a phenomenon under investigation.
>
> (Raykov and Marcolides 2006: 6-7)

Theory being 'available only in a rudimentary form' describes well the situation (described later in this research) regarding the nature of social scientific knowledge on the specific relationships that exist between leadership, motivation and job performance in hospitality service contexts.

Against this background, and using the Model Generating approach, the research can be viewed as contributing towards a middle-range theory of leadership and motivation in a hospitality service context. Middle range theories predict / explain only a subset of all organizational phenomena, or focus only on a sub-set of organisations or individuals (Pinder and Moore 1979: 2).

1.3 Structure of the thesis

Following this introductory chapter, the work begins with an examination of the field of generic leadership studies in order to provide a framework for categorising the studies identified in the subsequent review of the applied hospitality leadership research. Chapter 2, therefore, focuses on describing the major theoretical developments in the generic leadership studies field, while also drawing out relevant issues for this study. Chapter 3 then describes and critically evaluates the applied (hospitality) leadership research literature with respect to the core leadership theories described in Chapter 2.

Throughout Chapters 2 and 3, a number of variables related to employee work motivation are identified. It is the task of Chapter 4 to identify a theory-based organising framework to inform the development of research hypotheses linking these variables. Accordingly, Chapter 4 begins with a review of the major theories in the field of work motivation research. This review of work motivation studies finds that no integrated framework of work motivation theory exists. As a consequence of this, the overarching field of industrial and organisational (I/O) psychology is examined and, from this, an organising framework for the research is developed within which it is possible to (i) locate the variables of interest and (ii) inform the development of specific research hypotheses.

Having developed a theoretical framework to guide the specifications of the hypothesised linkages between the variables of interest, Chapter 4 concludes by reviewing the applied (hospitality and service-related) organisational studies literature to: (i) identify precedents for measuring the selected latent variables;

(ii) identify any additional relevant variables for inclusion in the study; and (iii) further inform the development of hypotheses for the survey research.

Chapter 5 elaborates the rationale for the inclusion of each of the latent constructs and, with reference to the published research, describes and justifies the development of the indicator variables for each of these constructs.

Chapter 6 introduces the structural equation modelling (SEM) analytical technique and also describes the refinement of the measurement scales, the development of the survey instrument, the administration of the survey and the specifics of the data screening procedures prior to the development of the SE (structural equation) models.

Chapter 7 deals with data analysis and begins with a general description of structural equation modelling (SEM) followed by the specific modelling strategy to be employed in the research. The specific methods for undertaking the SEM analyses are described throughout the development of Model 1; the development of the remaining models is then carried out following the same methods.

Chapter 8 concludes the thesis by discussing the research findings in terms of the contributions made, the new conceptualisations that are generated, the theoretical and practical implications of the research findings and how future research might build upon these.

2 LEADERSHIP

This section introduces and examines the field of generic leadership studies in order to provide a framework for categorising the hospitality leadership studies that are identified in Chapter 3. The development of the field of leadership studies is described, as are the central tenets of the major theories to have emerged during the 20th Century. Where appropriate, linkages are made between core concepts in leadership theory and the aims of the current research.

2.1 Definitions of leadership

There are a great many definitions of leadership; Rost, for example, found 221 for his 1991 publication *Leadership for the twenty-first century*. Yukl (1989: 252-253) provided an excellent overview of the progress of the debate about how to define leadership and, perhaps the most illuminating point which he makes therein is that some commentators argue that 'leaders' (as opposed to 'managers') are able to influence people by means other than the 'more traditional', 'carrot and stick' / 'reward and punishment' approaches. Leaders are able to influence people by instilling/creating empathy for work goals, appealing to people's higher-order social and self-esteem needs – that is, leaders do not coerce their colleagues/subordinates into action, rather, they inspire. Mintzberg's (1973) *The Nature of Managerial Work* identified 10 managerial roles, one of which is leadership, which Mintzberg defined as, "...responsible for the motivation and activation of subordinates; responsible for staffing, training, and associate duties" (1973: 92). Elsewhere, Shortt describes Mintzberg's leader role thus:

> In the role of leader, managers encourage and motivate subordinates to achieve organisational objectives. This role may be seen as a supervisory one, in which the manager selects, trains, promotes and dismisses subordinates.
>
> (Shortt 1989: 122)

The Mintzbergian approach, therefore, is not to position leaders apart from managers, but to include leadership as an aspect of management. Table 2-1 illustrates Mintzberg's categorisation of his ten management roles.

Informational roles	Interpersonal roles	Decisional roles
Monitor	**Leader**	**Entrepreneur**
Disseminator	**Liaison**	**Disturbance handler**
Spokesperson	**Figurehead**	**Resource allocator**
		Negotiator

(Source: Mintzberg 1975: 54-59)

Table 2-1 Mintzberg's Management Roles

A common theme in reviews of leadership studies is to note that leadership has been defined in many ways (e.g. Yukl 1989: 252) and that there is often little commonality within the range of definitions (e.g. Alvesson and Sveningsson 2003: 362). As noted above, Rost (1991), found 221 definitions of leadership (based on his review of the leadership literature published between the 1920s and 1990s). Ciulla has reviewed these definitions and while (helpfully) observing that "All 221 definitions say basically the same thing - leadership is about one person getting other people to do something" (2002: 340) she noted in her next sentence that differences do exist within these definitions as regards to the ways in which leaders effect motivation amongst their followers and who has responsibility for goal setting. Northouse (2004: 3) came to a very similar conclusion, settling for a definition which described leadership as "…a process whereby an individual influences a group of individuals to achieve a common goal".

This diversity of definitions and approaches in the field of leadership studies is (partly) explained by (Antonakis *et al.* 2004a: 4) who note that "...100 years of leadership research has led to several paradigm shifts and a voluminous body of knowledge". Antonakis *et al.* (*op. cit.*: 4) go on to cite "...false starts, incremental theoretical advances, and contradictory findings" as further reasons for the complexity and diversity of leadership research.

Bennis finds some commonality in approaches to leadership studies at a more fundamental level and argues that leadership can, foremost, be viewed as a relational phenomenon:

> Leadership is grounded in a relationship. In its simplest form, it is a tripod—a leader or leaders, followers, and the common goal they want to achieve. None of those three elements can survive without the others.
>
> (Bennis 2007: 3-4)

Drath *et al.* (2008: 635) contend that Bennis's 'tripod' describes an underlying ontology of leadership studies (and one which is "virtually beyond question in the field"). However, while leadership studies may have been conducted based upon a uniform ontological platform, Alvesson and Sveningsson (2003: 362) doubt that "…a common definition is practically possible". They support their argument with a selection of shortcomings which have been raised with regard to the lack of progress in realising a unified theory of leadership; these include:

- Alvesson and Deetz (2000, cited in Alvessen and Sveningson 2003: 362): "The commitment to an objectivist paradigm promising the accumulation of knowledge through development and verification of hypothesis has not led to the delivery of the goods";
- Fiedler (1996: 241), who noted skeptics' concerns that: "…leadership theories and research lacked focus and were chaotic, and some writers asked even whether there is such a thing as leadership";
- Sashkin and Garland (1979: 65): ''By any objective measure, the study of leadership has failed to produce generally accepted, practically useful, and widely applied scientific knowledge''; and
- Yukl (1989: 253): " the field . . . is presently in a state of ferment and confusion. Most of the theories are beset with conceptual weaknesses and lack strong empirical support. Several thousand empirical studies have been conducted on leadership effectiveness, but most of the results are contradictory and inconclusive".

The section above has introduced the heterogeneity of definitions and theory in leadership research and paints something of a bleak picture as regards positivistic-mode progress towards a unified theory of leadership. More recently, however, Mackenzie and Barnes (2007) have suggested that leadership studies are 'evolving' along a positivistic path. Firstly, they reiterate the complex nature of leadership studies and leadership theory:

> Each new "Leadership Theorist" and every "Supervisor Student" eventually struggles to reconcile and synthesize different viewpoints about leading and leadership. This is a daunting task, given the immense quantity of writing in their literatures. The diversity of opinion, the many competing purposes, the different foci of attention, the variety of leadership approaches, and the fuzziness of terms and conceptual relationships makes reconciliation and synthesis a task of well-informed, expert, and diligent scholars.
>
> (Mackenzie and Barnes 2007: 99)

They then go on to describe how emergent texts (compendia) contribute to the advancement of theory through each author's (or authors') attempts to valorise their own synthesis of leadership theories and paradigms:

> Each compendia creates a synthesizing narrative to establish a story line for the author's particular approach. Each new approach is similar to an invention. The invention attracts followers. Eventually, followers beget dissenters. Divergence grows between the argued leadership approach and the accumulating opinion. Next, new typologies are invented to reduce and organize the divergence. This leads to a new convergent synthesis.
>
> (Mackenzie and Barnes 2007: 99)

House and Aditya (1997: 409) also argue that "...the development of knowledge concerning leadership phenomena has been truly cumulative". We can see then that not only are definitions of leadership contested, the nature of the development of leadership as an area of study is also contested. Accordingly, the following section briefly examines some prominent perspectives on the development of leadership studies. The thesis then moves on to critically examine the major leadership studies approaches and theories.

2.2 Reviewing the reviews: complexity and contestation in leadership studies

A number of reviews of leadership research have been published during the 'modern leadership era' (i.e. post 1970s, following the emergence of the new/charismatic/transformational approaches). Some of these employ a thematic categorisation while others combine thematic with chronological methods of categorisation.

The different reviews each tend to emphasise certain aspects of leadership research and employ more or less nuanced categorisations. For example: Bass, writing in 1981 lists 10 separate sets of leadership theories containing a further 11 discrete 'sub-theories' (1981: 26-37); Yukl (1989) provides a detailed review emphasising trends and developments during the 1980s (situational and transformational approaches); Van Seters and Field (1990) propose ten 'eras' of leadership research and illustrate the evolutionary linkages between the various theories which emerged during these eras; Bryman (1992) offers a pared-down

framework containing the essential four (trait, behavioural, situational and transformational) approaches; House and Aditya (1997) use a similar categorisation to Bryman (1992) and include detailed discussion on ten emergent leadership research approaches; Lowe and Gardner (2000) provide an excellent and detailed review of studies, theoretical approaches and methods employed in articles published in the *Leadership Quarterly* journal during the 1990s; and, most recently, Antonakis *et al.* (2004a) provide a fresh categorisation along with an evaluation of the current levels of activity in each of their 'schools' of leadership research.

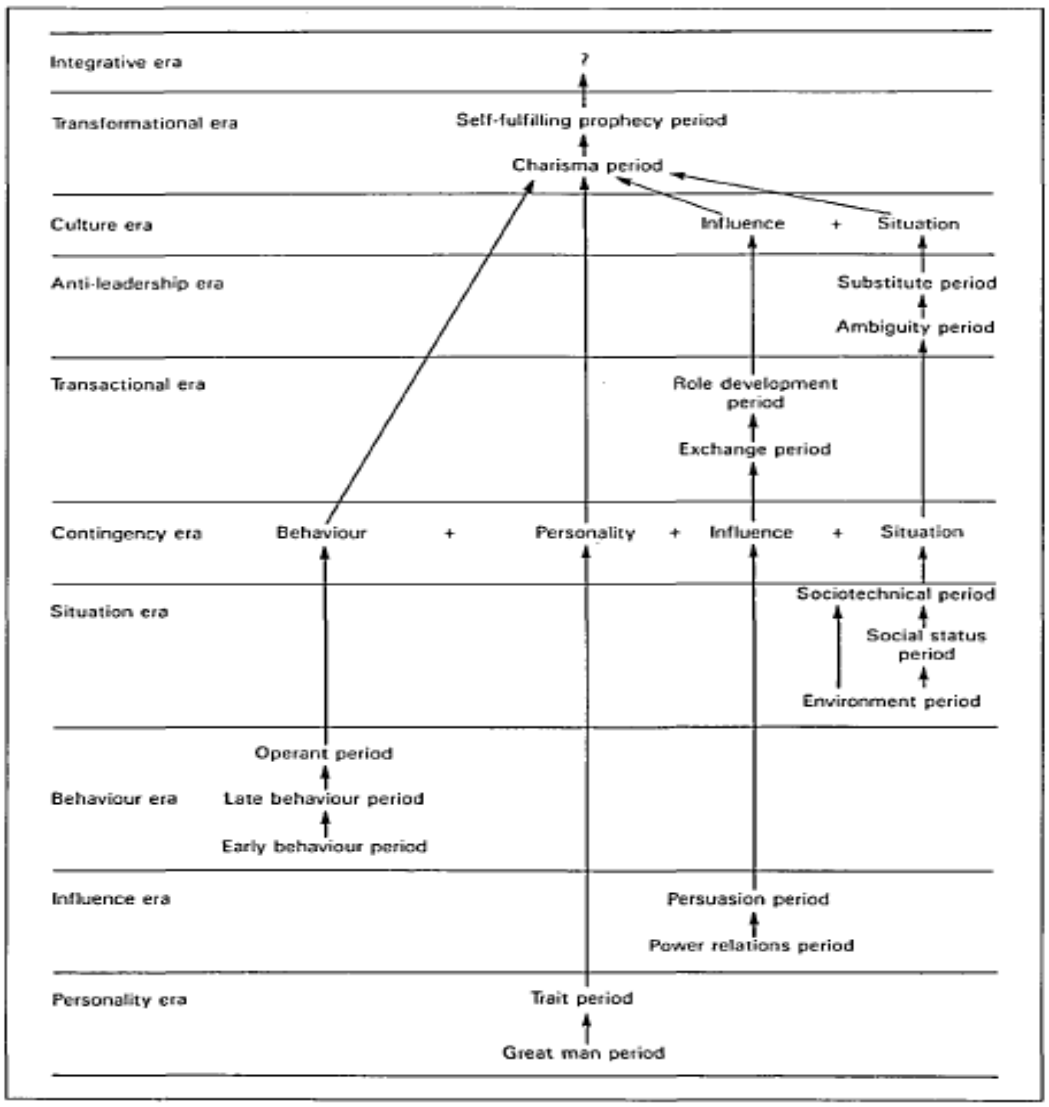
Table 2-2 summarises the categories employed by Bryman in his 1992 review – this can be regarded as the 'standard model' for describing the development of leadership research

Period	Approach	Core Theme
Up to late 1940s	**Trait approach**	**Leadership ability is innate**
Late 1940s to late 1960s	**Style (behavioural) approach**	**Leadership effectiveness is to do with how the leaders behaves**
Late 1960s to early 1980s	**Contingency (situational) approach**	**It all depends; effective leadership is affected by the situation**
Since early 1980s	**New leadership approach (inc. transformational and charismatic leadership)**	**Leaders need vision**

Source: Bryman (1992: 1)

Table 2-2 Thematic reviews of leadership studies

Van Seters and Field's (1990) *evolutionary tree* of leadership theories is illustrated in Figure 2-1. This model represents a more nuanced disaggregation of the major approaches to leadership research. In addition, it provides an excellent representation of not only how leadership theories have emerged over time but also of how the emergent theories have been informed by their antecedents.



Source: Van Seters and Field (1990: 33)

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Figure 2-1 Van Seters and Field's *Evolutionary Tree*

More recently, Antonakis *et al.* (2004a) have developed an original perspective based on both those authors' own experience and previous reviews by Lowe and Gardner (2000), Bass (1990b), House and Aditya (1997) and Van Seters and Field (1990). In comparison to the 'standard model' described by, for example, Bryman (1992), Antonakis *et al.*'s model features a slightly more refined categorisation. Significantly, however, the timelines in Antonakis *et al.* are more sophisticated and show that work continues within all of the paradigms, albeit with some more active than others. Antonakis et al.'s categories are described in Section 2.3.5 below.

School	Intensity of activity
Trait	**(Very active)**
Behavioural	**(Mostly inactive)**
Contingency	**(Moderately active)**
Relational	**(Moderately active)**
Skeptics	**(Mostly inactive)**
Contextual	**(Very active)**
Information-processing	**(Very active)**
New Leadership (Neo-charismatic/Transformational/ Visionary)	**(Very active)**

Source: Antonakis *et al.* (2004a)

Table 2-3 Antonakis *et al.*'s Major schools of leadership

Some recent contributions have developed new perspectives, moving away from simply thematic and chronological approaches. Table 2-4 highlights (i) Northouse (2004) who reduced the research approaches to four categories by identifying common themes in the ways researchers have sought to understand leadership and (ii) Grint (2004) who has identified four 'problems' which he sees as presenting obstacles to achieving a common definition of leadership.

Although approaching the issue from different points of departure, Grint's and Northouse's categorisations share some similarities insofar as they both contain specific references to the leadership process, how influence is exercised and group/individual aspects of leadership. Finally, what Grint's (2004) analysis highlights is that there remains considerable ambiguity in leadership research.

Yet another approach has been employed by Hunt (1999) who uses Reichers and Schneider's (1990) stage model of sequential development of scientific constructs to examine the evolutionary development of leadership studies. Hunt's stage model approach is particularly relevant to transformational leadership and will be discussed under the relevant section later in this review.

Northouse's (2004: 3) Common themes
Leadership as a process
Leadership involves influence
Leadership occurs in a group context
Leadership involves goal attainment
Grint's (2004) Problem areas of leadership research
<u>The process problem</u>: is leadership embodied in the individual qualities or traits of the leader or is followership created by relational process which engage both leaders and followers?
<u>The position problem</u>: does leadership arise from formal authority (the leader 'being in charge') or from more informal influence processes (the leader 'being in front')?
<u>The philosophy problem</u>: to what extent is leadership effected by leaders and/or followers' actions. How are followers' actions shaped by the situation or context? Or, is 'leadership' something which followers identify as a causal force following events?
<u>The purity problem</u>: is leadership solely an individual phenomenon or can groups demonstrate the characteristics of leadership?

Table 2-4 Common themes and problem areas

2.2.1 Summary of paradigmatic progression in leadership studies

The chronological progression of theory in leadership studies can be summarised as follows; indicative dates for the emergence of each theoretical perspective are given and all can be considered extant:

(i) *(1900-) the earlier 'great man' and trait theories* which examined the characteristics of 'great' leaders in an attempt to understand the personal (physical and psychological) factors which explain successful leadership;

(ii) *(1950s-) behavioural theories* which sought to identify significant aspects of successful leaders' behaviour (rather than inherent traits);

(iii) *(1950s-) the situational (or contingency) approaches* (which examine the ways in which business-environment factors affect leadership processes);

(iv) *(1960s-) the more 'humanistic' theories* which incorporate personal/motivational factors and tend towards perspectives which balance organisational and individuals' needs; and

(v) *(1970s-) the 'new' leadership approaches* (e.g. transformational and charismatic leadership) which emphasise the importance of leader charisma and influence and followers' concomitant willing co-operation in achieving organisational goals.

As noted above, all of these theories and approaches can be regarded as extant. Underlining the contested nature of debate surrounding the charting of the development of leadership studies, while Vroom and Jago (2007: 18) have described 'most early research on leadership' (referring to the trait theory approaches) as 'largely discredited', Antonakis *et al.* (2004a: 7) suggest that trait theory research has re-entered a period of relatively intense activity. Borgatta et al. (1954: 756) describe how the 'great man' approach is underpinned by a belief that organisational outcomes (such as performance or effectiveness) can be significantly influenced by a "single person in the top position". Regardless of the current volume of scholarly effort going into the trait/great man approach, during the course of this doctoral study, it has been observed that in conversations with tourism and hospitality academics and practitioners (and indeed with non-leadership experts in general) that the majority of individuals immediately relate to the 'great man' paradigm when leadership is mentioned. That is, when leadership is mentioned, many people tend to think of executive-level leadership and a 'single person in the top position'. Responses such as this can be understood using the lens of the Implicit Leadership Theory (ILT), which examines the roles of individuals preconceptions of leadership. ILTs are discussed later in Section 3.3.3.

The empirical work in this thesis focuses, however, on leadership *in* organisations (rather than leadership *of* organisations) - the remainder of the review of generic leadership research provides an overview of the major leadership theories from the great man, executive-level conceptualisations of leadership through to the 'new leadership' approaches that underpin more contemporary approaches to leadership studies. more contemporary modes of more 'distributed leadership' (such as transformational) where leaders are to be found at all levels of an organisation.

2.3 Major theories of leadership

This section of the review is structured according to the trait, style/behaviour and situational categorisation described by Bryman (1992) in Table 2-2. Antonakis *et al.*'s 'major schools' review is then drawn upon to examine the Relational, Skeptics, Contextual, Information-Processing and New Leadership approaches to studying leadership. The discussion of the New Leadership school, which Antonakis *et al.* also refer to as the Neo-charismatic/ Transformational/Visionary schools, provides a lead into the following section specifically discussing transformational leadership approaches.

Transformational leadership is examined in particular depth owing to the centrality of its Inspirational Motivation (IM) dimension to this research and because it is found (in Chapter 3) to be the most frequently utilised theoretical approach in hospitality leadership studies.

2.3.1 Trait theories

The premise of the great man theory is that certain people are born stronger, more intelligent and more able to lead; leadership was thought to be a personal quality (based on an individual's traits) and independent of the environment in which the leader was operating. A hereditary link was thought to exist, as Kirkpatrick and Locke (1991: 48) explain, "great men were born, not made". Van Seters and Field (1990) provide a distinction between the great man and trait theories, describing how leadership studies moved from the 'great man' (focusing on individuals' personalities) to 'trait' approaches (that focus on traits rather than personalities):

> …attempts were made to remove the links with specific individuals and simply to develop a number of general traits which, if adopted, would enhance leadership potential and performance.
>
> (Van Seters and Field 1990: 30)

During the early 20th Century, the development of psychological measures led to the testing of the great man / trait theory of leadership (Vroom and Jago 2007: 18). In order to identify those traits associated with successful leadership, a variety of aptitude and personality tests were applied, these included: intelligence, extroversion, dominance, gender, masculinity, class and race.

In 1948 Stogdill published a review of findings in studies employing trait approaches and concluded that "It becomes clear that an adequate analysis of leadership involves not only a study of leaders, but also of situations" (1948: 64-65). More recently Vroom and Jago (2007: 18) (who refer to these approaches as 'heroic conceptions' of leadership) wrote "...early research on leadership was based on an assumption that has been largely discredited"

By the 1950s, leadership studies research began move away from the focus primarily on leader traits (based on the premise that leadership is innate) towards a perspective which posited that leadership could be observed in leaders' behaviours. One aspect of this approach was the notion that, if specific behaviours differentiated leaders from non-leaders, then it may be possible for these behaviours to be taught.

2.3.2 Behavioural theories

The behaviour approach focuses on what managers and leaders actually do in the workplace and how their behaviour relates to managerial effectiveness (Yukl 1989: 257). The behavioural paradigm was initially based on the premise that it would be possible to observe (either in experimental settings or through surveys of subordinates) universally effective leader behaviours (House and Aditya 1997: 421).

Enduring themes: Initiating Structure and Consideration

Underpinning much of the theory informing post 1960s leadership research has been the distinction between task- and relations-oriented leadership. This dichotomy was initially developed by researchers at the University of Michigan (Katz *et al.* 1950; Katz *et al.* 1951) and subsequently strengthened by researchers at the Ohio State University (Stogdill and Coons 1957). These studies were based on behavioural-based approaches to leadership.

The Michigan research sought to identify relationships among a variety of leader / work-group processes and performance measures. Three categories of leadership behaviour were resolved: (i) task-orientated/production-centred behaviour (supervisors emphasise technical- and performance-related employee attributes

and workplace dimensions); (ii) relations-oriented/employee-centred behaviour (supervisors focus on the creation of employee motivation); and (iii) participative leadership (Kahn and Katz 1960: 562).

The later Ohio State studies established two dimensions of leadership which Stogdill and Coons (1957) referred to as: (i) *initiating structure* (similar to task-orientated leadership); and (ii) *consideration* (similar to relations-oriented leadership). Initiating structure is measured by the degree to which leaders/managers focus on the task and job-related workplace requirements while consideration is measured by leaders'/managers' supportiveness towards, and concern for, their subordinates.

Although the aims and findings of the Ohio and Michigan were different in a number of ways, both sets of studies identified two basic categories of leaders' behaviour:

> (1) leader emphasis on task accomplishment, and
> (2) leader concern for group maintenance, or a concern for the needs of subordinates.
>
> (Griffin *et al.* 1987: 201)

Both the Ohio State (initiating structure/consideration) and University of Michigan (task-/relations-orientated) nomenclatures remain in use – as do the concepts. Table 2-5 illustrates how this broad distinction in leader orientation is reflected within the two main theoretical perspectives which have been consistently applied in hospitality-leadership studies (Leader-Member Exchange (LMX) and transformational leadership theories; both of these theoretical approaches will be examined in greater detail below).

Yukl (2006: 52) writes that, since their introduction in the 1950s and early 1960s, the Ohio State leadership questionnaire instruments (and derivatives thereof) have been used many hundreds of times in a variety of contexts, however, the findings have not been consistent. Some subordinates have reported greater satisfaction with, and performed better with, a structuring leader while in other studies the findings indicated a reversed relationship or no relationship at all. The relationship between leader consideration and subordinate satisfaction has, however, been consistently observed.

Theoretical approach	Leader orientation Production-centred	Employee-centred
Michigan studies	Task-orientated	Relations-orientated
Ohio State studies	Initiating structure	Consideration
Leader-Member Exchange (LMX)	Contractual obligations (out-group)	Trust and mutual respect (in-group)
Transformational leadership	Reward and punishment / transactional leadership	Individualised consideration / leadership as a shared process

Source: author

Table 2-5 Production- and employee-centred leadership orientation in various theoretical contexts

While the striking similarities between the Ohio and Michigan leader behaviour categorisations are apparent, a significant difference between them relates to the uni-dimensionality of the Michigan versus the multi-dimensionality of the Ohio conceptualisation. Specifically, while the (earlier) Michigan findings positioned task-orientated and relations-oriented behaviour at either end of a continuum, the findings of the Ohio studies showed that leaders could exhibit both consideration and initiating structure. Vroom (1997: 423), for example, describes how the Michigan model dichotomises task- and relations-orientated behaviours while within the tenets of the Ohio model of initiating structure and consideration leaders can "…exhibit high levels of both, low levels of both, or high level of one and low level of the other".

Judge *et al.* (2004: 36) have noted that the initiating structure/consideration framework dominated work within leadership research until the emergence of transformational leadership theory during the late 1970s: however, they go on to describe (p. 37) how this approach has attracted criticisms on both methodological and conceptual grounds. Elsewhere, House and Aditya wrote that:

> As with trait research, little thought was given to the specific role demands of leaders, the context in which they functioned, or differences in dispositions of leaders or followers. Failure to consider

> these factors was subsequently thought to be the reason for the researchers' inability to identify leader behaviors that had universal or near universal effectiveness.
>
> (House and Aditya 1997: 421)

Elsewhere, Yukl (1989: 258-259) has noted the importance of situational considerations: he describes how Misumi (1985) and Misumi and Peterson (1985) in their studies of leadership behaviours in Japan found (using concepts of leadership behaviour similar to the Ohio initiating structure and consideration) that significant amounts of both task- and relationship-orientated behaviour are required for leadership effectiveness. Yulk stressed (p. 259) the significance of the fact that Misumi and Misumi and Peterson's research emphasised the contextual (situational) relevance of the observed behaviours.

Late behaviour period and humanistic theories

Located within in the *Late Behaviour Period* of Van Seters and Field's (1990: 31-32) 'Leadership Eras' framework is the work of McGregor (1960, 1966) and Blake and Mouton (1964). Bass (1981: 33) described McGregor's *Theory X / Theory Y*, Blake and Mouton's *Managerial Grid* work and Likert's (1961, 1967) management systems theory as belonging to the *humanistic* tradition of organisational studies. These theories propose that by 'humanising' the work environment, individuals can meet organisational and personal objectives at the same time. In this way, it is hoped that individual and organisational needs can be balanced. Although Anderson (1997: 273) believes that while this approach can contribute much to our understanding of human needs in the workplace and can help valorise the importance of "...personal meaning and purpose at work", he also notes that such approaches have been criticised for promoting human, rather than organisational, values to the detriment of the 'bottom line'.

Prominent examples of humanistic theories include Blake and Mouton (1964) who found that leaders who scored well on both people (consideration) and production (initiating structure) dimensions were most effective. Blake and Mouton also developed one of the first leadership-style assessment instruments: their *Managerial Grid* (1964) uses a 9 x 9 grid with degrees of initiating structure along one axis and degrees of consideration marked along the other. The model presents leaders who are rated 9 on both axes to be the most effective.

McGregor (1966) developed a continuum of leadership orientations from Theory X – which describes 'traditional' leaders who believe individuals are self-serving, rather than organisation-serving, and therefore require inducements to perform to achieve organisational goals - to Theory Y, where leaders instead believe that by facilitating an organisational environment in which individuals can realise their own self-actualising and self-motivational natures they can contribute successfully to the success of their organisation.

Humanisation and motivation in a hospitality context

McGregor's X/Y Theory raises an important issue for this research, specifically that catering service workers are likely to exhibit a range of work-orientations. Indeed, many catering service employees may be significantly lacking in organisational-orientation; as Stamper and Van Dyne describe:

> …a study of hospitality executives conducted by Enz (2001) indicated that the number-one problem in this [the hospitality] industry is the care and motivation of human capital. …service-sector jobs are often lowpay, high-stress vocations - two factors that typically work against the quality of employee performance. In addition, the service industry employs a large number of nontraditional employees, such as part-time and temporary workers, who may not have strong organizational loyalty or dedication to work, since such employees often tend to view their jobs as short-term commitments.
>
> (Stamper and Van Dyne 2003: 33)

Bennis (1961: 26-27) described this issue in a more general context, pointing out the "…uneasy balance between individual and organizational needs" and highlighting the mismatch between individuals' aspirations and the goals of 'supra-individual entities'. As a caveat, however, while Bennis's sentiments are certainly germane, they are based neither on empirical research nor research in workplaces: Bennis's footnotes (*op. cit.*: 150), however, indicate that he was extrapolating from "…earlier writings [which] deal with the relationship of man to the state, the church, and the nation, [while] our present-day concern appears to be mainly with man and the organization".

So, the issue of employees' work-orientations appears in the leadership literature with McGregor's X/Y Theory and is related to the hospitality context by the work

of Enz (2001) and Stamper and Van Dyne (2003). This research will investigate how work values – alongside motivational leadership – influence employee attitudes and job performance.

Humanistic theories, then, propose that by 'humanising' the work environment, individuals can meet organisational and personal objectives at the same time. In this way, it is hoped that individual and organisational needs can be balanced. Once again, a link can be identified between transformational leadership and the humanising paradigm; specifically, in the form of transformational leadership's contribution to personal objectives through its provision of 'work meaning' for individuals (further discussion of work meaning is provided below in Section 2.4.4 on transformational leadership). The relevance of this point centres, once again, on concerns that hospitality service work (in comparison with less manual work) may not hold a great deal of intrinsic 'meaning' (a feeling that the work itself is important and the extent to which employees experience positive attitudinal responses to their work).

In summary, drawing upon the humanistic leadership theories, this research will:

- seek to measure the influence of hospitality service employees' work orientation (work values) on employee attitudes (and the subsequent influence of attitudes on job performance);
- assess the extent to which employees' work values moderate the relationships between leadership and a range of individual and organisational outcomes; and
- assess the contribution of motivational leadership to employees' work meaning.

Once again, a fuller discussion of work meaning is provided in the section on transformational leadership (Section 2.4.4).

As with the earlier trait and behaviour theories, humanistic perspectives have come to be regarded by some as generating useful key principles but suffering from being relatively simplistic (see, for example Anderson 1997: 273). Such criticisms perhaps reflects the emergence (during the 1960s, around the same time as the humanistic theories were being developed) of more pluralistic approaches that have subsequently become increasingly favoured over the previous monothetic conceptualisations (based on either traits or behaviour).

The following section examines how the situational/contingency approaches demonstrate plurality in attempting to account for attributes of specific work

environments as well as attributes of individual leaders. These approaches tend to accommodate the recognition that different types of leadership can contribute effectively in different contexts (situations) and that the choice of leadership approach can depend (be contingent) on a wide range of variables.

2.3.3 Situational or contingency approaches

The situational or contingency approaches reflect the emergence of more pluralistic approaches and explicitly account for a range of 'situational' or 'environmental' variables – sometimes referred to as 'situational moderators'. Put another way, it was recognised that leadership effectiveness may be 'contingent' on a variety of factors aside from leaders' traits or behaviours.

Basing their argument on a selection of five journal papers published during the 1990s, Judge *et al.* (2004: 37) suggest that most researchers consider the initiating structure/consideration dichotomy (the behavioural approach) of leader behaviours to be outmoded and go on to write (also acknowledging Korman (1966)) that:

> Given the inconsistencies in the validity of Consideration and Structure that were concluded to exist, researchers have argued that a way to advance the literature is to investigate situational moderators
>
> Judge *et al.* (2004: 37)

The LPC Contingency theory

Fiedler (1964, 1967, 1971) developed the LPC (Least preferred co-worker) Contingency Model which is concerned with improving organisational performance by focussing at the level of the leader. Fiedler identified leader-member relations, task-structure and the leader's position power as determinants of effectiveness of leadership style. The least preferred co-worker measurement scale is used to provide an indicator of leadership style and a central tenet of the model is that individual leader's styles are relatively fixed and it is the 'situation' or organisational context which needs to adapted to effect improvements in performance.

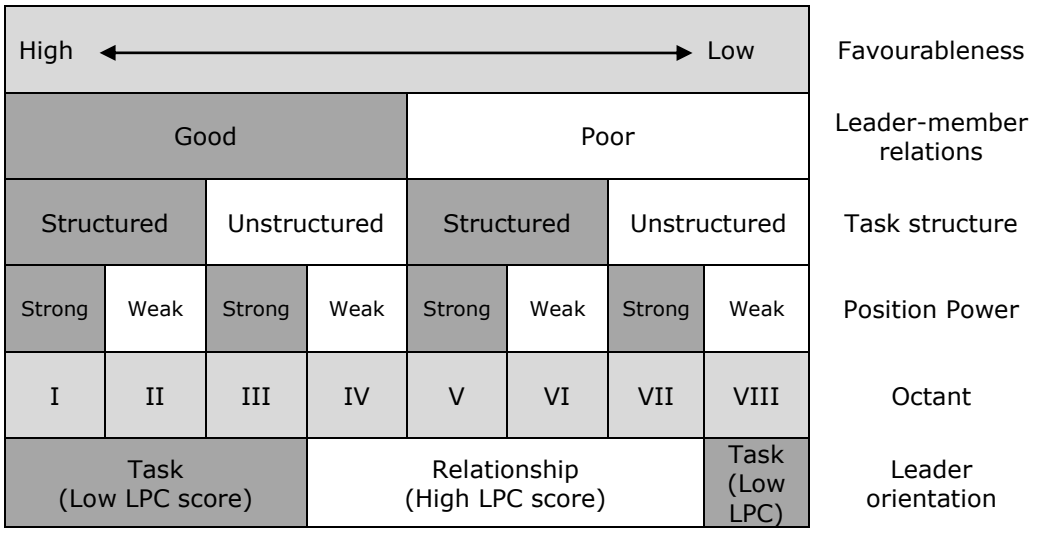
In essence, the LPC Contingency theory posits that the most effective leadership style is contingent on a variety of situational factors. Fiedler found that, when situations are highly favourable or unfavourable, task-orientated leaders are more effective; however, when situational favourableness lay between these poles, then a relations-orientated leaders would perform more effectively.

Favourability of situation is assessed based on three measures:

- leader-member relations (extent of subordinate loyalty and friendly and cooperative leader-member relations);
- task structure (extent to which tasks, outcomes and performance are prescripted); and
- position power (extent of leader's authority regarding performance appraisal and allocation of rewards or punishments).

In combination, these three variables describe a continuum of favourability which can be disaggregated into octants. At the favourable end of the continuum (octants I to III) a task-orientated leadership orientation will work most effectively – this is also the case at the unfavourable end of the continuum in octant VIII; from octants IV to VII, a relations-orientated leadership style is most effective.

Individual leaders are categorised as either task- or relations-oriented based on their LPC (least preferred co-worker) score; the LPC score is determined based on the leader's behaviour and performance rating of their 'least preferred co-worker' – their co-worker with whom the leader feels they could work least well with.



Source: author; after Fiedler (1964; 1967)

Figure 2-2 Situational Favourability in the LPC Contingency Model

Combining all these variables produces a matrix which describes 8 octants: octants 1-3 are regarded as describing very favourable leadership situations, octants 4-7 are regarded as intermediate leadership situations; and octant 8 describes a very unfavourable leadership situation. The LPC Contingency Model octants are described in Figure 2-2.

Yukl has identified a number of shortcomings with the LPC Contingency theory including (i) Ashour's (1973) critique that the LPC theory does not explain the causal connections between traits, behaviours, situations, and outcomes and (ii) the lack of a 'medium' LPC category for leaders (the model is based on leaders being measured as either high or low LPC) (Yukl 2010: 167-168).

Elsewhere, Yukl (1989: 266) discusses problems with the LPC scale's reliance on measuring a single leader trait and the lack of clarity regarding the phenomena actually measured by the LPC scale. Yukl (2010: 168) concludes that the major contribution of the LPC Contingency theory may lie in its stimulation of interest in examining situational / contingency approaches to studying leadership.

The Path-Goal Model

Another significant contribution came in the form of House's (1971) Path-Goal Model that focused on how leaders could enhance organisational effectiveness by clarifying the paths that would lead to followers realising the goals that had been set for/by them. The theory is built upon Georgopoulos *et al.*'s (1957) path-goal hypothesis and "...the broad class of expectancy theory of motivation" (House 1971: 322) (including Vroom's (1964) expectancy-value theory of work motivation). The path-goal model describes a situation where the leader: (i) increases the rewards for individuals achieving organisational goals; (ii) clarifies the paths to these goals; (iii) removes obstacles to the achievement of these goals; and (iv) behaves in a way which increases subordinate satisfaction which in turn results in improved subordinate performance. The situational component of the path-goal theory relates to several specific situational moderators (job autonomy and job scope) that can influence the effects of specific leader behaviours.

Knight *et al.succinctly* describe the model thus:

> ...path-goal leadership theory suggests that an effective leader directs followers' behavior by changing followers' perceptions of the relationship between behaviors and outcomes.
>
> Knight *et al.* (2004: 1164)

For this research, the path-goal model is interesting as it: (i) builds heavily on Vroom's Expectancy Theory of Motivation (see Section 4.1), thus linking leadership and motivation studies; and (ii) the focus on leaders' goal clarification can be seen re-emerging in the transformational leadership literature (see Section 2.4).

Expectancy theories (also known as valence-instrumentality-expectancy or expectancy-valence theories) of work motivation (Georgopoulos et al. 1957; Vroom 1964) broadly describe an individual's level of work motivation (the degree of effort they make) as being a product of (i) the perceived probability that expending a certain degree of extra effort[1] will be sufficient to achieve a particular outcome (*expectancy*) and (ii) the degree of desirability that the individual places on that outcome (*valence*). Put another way, if an employee believes that a desirable outcome can be achieved by expending extra effort, and they believe that such an effort is likely to succeed, then they are likely to make that effort. In path-goal leadership theory, it is the leader's role to modify these perceptions and beliefs (Yukl 2010: 169).

Yukl (2010: 170) illustrates how in House's path-goal theory (House 1971; House and Mitchell 1974) leader behaviour (the causal variable) and the characteristics of task, environment and employees (the situational variables) act on subordinates' expectations and valences (the intervening variables) to influence subordinate effort and satisfaction (the end-result or outcome variables). Four types of leader behaviour are described in the path-goal model: supportive (similar to consideration); directive (similar to initiating structure); participative (employee consultation); and achievement-orientated (setting challenging targets and seeking and encouraging excellent performances).

[1] Productivity behaviour, the *extra effort*, can also be referred to as *instrumentality*, or the *path* component in the path-goal approach (Georgopoulos *et al.* 1957: 345)

A number of propositions are made based on the theory – these propositions describe the circumstances (based on combinations of situational and subordinate characteristics) in which the different leader behaviours will produce the most desirable results (see Yukl 2010: 170-171 for a summary).

Despite considerable empirical work base on the path-goal theory, meta analyses have found that results are inconclusive (Wofford and Liska 1993; Podsakoff *et al.* 1995) and Yukl (2010: 172) identifies a number of methodological weaknesses with the majority of empirical studies which may account for this shortcoming. In addition, Yukl describes a number of conceptual deficiencies in the path-goal theory. Foremost of these deficiencies is the path-goal theory's reliance on the underpinning expectancy theory of motivation which itself is described as providing "...an overly complex and seemingly unrealistic description of human behaviour" (Yukl 2010: 172).

While this research does not explicitly draw upon path-goal theory, the role of leaders in clarifying goals and encouraging employee effort towards these goals is embodied within the Inspirational Motivational (IM) dimension of transformational leadership (TL) theory. This research does, however, draw upon the concept of Inspirational Motivational leader behaviour and, in this way, linkages with the path-goal theory and expectancy theories of motivation can be seen.

Other situational approaches

Vroom and Yetton's (1973) Normative Decision Theory uses decision tree modelling to identify, for particular situations, the decision procedures which will contribute most positively to effective decisions. Vroom and Yetton's decision theory stresses the importance of the 'right amount of participation'. Yukl (2006: 95) regards this model as "...probably the best supported of the contingency theories" owing to its (i) focus on specific (rather than broad) aspects of behaviour, (ii) meaningful intervening variables and (iii) its successful identification of important situational moderator variables. On the other hand, Yukl (2006: 94) notes several criticisms of the model such as the model's partial coverage of leadership issues and its lack of parsimony, simplification of decision-making processes, and its (implicit) assumption that in practice managers possess the skills required to implement the decision procedures described.

Hersey and Blanchard's (1969, 1988) Situational Leadership Theory (SLT) proposes that subordinate readiness (Blank *et al.* 1990) determines the optimal degree of task and relations behaviour; accordingly, subordinate's task-related confidence and skill are used to describe patterns of leaders' task and relations behaviour. Yukl (1989: 264) notes, however, that while this theory has been popular within management workshops, its use amongst social science researchers has been limited and only partial support of the theory has been found by the few studies which have tested its validity. More recently, Cairns *et al.* (1988) used SLT in an empirical study of senior executives within a large company's service and manufacturing operations and found "little support for SLT" (p. 116).

By the mid-1970s, researchers had identified a number of variables moderating the relationships between leader behaviour, predictors, and measures of satisfaction and performance. Kerr *et al.* (1974) undertook a comprehensive review of the Consideration-Initiating Structure literature review; this review revealed a number of significant moderator variables. Kerr and Schriesheim (1974) subsequently grouped these significant moderator variables as follows:

> - Subordinate considerations. Expertise, experience, competence, job knowledge, hierarchical level of occupied position, expectations concerning leader behaviour, perceived organizational independence, and various psychological aspects.
>
> - Supervisor considerations. Similarity of attitudes and behaviour to those of higher management, and upward influence.
>
> - Task considerations. Degree of time urgency, amount of physical danger, permissible error rate, presence of external stress, degree of autonomy, importance and meaningfulness of work, and degree of ambiguity.
>
> (Kerr and Schriesheim 1974: 558)

Considering these situational moderator variables in the catering service context, it can be seen how that several of these may be significant in influencing catering service performance. Table 2-6 presents a selection of these potentially significant variables.

Level	Moderator variables
Subordinate considerations	Expertise, experience, competence, job knowledge, hierarchical level of occupied position, expectations concerning leader behaviour
Task considerations	Degree of time urgency; permissible error rate; presence of external stress[a]; degree of autonomy; importance and meaningfulness of work; and degree of ambiguity[b]

[a] for example, from demanding or inconsiderate customers (see e.g. Bitner *et al.* (1994: 98-99)

[b] refers to 'task ambiguity' – could be related to efficacy of / lack of training provision

Source: after Kerr and Schriesheim (1974: 558)

Table 2-6 Situational variables within potential significance for catering server performance

A number of variables from Table 2-6 are included in this research:

- in relation to 'job knowledge' and 'degree of ambiguity', the questionnaire includes one item statement relating to respondent perceptions of adequacy of training and one item statement on adequacy of information provision. These two variables will be used as moderators in the data analyses;
- 'importance and meaningfulness' of work (Work Meaning) is measured as an attitudinal outcome of motivational leadership; and
- 'degree of autonomy' is included in the survey as Employee Empowerment.

The intent to evaluate the contribution of motivational leadership to work meaning, and work meaning's role as a mediating variable between motivational leadership and job performance, is described in greater detail in Section 2.4.4.

Degree of autonomy is related to employee empowerment, an issue that has been examined in a number of hospitality organisation studies (Sparrowe 1994; Hartline and Ferrell 1996; Lashley 1996; Hancer and George 2003; Hau-Siu Chow *et al.* 2006; Chiang and Jang 2008; Clark *et al.* 2009; Gill *et al.* 2010). Several of these hospitality studies have also focused on, or have incorporated within them, leadership issues (Sparrowe 1994; Chiang and Jang 2008; Clark *et al.* 2009; Gill *et al.* 2010) – accordingly this research will also include employee empowerment as a predictor of employee attitudes and job performance.

2.3.4 Relational theory: Leader-Member Exchange (LMX)

Antonakis *et al.* (2004: 8) describe the *relational* school as emerging during the mid 1970s and generating a substantial volume of research. This avenue of leadership research grew out of Dansereau *et al.*'s (1975) vertical dyad linkage (VDL) theory which has since developed into the popular and productive leader-member exchange (LMX) theory (Graen and Uhl-Bien 1995; Uhl-Bien *et al.* 2000).

The basis of the vertical dyad linkage (VDL) approach is that leadership relationship are based on discrete relationships between individual subordinates and the supervisor/leader, rather than leader-group relationships, which are measured using averaged rating scores from all team members. It was following observations of significant variances between individual followers' rating of the same leaders that the VDL and LMX theories were developed (Schyns *et al.* 2008: 773).

LMX theory describes high-quality leader-member relationships as being based on mutual respect and trust while low-quality leader-member relationships are characterised more by 'traditional' contractually-based, supervisor-led fulfilment of obligations. High-quality LMX relationships are theoretically beneficial for subordinates who develop high-quality leader-member relationships as those subordinates are accorded greater status, influence and benefits. This groups is often referred to as the 'in-group', in contrast to the less-favoured 'out-group'. The in-group may also receive more interesting tasks, greater responsibility and a more participative role in decision-making. Meanwhile, for leaders and organisations, benefits accrue as, in exchange for the benefits outlined above, subordinates are expected to work harder and with greater commitment and to have increased of levels of loyalty to their leader (Yukl 2006: 118).

The specific measurements used to determine the quality of the LMX exchange relationship have changed considerably since the earlier studies in the mid 1970s (Graen and Uhl-Bien 1995: 236). Aside from the 'core' measurement units of mutual trust, respect, affection, support and loyalty, other measures such as negotiating latitude, incremental influence and shared values have also been used (Yukl 2006: 118). In Yukl's (1989) review, LMX theory is located, albeit somewhat tentatively, within the situational group of leadership theories "...in the sense that leaders treat subordinates differently depending on whether they are part of the in-group or out-group" (Yukl 1989: 266).

2.3.5 Antonakis et al.'s Schools: Skeptics, Information-Processing, Contextual and New Leadership

In describing the ***skeptics*** school of leadership research Antonakis *et al.* (2004: 8) are referring to the crisis of validity faced by leadership research during the 1970s and 1980s. This crisis of validity was embodied by three separate and significant critiques of leadership studies: (i) that questionnaire ratings were biased by the implicit leadership theories[2] held by raters; (ii) that notions of leadership were simply conceptual artefacts created by employees to explain and provide a causal basis for organisational outcome; and (iii) that understanding leadership was actually irrelevant to the performance of organisations. Rather than folding in the face of these criticisms, however, Antonakis *et al.* suggest that the field of studies has benefitted from and been strengthened by the challenges mounted during this period. They cite: the adoption of more rigorous methods; the differentiating of supervisor and top-level leadership; and the emergent increased focus on followers' perceptions (2003: 8) and describe how the followers' perceptions of work gave rise to the theoretically fruitful information-processing perspective.

The ***information-processing*** perspective is described by Antonakis *et al.* as focusing on:

> understanding why a leader is legitimized by virtue of the fact that his or her characteristics match the prototypical expectation that followers have of the leader
>
> (Antonakis *et al.* 2004a: 9)

The 'prototypical expectation' dimension of this definition is reminiscent of the implicit leadership theories (ILTs) described in the *skeptics* section above; in fact, Lowe and Gardner (2000: 476) directly link these two branches of research in their classification of articles which appeared in the *Leadership Quarterly* journal between 1990 and 1999. Lowe and Gardner go on to credit Lord *et al.* (1984) for developing this area of research and also note that its popularity amongst leadership scholars suggests that it is a theory of substantial significance.

[2] Implicit leadership theories (ILTs) refer to people's everyday ideas about traits and behaviour of leaders (Schyns *et al.* 2008: 774)

While Antonakis *et al.* allocate the ***contextual*** school its own place in the framework of major schools, they do not provide a discrete section of text for it. It is mentioned rather briefly (2004a: 10) and is described as being strongly related to the contingency movement. Contextual factors influencing (giving rise to or inhibiting) leadership are cited as: leader hierarchical level, national culture, leader-follower gender and organizational characteristics. The authors go on to note that this perspective goes back several decades and began with investigations of the role of national culture in leadership. In hospitality studies, Testa (2002, 2004, 2007 and 2009) has examined the role of nationality and culture in hospitality-context leadership. Testa found differences in employees' perceptions of leader behaviour when comparing culturally congruent and incongruent leader-member dyads. Sections 3.4 and 3.5 below reports Testa's work in greater detail.

Antonakis *et al.* (2004a: 9) describe the ***new leadership*** school as emerging during the 1980s and being pioneered by the work of Bass (1985), Avolio *et al.* (1991), Bass (1998), Bass and Avolio (1994) and Hater and Bass (1988). Encapsulating the transformational, charismatic and visionary traditions of leadership research, the new leadership paradigm built is based on the recognition that a theory of leadership which transcends the transactionally-orientated (reward and punishment based on contractual obligations) is required to explain and understand follower behaviour that seemed to based on shared vision and sense of purpose. The transformational dimension drew upon Burns' (1978) work examining the political, social, and psychological dimensions of leadership.

Elsewhere, Bryman (1992) suggests transformational and charismatic leadership approaches emerged to address dynamic organisational environments. That is, while the situational theories such as those of Fiedler (1967) and Vroom and Yetton (1973) had identified a variety of significant situational moderator variables, these situational moderators did not provide any insight into leadership effectiveness when business and organisational environments were in states of extended change.

Regardless of which particular forces drove the emergence of charismatic / transformational leadership theories, these approaches have become among the most popular in generic leadership research (Lowe and Gardner 2000; Gardner *et al.* 2010). In hospitality leadership studies, as this research reports below,

transformational leadership has become the most frequently utilised theory. Transformational leadership is also significant for this research, in particular, the analysis draws upon the Inspirational Motivational dimension of Bass and Avolio's (2004a) transformational leadership theory. Owing to the significance of transformational leadership for hospitality leadership studies and for this research, the following section provides a detailed description of the emergence and evolution of transformational leadership theory.

2.4 Transformational leadership

2.4.1 Origins and essence

The transformational/transactional leadership dichotomy was introduced by Downton (1973) in his study of political leadership; for Downton, transformational leadership was characterised by a mutually-motivational relationship between leader and follower. Downton contrasted transformational and transactional leadership in his study of the differences among revolutionary, rebellious, reform-oriented and 'ordinary' leaders. This distinction between transformational and transactional leadership orientations was later utilised by Burns in his seminal (1978) work *Leadership* which examined the political, social, and psychological dimensions of leadership and examined its moral dimensions using Kohlberg's (e.g. Kohlberg 1963) hierarchy of moral development. Barnett *et al.* (2001) summarised Burns' conceptualisation of transformational and transactional leadership thus:

> (1) Transactional (ordinary) leadership is based on an exchange relationship in which follower compliance (effort, productivity, loyalty) is exchanged for expected rewards; and
>
> (2) Transformational (extraordinary) leaders raise followers' consciousness levels about the importance and value of designated outcomes and ways of achieving them.
>
> (Barnett *et al.* 2001: 25)

2.4.2 Transformational leadership in organisations

Podsakoff *et al.* (1990: 108) have described how a number of organisational studies researchers (e.g: House 1977; Bradford and Cohen 1984; Bass 1985; Bennis and Nanus 1985; Tichy and Devanna 1986; Conger and Kanungo 1987; Kouzes and Posner 1987) were engaged in developing theories of the 'new' transformational and charismatic leadership for the business organisation context during the late 1970s and 1980s.

While the various research teams developed individual models, Podsakoff *et al.* (1990: 114) were able to identify a number of behavioural components common to these models. These leader behaviours are, specifically:

- identifying and articulating a vision;
- providing an appropriate role model;
- fostering the acceptance of group goals;
- having high performance expectations;
- providing individualised support;
- recognising accomplishments; and
- providing intellectual stimulation.

Among these studies, the works of Bass (and later Bass and Avolio) have emerged to provide the most well-known and most-used theoretical (the Full-Range Model of Transformational leadership) and applied (the Multi-factor Leadership Questionnaire) frameworks for transformational leadership. In hospitality leadership studies, transformational leadership has been the most frequently utilised of the range of leadership theories (see Table 3-1 below) and every transformational leadership hospitality article has employed the approaches of either Bass (1990a) or Avolio and Bass (2004a).

Accordingly, the following section describes the key points in the evolution of Bass/Bass and Avolio's model for transformational leadership in organisations. These key points are: (i) the initial factor structure of the transformational leadership model (Bass 1985); and (ii) the development of the Full-Range Leadership Model and the Multi-factor Leadership Questionnaire (MLQ) (Bass and Avolio 1990; 1995; 1997).

2.4.3 The evolution of transformational leadership theory for organisations

Bass's (1985) *Leadership and performance beyond expectations* examined the characteristics of transformational leadership in public and private organisations and posited four factors of transformational leadership. Table 2-7 shows McCall's (1986) description of these factors (quotation marks "…" indicate Bass's (1985) original descriptions).

Factor	Description
Charisma	"Charismatic leaders have insight into the needs, values, and hopes of their followers. They have the ability to build on these needs, values, and hopes through dramatic and persuasive words and actions".
Inspirational leadership	"A subfactor within charismatic leadership behaviour" in which "non-intellectual, emotional qualities" are used to arouse and heighten motivation among followers. Most charismatics are inspirational, but one need not be charismatic to inspire.
Individualized consideration	Paying "attention to each of their subordinates, sharing their concerns and development needs, and treating them as individuals".
Intellectual stimulation	"The arousal and change in followers of problem awareness and problem solving, of thought and imagination, and of beliefs and values"

Source: Bass (1985) cited in McCall (1986: 481-482)

Table 2-7 Bass's (1985) major factors of transformational leadership

McCall (1986: 482) notes that Bass framed the transformational / transactional contrast as a reasonably stark dichotomy:

> Transformational leaders are more proactive, moral, innovative, flexible, etc., than their mundane transactional colleagues. While "the ordinary manager is kept busy with his inner id-superego struggles… …fitting into the mold (sic), not making waves, defending his turf…" the transformational leader is out there changing the organizational culture.
>
> McCall (1986: 482)

Subsequently, however, Bass and a co-researcher, Bruce Avolio, developed further insights into transformational leadership using their Multi-Factor

Leadership Questionnaire (MLQ) to measure the various factors of transformational leadership (Bass and Avolio 1990). They found that transformational and transactional leadership, rather than being mutually exclusive (as Burns (1978) had argued, and Bass himself (1985) had implicitly supported), were able to be simultaneously observed in individual leaders.

The Full-Range Model and the Multi-factor Leadership Questionnaire

This characteristic of leaders – to simultaneously demonstrate characteristics of both transformational and transactional leadership, that is, demonstrate the *full range of leadership behaviours* led to the naming of the Full Range Leadership Model, or Full Range Model. Bass (1999) described this situation as follows:

> The full range of leadership, as measured by the Multifactor Leadership Questionnaire (MLQ), implies that every leader displays a frequency of both the transactional and transformational factors, but each leader's profile involves more of one and less of the other. Those leaders who are more satisfying to their followers and who are more effective as leaders are more transformational and less transactional
>
> (Bass 1999: 11)

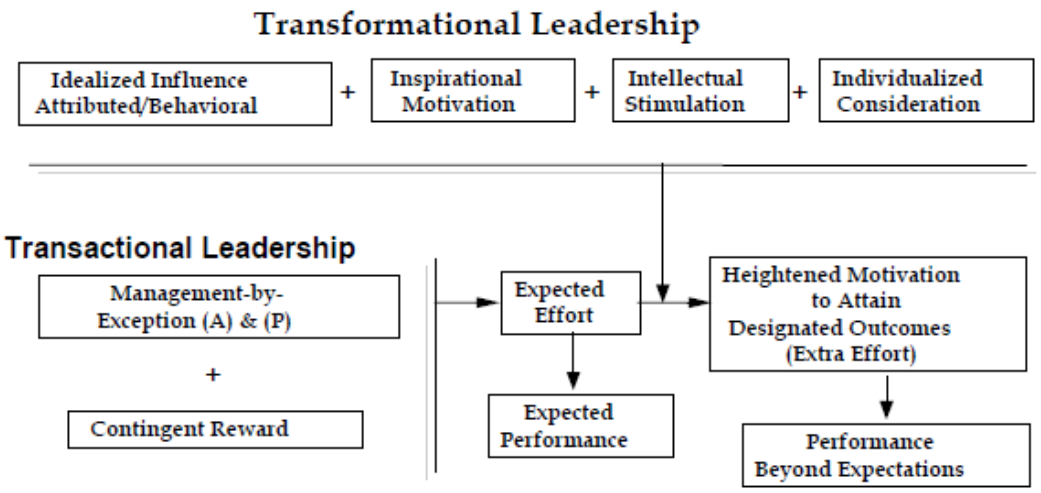
Over time the full range model has been developed and modified and now contains five factors representing transformational leadership styles, three representing transactional leadership styles, the *laissez-faire* style, which is equivalent to non-leadership, and a further three factors describing 'leadership outcomes'. These factors are described in Figure 2-3.

While transactional leadership can provide a model of effective leadership, transformational leadership, through its stimulus of extra effort, can lead to what Bass and Avolio (2004a: 21-24) call 'performance beyond expectations'. This augmentation effect of transformational leadership behaviour is illustrated in Figure 2-4

Factor / components	Description
Transformational leadership	
Idealized influence attributed (IIA)	Builds trust
Idealized influence behaviour (IIB)	Acts with integrity
Inspirational motivation (IM)	Inspires others
Intellectual stimulation (IS).	Encourages innovative thinking
Individualized consideration (IC).	Coaches people
Transactional leadership	
Contingent reward (CR)	Rewards achievements
Management-by-exception active (MBE-A)	Monitors mistakes
Management-by-exception passive (MBE-P)	Fights fires
Non-leadership	
Laissez-faire (LF)	Avoids involvement
Leadership outcomes	
Effectiveness	leader's efficacy in achieving organizational outcomes
Satisfaction	degrees to which subordinates are satisfied with their leader's behaviour
Extra Effort	degrees to which the leader can increase subordinates' desire to succeed and subordinates exert effort higher than their normal rate

Source: (Bass and Avolio 2008; Limsila and Ogunlana 2008: 167)

Figure 2-3 The full range model of transformational leadership



Source: (Avolio and Bass 2004a: 21)

Figure 2-4 The augmentation model of transactional and transformational leadership

Avolio and Bass go on to describe the augmentation process in greater detail:

> Transformational leadership is associated with motivating associates to do more than they originally thought possible. The original expectation for performance is linked to an initial level of confidence or efficacy in the associates' perceived ability and motivation. Thus, associates' perceptions of self efficacy or confidence, as well as their developmental potential, are enhanced through the transformational leadership process.
>
> (Avolio and Bass 2004a: 26-27)

Development of the theory: idealized influence and inspirational motivation

One of the more fundamental changes in Bass's (1985) model of transformational leadership has been with regard to the original charisma and inspirational leadership factors. As described in Table 2-7, *inspirational leadership* was initially considered by Bass (1985) to be a sub-set of *charisma*. Since then, charisma has been substituted with the *idealized influence* factor and inspirational motivation has been established as an independent factor (see sub-section immediately below). Writing in 1999, Bass described the substitution of the *charisma* factor with *idealized influence*:

> Idealized influence encompasses influence over ideology, influence over ideals, and influence over "bigger-than-life" issues. It was conceived as a substitute for the term *charismatic* for several reasons. First, *charismatic* had come to represent many meanings in the media and the public mind: celebrated, flamboyant, exciting, rabble-rousing, magnetic, and awe-inspiring. Second, charisma was too much associated with dictatorship and pseudotransformational leaders such as Huey Long, Benito Mussolini, and Adolf Hitler. Third, for researchers such as House (1995) and Conger and Kanungo (1988a), *charisma* was an all-inclusive term for transformational leadership taking in *inspiration*, *intellectual stimulation*, and *individualized consideration.* And so, for training and some research purposes, the term *idealized influence* was substituted for the *charismatic* factor (Bass and Avolio 1990)
>
> (Bass 1999: 19)

Subsequently, Idealized Influence has been divided into two sub-factors: Idealized influence *attributed* (IIA – characteristics *attributed* by followers) and Idealized influence *behaviour* (IIB - *behavioural* aspects demonstrated by the leader). It can be difficult to resolve exactly what is inferred by these appellations, different authors appear to have their own individual interpretations.

These interpretations, in some cases, overlap, in other cases, they do not. Table 2-8 presents a selection of descriptions of this factor from the recent literature.

That there is such variance in how the factor/factors are defined is perhaps not surprising when the different ways in which the phenomenon/phenomena have been described in Table 2-8. Specifically, the authors have variously used the following perspectives:

- Associated leader traits (Bass and Avolio)
- When it occurs (IIA - Barnett *et al.*)
- An aspect of leader behaviour (IIB - Barnett *et al.*)
- What it does (IIA Rowold and Heinitz; Bass and Avolio)
- Followers' perception of (IIB - Rowold and Heinitz; IIA and IIB – Kanste *et al.*)

Authors	**Factor/Factors**	
	Idealized Influence	
Bass and Avolio (1990a: 22)	This is strong among leaders who have a vision and sense of mission; who gain respect, trust, and confidence; and who acquire strong individual identification from followers. Leaders who exhibit idealised influence are able to obtain the required extra effort from followers to achieve optimal levels of development and performance.	
	IIA (Attributed)	**IIB (Behaviour)**
Barnett *et al.* (2001: 26)	occurs when followers identify with and emulate those leaders who are trusted and seen as having an attainable mission and vision	refers to leader behaviour that results in followers identifying with leaders and wanting to emulate them.
Felfe and Schyns (2006: 720)	found IIA and IIB to highly correlated and did not measure them as separate entities	
Kanste *et al.* (2007: 202)	subordinates' perceptions of how much the leader makes personal sacrifices, deals with crises and obstacles, and exhibits self-confidence	the degree to which the supervisor is perceived as espousing important values, beliefs, and a sense of mission
Rowold and Heinitz (2007: 123)	Instilling pride in and respect for the leader; the followers identify with the leader	Representation of a trustworthy and energetic role model for the follower

Table 2-8 The Idealized Influence Factor

While we should expect the two perspectives (IIA – characteristics *attributed* by followers and IIB - *behavioural* aspects demonstrated by the leader) which underpin the factor/factors to be present in the descriptions, there seem to be more than the two perspectives present. That is, even if we group together:

(i) *Associated leader traits* (Bass and Avolio) and *Followers' perception of* (Rowold and Heinitz; Kanste et al.) as attributed characteristics; and
(ii) *An aspect of leader behaviour* (IIB - Barnett *et al.*) as a behavioural characteristic.

When it occurs and *What it does* remain as incongruities in the framework.

Given such non-standardised approaches to describing these particular factors, it is perhaps not surprising that the full range model has been criticised in the past on the basis of:

- its structural validity; that is, the uniqueness of the individual factors - e.g. Muenjohn and Armstrong (2008: 5) and Tracey and Hinkin (1998); and
- its measurement quality - e.g. Tepper and Percy (1994).

Inspirational motivation

Motivational leadership is a key focus of this research. Hospitality service jobs are associated with low pay, long and antisocial hours, unstable and seasonal employment and low job status (Wildes 2007: 5), as well as a lack of career opportunities and poor levels of benefits (Olsen 1999: cited in Wildes 2007: 5). Lee-Ross (1998a), Lundberg *et al.* al. (2009) and Simons (2003) have all drawn attention to the critical requirement to address hospitality customer service employees' motivation in the light of such factors.

As noted above, following its initial status as a sub-set of *charisma*, *inspirational motivation* (IM) has become established as a discrete factor in the Full-Range Leadership Model. Avolio and Bass describe *inspirational motivational* leaders as follows:

> These leaders behave in ways that motivate those around them by providing meaning and challenge to their followers' work. Individual and team spirit is aroused. Enthusiasm and optimism are displayed.

> The leader encourages followers to envision attractive future states, which they can ultimately envision for themselves.
>
> - Talk optimistically about the future
> - Talk enthusiastically about what needs to be accomplished
> - Articulate a compelling vision of the future
> - Express confidence that goals will be achieved
>
> Avolio and Bass (2004a: 96)

Examining this description we can see that the IM dimension is focused on leaders' articulation of organisational / departmental / team vision and goals, and their provision of encouragement for employees who are working towards achieving these goals. The IM dimension describes how transformational leaders articulate a compelling vision and encourage employees to work towards achieving this vision; transformational leaders are able to provide positive challenge for employees who also experience greater levels of work meaning.

2.4.4 Transformational leadership outcomes

The Full-Range Model of transformational leadership (Figure 2-3) incorporates three leadership outcomes factors, each of which is measured in the Multi-factor Leadership Questionnaire (MLQ) (Bass and Avolio 1990; 1995; 1997):

(i) *extra effort* which describes employees' raised levels of performance in seeking to achieve organisational goals;
(ii) *efficiency* which reflects leaders' and groups' efficacy in achieving organisational goals; and
(iii) *satisfaction*, which relates to employees' satisfaction with the leader.

Extra effort and *efficiency* describe ways in which transformational leadership promotes behaviour that in turn contributes to organisational or team goals (organisational- and team-level outcomes), while employee *satisfaction* with their leader describes an intra-group outcome of transformational leadership.

Although not measured in the MLQ, enhanced work meaning for followers is discussed in Avolio and Bass's (2004a) description of Inspirational Motivation above and is referred to frequently in Bass and Riggio (2006: see e.g. 6, 28, 91

and 151). In a hospitality context, Hinkin and Tracey (1994) relate work meaning to leaders' provision of goal clarity and organisational objectives:

> It is the responsibility of the transformational leader to provide for followers a clear and accurate understanding of their task and purpose (Atwater and Bass 1993). The vision provided by a transformational leader inspires followers by giving their work meaning and making them feel a part of the enterprise. It helps people understand what is good or bad, important or unimportant in the organization, and serves to enhance the speed and quality of decision making, increase initiative, and broaden employee discretion (Bennis and Nanus 1985).
>
> (Hinkin and Tracey 1994: 51)

Subsequently, Tracey and Hinkin (1996) cite Bass and Avolio (1994) to describe how:

> transformational leaders engender feelings of trust, loyalty, and respect from followers by: (1) generating awareness and acceptance of the purpose and mission of the organization, (2) inducing them to transcend their own selfinterest (*sic*) for the sake of the organization, and (3) activating their higher-order needs. The clear vision provided by a transformational leader inspires followers by giving their work meaning and making them feel a part of the enterprise.
>
> (Tracey and Hinkin 1996: 166)

Throughout these texts, however, work meaning remains unclearly defined.

Enhanced work meaning may have particular resonance for employees in hospitality service jobs, given that the range of factors described above (long hours, low pay etc.) that militate against high levels of work motivation likely also militate against high levels of work meaning. Accordingly, this research will attempt to operationalise and measure work meaning as an attitudinal outcome (an attitudinal measure of work motivation, see Ambrose and Kulik 1999:232) of motivational leadership and assess work meaning as a partial mediator of motivational leadership's effect on employee job performance (a behaviour-based measure of work motivation).

To measure job performance (a behavioural measure of work motivation, see Ambrose and Kulik 1999:232), the research draws upon the extra effort concept

used in the Multi-Factor Leadership Questionnaire (MLQ) and adds a service focused component to make the construct to the hospitality service context.

In a hospitality service context, the extra effort outcome of transformational leadership can very clearly be viewed as an organisational- or team-level outcome, since positive customer-focused effort – the moment of truth (Carlzon (1987) - is a key goal for hospitality organisations. Work meaning, on the other hand, can be conceptualised as an individual-level outcome. Accordingly, this research seeks to evaluate the contribution of motivational leadership to both organisational- and individual-level outcomes.

Measuring employee work meaning and evaluating its relationships with motivational leadership and employee performance is intended to contribute not only to social scientific understanding of leadership in hospitality contexts, but also to our understanding of leadership outcomes in general since no studies attempting to operationalise and measure work meaning in a leadership context were identified during the course of this research.

In the following chapter, the research moves on to describe and critically evaluate the applied (hospitality) leadership research literature. Identified articles are classified according to their theoretical focus and the applied field is characterised in order to create a state-of-the-art appraisal and to reveal knowledge gaps for this and future research to address.

3 LEADERSHIP IN HOSPITALITY

A structured literature search identified a range of peer-reviewed relevant journal articles and several book chapters. These have been categorised and critically reviewed to establish the state of the art of leadership knowledge in the hospitality context. Following a short description of the literature search strategy and analytical framework for the review, the remainder of this section critically evaluates the state of knowledge with regard to leadership studies in the hospitality sectors.

The findings from the review are then considered alongside Pittaway *et al.*'s (1998) recommendations for a framework for future leadership research in the hospitality sectors.

3.1 Review strategy and analytical framework

During December 2009 a range of bibliographical databases relevant to hospitality (CAB Abstracts, Emerald Insight, Hospitality & Tourism Complete), business and management studies (Business Source® Complete) and social science / psychology (Academic Search™ Complete) were interrogated using the search term "leadership AND hospitality". This revealed 21 titles and subsequent analysis of these texts identified the existence of a further 35 relevant titles. The search was updated during October 2010 resulting in the identification of a further 16 articles. In total 66 peer-reviewed journal articles, 5 book chapters and one serial contribution (Tsai 2008) focusing on leadership issues in hospitality contexts were found. A detailed analysis of each of these 72 contributions was undertaken to identify their respective theoretical foci and findings. Appendix V provides a categorised listing the 72 contributions and the bibliographical details for each can be found in the list of references.

The first stage of analyses identified that, of the 72 identified studies, 46 (64 per cent) had utilised a theoretical perspective from within the range of leadership theories described in the leadership studies literature (see e.g. Yukl 1989; Van Seters and Field 1990; Lowe and Gardner 2000; and Antonakis *et al.* 2004a for reviews of leadership theories).

Of the 26 studies which did not utilise a 'core' leadership theory, seven (Nebel 1978; Mullins 1992; Wood 1994; Go *et al.* 1996; Gillet and Morda 2003; Olsen 2004; Lim 2008) were literature reviews (i.e. not primary research) and among the 20 other papers:

- two papers (Ley 1980; Arnaldo 1981) used a Mintzbergian framework (where leadership is recognised as one of a range of managerial tasks);
- three papers (Hill and Vanhoof 1997; Scheule and Sneed 2001; Naipaul and Wang 2009) were curriculum focused – i.e. discussing leadership in the context of college/university hospitality education programmes;
- six papers (Testa 2001; Tesone *et al.* 2003; Testa 2007; Maier 2009; Minett *et al.* 2009; O'Gorman and Gillespie 2010) studied leadership in hospitality without the use of a core leadership theory; and
- a further eight papers (Berger *et al.* 1989; Cichy *et al.* 1992a; Cichy *et al.* 1992b; Cichy *et al.* 1993; Bond 1998; Greger and Peterson 2000; Saunders 2004; Calloway and Awadzi 2008) were classified as 'industry narratives' – that is, papers communicating leadership-relevant findings to industry audiences rather than reporting primary research or examining conceptual issues in leadership.

The remainder of this section focuses on the studies that utilised core leadership theories. This is not to say that the non-core leadership theory studies have no value; however, to generate (leadership) theory-relevant findings, it was deemed appropriate to restrict the analysis accordingly. A categorised listing of the 26 non-core leadership theory literature is provided in Appendix V(b), and the literature review contributions in Appendix V(c).

Table 3-1 describes the chronological appearance of the 46 identified studies which utilised a core leadership theory. It shows that (i) the frequency of leadership-focused hospitality studies has increased significantly since the first one identified (White 1973). In percentile terms, transformational leadership has been the most-utilised theoretical approach (26 per cent of all papers), particularly in recent years where transformational leadership theory has accounted for: (i) 40 per cent of all hospitality-leadership studies during the 1990s; and (ii) 26 per cent during 2000-2010 (amalgamating the 2000s and 2010- columns) period. Leader-Member Exchange (LMX) theory is the second most utilised theoretical approach accounting for 17 per cent of all studies. The behavioural approaches category accounts for 41 per cent of all hospitality–leadership studies, however, unlike transformational leadership and LMX, this

category contains a number of discrete theories which, together, do not constitute a specific theoretical perspective.

Theoretical Focus / approach	Decade of Publication					
	1970s	1980s	1990s	2000s	2010-	Total
Behavioural approach	1	2	1	13	2	19
Contingency approach	1	0	0	2	0	3
Leader-Member Exchange (LMX) theory	0	0	4	2	2	8
Transformational leadership theory	0	0	4	6	2	12
Power-influence theory	0	0	0	1	0	1
Servant leadership theory	0	0	0	0	1	1
Discussion paper	0	1	0	0	0	1
Conceptual / Literature Review	0	0	1	0	0	1
Total	2	3	10	24	7	46

Source: author

Table 3-1 Primary theoretical foci of leadership in hospitality papers

Table 3-2 summarises the findings from the categories in Table 3-1. Within these studies, the only works which have sustained any consistency regarding theoretical approaches and applied foci are: (i) those by Borchgrevink and colleagues (utilising LMX [Leader-Member Exchange] theory); (ii) those by Testa (his 2009 study utilising LMX and his 2002 and 2004 studies utilising behavioural theories); (iii) those by Tracey and Hinkin (1994, 1996) and Hinkin and Tracey (1994) (examining transformational leadership); and (iv) those by Gill et al. (2006; 2010) (transformational leadership, job stress/burnout and empowerment – employee focus) and Zopiatis and Constanti (2010) (transformational leadership, job stress/burnout – leader focus).

Of the 36 studies which collected data in hospitality organisation settings, 12 (33 per cent) of these surveyed staff in leadership positions, 10 (28 per cent) surveyed subordinates and 14 (39 per cent) surveyed both leaders and subordinates. Of these same 36 studies, 10 (29 per cent) examined leader and/or subordinate perceptions of leadership while the remaining 26 (72 per cent) investigated causal or correlational relationships between leadership and a range of organisational and human resource-related phenomena.

Primary Theoretical Focus (n = 46)	Summary of findings
Behavioural (n = 19)	Too much heterogeneity in specific approaches and foci to draw meaningful conclusions. Three studies use competing values approaches and two use implicit leadership theory – no consistency within these respective approaches, however.
Contingency (n = 3)	Two papers focus on the influence of cultural (in)congruity on dyadic leader-member relations; the other found that a task-orientated leadership style would be most appropriate for the hospitality industry.
Leader-Member Exchange (LMX) (n = 8)	Correlate a number of organisational, work and leadership factors with the nature of LMX (Leaders-Member Exchange) relationships.
Transformational leadership (TL) (n = 12)	2 theoretical papers; 3 papers modelling TL, work roles and communication; 3 measuring relationships between TL and a range of outcomes; 2 on TL and burnout; 1 on employee empowerment; and 1 examining emotional intelligence as an antecedent of TL.
Power-influence (n = 1)	There are significant relations between leader power bases (sources of power, e.g. position and personal) and subordinates' job stress.
Servant leadership (n = 1)	Servant leadership in hospitality has the potential to contribute to a number of industry and societal issues.
Discussion paper (n = 1)	Keegan (1983) discussed leadership and hospitality in a societal context. Suggests that stimulation and motivation are most important dimensions of leadership in the hospitality sectors.
Conceptual / Literature Review (n = 1)	Pittaway et al. (1998) is not an empirical paper but sought to evaluate hospitality leadership studies based on the epistemological assumptions and paradigmatic approaches used in the papers they reviewed.

Source: author

Table 3-2 Summary of hospitality leadership studies by primary theoretical focus

The following sections examine in detail the identified hospitality-leadership articles utilising core leadership theory: firstly, early articles published during the 1970s are discussed and thereafter the section is structured around the categories presented in Table 3-1 and Table 3-2. The article then proceeds to examine the evolution of hospitality-leadership studies. Pittaway et al.'s (1998) recommendations for a framework for future leadership research in the hospitality sectors.

3.2 Early research (1970s)

Only two studies were undertaken during the 1970s and both focused on identifying the most appropriate leadership style for the hospitality sector. White (1973) found in his UK (behavioural-based) study that more consultative leadership approaches would be welcomed in the hotel and catering sectors while Nebel and Stearns (1977) found (using a contingency approach) that a task-orientated leadership style would be the most effective in the North American hospitality industry.

White (1973) compared preferred and perceived leadership style amongst supervisory and managerial staff in UK hotels. Leadership styles were categorised as A = Autocratic, B = Persuasive, C = Consultative and D = Participatory. Although White's article does not contain any specific references or citations, his descriptions of the four styles is very similar to Likert's (1961) 'four management systems' where 1 = Exploitive Authoritative; 2 = Benevolent Authoritative; 3 = Consultative; and 4 = Participative Group Management.

White found that the majority of respondents perceived their managers as using an autocratic management style, and that a significant proportion of those respondents said they would prefer a more consultative management style. Accordingly, White recommended a change from the prevailing autocratic style, towards a more consultative approach. He also noted, however, that there is no panacea for leadership style and that to a great extent, what works best will depend upon a variety of situational factors including size and nature of hotel, age of staff and length of service of staff.

The second of the 1970s studies, Nebel and Stearns (1977) employed Fiedler's (1967) LPC (Least Preferred Co-worker) Contingency Theory in their survey of first line supervisors in hospitality businesses in the New Orleans (USA) area. A significant amount of the analyses reported by Nebel and Stearns focus on differences relating the race of the respondents – although they do not report why this particular demographic characteristic was chosen as an independent variable. Significant differences were found relating to the educational levels achieved by white and black respondents and also with regard to levels of psychological independence (the desire to be more or less supervised while at work). Relating their findings to Fiedler's LPC model, Nebel and Stearns suggest that a task-

orientated management style would be the most effective in the North American hospitality industry.

Although differing theoretical approaches mean that the White (1973) and Nebel and Stearns (1977) studies are not directly comparable, the somewhat contradictory findings (White's consultative leadership can be broadly equated with relations-orientated, contrasting with Nebel and Stearn's task-orientated conclusion) can be read as an early indication of the complexity which is inherent in organisational leadership research.

A third leadership-related article from this period was Nebel's (1978) literature review of (generic) organisational theory linking leadership, motivation and employee performance. Because this article does not provide a detailed analysis linking these concepts with hospitality contexts, it is not included here as one of the 'core hospitality-leadership' research articles . Nevertheless, this paper deserves mention as an early and significant theoretical contribution to this area of hospitality studies. Also worthy of note – and reflecting the general paucity of motivation-focused hospitality-leadership research - is that following its publication in 1978, none of the identified journal articles reporting primary research on leadership-related hospitality issues have cited that paper.

3.3 Behavioural theory work

In total, nineteen (41 per cent) of the hospitality-leadership studies utilising theory drawn from generic leadership studies used theories which can be classified as behavioural.

Although grouped together under the banner of behaviour theory work, thirteen of the nineteen behavioural-focused articles employ a variety of discrete theories and address a diverse range of research themes and questions. Table 3-3 summarises the context, aims and findings for each of these thirteen articles. Five of these thirteen articles broadly address the initiating structure / consideration dichotomy (from the Michigan and Ohio State work described above in Section 2.3.2) and these studies are examined below in Section 3.3.1.

Of the remaining six articles, four utilise leadership competencies approaches and two utilise the implicit leadership theory approach – these articles are described in Sections 3.3.2 and 3.3.3.

Authors	Context (C), Aims (A) and Findings (F)
White (1973)	(C) Supervisory and managerial staff in UK hotels (A) To assess staff perceptions of and acceptance of leadership styles (F) Majority of respondents perceived managers as using an autocratic management style; but would prefer a more consultative management style
Shortt (1989)	(C) Hotel managers in Northern Ireland (A) Mintzbergian analysis of work activities (F) Leadership was 3rd most important dimension
Worsfold (1989)	(C) Hotel general managers of a major UK hotel group (A) To link leadership style with managerial effectiveness (F1) Balance between consideration and initiating structure (F2) Suggests autocratic style with consultative overtones
Cichy and Schmidgall (1996)	(C) Financial executives of US lodging firms (A) Develop hierarchy of leadership traits and behaviours (F) Leadership ranked least important at the line/hourly employee level
El Masry et al. (2004)	(C) Hotel general managers in Egypt (5-star chain hotels) (A) Assess the differences between Egyptian and foreign hotel general managers (F1) No difference in leadership effectiveness (F2) Egyptian GMs more relationship-oriented; foreign GMs more task-oriented
Arendt and Gregoire (2005)	(C) US college hospitality students (A) Measure type and frequency of leadership behaviour (F) Hospitality students perform leadership behaviours at college and at work
Nicolaides (2006)	(C) South African hotels (A) To assess the distinction between leadership and management in hotels (F1) Recommends the conceptual merging of leadership and management (F2) Suggests a role-based catalogue of leader behaviours for successful leadership
Yang (2007)	(C) International tourist hotels in Taiwan (A) Competing-values approach to investigate relationships between knowledge sharing, organizational culture/collaboration and leadership (F) Significant relationships exist between some leader behaviours and knowledge sharing
Arendt and Gregoire (2008)	(C) US college hospitality students (A) Comparison of leadership practices between students (F) Students who reported reflecting on their actions in classroom and work settings had significantly higher leadership scores in certain leadership practices

Source: author

Table 3-3 Miscellaneous behavioural approach studies

Authors	Context (C), Aims (A) and Findings (F)
Chiang and Jang (2008)	(C) Hotel employees in Taiwan (A) To examine whether leadership functions as an antecedent of empowerment (F) Supportive leadership is an antecedent of empowerment
Kozak and Uca (2008)	(C) Managers of accommodation establishments in Turkey (A) To determine the factors affecting leadership styles (F) Significant relationships were observed between organizational and environmental factors and characteristics and leadership styles of managers
Tsai (2008)	(C) International tourist hotels in Taiwan (A) Assess influence of leadership style on employee job satisfaction (F) Employees are more satisfied under consideration-style leadership
Clark et al. (2009)	(C) Employees and managers in mid-level US hotel chains (A) Assess leadership style effect on employees' commitment to service quality (F) Leadership style has a role in translating management's service-quality commitment to employees' job activities

Source: author

Table 3-3 Miscellaneous behavioural approach studies (cont.)

3.3.1 Initiating structure / consideration focused studies

Several of the behavioural studies described in Table 3-3 addressed (broadly, in different contexts and with different research questions) the initiating structure / consideration dichotomy that was developed by the Ohio State and University of Michigan studies during the 1950s and 60s (see section 2.3.2 above). White (1973) found that the majority of UK hotel employee respondents perceived managers as using an autocratic (broadly analogous to initiating structure) management style, however, the respondents also indicated that they would prefer a more consultative (broadly analogous to consideration) management style. Also in a UK context, Worsfold (1989) found that his sample of hotel general managers utilised a mixture of consideration and initiating structure leadership styles – Worsfold described this as an "autocratic style with consultative overtones" (1989: 153). El Masry *et al.* (2004) studied hotel general managers in Egyptian 5-star chain hotels to assess the differences between Egyptian and foreign hotel general managers. While the study revealed no difference in leadership effectiveness, it was observed that Egyptian GMs more relationship-oriented and non-Egyptian GMs were more task-oriented. Chiang and Jang (2008) surveyed hotel employees in Taiwan to examine whether

leadership functions as an antecedent of empowerment. Supportive leadership (which contains the essence of consideration/relations-oriented leadership) was found to be an antecedent of empowerment. Finally, Tsai (2008), also working in Taiwan found that employees in international tourist hotels were more satisfied under consideration-style leadership.

It is not possible to characterise the international hotel based on the findings of these five studies – what we can say is that: (i) all of these studies found both initiating structure and consideration styles in use; and (ii) three of the five studies (White 1973; Chiang and Jang 2008; Tsai 2008) provide evidence to support the use of initiating structure (relations-oriented) leadership style.

In contrast to the studies reported in Table 3-3, it was possible to classify the remaining 6 behavioural theory studies into two sub-sets: leadership-competencies (4 studies) and implicit leadership theories (2 studies). These studies are examined in detail in the following sections.

3.3.2 Leadership competencies approaches

Leadership competencies approaches were developed from organisational behaviour and human resource work in the 1970s which focused on individuals' knowledge, skills and abilities (KSAs) and were intended to help identify individuals who could effectively perform specific leadership functions (Hollenbeck *et al.* 2006: 401).

Based on a literature review and consultation with (globally-based) senior-level hospitality managers, Chung-Herrera et al. (2003) developed a competencies-based model for leadership in the hospitality industry. Their model contained eight domains: communication, critical thinking, implementation, industry knowledge, interpersonal skills, leadership, self-management, and strategic positioning. Each domain contained up to six dimensions; leadership, for example, consisted of: developing others, embracing change, fortitude, fostering motivation, leadership versatility, and teamwork orientation. The empirical stage of their study allowed these domains and dimensions to be rated by a second sample of globally-based senior-level hospitality managers.

The competencies ratings indicated that leadership of employees is regarded as a less-important skills domain while the most-important competencies for

hospitality leaders are self-management and strategic management. One issue which may be taken with this study is that, although it is titled a leadership study (*Grooming future hospitality leaders: A competencies model*), *leadership* per se forms one specific domain within the eight other *managerial* competencies. As such, we might argue that this is in fact a management paper containing a leadership dimension.

The same criticism can be levelled at the study by Asree et al. (2010) who modelled leadership competency, organizational culture, responsiveness and performance of hotel firms in Malaysia. These authors used an adapted version of Chung-Herrera et al.'s (2003) eight-domain 'leadership' competency model, although the nature of the adaption was not reported (Asree *et al.* 2010: 507).

Authors	Context (C), Aims (A) and Findings (F)
Chung-Herrera et al. (2003)	(C) Globally-based senior-level hotel executives (A) To develop a leadership competencies model for the hospitality industry (F) Managerial competencies ratings indicate that leadership of employees is regarded as a less-important skills domain; most-important are self-management and strategic management
Brownell (2005)	(C) Desk research to explore the use of assessment centre methods for judging key leadership competencies in hospitality (A) Competencies examined are abilities to: respond to change, foster trust, and lead in multi-cultural work environments (F) The assessment centre is recommended as effective for assessing and predicting such leadership competencies
Brownell (2008)	(C) Land- (hotel) and sea-based (cruise liner) hospitality leaders (A) To identify the competencies hospitality unit leaders perceived to be most critical for career development / compare between land- and sea-based contexts (F) Certain core competencies common to both groups; organizational context likely influences the relative importance of specific skills/attributes/abilities
Asree et al. (2010)	(C) Management-level staff in Malaysian hotels (A) To investigate whether leadership competency and organizational culture influence business responsiveness (to employees and customers) (F) These variables do have positive relationships with responsiveness

Source: author

Table 3-4 Leadership-competencies approaches

Brownell has published three studies on leadership in hospitality contexts – two of these (2005, 2008) employ competencies approaches while a third (Brownell 2010, see Section 3.7 below) uses a servant leadership perspective. In her 2005 study Brownell used desk research to explore the use of assessment centre

methods for judging key leadership competencies in hospitality. The assessment centre method is described by Brownell as "…a method of evaluating individuals' knowledge and skills using a series of exercises or activities designed to elicit a range of responses. Starting with a thorough job analysis, key competencies are identified" (2005: 9). The specific competencies examined are leaders' abilities to: respond to change, foster trust, and lead in multi-cultural work environments. The study concludes by recommending assessment centre methods as being effective for assessing and predicting such leadership competencies.

The second leadership-competencies study by Brownell (2008) incorporates a situational perspective by comparing perceived leadership competencies for land- (hotel) and sea-based (cruise liner) hospitality leaders. The study found that while senior hotel and ship practitioners share a need for certain core competencies (positive attitude and effective listening), organizational context likely influences the relative importance of specific skills and attributes/ abilities required for effective leadership in each industry segment. In comparison with Chung-Herrera et al.'s (2003) study, the range of leadership competencies employed by Brownell more typically reflects the type of leadership behaviours commonly reported in the generic leadership literature, although a number of these competencies (such as conducting meetings, memos and letters, using technology and preparing reports) can be considered more general-managerial than leadership-specific.

3.3.3 Implicit leadership theory (ILT) approaches

The second sub-set within the behavioural thread of studies is represented by two studies utilising implicit leadership theory. Implicit Leadership Theories (ILTs) refer to people's everyday ideas about traits and behaviour of leaders (Schyns *et al.* 2008: 774): people have preconceived ideas – implicit theories - about leadership and these preconceived ideas have been shown to display remarkable similarity to constructs of leadership characteristics obtained through practical leadership assessment studies (Eden and Leviatan 1975).

Marnburg (2007) studied the implicit leadership conceptions of 148 newly-inducted hospitality management programme students in Norway with the aim of developing insights into how students' ILTs might inform the nature of hospitality curricula with leadership content. The study found that there were significant

differences in the students' preferences for leadership practices and four clusters of preference types were identified. The characteristics of these clusters was, however, complex, and the interpretation of cluster identities rather convoluted. Furthermore, the cluster names (1. Scan-and-make-rules; 2. Clan builders; 3. Low score laissez-faire; and 4. Intensive problem shooters) offer little in the way of clarifying their identities. The author found that it was not possible to explain the differences between the cluster members using the demographic variables measured in the study and, importantly, nor did respondents' work experience and managerial experience explain any differences in cluster membership (p. 98). Wong and Chan (2010) employed an implicit leadership theory approach and combined this with a situational approach to investigate how various contextual variables (Chinese context; industry context [hotels / telecommunications]; hierarchical employment level; and respondent nationality [Chinese / expatriate]) affect leadership perceptions. Specifically, their research questions sought to examine: (i) hotel industry employee leadership perceptions in China; (ii) leadership perceptions among various staff groups in the hotel industry (managers and subordinates, expatriates and locals); (iii) differences in leadership perceptions between the hotel and telecommunications industries; and (iv) the implications of leadership perceptions for training and development in the hotel industry. Their findings indicate that number of significant differences exist and professionalism is the most significant dimension of leader perceptions for Chinese hotel staff.

Authors	Context (C), Aims (A) and Findings (F)
Marnburg (2007)	(C) Hospitality management programme students in Norway (A) To examine how students' ILTs might inform the nature of hospitality curricula with leadership content (F) There were significant differences in the students' preferences for leadership practices and four clusters of preference types were identified
Wong and Chan (2010)	(C) Chinese hotel industry (A) To identify differences in leadership perceptions between: hotel and telecommunications industry contexts; subordinates and managers; and local and expatriate managers (F) A number of significant differences exist; professionalism is the most significant dimension of leader perceptions for hotel staff

Source: author

Table 3-5 Implicit leadership theory (ILT) approaches

3.4 Contingency theory work

Three contingency theory studies were identified: Nebel and Stearns' 1977 article has been discussed above (Section 3.2) and the remaining two are those of Testa (2002, 2004).

The 2002 and 2004 studies undertaken by Mark Testa are among the few hospitality-leadership studies to demonstrate consistency of aims and approach. The studies focused specifically on the influence of nationality on observed differences in subordinates' perceptions of leadership relationships (consideration/initiating structure, trust and satisfaction). Nationality was chosen as an important independent variable owing to a "…vital need to understand how national culture impacts important organizational variables" in general and also in a specific leadership context (Testa 2002: 425-426). For Testa's studies, the setting is US-based cruise liners where a wide range of nationalities are represented in both supervisory and subordinate positions.

Testa (2002) found that subordinates in congruent (same nationality) dyads (individual leader-member relationships) evaluated their leaders significantly higher on consideration behaviours, and reported higher levels of trust and satisfaction with their leader, than those in the incongruent group.

Testa's 2004 paper sought to further explore these differences. In particular the 2004 paper reported on research which aimed to evaluate differences (between, once again, congruent and incongruent dyads) of subordinates' perceptions of their leader's behaviour, level of goal clarity and overall satisfaction regarding their work organization. The findings were that: (i) congruent dyad respondents reported that their supervisors exhibited higher levels of consideration behaviours; (ii) no significant difference in goal clarity was observed between congruent and incongruent dyads; and (iii) congruent dyad respondents reported higher levels of organizational satisfaction.

Both the 2002 and 2004 studies discussed the merits of the LMX (Leader-Member Exchange) approach although neither paper explicitly included any LMX constructs in their data analysis. A later study by Testa (2009) did, however, use an LMX approach and is discussed in the following section.

3.5 Leader-Member Exchange (LMX) theory work

Between 1994 and 2001 five studies (Borchgrevink and Boster 1994; Sparrowe 1994; Borchgrevink and Boster 1997, 1998; and Borchgrevink *et al.* 2001) utilising the LMX leadership theory were published in hospitality journals; since then a further three LMX-centred studies have been published (Testa 2009; Kim, B. *et al.* 2010; Kim, S. *et al.* 2010).

With the exception of Kim, B. et al. (2010), all of the LMX studies were undertaken in a USA business organisation context: Testa's (2009) study, while based on US cruise companies, specifically examined relationships between employees from a variety of different countries.

Borchgrevink and colleagues - with Boster (1994, 1997, 1998) and with Cichy and Mykeltun (2001) - established the construct validity of the LMX relationship model in a hospitality context and measured the correlations between high- and low-quality leader-member relationships and a number of causal factors (antecedents) and outcomes (consequents). In addition to establishing the construct validity of the LMX model, Borchgrevink and Boster (1998) were also able to demonstrate (within their sample of hospitality employees drawn from US university students) that the LMX provided a measure of work-based relationships which is distinct from other measures of interpersonal relationships.

Across the range of hospitality organisations studied by Borchgrevink and colleagues, increases in LMX quality were associated with the following outcomes (consequents):

- decreases in staff turnover and burnout;
- increases in members' commitment, job satisfaction, job performance, esteem, and role quality (members' satisfaction with their respective work roles); and
- increases in leaders' levels of referent power (which encourages subordinates' identification with and desire to emulate a superior).

While specific factors accounting for (antecedents) higher-quality LMX relationships were found to be:

- good leader-member communications (Borchgrevink *et al.* 2001);
- mutual leader-member respect and trust (Borchgrevink and Boster 1998);
- leaders' championing of subordinates (Borchgrevink and Boster 1998);
- leaders' high use of reward power and low use of coercive power (Borchgrevink and Boster 1997); and

- leaders' high levels of social support (Borchgrevink and Boster 1994).

Sparrowe's (1994) paper examining antecedents and outcomes of empowerment in a hospitality context found that organisational culture and LMX relationships had positive and significant effects on employee empowerment levels. Sparrowe's research also found that employees reporting greater levels of empowerment were more likely to be satisfied with promotional opportunities and less likely to report an intention to leave their current job.

Testa's (2009) study investigated the relationship between cultural congruence in leader-member dyads, perceived leadership style, LMX and employee citizenship behaviours. Along with several other of Testa's leadership-related hospitality publications (Testa 2001, 2002, 2004, 2007), this paper examines the influence of cultural congruence/incongruence (situations where leader and member have different nationalities) on leader-member relations.

Testa's 2009 study used multivariate analysis of variance (MANOVA) to test for relationships between organisational citizenship behaviour (OCB), initiating structure and consideration, and the nature of LMX relationships. The results showed that subordinates within congruent dyads reported higher levels of LMX quality and organisational citizenship behaviours. Otherwise, while subordinates in culturally congruent dyads reported greater perceived consideration-type leadership behaviours, higher levels of initiating structure were not reported by subordinates in culturally incongruent dyads.

Kim, S. et al. (2010) modelled the relationships between LMX quality, employee envy and organisational citizenship behaviour (in particular, voluntary helping behaviour towards co-workers). They found that low-quality LMX relationships correlated with higher levels of employee envy and lower levels of voluntary helping behaviours towards co-workers.

In the only non-USA study utilising LMX theory, Kim, B. et al. (2010) investigated the relationship between LMX quality and turnover intent in South Korean hotels. Their results showed that, for supervisory employees, there was a linear inverse relationship between LMX quality and turnover intent (low LMX quality correlates with higher turnover intent). For non-supervisory employees, however, a curvilinear association between LMX quality and turnover intention was observed. Specifically, non-supervisory employees with both low- and high-quality of LMX tended to have higher levels of turnover intent. The authors speculate that it may be the case that high-quality LMX relationships contribute to employee

perceptions of greater opportunities for upward career mobility and that pursuing these opportunities can often mean finding a job with another employer.

Factors accounting for high quality LMX relationships	
Good/high levels of: • communications; • respect and trust; • championing of subordinates; • use of reward power; • social support; and • employee empowerment.	Also: • low levels of coercion; and • culturally congruent dyads.
Outcomes generated by high quality LMX relationships	
Increases in subordinates': • commitment; • job satisfaction; • job performance; • esteem; • role quality; • empowerment; • pay satisfaction • organisational citizenship behaviour; and • intention to quit (Kim, B. *et al.* 2010)[a].	Decreases in subordinates': • employee envy; • levels of burnout; and • intention to quit (Borchgrevink and Boster 1998)[a]. Increases in leaders': • levels of referent power (encouraging subordinates identification with their leader).

[a] Borchgrevink and Boster found a negative linear relationship (low quality LMX = increase in turnover intention) while Kim et. al. found a curvilinear relationship between LMX quality and turnover intent (both high and low quality LMX = increase in turnover intent)

Source: author

Figure 3-1 Summary of hospitality leadership LMX research findings

Figure 3-1 summarises the range of antecedents and outcomes which have been reported in the LMX-based hospitality-leadership studies.

3.6 Transformational leadership theory work

Transformational leadership (TL) has become the most frequently employed theoretical focus for published leadership-related hospitality articles in recent years (see Table 3-1). However, in common with the majority of the leadership-related hospitality studies reviewed above, analysis of the TL studies reveals that there has been little systematic application or progression of theory in this area. Studies in this area which do systematically address similar themes and research questions are (a) three of the four studies undertaken by Tim Hinkin and Bruce

Tracey (see below) and (b) the studies by Gill et al. (2006; 2010) and Zopiatis and Constanti (2010).

The foci and findings of the 12 hospitality-leadership studies utilising TL are summarised in Table 3-6. Two of the TL papers (Hinkin and Schriesheim 2008 and Tracey and Hinkin 1998) examine theoretical issues relating to the conceptual and empirical veracity of transformational leadership. Three empirical papers published during the 1990s examine causal models relating TL with workplace roles and communication issues (Hinkin and Tracey 1994, Tracey and Hinkin 1994 and Tracey and Hinkin 1996).

Hinkin and Tracey (1994) - USA	
Applied focus	• Compares transactional and transformational leadership (TL) • Top-level management in a USA hotel company
Findings	• TL influences perceptions of leadership effectiveness and subordinate satisfaction and clarifies the direction and mission of the organisation
Tracey and Hinkin (1994) – USA	
Applied focus	• Executive managers; large hotel-management organisation
Findings	• More effective leaders were more transformational • Less effective leaders were more transactional • Transformational leaders can adapt to change and lead proactively
Tracey and Hinkin (1996) – USA	
Applied focus	• Transformational leadership and: subordinate satisfaction; leader effectiveness; communication openness; mission clarity; and role clarity • Lower and middle level managers in lodging companies
Findings	• TL has a direct impact on perceptions of subordinate satisfaction with the leader and leader effectiveness, as well as an indirect effect on these variables through its impact on openness of communication, mission clarity, and role clarity
Tracey and Hinkin (1998) – USA [theoretical focus]	
Applied focus	• Compared the Multifactor Leadership Questionnaire (MLQ) with Yukl's Managerial Practices Survey (MPS) • Low and middle level managers in hotels • Accounting, marketing, human resources and operations departments
Findings	• Mixed support for distinctiveness of the MLQ
Whitelaw and Morda (2004) – Australia	
Applied focus	• Gender perceptions of leadership styles and outcomes • Hospitality industry employees (level not specified)
Findings	• Males place greater emphasis on 'confronting' and 'sporting' leadership styles • Females placed greater emphasis on leadership styles built upon clear and concise communication and a greater focus on personal consideration for the team members.
Gill et al. (2006) - Canada	
Applied focus	• Impact of TL on job stress (JS) and employee burnout • Customer-contact service employee in restaurants and hotel/motel
Findings	• Degree of perceived burnout related to degree of perceived stress; degree of stress related to leadership style

Source: author

Table 3-6 Transformational leadership hospitality studies: foci and findings

Erkutlu (2008) - Turkey	
Applied focus	• Influence of leadership behaviours on both organisational and leader effectiveness • Managers and non-managerial employees in hotels
Findings	• Results suggest the need for more transformational leaders in hospitality organizations • Significant relations between leadership behaviours and both organizational and leadership effectiveness
Hinkin and Schriesheim (2008) – USA [theoretical focus]	
Applied focus	• Theoretical paper using a hospitality sample • Transactional and non-leadership measures in MLQ • Managerial and non-managerial employees in hotels
Findings	• Recommendations regarding theoretical and scale refinements concerning the transactional and non-leadership dimensions of the MLQ
Scott-Halsell et al. (2008) - USA	
Applied focus	• Transformational leadership and emotional intelligence (EI) • Students in hospitality programmes
Findings	• Students in hospitality undergraduate programs do not possess the level of EI needed to be successful transformational leaders • These findings demonstrated the need to incorporate EI instruction into orientation and training programs
Patiar and Mia (2009) - Australia	
Applied focus	• Relationship between hotel departments' financial and non-financial performance and transformational leadership style • Department managers in hotels
Findings	• TL style was positively associated with the non-financial performance, which, in turn, was positively associated with the financial performance (inc. customer satisfaction) of the departments
Gill et al. (2010) – Canada and India	
Applied focus	• Relationship between TL and employee desire for empowerment • Hospitality industry employees (restaurants and hotels)
Findings	• Managers who exhibit TL behaviours are more likely to heighten their employees' desire to be empowered, regardless of cultural context
Zopiatis and Constanti (2010) – Cyprus	
Applied focus	• Association between leadership styles (transformational, transactional and passive/avoidance) and leader burnout • Full-time hotel managers
Findings	• TL is negatively related to emotional exhaustion; passive avoidance is positively related to emotional exhaustion

Source: author

Table 3-6 (cont) Transformational leadership hospitality studies: foci and findings

Gill et al. (2006) examined the impact of TL on employee job stress and the impact of job stress on employee burnout while Gill et al.'s subsequent (2010) paper sought to examine the issues surrounding employee desire for empowerment that the 2006 paper had highlighted. Zopiatis and Constanti (2010) note the significance of general health-related and burnout-specific studies in the organisational studies field; they acknowledge that Gill et al. (2006) studied TL and employee (follower) burnout but that there remains a dearth of material (in general and in the hospitality context) examining the influence of leadership styles on leader burnout.

The remaining empirical studies utilising TL (Whitelaw and Morda 2004; Erkutlu 2008; Scott-Halsell *et al.* 2008; Patiar and Mia 2009) measured the relationships between TL and a range of outcomes. These four studies are somewhat diverse in their nature: Whitelaw and Morda (2004) employ the standard TL outcomes as described in Bass and Avolio's (2008) Full-Range Leadership Model; Erkutlu (2008) measures employees' organisational commitment and job satisfaction; Patiar and Mia (2009) measure organisational financial and non-financial performance; while Scott-Halsell et al. (2008) examine emotional intelligence (in students) as an antecedent of TL.

3.6.1 Transformational leadership in hospitality: rationales and outcomes

To assist in understanding the collective contribution of the TL studies, Table 3-7 summarises the outcomes (or antecedent in the case of Scott-Halsell et al.) of TL measured in the 10 empirical studies.

Authors	Leadership outcomes measured
A - Hinkin and Tracey's research	
Hinkin and Tracey (1994) Tracey and Hinkin (1994) Tracey and Hinkin (1996)	Workplace roles and communication issues including: subordinate satisfaction; leader effectiveness; communication openness; mission clarity; and role clarity
B - Burnout and empowerment	
Gill et al. (2006)	Job stress and employee burnout
Gill et al. (2010)	Employee desire for empowerment
Zopiatis and Constanti (2010)	Leader burnout
C – Ad hoc studies	
Whitelaw and Morda (2004)	Effectiveness; Satisfaction; and Extra effort
Erkutlu (2008)	Employees' organisational commitment and job satisfaction
Patiar and Mia (2009)	Financial and non-financial performance
Scott-Halsell et al. (2008)	Students' emotional intelligence as an antecedent of TL

Source: author

Table 3-7 Leadership outcomes measured in the (empirical) hospitality studies utilising transformational leadership

Studies which have built upon previous hospitality-leadership are described in Sections A and B while the more *ad hoc* studies are described in Section C. This analysis shows that there is some consistency of outcomes within sections A and B respectively, however, across all ten TL studies there is considerable dissimilarities in measured outcomes.

One area of consistency relates to employee satisfaction, which is measured in Tracey and Hinkin's three articles listed in Section A of Table 3-7 and also by Whitelaw and Morda (2004) and Erkutlu (2008). With the exception of Erkutlu, the studies are measuring 'employee satisfaction with their leader' which is a hypothesised outcome of transformational leadership according to Bass and Avolio's Full-Range Leadership Model. Erkutlu, on the other hand, measures both employee satisfaction with their supervisor and satisfaction with their job, the latter using a measure based on Smith *et al.*'s (1969) Job Description Index (JDI).

All of these studies find that transformational leadership enhances employee satisfaction with their leader. Tracey and Hinkin's studies measure TL as a single factor while both Erkutlu and Whitelaw and Morda measure the component parts of TL. Erkutlu find very small (all $\beta \leq 0.05$) effects of TL on job and leader satisfaction and Whitelaw and Morda find that the IIA (Idealised Influence Attributed) and IC (Individualised Consideration) are the specific dimensions of TL that effect greater levels of leaders satisfaction.

The focus on employee satisfaction in these TL studies reflects the attention paid to job satisfaction as a positive employee attitudinal outcome in both the broader and hospitality-focused organisational studies. Employee job satisfaction is included in this research as an outcome of motivational leadership and a more detailed discussion of job satisfaction is provided in Section 5.3 below.

To shed further light on the development and current use of transformational leadership theory in hospitality studies, an analysis of the rationales for employing transformational leadership theory in the identified hospitality studies has been undertaken. The results of this analysis (see Table 3-8) suggest that the diversity of findings owes much to the diversity of reasons for using transformational leadership.

Article/s	Rationale/s for employing transformational leadership
Hinkin and Tracey (1994) Tracey and Hinkin (1994) Tracey and Hinkin (1996)	Transformational leadership most effective for dynamic, changing environment Improvements in performance and service quality will have to be made through strong (transformational) leadership
Whitelaw and Morda (2004)	Review of leadership research in the hospitality sector indicates that traits consistent with transformational leadership are more highly valued
Gill et al. (2006)	Transformational leadership may help to ameliorate or reduce employee job stress and burnout
Erkutlu (2008)	Transformational leadership promotes 'performance beyond expectations' Follow Tracey and Hinkin (1994, 1996) citing the benefits of transformational leadership in the dynamic hospitality business environment Transformational leadership has been correlated with subordinates' satisfaction with leadership and levels of organisational commitment
Scott-Halsell et al. (2008)	Teamwork, collaboration and excellent interpersonal communication are traits of successful leaders Transformational leaders, utilizing their emotional intelligence (EI) abilities, are successful in employing these effective leadership skills
Patiar and Mia (2009)	Wide range of reasons for hospitality businesses utilising transformational leadership are provided These essentially drawn from the Four I's (see Avolio *et al.* 1991) Additionally, transformational leadership is beneficial for dealing with intense market competition
Gill et al. (2010)	To address the knowledge gap regarding transformational leadership's influence on employee desire for empowerment
Zopiatis and Constanti (2010)	To address the knowledge gap regarding transformational leadership's influence on leaders' stress and burnout levels (c.f. Gill et al. 2006 on followers' stress and burnout)
Theoretically-focussed studies	
Tracey and Hinkin (1998)	Is transformational leadership as measured by Bass and Avolio's (1990b) MLQ conceptually distinct from Yukl's (1990) Managerial Practices Survey (MPS)?
Hinkin and Schriesheim (2008)	To examine the theoretical and empirical properties of the transactional components of Bass and Avolio's (1993) MLQ

Source: author

Table 3-8 Rationales for employing transformational leadership

With the exception of the two theoretically-focused studies, Table 3-8 presents the articles in chronological order. The review of rationales shows that transformational leadership theory has been applied to address a range of organisational issues including: change management; stress and burnout (in leaders and followers); organisational and individuals' performance; subordinate empowerment; organisational commitment; and general management issues encompassed within TL theory.

In summary, studies on hospitality leadership utilising transformational leadership theory have addressed a broad range of leadership outcomes for a broad range of reasons. In common with the wider field of hospitality leadership studies, there is no unifying theme or set of research questions that have been addressed by researchers who have adopted transformational leadership as their theoretical focus. Researchers' motivations for employing transformational leadership theory appear to be diverse, as evidenced by the wide range of rationales for employing this approach that are described. Such diversity of rationales further contributes to the diversity of foci and findings in this sub-theme of hospitality leadership research.

3.7 Miscellaneous studies

Three individual studies detailed in Table 3-2 are categorised separately: (i) Erkutlu and Chafra (2006) which used power-influence leadership theory; (ii) Brownell (2010) who examined servant leadership in the context of hospitality and hospitality education; and (iii) Keegan's (1983) discussion paper on the societal context for hospitality-leadership.

Using French and Raven's (1959) 'social bases of power' framework and Rahim's (1988) Leader Power Inventory, Erkutlu and Chafra (2006) sought to examine the influence of leadership power bases on subordinates' job stress in Turkish boutique hotels. They found significant correlations between leader power bases and subordinates' job stress and recommended that organisations that aim to proactively manage leadership-related issues should recognise the influence of power bases. French and Raven's power base framework was also utilised by Borchgrevink and Boster (1997, see above) who found (i) leaders' high use of reward power and low use of coercive power as causal factors for high-quality LMX relationships and (ii) leaders' levels of referent power increasing as a

consequence of high-quality LMX relationships. However, despite being the only other hospitality-leadership study to employ French and Raven's power bases framework, Borchgrevink and Boster's study was not cited in Erkutlu and Chafra's 2006 study.

Brownell (2010) examines the potential contribution of servant leadership approaches in hospitality industry and hospitality education contexts. In common with Burns' (1978) earlier conceptions of transforming leadership, servant leadership emphasises the moral and ethical aspects of leadership; with servant leadership, however, leaders are motivated by a desire to serve rather than to lead (Bolden 2004: 12). As Brownell puts it, "…influence is achieved through the act of service itself. This characteristic is key, and it results in an egalitarian leader-follower relationship" (2010: 366). Brownell's desk-based study explored servant leadership's potential to positively contribute to both the hospitality industry and to hospitality education. The study concludes that servant leadership in the hospitality industry has the potential to contribute to empowering hospitality employees and also to workplace trust, respect and personal integrity. Brownell argues that, since all of these factors can help underpin ethical practices in values-based organisational culture hospitality, then educators should address servant leadership in hospitality curricula.

Keegan's (1983) discussion paper examined leadership and hospitality in a societal context with the rationale that managerial leadership cannot be studied in isolation from wider leadership debates, which themselves are located within the context of changing societal conditions. Keegan's thesis concludes with the recommendation that the way forward for managerial leadership in the hospitality sectors would be to create a work environment "...in which the employee's real needs are satisfied" (1983: 92-93). Keegan also reports (p. 78) on the findings of his informal research with hotel managers (in the USA) who were asked to hierarchically rank a set of five prescriptive statements about the nature of leadership in hospitality. The managers reported that effective leadership in hospitality organisations is typified by leaders' abilities to: (i) stimulate employees to understand organisational goals and motivate employees to seek to achieve these goals; and (ii) gain the respect of employees to effect their willing co-operation. Interestingly, these leadership behaviours are accurately described using the transformational leadership factors of Inspirational Motivation (IM) and Idealised Influence (IIa and IIb).

3.8 Summary of hospitality leadership findings

The review above has found that within the identified studies that have utilised leadership theory to investigate leadership-related phenomena in hospitality contexts, there have been a broad range of approaches taken and a wide range of findings.

The research questions that have been addressed are so diverse that it is not possible to meaningfully reduce these into groups for the purpose of summarising the collected findings. There is, however, one notable area that has not been addressed in the hospitality leadership research. Specifically, that link between leadership and job performance.

Only two hospitality leadership studies have addressed the link between leadership and job performance. However, in both of these studies, the link between leadership and employee performance is somewhat indirect: Clark *et al.* measured employee *commitment* to service quality (rather than actual job performance / service quality) while in Patiar and Mia's study, service quality was only one of four 'non-financial performance' components in the factor (alongside *repeat business*, *staff development* and *staff morale*).

Clark *et al.* (2009) found that participative and empowering leadership styles had an effect ($\beta = 0.082$ for participative and $\beta = 0.088$ for empowering) on employees' commitment to service-quality. Patiar and Mia (2009) found that transformational leadership had a positive ($\beta = 0.309$) effect on a 'non-financial performance' factor containing a customer service component.

Seventeen of the hospitality leadership studies had incorporated job satisfaction as a variable of interest (Hawkins and Lee 1990; Borchgrevink and Boster 1994; Ross and Boles 1994; Susskind *et al.* 2000a; Susskind *et al.* 2000b; Carbery *et al.* 2003; Testa 2004; Kim *et al.* 2005; Tutuncu and Kozak 2007; Chiang and Jang 2008; Deery 2008; Erkutlu 2008; Øgaard *et al.* 2008; Tsai 2008; Fei-Chuan *et al.* 2009; Kuruüzüm *et al.* 2009; Yang 2010).

These studies have measured the relationships between job satisfaction and a number of other variables including organisational commitment (Hawkins and Lee 1990; Susskind *et al.* 2000b; Chiang and Jang 2008; Kuruüzüm *et al.* 2009),

turnover (Susskind *et al.* 2000a; Carbery *et al.* 2003), empowerment (Chiang and Jang 2008) and leadership (Tutuncu and Kozak 2007).

No hospitality studies, however, have addressed what Landy (1985: 410) and Weiss (2002: 184) have referred to as the 'holy grail' relationship of organisational studies – the positive relationship between job satisfaction and job performance.

Based on the findings from the review above, this research will measure (i) the effect of motivational leadership on job satisfaction and job performance and (ii) the effect of job satisfaction on job performance. Other relevant variables highlighted from review of leadership in hospitality are organisational commitment and empowerment (empowerment has already been noted as relevant in Section 2.3.3 above).

3.9 Leadership in hospitality: the state of the art

The research findings from the identified leadership-focused hospitality studies cannot be aggregated in such a way that a coherent framework of knowledge/understanding emerges.

There are several strands of research which build upon previous approaches and findings: Borchgrevink and colleagues in the LMX area; Testa's (2002 and 2004) contingency studies; Tracey and Hinkin's transformational leadership research; and the work by Gill et. al. (2006; 2010) and Zopiatis and Constanti (2010) examining stress/burnout and empowerment. However, these studies (excepting Zopiatis and Constanti) build upon the findings and experience of each discrete research team rather than drawing upon the wider hospitality-leadership literature for research questions and research designs.

The remaining studies are largely disparate in their approaches, research designs and research questions. In some cases studies have similar foci but, owing to the different conceptual and analytical approaches, it is not straightforward to compare the respective findings. An example of such incommensurability of findings can be found in three studies which all examine leadership and empowerment; Sparrowe (1994) using LMX theory, Chiang and Jang (2008) using a behavioural approach (supportive leadership) and Gill et al. (2010) using transformational leadership theory. Nevertheless, the findings of these studies do

provide consistent support for the existence of relationships between leadership styles and employee empowerment.

A further example can be found considering three of the earlier hospitality leadership studies:

> (i) White (1973) utilised a categorisation of leadership styles similar to that of Likert (1961) and recommended a shift from the observed autocratic style to a more consultative leadership style (UK-based);
>
> (ii) Nebel and Stearns (1977) utilised Fiedler's LPC (Least Preferred Co-worker) Contingency Theory and found that a task-orientated management style would be the most effective (US-based); while
>
> (iii) Worsfold (1989) employed the measuring instruments developed from the Ohio State University leadership studies and – acknowledging the findings of both White and Nebel and Stearns - recommended that effective hospitality leadership should employ an 'autocratic style with consultative overtones' (p. 153) (UK-based).

While all three of these studies seek to answer a similar question (what is the most effective leadership style for the hospitality sector?) and conceptualise leadership styles using measures broadly analogous to the 'consideration – initiating structure' continuum, their respective findings are difficult to consolidate into a meaningful and overarching understanding of the issue since they all have used different conceptual frameworks and methods.

Taking a broader view, the diversity of the foci, aims and rationales employed across the leadership in hospitality field provides an explanation for the difficulty in synthesising or consolidating the knowledge generated by hospitality leadership studies.

To put this fragmented view of hospitality leadership studies into a wider perspective, we can consider the following from Yukl (1989) with reference to the development of generic leadership studies:

> In 1974, after making an extensive review of more than 3000 leadership studies, Stogdill (p. vii) concluded: "Four decades of research on leadership have produced a bewildering mass of findings.... the endless accumulation of empirical data has not produced an integrated understanding of leadership." The confused state of the field can be attributed in large part to the disparity of

> approaches, the narrow focus of most researchers, and the absence of broad theories that integrate findings from the different approaches. Leadership has been studied in different ways, depending on the researcher's conception of leadership and methodological preferences.
>
> (1989: 253-254)

So, even after four decades of leadership for Stogdill (writing in 1974), and five and half decades for Yukl (writing in 1989), mainstream leadership studies was still fragmented and – albeit with a far greater volume of studies – in a similar situation to hospitality leadership studies today.

The observations above are not intended as a critique of individual researchers or research teams – indeed, when there are so many unexplored aspects of a field to pursue, it is natural that a wide range of research questions will emerge. Even within the relatively focused area of empowerment, as the first example above illustrates, there exist a range of specific research questions and, of course, any number of leadership theories with which to pursue these questions.

The current situation, however, presents a significant challenge to our current and future understanding of hospitality-leadership issues. Specifically, in the absence of an integrated / cohesive framework of research knowledge, there is no hospitality-specific conceptual-level guidance for researchers with regard to how they identify knowledge gaps, construct future research questions and design future research projects.

Nevertheless, hospitality scholars can, at least, take some encouragement from the fact that leadership studies in hospitality are at an early stage of evolutionary development. The following section draws upon Hunt's (1999) examination of the evolution of generic leadership studies to consider the early evolutionary stage of leadership research in hospitality. Following that, Pittaway et al.'s (1998) review of leadership research in hospitality and their framework for future research is critically evaluated.

3.10 Evolution of leadership studies in hospitality

The historical development of the generic leadership studies field has been examined by Hunt (1999) who drew upon Reichers and Schneider's (1990)

evolution of concepts framework that describes three stages for outlining predictable 'evolutionary' paths with regard to the development of scientific constructs. The stages are:

(1) concept introduction/elaboration;
(2) concept evaluation/augmentation; and
(3) concept consolidation/accommodation.

Reichers and Schneider's first stage, *concept introduction / elaboration*, is characterised by the introduction and legitimisation of a new or borrowed concept. Stage 2, the *concept evaluation / augmentation* stage is characterised by (a) critical evaluations of the concepts, supporting literature and empirical approaches, (b) work attempting to address these criticisms and (c) subsequent reconceptualisations. During the *concept consolidation/accommodation* (Stage 3), the debates and controversy in Stage 2 tend to give way to more descriptive literature reviews, definitions are consolidated and the concept begins to be utilised as a moderator or mediator in wider research studies (Hunt 1999: 131-132).

Leadership research in hospitality demonstrates characteristics associated with Stage 1 but also some of those associated with Stage 2. With regard to Stage 2 characteristics, there have been reviews of the field containing elements of critical evaluation (e.g. Keegan 1983, Mullins 1994, Wood 1994, Pittaway et al. 1998 and Gillet and Morda 2004) and, additionally, Tracey and Hinkin (1998) and Hinkin and Schriesheim (2008) have used hospitality samples to conduct their enquiries into the theoretical and empirical properties of transformational leadership. However, thus far, there has been no empirical work containing a significant critical dimension. For example, there is typically no critical discussion of why one particular leadership theory has been selected over alternative theories – this suggests that researchers have tended to draw upon generic leadership theories which suit their particular research topic or research questions.

It appears that, with a small number of exceptions, research in this field has been undertaken on an *ad hoc* basis. This situation is not, however, surprising: on the one hand, only a small number of hospitality-leadership studies (utilising core leadership theory) have been undertaken (only 46 identified for this review since 1973) while, on the other hand, there is a wide diversity of hospitality contexts and large volume of relevant research topics. Put another way, without a hospitality-based precedent in a given researcher's leadership-related study area,

that researcher will have little option but to look to the wider leadership studies literature.

Because of the lack of volume and depth of leadership-related hospitality studies, it is argued here that hospitality-leadership studies remain in Stage 1 of Reichers and Schneider's (1990) *evolution of concepts* framework – the *concept introduction / elaboration* stage. Stage 2 has not been reached because, although there have been some critical evaluations, there has been no empirical work specifically undertaken to address the criticisms and no subsequent reconceptualisations.

Further evidence for the Stage 1 position – albeit from the late 1990s - can be found in Pittaway et al.'s (1998) review of the field. They observed that:

> "...the majority of research within the hospitality industry has limited itself to the identification of the importance of leadership. It has not contributed significantly to a greater understanding of leadership"
>
> (1998: 412).

This observation is entirely consistent with Hunt's (1999) description of Reichers and Schneider's (1990) Stage 1,

> "Here [in Stage 1], the attempt is to legitimize a new concept or a newly borrowed concept... Early data are presented to bolster the argument that the concept represents a real phenomenon"
>
> (Hunt 1999: 131).

It is to Pittaway *et al.*'s (1998) review that this work now turn its attention. Pittaway *et al.'s* article is the only previous work to have attempted to make recommendations for the future direction of leadership studies in the hospitality field. Because the current research also seeks to make recommendations for the future development of the field, it is important to review Pittaway *et al.'s* work for any relevant findings or insights.

3.11 Pittaway *et al.*'s (1998) paradigmatic framework

The early evolution stage of hospitality leadership studies has significant implications for the deductive development of new research questions in the field.

Specifically, until a greater number of studies covering a wider range of hospitality contexts and research questions have been published, it will remain difficult to draw upon precedents from within hospitality studies to inform the design of new research – or indeed, to draw upon any kind of conceptual framework of hospitality-leadership studies to frame new and relevant research topics and questions.

The only prior review of hospitality leadership studies was undertaken by Pittaway et al. (1998) who were concerned that leadership as a topic of research within hospitality studies had been neglected and, accordingly, set out to construct a research agenda for the future development of the field. They developed a paradigmatic taxonomy derived from their analysis of a cross-sectional sample of generic leadership studies. The fourfold taxonomy was created by firstly establishing the ontological perspective of each paper as regards the *human nature dimension* – that is, the assumptions made regarding the extent to which human behaviour is influenced by voluntary (i.e. autonomous) or deterministic (i.e. governed by external environmental) factors. Secondly, the organisational level (executive versus lower levels) at which each study had been applied (the *leadership type dimension*) was assessed. Thirdly, the authors combined these analyses to identify four paradigmatic approaches to leadership studies. The characteristics of the generic leadership studies which had been pursued within each of these paradigms was then described and, based on these characteristics, appropriate research themes and questions for future hospitality leadership studies were proposed.

The specific purpose of the paradigms is to '...present a clearer view of leadership and identify how further leadership research could benefit the hospitality industry' (Pittaway *et al.* 1998: 408). Figure 3-2 summarises the key aspects of each of the four paradigms of leadership research identified by Pittaway *et al.*

However, while the taxonomy generated useful and apposite research questions for hospitality leadership studies, it does not contribute to the field in a way which assists future researchers to build on previous (applied) research and advance the field through progressive, critical and augmentative evolution. This shortcoming of the paradigmatic taxonomy is largely due to the fact that it is based primarily on ontological differences between studies in the generic leadership studies field; in contrast, a process of deductive-orientated development requires a critical and iterative interaction with applied (context-specific) studies.

The discord between Pittaway *et al.*'s paradigms and the tradition of applied hospitality leadership research can be illustrated by examining how the hospitality leadership studies identified in this current research are located within the taxonomy.

Existential Headship	**Strategic Headship**
- Executive level; **proactive** - Leaders are self-determining **agents/drivers of change** - Seeks the 'best' leaders: • personality factors; • cognitive factors; • educational factors; and • social factors. - In hospitality, which leadership outcomes should we use to measure 'best'? - Strong emphasis on how leaders imagine/visualise goals	- Executive level; **reactive** - Leaders have limited influence on events: **reactors to change** - Seeks to examine issues of **strategic choice** - Linking research on strategic planning with research on decision-making - Notes that action (EH) and reaction (SH) often are compound phenomena
Influential Leadership	**Situational Leadership**
- How influence occurs: **formal** and **informal** - **In** and **of** organisations - Leaders effect change based on their level of **formal** and **informal** power - Seeks to explain how: • individuals gain power • power is used for influence • organisations might positively direct that influence • informal leadership affects hospitality businesses	- Typified by research seeking to **establish specific causal relationships** between situations and leadership - Most dominant in leadership research - Functionalist and focussed on leadership **in** organisations - Seeks to examine causality between leadership and: • organisational characteristics • decision-making • hospitality industry sectors

Source: author (after Pittaway *et al.* 1998)

Figure 3-2 Summary of Pittaway *et al.*'s paradigms

3.11.1 Pittaway et al.'s paradigms: a critique

The percentage figures given below have been calculated with reference to a total of 44 papers – that is, Keegan (1983) does not fit within any of the paradigms owing to its status as a discussion paper while Pittaway *et al.*, as the original source of the organisational framework, does not feature as a datum itself.

Existential Headship and Strategic Headship paradigms

Pittaway *et al.*'s Existential and Strategic Headship paradigms are closely related (Pittaway *et al.* 1998: 419), both being concerned with executive-level leadership *of* organisations. The significant distinction between these paradigms is that in Existential Headship leaders are conceptualised as drivers of change (proactive) while leaders in the Strategic Headship are conceptualised as having less control over internal and external environmental change – they are responders to change rather than drivers of it.

Of the 44 relevant hospitality leadership research studies, only eight (18 per cent) have been concerned with executive-level leadership *of* organisations and, of these, only four (9 per cent) have focussed *solely* on executive level leadership (Worsfold 1989; Hinkin and Tracey 1994; Tracey and Hinkin 1994; Chung-Herrera *et al.* 2003). Studies which have examined both executive-level leadership and leadership *within* organisations are: Shortt (1989), Cichy and Schmidgall (1996), Nicolaides (2006) and Zopiatis and Constanti (2010).

Although Zopiatis and Constanti (2010) contained a focus on executive-level leadership *of* organisations, their research also focused leadership *in* organisations and aimed to investigate the (hypothesised) causal relationship between leadership style and leader burnout. For these reasons this paper was placed in the *Situational Leadership* category.

Influential leadership paradigm

Three hospitality leadership studies (6.8 per cent) have been published which are relevant to the Influential Leadership paradigm. Borchgrevink and Boster (1997) drew upon French and Raven's 'social bases of power' framework to incorporate coercive, reward, expert and referent power along with interdyadic communication into their causal model of LMX (Leader-Member Exchange) relationships in a hospitality setting. Elsewhere, Erkutlu and Chafra (2006) sought to examine the influence of leadership power bases on subordinates' job stress at boutique hotels in Turkish boutique hotels. To do this the authors used French and Raven's (1959) 'social bases of power' framework and Rahim's (1988) Leader Power Inventory. Significant correlations between leader power bases and subordinates' job stress were found and the authors recommended that

organisations which aim to proactively manage leadership-related issues should recognise the influence of power bases.

The third hospitality leadership study which can be located in the Influential Leadership paradigm is the desk-based study of Brownell (2010). Brownell describes how "…influence is achieved through the act of service itself. This characteristic is key, and it results in an egalitarian leader-follower relationship" (2010: 366) and the study finds that servant leadership in the hospitality industry has the potential to contribute to empowering hospitality employees and also to workplace trust, respect and personal integrity.

Borchgrevink and Boster (1997) was classified in Table 3-1 and Table 3-2 as an LMX paper rather than in the power-influence category. It was categorised this way because LMX is the primary theoretical approach used in the study, however, the significance of the power-related constructs in Borchgrevink and Boster's LMX model is sufficient to categorise the paper within Pittaway *et al.*'s Influential Leadership paradigm.

Situational leadership paradigm

The Situational Leadership paradigm is typified by positivistic research focussing on leadership *in* organisations and which seeks to examine the causal relationships between leadership and number of other variables including organisational characteristics, decision-making processes and hospitality industry sector. The majority of the identified hospitality leadership studies (34 of the total 44, or 77 per cent) fit within this paradigm, reflecting Pittaway *et al.*'s finding that it is the most dominant paradigm in generic leadership studies.

3.11.2 The trouble with the taxonomy

Figure 3-3 illustrates how only a very small minority (4 papers representing 9.1 per cent) of empirical hospitality leadership studies focus *solely* on leadership *of* organisations while a further three papers focus on both leadership *in* and *of* organisations (6.8 per cent).

The discord, referred to above in Section 3.11.1, between Pittaway *et al.*'s paradigms and the tradition of applied hospitality leadership research is manifested through three specific but interrelated issues.

The first of these relates to the difficulty in making a practical distinction between hospitality leadership papers which lie in the Existential and Strategic Headship paradigms. The second issue relates to organisational level of focus: several studies (see below) demonstrate characteristics of both the Headship paradigms (executive level focus) and the Situational Leadership paradigm (lower level focus) and this makes it difficult to locate these within the taxonomy. Thirdly, because the majority of papers (77 per cent) lie within one domain (Situational Leadership), a great deal of the variance regarding foci, approaches and methods within these papers is not brought forth for examination.

Existential and Strategic Headship: Solely executive level (n=4; 9.1%)
Worsfold (1989); Hinkin and Tracey (1994); Tracey and Hinkin (1994); Chung-Herrera *et al.* (2003)
Existential and Strategic Headship: Executive and lower levels (n=3; 6.8%)
Cichy and Schmidgall (1996); Nicolaides (2006); Shortt (1989)
Influential Leadership (n=3 ; 6.8%)
Erkutlu and Chafra (2006); Borchgrevink and Boster (1997); Brownell (2010)
Situational Leadership (n=34; 77.3%)
White 1973; Nebel and Stearns 1977; Borchgrevink and Boster 1994; Sparrowe 1994; Tracey and Hinkin 1996; Borchgrevink and Boster 1998; Tracey and Hinkin 1998; Borchgrevink *et al.* 2001; Testa 2002; El Masry *et al.* 2004; Testa 2004; Whitelaw and Morda 2004; Arendt and Gregoire 2005; Brownell 2005; Gill *et al.* 2006; Marnburg 2007; Yang 2007; Arendt and Gregoire 2008; Brownell 2008; Chiang and Jang 2008; Erkutlu 2008; Hinkin and Schriesheim 2008; Kozak and Uca 2008; Scott-Halsell *et al.* 2008; Tsai 2008; Clark *et al.* 2009; Patiar and Mia 2009; Testa 2009; Asree *et al.* 2010; Gill *et al.* 2010; Kim, B. *et al.* 2010; Kim, S. *et al.* 2010; Wong and Chan 2010; Zopiatis and Constanti 2010

(total n = 46) Source: author

Figure 3-3 Hospitality leadership studies categorised according to Pittaway *et al.*'s framework

Regarding issue one: while reviewing the hospitality leadership papers, it became apparent that there are no explicit references to the human nature assumptions which the respective authors have chosen to employ. It has not, therefore, been possible to categorise individual studies on the *human nature dimension*; that is,

humans as autonomous drivers of change (Existential Headship) or humans as responding mechanisms (Strategic) paradigm.
Pittaway *et al.* themselves had recognised this difficulty in delineating between the two paradigms, writing that:

> ...research in this paradigm *[Strategic Headship]* may not need to be completely separated from the 'existential headship' paradigm. It is evident that the two paradigms apply different assumptions but in many ways the paradigms are two heads of the same coin.
>
> (1996: 419)

To overcome this difficulty, in Figure 3-3 Existential and Strategic Headship have been joined at the ontological level (i.e. no difference in assumptions about human nature). It was not possible to compare the hospitality leadership studies which fit within the Existential and Strategic Headship paradigms with the generic studies which Pittaway *et al.* used to generate these domains. In a rather significant failing of Pittaway *et al.*'s paper, none of the source studies from which the taxonomy was generated were cited by the authors – the authors simply state that the studies were taken from "A cross section of literature..." (1998: 408).

The second issue relates to Pittaway *et al.*'s *leadership type dimension* (which is concerned with the organisational level at which the research has been applied). Specifically seven of the papers (Shortt 1989; Worsfold 1989; Cichy and Schmidgall 1996; Nicolaides 2006; Marnburg 2007; Scott-Halsell *et al.* 2008; Zopiatis and Constanti 2010) focussed on executive *and* lower level leadership. Because of this, those papers could not faithfully be placed in either of the Headship paradigms (both of which relate to studies which focus *solely* on executive level leadership). Of course, the reciprocal problem with these six papers is that they can neither be placed faithfully in the Situational Leadership paradigm, as they do not focus solely on leadership *in* organisations.

The third and final problematic issue is that the majority of hospitality leadership papers (77 per cent) are concerned with establishing causal relationships at the leadership *in* organisations level and therefore fit within the Situational Leadership paradigm. By placing so many (34 of 44) papers in one paradigm, the model masks the variance of aims, theoretical approaches, analytical methods and, of course, findings which are to be found amongst these 34 studies.

In summary then, the first two shortcomings of Pittaway *et al.*'s taxonomy stem from the difficulty in allocating hospitality leadership studies across the paradigms and the third relates to the taxonomy's lack of explanatory/analytical ability given that the majority of (themselves diverse) studies are grouped together.

It is important to recognise that Pittaway *et al.*'s paradigmatic framework (i) was not generated from hospitality leadership studies (rather it was generated from generic leadership studies) and, significantly (ii) was intended to inform future rather than describe previous hospitality leadership studies. Nevertheless, the author here questions the efficacy of the paradigms for identifying '...how further leadership research could benefit the hospitality industry' (Pittaway *et al.* 1998: 408). The approach taken by Pittaway *et al.* is not being dismissed – it was a valid approach and generated some useful insights regarding further research themes and questions for hospitality leadership studies. However, the fact that applied leadership studies cannot be usefully disaggregated using this framework means that it is of limited efficacy for *guiding hospitality leadership studies based on previous applied studies in the field*. That is, Pittaway *et al.*'s framework does little to address the progressive, iterative and deductive development of the field.

The argument here is for a reconceptualisation of the paradigms in order that a future research agenda for leadership in hospitality be based (i) to some extent on the preceding tradition of research and (ii) in a way which addresses the hospitality context, rather than being based on ontological considerations which are more deeply rooted in the underpinning philosophy of science issues.

As this critical analysis has shown, by adopting an ontological orientation for the construction of the paradigms, we arrive in a position where (a) a majority studies lie in the same paradigm and (b) there are some significant difficulties in allocating studies within the paradigmatic taxonomy. While Pittaway *et al.* have utilised the ontological approach to demonstrate how hospitality leadership studies might progress, their approach does not encompass the collective findings and epistemological and methodological lessons which can be gleaned from the tradition of applied hospitality leadership studies. Pittaway *et al.*'s approach, therefore, neglects to account for previous applied hospitality studies. This is a significant shortcoming because positivistic social science is based to a large extent on the progressive, iterative and deductive development of knowledge.

3.12 Reconceptualising the research agenda

As described in Section 3.8 above, this review has determined that the collected findings from across the range of leadership-focussed hospitality studies cannot be aggregated to provide a holistic, or even partial, theoretical framework of hospitality leadership. This is largely due to the *ad hoc* way in which individual hospitality leadership studies have been designed and undertaken. It is also likely to be the case, considering the ongoing absence of a critical mass of hospitality leadership knowledge, that hospitality leadership researchers have been forced to draw upon generic leadership theory and practice. The fragmentary nature of the collected findings of hospitality leadership studies may, therefore, stem from the broad nature of the generic field which contains a vast array of theories, sub-theories and alternative theories.

The lack of (i) depth of applied knowledge and (ii) of an integrated theoretical framework in the hospitality leadership field further serves to hamper the deductive development of new research questions and themes for investigation. The evolution of concepts - in terms of both theory and application, and as described within Reichers and Schneider's (1990) framework – is based on an iterative, augmentative development of ideas through continual critique and re-evaluation. Currently, the evolution of hospitality leadership studies remains at an early stage and will continue to do so until a range of different researchers begin to adopt augmentative approaches which draw upon and progress the findings and theoretical developments of existing hospitality studies.

Pittaway *et al.*'s (1998) approach to developing a future research agenda did not draw upon the existing body of (theoretical or applied) hospitality leadership knowledge, but rather drew upon the generic leadership literature. They categorised studies based on each study's ontological assumptions about human behaviour and the organisational-level at which the studies were focussed. While this approach was used successfully to generate a range of future research themes and questions, the fact that these were not grounded on existing hospitality-specific theory and knowledge may have hindered the development of the field.

The critical examination of Pittaway et al.'s framework has shown that it does not align well with the existing tradition of hospitality leadership research. Accordingly, it is argued that this is not the most appropriate model for hospitality

leadership scholars to use in building a stronger tradition of theoretical and applied research. Specifically, this is because (following the evolutionary of concepts process) a robust applied body of studies must (in addition to drawing knowledge from overarching and more general theories and findings) draw upon a critical augmentation of applied theory and findings and continual re-evaluation of concepts from that field.

So where does all this leave hospitality leadership research and how does it help inform the rationale for and design of the current research? The conclusions reached here are that transformational leadership should be employed as a theoretical orientation, both by hospitality leadership scholars in general and for this particular study (albeit in a limited way, by drawing upon its Inspirational Motivational (IM) and Extra Effort (EE) components). The arguments and related questions that frame these conclusions are summarised below, following which the choice of transformational leadership is elaborated in greater detail.

The arguments and questions generated from the review are as follows:

1. Following Reichers and Schneider's (1990) evolution of concepts framework, to develop into a robust field of research with a holistic (or at least, inter-linked) theoretical framework, a deductive-led process of augmentation of theory and findings and re-evaluation of concepts should occur.
2. With the exception of a small number of specific areas of study (transformational leadership by Hinkin and Tracey and LMX by Borchgrevink and colleagues and by Testa) hospitality leadership studies do not currently provide the critical mass of knowledge for such a progressive, augmentative process to occur (i.e. as yet there is little evidence of a holistic or inter-linked theoretical framework).
3. Pittaway *et al.*'s attempt to provide a research agenda for the field does not provide an agenda based on such an augmentative approach because of the ontological, rather than applied (or theoretical), basis of their taxonomy.
4. In the absence of a holistic or inter-linked theoretical framework, how should hospitality leadership studies progress as a field of applied research?
5. How can the findings of this review inform the selection of the theoretical approach for this current work?

Points (questions) 4 and 5 above articulate the two main strands to emerge from the review of hospitality leadership studies. The first strand (#4) relates to the

wider context of hospitality leadership studies and how this area can be progressed; the second strand (#5) is specific to this current research. These strands are closely related insofar as adopting transformational leadership concepts as a theoretical orientation is the common recommended response to both.

For hospitality leadership studies, transformational leadership (TL) offers the greatest potential as a theoretical perspective which can assist in generating a critical mass of cohesive understanding. There are four key reasons for this:

1. contribution to hospitality leadership studies: TL is the leadership theory which has most frequently been utilised in hospitality leadership studies – thus providing the largest theoretical and empirical base upon which to build an augmentative tradition of hospitality leadership research;
2. context applicability: its applicability to a wide range of sectoral contexts, including hospitality, has been empirically validated by a large number of studies (Antonakis et al. 2003);
3. accommodation of the full range of leader behaviours: TL conceptualises both transformational and transactional leader behaviours; and
4. capacity to address key hospitality management issues: this last point is elaborated in greater detail immediately below.

Transformational leadership - in particular as measured by the Full Range Leadership Model (see Section 2.4.3) – has the capacity to address a key management issues in hospitality – that of job performance for service quality. Specifically, hospitality services are typified by Zeithaml and Bitner's (1996: 19) simultaneous nature of production and consumption found in services provision. This 'inseparability' of production and consumption means that service delivery staff have a critical role in determining service quality through their job performance and stresses the importance of human resource management in the hospitality sector (Go *et al.* 1996: 5).

Reflecting this key staff role in service delivery, Go *et al.* (1996) proceed to observe that many organisations with hospitality service functions rely on "…employees to implement improved service delivery processes" (1996: 1). However, hospitality service staff are often employed in jobs that offer relatively low pay, long and unsociable hours, poor levels of job stability and a lack of promotional opportunities (Hesselink *et al.* 2004: 11; Wildes 2007: 5-6; Wong

and Ko 2009: 195) and there is evidence that factors such as these negatively affect employees' motivation levels (Kivela and Go 1996).

An important dimension of the transformational leadership model is that of Inspirational Motivation (IM) which describes the capacity of transformational leaders to inspire, motivate and provide and shape meaning for employees by emphasising priorities, purpose and a vision for goal achievement (Avolio *et al.* 1991; Bass 1999). For service staff experiencing challenging employment characteristics such as those described above, the presence and influence of an inspirational leader who can provide or enhance work meaning, motivate them to perform well and increase their levels of job satisfaction may be welcomed.

The potential importance of the inspirational motivational dimension of leadership for enhancing service staff experience of their jobs is captured by the sentiments of Keegan, who, with reference to improving jobs through redesign, enrichment or automation, writes that:

> ...it is my belief, (...) that most of the jobs in the hospitality industry do not lend themselves to such improvements. The challenge for us is not so much to change the job, but to provide the managerial leadership that would create an environment in which the employee's real needs are satisfied.
>
> (1983: 92-93)

The current research aims to evaluate the extent to which motivational leadership (based on the IM component of transformational leadership theory) contributes to hospitality catering employees' levels of work motivation (measured as attitudes to work and job performance). In a wider hospitality context, there is the potential for hospitality researchers to use the transformational leadership conceptual framework to examine a wide range of specific job performance and motivational research questions. In this way, the agenda is set for hospitality researchers to generate new understandings of how employee work motivation can be enhanced at attitudinal and behavioural levels. For hospitality organisations, enhanced employee work motivation and improved job performance can bring positive benefits in terms of improved customer service.

4 DEVELOPING THE THEORETICAL FRAMEWORK

Chapters 2 and 3 have identified a number of relevant motivation-related variables. Antecedents of work motivation include:

- the **Inspirational Motivation** (IM) dimension of the Full-Range Leadership Model (FRLM) (Bass 1985: 214; 1999: 19-20; Avolio and Bass 2004a: 28);
- emerging from the mid-20th Century humanistic tradition of organisational/leadership studies, **Work Values** (WV) may influence employees' work attitudes (Section 2.3.2); and
- following Kerr and Schriesheim's (1974) review of situational moderator variables, 'degree of autonomy' is linked with **Employee Empowerment** (EM) and empowerment has featured in a number of hospitality leadership studies (Sparrowe 1994; Chiang and Jang 2008; Clark et al. 2009; Gill et al. 2010)
- **Social Support** (SS) can be a positive factor for hospitality employees (Borchgrevink and Boster 1994; Ross and Boles 1994; Lee-Ross 1998b; Susskind *et al.* 2000a)

Motivation-related outcome variables identified are:

- the **Extra Effort** (EE) dimension suggests a useful behavioural (job performance) measure of work motivation (Avolio and Bass 2004a: 98);
- **Work Meaning** (ME) is an attitude-based work motivation outcome of transformational leadership (Avolio and Bass 2004a: 96) and is proposed above as a partial mediator of motivational leadership's effect on job performance;
- **Job Satisfaction** (JS) is a frequently utilised attitudinal variable in hospitality leadership studies (see e.g. Borchgrevink and Boster 1994; Sparrowe 1994; Borchgrevink and Boster 1997; Testa 2004; Erkutlu 2008; Tsai 2008);
- **Organisational Commitment** (OC) is a attitudinal outcome variable associated with motivated employees (Erkutlu 2008; Cichy *et al.* 2009; Kim, B. *et al.* 2010); and
- **Service Quality** (SQ) has been identified as a core positive organisational outcome for hospitality organisations (Go *et al.* 1996: 1; Hartline and Ferrell 1996: 52-53).

Each of the variables found in the sources above has been measured as a latent (existing but not manifest) construct. Because concepts such as, for example, work meaning or organisational commitment are typically not amenable to accurate measurement using just one variable, researchers have employed a

range of indicator, or manifest, variables to 'construct' these latent variables. Structural equation modelling (SEM) has been chosen as the data analytical method for this research owing to its capacity to both (i) measure latent constructs using a range of indicator variables and (ii) evaluate the relationships between latent constructs. In SEM parlance, these two processes are referred to as (i) the measurement model and (ii) the structural model.

To proceed with the measurement model it is necessary to identify and select a range of indicator variables for each latent construct. This process is described in Chapter 5 where a range of relevant organisational research studies (both hospitality-specific and more general) are examined to identify precedents for measuring these constructs.

Regarding the structural relations modelling dimension: prior to measuring the relationships between latent constructs, it is necessary to specify, based on theory, the hypothesised linkages between the various constructs. While it is possible to look to the generic and hospitality-specific leadership literatures to develop some hypotheses (e.g. motivational leadership may be a predictor of both work meaning and extra effort/motivation) many of the constructs of interest are not specific to leadership. All of the identified constructs are, however, related to employee motivation and, accordingly, attention is now turned to the generic and applied (hospitality) work motivation literature to ensure that the research takes account of, and can be informed by, those bodies of research knowledge.

This chapter firstly provides (Section 4.1) an overview of the generic work motivation research to identify a theory-based organising framework to inform the development of research hypotheses linking the latent variables. This review finds that the field of work motivation does not operate under a unifying theoretical framework (see e.g. Ambrose and Kulik 1999: 280; Mitchell and Daniels 2002: 227), but that there are a variety of contrasting theories and research approaches. As a consequence, the chapter goes on (in Section 4.2) to briefly examine the overarching field of industrial and organisational (I/O) psychology. At this level it is possible to identify an organising framework which is capable of both (a) satisfactorily accommodating the range of identified latent variables and (b) providing insights regarding the likely causal relations between them.

The final section (4.3) of the chapter reviews the applied hospitality motivation literature to:

(i) establish the scope of the existing research in this area;
(ii) identify any additional relevant variables for inclusion in the study;
(iii) identify precedents for measuring the selected latent variables;
(iv) help inform the development of hypotheses for the survey research.

Chapter 5 goes on to systematically describe the development of measures for each of the latent variables.

4.1 Work motivation research

Like leadership, work motivation research has a long history within the social sciences: it has been studied (mainly by work/organisational psychologists) since around the 1930s (Locke and Latham 2004) and, also in common with leadership, owing to its complex, multidimensional nature, motivation has proved difficult to define.

More recent attempt to define the concept have focused on internal and external forces shaping work motivation. Pinder (1984, 1998), for example, drew upon a number of earlier works to develop the following definition:

> Work motivation is a set of energetic forces that originate both within as well as beyond an individual's being, to initiate work-related behavior, and to determine its form, direction, intensity, and duration
>
> (Pinder 1984: 8; and see also Pinder 1998)

Ambrose and Kulik (1999: 231) examine this definition and describe (i) organizational reward systems and the nature of the work being performed as examples of Pinder's external forces and (ii) individual needs and motives as examples of internal forces. Elsewhere, Locke and Latham (2004: 388) provide a similar definition to Pinder's, describing internal forces that "impel action" and external factors that "can act as inducements to action". Moynihan and Pandey (2007: 804) describe the multidimensional nature of work motivation in terms of employee interaction with, and understanding of, their organisation. Once again it is possible to see the internal (employee understanding) and external (employee interaction) dichotomy within Moynihan and Pandey's perspective.

Significant reviews of organisational psychology research into work motivation published during the last three decades include Korman *et al.* (1977), Pinder (1984) and Latham and Pinder (2005).

In the first of these reviews, Korman *et al.* (1977) described four theoretical frameworks in use in work motivation research during the 1960s and early 1970s. Specifically, they described: (i) the needs-hierarchy model following the work of Maslow (1954); (ii) the expectancy-value (EV) framework originally popularised by Vroom (1964; also informing House's 1971 path-goal theory of leadership); (iii) equity theory (proposing that equitable outcomes are more satisfying than inequitable ones, see e.g. Adams 1963); and (iv) self esteem consistency approaches (which relate performance/outcomes to levels of individuals' self esteem; see Korman 1974).

In comparison with Korman *et al.,* Pinder's (1984) review encompassed a wider range of discrete theories and placed specific work motivation theories within a four-fold classification. The classification described (i) needs theories, (ii) cognitive theories, (iii) behaviourist theories and (iv) work/job design theories. These categories are described briefly below.

Needs theories such as those developed by Maslow (1954), McClelland (1961), Herzberg (1966) and Alderfer (1969) are concerned with employees' motives and needs; such theories can also be described as intrinsic motivation theories. Needs theories are based around how peoples' needs motivate them to act in ways which will satisfy these needs. Different people have different needs and the same people will have different needs at different times and in different contexts (such as at work). Writing in 1999, Ambrose and Kulik (1999: 233) described how research interest in needs theories had reached its peak during the late 1970s and early 1980s.

The **cognitive theories** of work motivation assume that people's beliefs, attitudes and intentions are the ultimate determinants of their behaviour. Locke and Latham (1984) describe these cognitive theories as being broadly made of: (i) equity theories; (ii) expectancy; and (iii) goal-setting theory. Each of these are described in greater detail below.

The **behaviourist approach** does not assume the existence of needs, nor the influence of invisible internal cognitive factors. Pinder (1984: 16) describes how

the behaviourists' reject notions of motivation and argue instead that behaviour is determined by its consequences with people learning from their experiences.

Lastly, **job or work design theories** such as Hackman and Oldham's Job Characteristics Model (Hackman and Oldham 1975, 1976, 1980) which focus on characteristics of people's jobs (such as skill variety, task identity, task significance, feedback, and autonomy), how these interact with employees' psychological states and the relationships with consequent individual (e.g. motivation, job satisfaction) and organizational outcomes.

Most recently, Latham and Pinder's (2005) *Dawn of the Twenty-First Century* review provides a detailed analysis of the field and concludes that the social cognitive, goal-setting and organisational justice theories currently dominate the field of work motivation. With reference to the theories described in Korman *et al.*'s (1977) review, Latham and Pinder (2005: 506) write that: expectancy theory has been supplanted with goal-setting and social cognitive theories; and equity theory has given way to organisational justice (noting that social cognitive and organisational justice theories have emerged subsequent to Korman *et al.* al's 1977 review).

Latham and Pinder go on to describe the later 20th century research having focused on cognition while, in more recent years, attention has turned more towards affect (emotion) and behaviour (and on how these interact with cognition). Latham and Pinder's findings also note how work motivation research in general had expanded to encompass the study of a wide range of antecedents and consequents[3] and also to take greater account of contextual factors including (inter)national contexts (which contrast with the previous North American focus of work motivation research). Descriptions of the social cognitive, goal-setting and organisational justice theories are provided below.

Social-cognitive theory (SCT) was developed largely by Albert Bandura (Bandura 1977) following on from earlier work social learning theories emanating from that of Miller and Dollard (1941) which focused on the ways in which people learn socially, i.e. from each other (Ten Eyck 2007). Bandura's theory emphasises the role of cognitive variables (such as an individual's knowledge,

[3] This point reflects Ambrose and Kulik's (1999) conclusions relating to the 'abandonment' of motivation as researchers focus on increasingly specific aspects of employee behaviour related to motivation (details below in Section 4.1.1).

expectations and attitudes) in mediating the relationships between environmental phenomena (e.g, in a workplace context, organisational structures, norms and processes) and their behavioural outcomes (such as skills and self-efficacy leading to task-achievement). The concept of self-efficacy is centrally-placed: Bandura defined self-efficiacy as the (individual's) 'beliefs in one's capabilities to organize and execute the courses of action required to produce given attainments'' (1997: 3). In a work motivation context, because SCT postulates that cognitive variables have a significant mediating role in the relationship between organisational factors and behavioural outcomes (e.g. task achievement) this opens the way for interventions such as learning and training to modify cognitive variables and thus enhance behavioural outcomes.

The social dimension of SCT refers to the role of learning in a social context – that is, the way in which individuals learn from each other (through observation). It is possible to relate the Full-Range Leadership Model (FRLM) of transformational leadership to social learning concepts through the Idealised Influence dimension – in particular the IIB (Idealised Influence – *Behavioural*) where the leader "...sets an example to be followed, sets high standards of performance, and shows determination and confidence" (Bass 1999: 11).

Goal-setting theory belong in the general class of cognitive theories and centres on understanding how work goals can influence employees' motivation and performance. Locke (1976) discusses four ways in which goals can influence employee performance:

- directing attention and effort in a specific direction;
- providing an impetus to increase effort;
- providing an impetus for employees to maintain their effort over time;
- stimulating employees to develop strategies for goal attainment.

Millward (2005: 208) notes that a key dimension underpinning the effectiveness of goal setting as a motivation technique is that specific goals that 'focus on achieving something finite and manageable, with tangible consequences' is typically more effective than the more nebulous 'do the best you can' approach.

Variables that can predict and mediate motivation and performance include: (i) the nature of goal setting (assigned versus participatively set goals) and employee commitment to goals (positively influenced by participative goal setting and individuals' agreement with the nature of the goals) (Latham and Pinder

2005: 496-497); (ii) positive leader feedback on goal completion (assisting in clarifying expectations, modifying goal difficulty and allowing a means for employees to gain recognition for their efforts) (Jex and Britt 2008: 247); (iii) goal complexity (related to the attainability of the goal – organisations/leaders should account for greater challenge by allowing more time for goal completion and/or providing training) (Locke and Latham 1990); and employee perceptions of self-efficacy / competence (Williams and Lillibridge 1992: 169-170; Latham and Pinder 2005: 496-497).

Latham and Pinder's third dominant area - **organisational justice theory** - stems from another branch of the cognitive group, equity theory. **Equity Theory** is a form of social exchange theory concerned with people's perceptions of fairness in social exchanges (Adams 1965). In a workplace context, equity theory proposes that as employees deliver a range of inputs for their employer (e.g. an individual's time, skills, effort, prior and current education and training) then they also consider the ratio of inputs to outputs (i.e. outputs accruing to the employee) such as pay, benefits, leave entitlement, pension arrangements etc. – supervisor feedback has also been identified as a salient output in the context of leadership and equity theory (e.g. Sparr and Sonnentag 2008). Fairness or equity can be evaluated relative to a number of criteria such as outputs accrued by other members of the same organisation, members of other organisations in similar roles or peers with similar qualifications. Where an individual is not satisfied with their perceived input-output balance then they may attempt to increase the level of outputs they receive or reduce levels of their own inputs.

Organizational justice theory draws upon equity theory and contains several strands: *distributive justice* relating to the comparative input-output assessment described above; *procedural justice* is based on the premise that fair procedures and processes within the organisation contribute positively to employee acceptance of outcomes and have a positive influence on employee work motivation; and *interactional justice* concerns employee perceptions of fair treatment, dignity and respect in specific interpersonal interactions (Jex and Britt 2008: 243)

Latham and Pinder (2005: 505) write that organizational justice is significant not only in work motivation terms but also in the leadership context – specifically, leaders should be perceived as being fair with regard to outcomes and processes.

Where employees feel unfairly treated they can respond affectively, for example, by demonstrating reduced organisational commitment and/or behaviourally e.g. finding employment elsewhere.

Although Latham and Pinder found that **expectancy theory** (see Section 2.3.3) has largely been replaced in motivation studies by goal-setting and social-cognitive theories, it is interesting to note how the themes of goals and leadership run through the various theories from expectancy theories of work motivation (Georgopoulos *et al.* 1957; Vroom 1964), to path-goal leadership theory (House 1971; House and Mitchell 1974) and more recently into transformational leadership theory (Bass and Riggio 2006).

Section 2.3.3 introduced the expectancy / valence-instrumentality-expectancy (VIE) theories of motivation and described how work motivation can be viewed as a product of (i) an individual's perception of the likelihood of achieving a goal based on a particular degree of effort and (ii) the desirability of that outcome. Path-goal leadership theory essentially focuses on the leader's role in modifying these perceptions and beliefs (Yukl 2010: 169) and a key leader behaviour for the positive modification of employee perceptions and beliefs is clarifying the method/s of achieving the goals – i.e. clarifying the path to the goal. Elsewhere, Jex and Britt (2008: 316) describe how the leader behaving in the *directive* paradigm "...focuses on making sure that subordinates know what they are supposed to be doing, and perhaps clarifying task responsibilities".

These goal- and effort-focused characteristics of the expectancy (motivation) and path-goal (leadership) theories can be seen as reflecting the goal-related *Inspirational Motivation* (IM) dimension of the Full-Range Leadership Model (FRLM) which describes how leaders: (i) talk optimistically about the future; (ii) talk enthusiastically about what needs to be accomplished; (iii) articulate a compelling vision of the future; and (iv) express confidence that goals will be achieved (Avolio and Bass 2004a: 96).

Two discrete theories of work motivation which have not yet been discussed are Hackman and Oldham's Job Characteristics Theory (Hackman and Oldham 1976, 1980) and Herzberg's (1966; 1968) Two-Factor / Motivation-Hygeine Theory. These theories are essentially needs-based theories but are set apart from many other approaches to understanding work motivation in that these were developed

specifically for the workplace context rather than being general theories of motivation *applied* to the work context (Jex and Britt 2008: 235, 256). These theories will be discussed in Section 4.3.1 where the identifed hospitality motivation studies are introduced.

4.1.1 Making sense of work motivation

The three reviews of work motivation covered here (Korman *et al.* 1977; Pinder 1984; and Latham and Pinder 2005) highlight the variety of differing conceptualisations that have been employed in the work motivation field. Since the application of Maslow's needs-hierarchy to work contexts and the wide-ranging implementation of Vroom's (1964) expectancy-value meta-theory, work motivation theory has tended to focus on more specific areas. Ambrose and Kulik (1999) have gone as far as to describe this as the 'abandonment' of the use of motivation:

> Organizational behavior research has largely abandoned the concept of "motivation" and has replaced this broad concept with more specific measures of employee behavior... Research on motivation during the 1990s was largely done through the "back-door."
>
> (Ambrose and Kulik 1999: 278)

The wide range of theoretical approaches which have been employed by researchers to understand work motivation make it difficult, or even impossible, to reconcile these into a unified theoretical framework and – indeed - there is neither an "agreed-upon integrative theory of motivation" nor a "universally accepted way of presenting the various approaches to motivation" (Mitchell and Daniels 2002: 227). Because work motivation research is located within the 'parental' discipline of I/O (Industrial and Organisational) Psychology (see e.g. Borman *et al.* 2003; Millward 2005; Jex and Britt 2008) and more specifically within the area of Organisational Behaviour (OB) (Alliger 1992: 9), the chapter turns now to examine the I/O Psychology and Organisational Behaviour fields to seek insights in order to formulate an organising framework to help inform the development of specific hypotheses for the research design.

4.2 I/O Psychology and Organisational Behaviour

Work motivation research is located within the broader framework of industrial and organisational (I/O) psychology - also referred to in Europe as work and organisational (W/O) psychology (Salgado 2006). Huelsman (2007) describes the two strands, industrial and organisational, as being distinctive but with a considerable overlap.

Industrial psychology – also known as *personnel* psychology - predates organisational psychology and to an extent focuses on people- /individual-related themes rather than wider organisational issues. For example, Huelsman (2007) describes four major themes in industrial psychology as being: (i) job analysis – characterising a specific job towards identifying the best-suited individual for that job; (ii) prediction and selection – identifying best-suited individuals by means of a range of assessment techniques; (iii) performance criteria and appraisal – developing criteria and criterion measurement methods for employees' performance appraisal; and (iv) training – employees' training needs, organisational resources, training methods and evaluation of training.

Organisational psychology, on the other hand, is described by Aamodt (2010: 4) as generally relating to broader organisational issues such as organisational structures and processes and how these influence, and are influenced by, employees' attitudes, perceptions and behaviours. Elsewhere, Jex and Britt (2008), however, differentiate organisational psychology (OP) from organisational behaviour (OB). They define organisational *psychology* as:

> ...the scientific study of individual and group behavior in formal organizational settings
>
> (Jex and Britt 2008: 2)

Organisational *behaviour*, according to Jex and Britt (2008: 4, citing Moorhead and Griffin 1998: 4), differs in that it moves beyond individual and group behaviour to also examine the both the interface between humans and the organisation and the organisation itself.

Hueselman (2007) offers an attractively simple conceptual framework for organisational psychology where organisational outcomes can be regarded as a function of psychological processes at individual, interpersonal, group and

environmental (organisational) levels. This framework can be summarised as follows:

Organisational outcomes = *f* of psychological processes at different levels (**individual** processes x **interpersonal** and **group** processes x **environmental** processes).

Organisational outcomes include:

- productive behaviours (job performance, organisational citizenship behaviour)
- counterproductive behaviours (turnover, absenteeism)
- attitudes (job satisfaction, organisational commitment)

Huelseman's framework is problematic at the detailed level however. This is because some variables are conceptualised in more than one way. For example: motivation appears as a process in the overall framework (section headed *Individual Processes: Motivation*) but within the *Job-based approaches* sub-section (para. 2), motivation appears as a work (organisational) outcome; secondly, *Employee Attitudes* are contained (alongside *Productive* and *Counter-Productive Organisational Behaviours*) within the *Organisational Outcomes* section, but then job satisfaction (one of the employee attitudes) is cited as a causal factor for job performance.

The first of these difficulties has likely arisen because motivation can be considered both as an outcome and as a process. In the second example, the cause of confusion may be the capacity of some of variables to act as both dependent (outcome) and independent (predictor) variables within the same model. To exemplify this situation, Figure 4-2 illustrates the proposed relationships described in Patiar and Mia (2009: 255) where non-financial performance is hypothesised as being both a dependent variable (in relation to transformational leadership and market competition) and an independent variable (in relation to financial performance).

In a more generalised commentary, Millward (2005: 19-20) has noted that difficulties such as these are inherent when trying to conceptualise, within a coherent integrated frame, an area of study (organisational psychology) which is recognised as being somewhat piecemeal and difficult to distil or integrate.

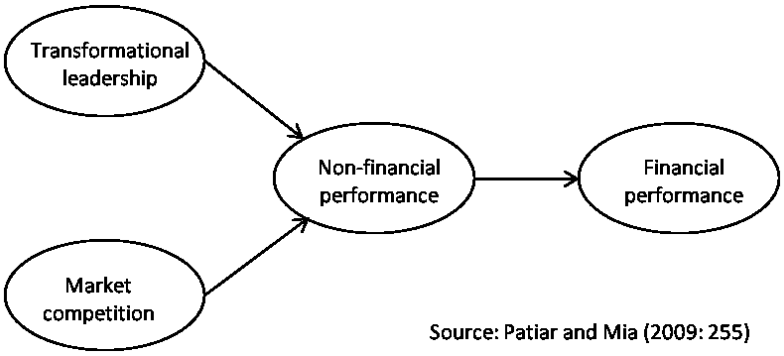


Figure 4-1 Example of a variable as both dependent and independent

In comparison to Huelsman, a similar – but more nuanced and straightforward - framework is provided by the Organizational Behavior Division of the Academy of Management, who describe organisational behaviour as being "...devoted to understanding individuals and groups within an organizational context" and focusing on interactions of characteristics, process and outcomes at individual, group and organisational levels (OBWeb 2011). Examples are given as:

- **individual characteristics:** beliefs, values, demographic attributes
- **individual processes:** motivation, learning, perception
- **interpersonal processes:** social exchange and networks
- **group/team characteristics:** size, diversity, cohesion
- **group/team processes:** leadership
- **organisational processes and practices:** leadership, goal setting, feedback, communication, work design
- **contextual influences:** organisational and national culture
- and **the influence of all of the above on** individual, interpersonal, group, and organizational outcomes such as performance

The Academy of Management framework shares Huelseman's individual, group and organisational processes but also contains discrete categories for individual and group/team *characteristics* and for *individual, interpersonal* and *group* outcomes in addition to organizational outcomes. As such, this framework is more nuanced and is able to provide a more straightforward scheme within which to conceptualise the different categories and the ways in which the variables within these categories can interact.

This research draws upon the dimensions and relationships described by both the Academy of Management's Organizational Behaviour Division (OBWeb 2011) and Huelsman (2007) to create the following four domains:

- Individual values
- Interpersonal, group and environmental processes
- Employee attitudes (*primary* outcomes)
- Individual, group and organisational outcomes (*secondary* outcomes)

To add clarity, Employee attitudes are labelled as *primary outcomes* and Individual, group and organisational outcomes are labelled as *secondary outcomes*.

In this way it is possible to locate the identified factors (described at the beginning of this section and discussed in more detail below) within the framework illustrated in Figure 4-2.

Figure 4-2 Organising framework for the identified factors

Relating the framework in Figure 4-2 back to the preceding discussion on I/O Psychology and Organisational Behaviour, the framework illustrates an approach which leans towards:

- the organisational rather than industrial/personnel side of I/O Psychology behaviour:
    - this is owing to its focus on organisational processes and employees' attitudes and behaviours rather than the selection/appraisal/training foci of organisational psychology; and
- organisational behaviour rather than organisational psychology:
    - owing to the way in which it describes the inter-relationships between employees *and* between employees and the organisation.

The second point reflects the framework's inclusion of *individual factors* (Organisational Commitment, Job Satisfaction, Work Values and Work Meaning), *interpersonal and group factors* (Motivational Leadership and Social Support), *organisational process factors* (Empowerment) and *organisational outcome factors* (Job Performance).

Figure 4-3 illustrates the hypothesised inter-relationships between these factors using single headed arrows → to indicate causal relationships (dependent variables have arrow/s flowing into them). In addition to illustrating the proposed hypotheses, Figure 4-3 introduces a simplified description of the four domains at the foot of each column: *Values*, *Processes*, *Attitudes* and *Behaviours*. This simplified categorisation is drawn from the *values→attitudes→behaviour (V→A→B) hierarchy* described by Homer and Kahle (1988: 638-639). The V→A→B hierarchy provides a more general psychology theory underpinning (see e.g. Ajzen 2001: 42) for a number of the hypotheses relating to the linkages between Work Values, Employee Attitudes and the secondary organisational outcomes.

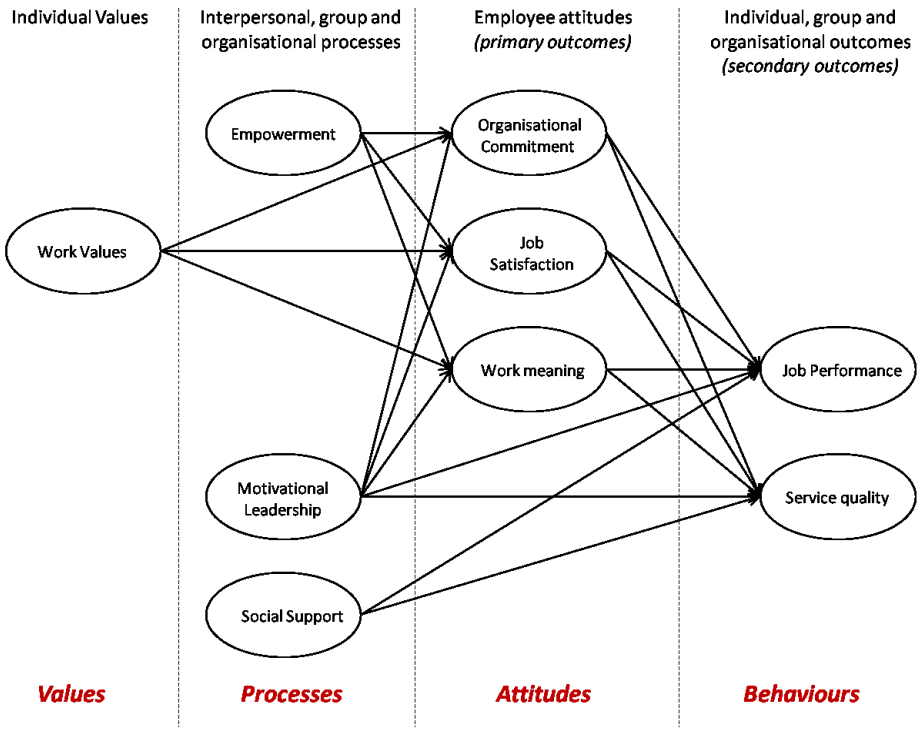


Figure 4-3 Organising framework with hypothesised causal links

Combining insights from the organisational psychology/organisational behaviour frameworks described by Huelsman (2007) and OBWeb (2011) with the more generic psychology *values→attitudes→behaviour hierarchy* described by Homer

and Kahle (1988) has provided the means to accommodate the identified factors of interest within a categorised framework and to use the overarching relationships between these categories to help inform the generation of the hypotheses for this research.

These hypotheses can be summarised as follows:

- Work Values, Motivational Leadership and Empowerment each predict an increase in the three Employee Attitude variables (nine hypotheses in total)
- the three Employee Attitude variables each predict an increase in Job Performance and in Service Quality (six hypotheses in total)
- both Motivational Leadership and Social Support directly predict increases in Job Performance and in Service Quality (4 hypotheses in total)

Table 4-1 summarises each of these 19 hypotheses. The hypotheses are variously informed by both empirical findings and/or theory in the reviewed literature. Additionally, the values→attitudes→behaviour hierarchy lends support to H_1 to H_3, H_6 and H_7, and H_{12} to H_{17}.

Hypothesis number	Description
1	Motivational Leadership → Job Performance
2	Motivational Leadership → Work Meaning
3	Work Meaning → Job Performance
4	Motivational Leadership → Job Satisfaction
5	Job Satisfaction → Job Performance
6	Motivational Leadership → Affective Organisational Commitment
7	Affective Organisational Commitment → Job Performance
8	Work Values → Organisational Commitment
9	Work Values → Job Satisfaction
10	Work Values → Work Meaning
11	Empowerment → Affective Organisational Commitment
12	Empowerment → Job Satisfaction
13	Empowerment → Work Meaning
14	Social Support → Job Performance
15	Social Support → Service Quality
16	Affective Organisational Commitment → Service Quality
17	Job Satisfaction → Service Quality
18	Work Meaning → Service Quality
19	Motivational Leadership → Service Quality

Table 4-1 Research hypotheses derived from the literature reviews of generic and hospitality-specific leadership research

The empirical and theoretical foundations of the hypotheses are described following the review of motivation research in hospitality studies which seeks, among other things, to identify any additional relevant variables for inclusion in the study and to further inform the development of the hypotheses for the survey research.

Linkages with work motivation theory

Although the organising framework has been constructed at the overarching industrial and organisational psychology level, it is worthwhile relating the current research back the various work motivation theories described in Section 4.1 to consider what linkages exist with the major theories of work motivation.

Needs theories: the current research does not relate to needs theories. For this work, motivation is measured as individual (employee attitudes) and organisational (job performance) outcomes. The measured antecedents of work motivation are individual values and interpersonal, group and environmental processes; individual needs as antecedents of motivation are not considered in this research.
Cognitive theories: the Work Values factor embodies some aspects of the cognitive theories tradition as it relates to employees' values/beliefs.
Behaviourist approach: this is touched upon if we consider leader feedback (see the Motivational Leadership factor) as a means of determining behaviour through employees learning from their experiences.
Job or Work Design theories: job characteristics do feature in this research, being manifest in three of the four antecedent factors (Empowerment, Motivational Leadership and Social Support).
Social-cognitive theory: although not measured in this research, it is possible to relate the Full-Range Leadership Model (FRLM) of transformational leadership to social learning concepts through the Idealised Influence dimension – in particular the IIB (Idealised Influence – *Behavioural*) where the leader "...sets an example to be followed, sets high standards of performance, and shows determination and confidence" (Bass 1999: 11).
Goal-setting theory: shares many themes with the expectancy theories of motivation and the focus on goals can be seen running through from the expectancy theories of motivation, path-goal leadership theory and on into the

inspirational motivational (IM) dimension of the Full-Range Leadership Model (FRLM).

Another linkage with work motivation studies is revealed through the positioning of both employee attitudes (column 3) and behaviours (column 4) as outcomes of motivational leadership. Specifically, this reflects Ambrose and Kulik's (1999: 232) description of how work motivation can be measured using both attitudinal (e.g. job satisfaction) and behavioural (e.g. job performance) measures.

This short comparison shows that the research does relate somewhat (in varying degrees) to core motivation theories. However, the lack of significant linkages with the major work motivation theories reflects the fact that the organising framework and the relationships that are being examined/explored are driven to a greater degree by generic and hospitality-focused leadership studies.

Section 4.3 below goes on to review the applied hospitality motivation literature to: (i) establish the scope of the existing research in this area; (ii) identify any additional relevant variables for inclusion in the study; (iii) identify hospitality-related precedents for measuring the selected latent variables; and (iv) further inform the development of the hypotheses for the survey research.

4.3 Motivation research in hospitality studies

The earliest academic article discussing motivation in a hospitality context is that of Nebel (1978). Published in The Cornell Hotel and Restaurant Administration Quarterly, this paper titled *Motivation, Leadership, and Employee Performance: A Review* is essentially descriptive and covers (i) motivation theory (describing Herzberg's, Maslow's and Vroom's theories), (ii) organisational management approaches to motivation and productivity, and (iii) leadership and motivation (Fiedler's LPC model, House's Path-Goal and a description of various leadership styles from the behavioural tradition of leadership studies). The article does not, however, provide any substantive analysis linking these concepts with hospitality contexts. Perhaps it is for this reason that the article has received little attention in the empirical studies that have been subsequently published – in fact, none of the identified journal articles relating to either leadership or motivation issues in hospitality organisations have cited that paper.

Simons' (2003) review of hospitality motivation studies is significantly more useful than Nebel's – not least because the intervening 25 years hospitality researchers had actually undertaken a number of motivation-related hospitality studies (Nebel cited no hospitality-motivation studies and this review has not identified any such research pre-dating the Nebel review).

Simons identified some 48 published hospitality articles describing empirical work related to motivation either directly or tangentially. Studies that were tangentially related to work motivation included articles describing: antecedents of motivation such as incentives and service climate; outcomes of motivation such as organisational commitment, job satisfaction, job performance; and counter-productive behaviours such as employee turnover/intention to quit. Of these 48 identified studies, 17 are directly/primarily focused on motivation issues and draw upon theories of work motivation. Of this 17, four were deemed not relevant to this study as they focused on travel product sales (Bartkus *et al.* 1994; Bartkus *et al.* 1997; Bartkus and Howell 1999) and hotel sales and marketing professionals (Hawkins and Lee 1990). The remaining ten articles are discussed below.

The method used by Simons (see below) to structure his article - and thus, perhaps also influencing the selection of keywords for the literature search - may have contributed to the nature of the articles recovered. Specifically, to generate an organising framework for his review, Simons used Mitchell's (1997) summary of generalisable findings to have emerged from the body of (generic) work motivation studies. Mitchell (1997: 58) found that, in general, people are more motivated in work situations where: (i) their needs are met; (ii) goals are set; (iii) good performance is rewarded; (iv) there is fairness and equity; (v) jobs are stimulating and engaging; (vi) hard-working friends and team members are present; and (vii) there is an organisational culture of effort and commitment. It may be that using these categories to guide a literature search has shaped Simons' review in such a way while that many of the articles deal with antecedents and outcomes of motivation, fewer of the identified studies deal specifically with work motivation processes and/or employ work- (or general-) motivation theories.

Otherwise, that such a large proportion of the papers identified by Simons do not have a primary focus on 'core' motivation issues (i.e. studies employing constructs and/or theory drawn from the work motivation literature) may in part

reflect the 'abandonment' of motivation as a core concept in favour of more specific measures of employee behaviour (Ambrose and Kulik 1999: 278).

4.3.1 Core articles from Simons' review

Charles and Marshall (1993), Simons and Enz (1995), Siu *et al.* (1997) and Wong *et al.* (1999) all employ a method of assessing the discrepancy between what employees consider as important job characteristics and what those employees' supervisors consider to important *for those employees*. This method is based around a forced heirarchical ranking of ten job characteristics (Appreciation and praise for work done; Higher wages; Feeling of being involved or in on things; Interesting work; Good working conditions; Job security; Promotion in the company; Supervisor's loyalty towards the worker; Tactful or considerate disciplining; and Help or understanding with personal problems) which were originally reported in *Foreman Facts* (Labor Relations Insitute 1946) and then again by Lindahl (1949). Kovach reported results from the use of the same method (1980; and 1987) and it is these studies that the hospitality articles have drawn upon. The enduring theme of the original and follow-up studies has been that monetary remuneration is not the most important job characteristic for many segements of employees. Kovach (1987) found that 'good wages' is important for younger emplyees, and those who are on lower wages. As remuneration levels improve, employees typically report 'interesting work' and 'full appreciation for work done' as being of high importance.

This technique - refered to as *Kovach's ten job-related factors* by Siu *et al.* (1997: 45) – is essentially a needs-based approach, however the rationale for the selection of the ten items is not discussed in either of Kovach's articles (nor in any of the hospitality articles). The authors of the hospitality articles using this approach each draw conclusion based on a number of analyses where their respective hierarchical rankings are examined to reveal differences based on a number of demograhic and organisational-based independent variables.

Meudell and Rodham (1998) draw 'loosely' (p. 130) on both Kovach's (1980; and 1987) work and on Herzberg's two-factor theory in their study of factors that motivate managers and employees of a licenced house operator in the UK. More recently Lundberg *et al.* (2009) have also utilized Herzberg's two-factor theory in a hospitality motivation study.

Hezberg's (1966) Two-Factor Theory of motivation belongs within the *needs* group of motivation theories and resembles the Labor Relations Institute/Lindahl/Kovach work insofar as it diminishes the influence of money as a significant motivation in workplace contexts. Herzberg's Two-Factor Theory (also refered to as the Motivator-Hygiene Theory) posits that there are two sets of needs-related factors affecting employees' motivation; importantly, the theory holds that these factors operate independetly of each other.

The first set - the hygiene factors – relates not to the work itself, to the conditions surrounding/underpinning the job such as pay, promotional opportunities, inter-personal relations, job security and non-salary benefits. When these factors are regarded positively by employees, they do not specifically result in satisfied, motivated employees. However, if some or all of these factors are regarded negatively, then they can cause dissatisfaction/de-motivation.

The second set of factors – the motivators, or growth factors – includes variables such as achievement, recognition, the work itself, responsibility, advancement and growth. The positive presence of these motivators creates an increase in satisfaction, but their absence does not neccessarily create dissatisfaction, simply an absence of satisfaction.

Meudell and Rodham (1998) found that younger respondents (typically young, 18-24 years, itinerant 'travelling' bar workers) placed monetary and money-related rewards highly in their hierarchy of motivators. This confirms Kovach's (1987) findings and draws attention to the role of employee age in the hospitality sectors where many service staff are in the younger age categories (People 1st 2011a; 2011b describe this situaiton for the UK). Lundberg *et al*. (2009 nb - published after Simons' review) in their study of seasonal workers at a Swedish ski resort found support for Herzberg's theory, with hygiene factors contributing less to satisfaction than motivation/growth factors. Interestingly, however, Lundberg's findings are contrary to those of Meudell and Rodham with regard to the importance of wages to younger employees. Specifically, Lundberg *et al.* found that wage levels were less important as positive motivators to the migrant workers, who were typically younger than the resident workers (average 25 years vis-a-vis 29 years old). Lundberg *et al.* suggest that this might be the case as the migrant workers feel compensated in some way for the lack of high wages through having the opportunity to enjoy the social experience of meeting new people during their time working at the resort.

The positive influence of hospitality employees' job-related social experiences/social interactions has been further highlighted (at least for some groups of workers) by Lee-Ross (1995, 1998a, 1998b). Lee-Ross's study used Hackman and Oldham's Job Characteristics Model (JCM) and the related Job Diagnostic Survey (JDS – the survey instrument used to measure the constructs articulated in the Job Characteristics Model) to examine the relationships between job characteristics and the attitudes and behaviours of seasonal hotel workers in UK hotels.

Hackmand and Oldham's JCM posits that a number of Core Job Dimensions (skill variety, task identity, task significance, autonomy and feedback) influence three Critical Psychology States (experienced meaningfulness, experienced responsibility and knowledge of results) which in turn influence a range of employee attitudes and behaviours (work motivation, job performance, job satisfaction, absenteeism and turnover) (Hackman and Oldham 1975).

Blancero and Johnson (1997) introduced the Discretionary Service Behaviour (DSB) concept and further developed it in Blancero and Johnson (2001). The DSB construct (latent variable / factor) is intended to conceptualise customer-directed behaviours of customer contact service employees, on particular with respect to the extent to which employees satisfy, or go beyond, the minimum standards of service quality (to satisfy customers) that are established by organisations (Blancero and Johnson 1997: 3). The original concept was related to organisational justice with employee perceptions of both organisational support and fairness positively influencing DSB. A related concept is organisational citizenship behaviour (OCB) which is described by Organ (1988: 4) as "...individual behavior that is discretionary, not directly or explicitly recognized by the formal reward system, and that in the aggregate promotes the effective functioning of the organization". Blancero and Johnson (2001: 310, 312) note that DSB has some similarities with OCB but can be differentiated based on DSB's external (customer) focus in contrast to OCB's general intra-organisational focus.

Simons and Roberson (2003) went on to operationalise the DSB construct for their study of employees' justice perceptions and the influence of these on organisational commitment, turnover intentions and discretionary service behaviour. The original concept and Simons and Roberson's empirical application of the DSB construct are of particular relevance to this study for two reasons: firstly, the construct has been specifically developed for application in service settings (including hospitality) and, secondly, the DSB construct (as

operationalised by Simons and Robertson) provides a useful group-level job performance outcome.

Accordingly, the DSB construct will be used in this research to measure *extra effort* at the group level. In this way, including the DSB construct can help to validate the findings of the study by providing a peer-assessment of job performance to sit alongside the self-assessment provided by the Job Performance construct. Details of the scale developed by Simons and Robertson are discussed in greater detail in Section 5.4 below.

Of the two remaining articles reviewed by Simons that focused directly on motivation, neither was particularly robust with regard to articulating the theoretical grounding for their research designs.

Chitiris (1990) examined levels of work motivation among senior managers in Greek hospitality organisations and also investigated the influence of a number of demographic factors had on levels of motivation. The rationale for the focus on demographic variables is developed from Roberstson and Smith (1985) and reflects the internal forces from Pinder's (1984: 8) internal/external definition of work motivation. Chitiris found that age, education and length of current employment had a small effect on motivaiton levels.

Upchurch *et al.* (2000) adopted a needs-based approach to evaluate the perceived value of non-wage benefits and the importance of a range of internal and external factors for Russian employees in a five star in St. Petersburg. The non-wage benefits assessed were those provided by the organisation however no rationale was provided regarding the selection of the internal and external factors which were included in the survey. With significant foreign investment in the Russian hospitality sector at the time, the authors sought to investigate whether Russian workers had similar work-related needs to those observed in workers of other nationalities. The study found that wages and other monetary-related benefits (health care, free meal plans, life assurance and pension plans) were most significant for motivating the employees of this hotel.

Summary of the core hospitality motivation studies

The review of motivation studies in hospitality settings has revealed a similar pattern to that found for leadership studies in hospitality settings. Specifically,

different researchers (and research teams) have drawn upon different theories of motivation and applied these to different organisational issues.

Of the 13 hospitality-specific articles identified by Simons that focus directly and explicitly on motivation and employ theoretical approaches drawn from motivation studies, six (Charles and Marshall 1993; Simons and Enz 1995; Siu *et al.* 1997; Meudell and Rodham 1998; Wong *et al.* 1999; and Upchurch *et al.* 2000) employed need-based approaches, three (Lee-Ross 1995, 1998a, 1998b) employed Hackman and Oldham's JCM, three utilised the service-specific motivation- and performance-related construct of Discretionary Service Behaviour (Blancero and Johnson 1997, 2001; and Simons and Roberson 2003) and one (Chitiris 1990) was loosely structured around the standard internal/external forces definition of work motivation.

Of the approaches and findings described above, two constructs are of particular relevance for this work. Firstly, as discussed above, the DSB construct will be used as a measure of group performance. Secondly, following its emergence from the review of the leadership-related hospitality literature, the re-occurence of social support as a significant variable in the motivation-related studies of both Lundberg *et al.* (2009) and Lee-Ross (1995, 1998a, 1998b) reinforces the rationale for the inclusion of this as a factor in current study. More details on the social support factor are provided in Section 5.2 below.

The needs-based, forced hierarchical ranking approach based on Kovach (1980, 1987) and Lindahl (1949) is not relevant to this research because of the leadership-centric focus of this study. That is, the focus of this research is on evaluating the *de facto* contributors (see Figure 4-3) to job performance in hospitality service work rather than evaluating employees' desired job characteristics.

Regarding Herzberg's Two-Factor Theory, some elements of this are covered in this research (on the *Hygiene* side: Supervision, Relationship with Supervisor, Relationship with Peers; and on the *Motivators/Growth* side: Recognition, Advancement and Satisfaction with Work Itself) however the inclusion of these variables is informed primarily by leadership theory and the individual items which are used to measure these variables are spread throughout the various factors being employed in this research.

Hackman and Oldham's JCM (Job Characterisitics Model) was also found not to be appropriate for this research. It does not have a leadership element and, while some of the Core Job Dimensions and the Experienced Meaningfulness construct are of interest, the JDS (Job Diagnostic Survey) contains too many items to practically complement the existing constructs that have been identifed for use in this research. Put simply, at 13 pages in length, the JDS is too big! Nevertheless, the JDS was examined to gain insights into ways of operationalising the Work Meaning construct for this research. A critical examination of the methods of measurement for the original *Experienced Meaningfulness* construct in the Job Diagnostic Survey (Hackman and Oldham 1974) revealed, however, that the original construct is somewhat lacking in substantive content. The *Experienced Meaningfulness of the Work* construct is defined by Hackman and Oldham as:

> The degree to which the individual experiences the job as one which is generally meaningful, valuable, and worthwhile
>
> (Hackman and Oldham 1976: 256)

Experienced Meaningfulness is measured using the following two items in the Job Diagnostic Survey (Hackman and Oldham 1974: 62):

Section 3 item 4: Most of the things I have to do on this job are useless and trivial (reverse coding)

Section 3 item 7: The work I do on this job is very meaningful to me

The same statements are included again in Section 5 of the JDS but reworded to evaluate how respondents believe their co-workers feel about their jobs.

Although the description of the construct in Hackman and Oldham (1976: 256) talks about meaningful, valuable, and worthwhile, the items that operationalise this construct simply use 'meaningful' in a somewhat unsubstantiated way, not going any further than constrasting 'meaningfulness' with 'useless and trivial'. Accordingly, a further search for alternative methods of operationalising the Work Meaning construct were performed, along with similar searches for ways of measuring the other constructs in the survey. Chapter 5 describes the findings from these searches.

Reflecting Simons' (2003: 339) observation that hospitality researchers had tended to draw on a relatively small pool of motivational concepts (and his recommendation that hospitality scholars consider the broader scope of work motivation research to gain a more holistic understanding of the field), the

following reviews include material from the more general organisational psychology / organisational behaviour studies to identify appropriate measurement methods for the design of the survey instrument and analytical framework.

4.4 Exposition of the latent variables and hypotheses

Ten latent variables have now been identified and a short description of the origins of each is provided in Figure 4-4.

Factor	Developed from
From the review of the generic leadership literature	
Work Values	Related to leader perceptions of employee orientation e.g. McGregor (1966)
Motivational Leadership	Adapted from the *Inspirational Motivation* dimension in the Full-Range Leadership Model (FRLM) (Bass 1985: 214; 1999: 19-20; Avolio and Bass 2004a: 28)
Work Meaning	From transformational leadership theory - Bass and Riggio (2006) Avolio and Bass (2004a: 96)
Job Performance	Adapted from the *Extra Effort* dimension in the Full-Range Leadership Model (FRLM) (Avolio and Bass 2004a: 98)
From the review of applied hospitality leadership literature	
Empowerment	In several hospitality leadership studies (Sparrowe 1994; Chiang and Jang 2008; Clark et al. 2009; Gill et al. 2010) and also related to transformational leadership Bass and Riggio (2006: e.g. 151)
Social Support	In several hospitality leadership studies (Borchgrevink and Boster 1994; Ross and Boles 1994; Lee-Ross 1998b; Susskind *et al.* 2000a)
Job Satisfaction	In several hospitality leadership studies (Borchgrevink and Boster 1994; Sparrowe 1994; Borchgrevink and Boster 1997; Testa 2004; Erkutlu 2008; Tsai 2008)
Organisational Commitment	In several hospitality leadership studies (Erkutlu 2008; Cichy *et al.* 2009; Kim, B. *et al.* 2010)
From the review of hospitality work motivation literature	
Discretionary Service Behaviour	Drawn from Blancero and Johnson (1997, 2001) and adapted from Simons and Roberson (2003).
From the general hospitality literature	
Service Quality	This is a core positive organisational outcome for hospitality organisations (e.g. Go *et al.* 1996: 1; Hartline and Ferrell 1996: 52-53)

Figure 4-4 Latent variables identified from the reviews of literature

The organising framework introduced in Figure 4-3 must now be updated to reflect the identification and inclusion of the Discretionary Service Behaviour (DSB) construct developed by Blancero and Johnson (1997, 2001) and

operationalised by Simons and Roberson (2003). The revised framework is illustrated in Figure 4-5.

One new hypothesis is generated by the inclusion of the DSB construct. This new hypothesis posits that:

> as respondents experience greater levels of motivational leadership behaviour from their supervisor, then they will also perceive greater levels of discretionary service behaviour from their colleagues.

No causal links are proposed between the Employee Attitude variables and DSB since it is theoretically not clear how an individual's attitudes can influence their colleagues' behaviour. It is interesting to note, however, that a similar hypothesis (Affective Commitment → DSB) is included (and substantiated) in Simons and Roberson (2003: 440). Because there is no clear theoretical rationale for including this relationship in the list of hypotheses to be tested, it is examined separately from the main modelling in Section 7.9.1.

Similarly, no causal link between Social Support and DSB is proposed, owing to the potential for different individuals to experience and interpret the social environment in different ways (i.e. it is not clear one person's perception of social support can influence their colleagues' discretionary service behaviour).

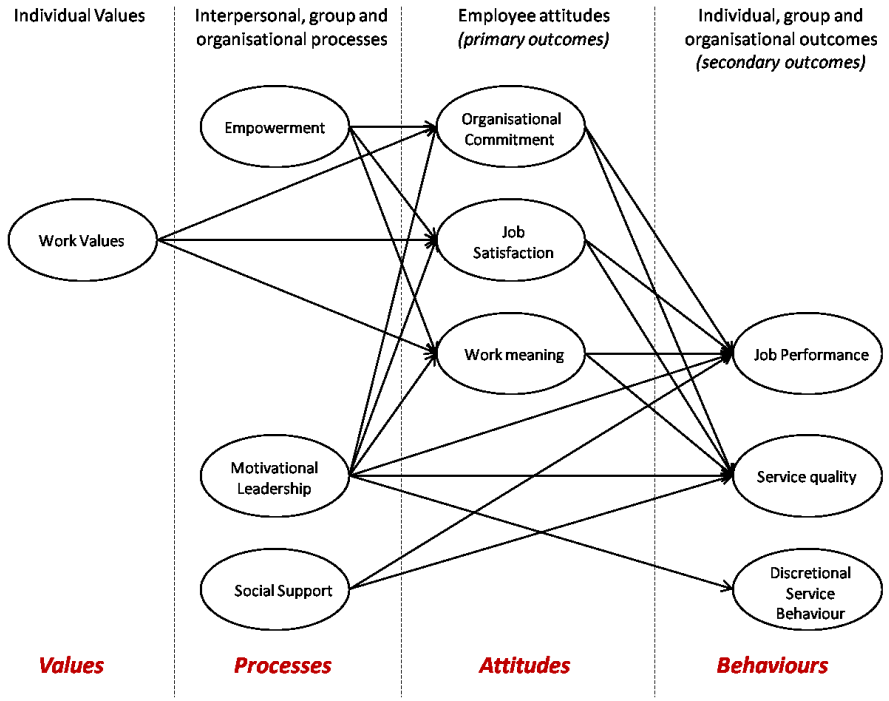


Figure 4-5 Organising framework including the DSB construct

The list of hypotheses presented in Table 4-1 must also be updated to accommodate the new ML→DSB hypothesis. The updated list is described in Table 4-2 and the hypotheses are organised according to the order in which they are dealt with during the model building process. Accordingly, the new ML→DSB hypothesis appears as Hypothesis 2 (H_2). Hypotheses 16 to 20 (involving the Service Quality factor) are described at the foot of Table 4-3. The separator is included above H_{16} to reflect the fact that the Service Quality (SQ) factor is modelled separately owing to the restricted sample size for the SQ factor that resulted from the design of the SQ item statements.

Hypo-thesis	Description and background (→ indicates a causal effect)
1	**Motivational Leadership → Job Performance** From transformational leadership theory (see e.g. Avolio and Bass 2004)
2	**Motivational Leadership → Discretionary Service Behaviour** DSB is used as a peer-evaluation of job performance / work motivation
3	**Motivational Leadership → Work Meaning** From transformational leadership theory (Avolio et al. 1991; Bass 1999) and applied hospitality leadership work by Hinkin and Tracey (1994: 50)
4	**Work Meaning → Job Performance** Based on the broader 'attitudes influencing behaviour' premise (Homer and Kahle 1988)
5	**Motivational Leadership → Job Satisfaction** Measured in a number of hospitality leadership studies (Borchgrevink and Boster 1994, 1997; Erkutlu 2008; Tsai 2008)
6	**Job Satisfaction → Job Performance** Based on broader organisational psychology theory and findings (Archidicivilli and Kachinke 2009; Iaffaldano and Muchinsky 1985; Landy 1985; Ostroff 1992)
7	**Motivational Leadership → Organisational Commitment** From hospitality leadership (Erkutlu 2008) and broader psychology work (Mathieu and Zadjic 1990)
8	**Organisational Commitment → Job Performance** Organisational Commitment has been identified as motivational agent by (Gjelsvik 2002: 37)
9	**Work Values → Organisational Commitment** values influence attitudes (Homer and Kahle 1988) (Rohan 2000) Work values have also been related to organisational commitment (Elizur and Koslowsky 2001, in White 2006)
10	**Work Values → Job Satisfaction** JS may be determined in part by dispositional factors (Ilies and Judge 2003); JS is an attitude, and values influence attitudes (Homer and Kahle 1988; Rohan 2000); White discusses this in a hospitality context (2006)
11	**Work Values → Work Meaning** Psychology theory - values influence attitudes (Homer and Kahle 1988; Rohan 2000)

Table 4-2 Description and background for the research hypotheses

Hypo-thesis	Description and background (→ indicates a causal effect)
12	**Empowerment → Affective Organisational Commitment** Measured by Chiang and Jang (2008) in a hospitality setting and Liden *et al.* (2000) in a services organisation setting
13	**Empowerment → Job Satisfaction** Following Clarke *et al.* (2009) and Chiang and Jang (2008) in a hospitality setting and Liden *et al.* (2000) in a services organisation setting
14	**Empowerment → Work Meaning** Employee Empowerment can be instrumental in creating positive outcomes for employees (Liden *et al.* 2000: 407)
15	**Social Support → Job Performance** Follows Ross and Boles' (1994) study of positive influences of peer cohesion in hospitality catering service
16	**Social Support → Service Quality** Follows Ross and Boles' (1994) study of positive influences of peer cohesion in hospitality catering service
17	**Organisational Commitment → Service Quality** Follows the rationale of H_8 that Organisational Commitment positively influences job performance
18	**Job Satisfaction → Service Quality** Follows the rationale of H_6 that Job Satisfaction positively influences job performance
19	**Work Meaning → Service Quality** Follows the rationale of H_4 that Work Meaning positively influences job performance
20	**Motivational Leadership → Service Quality** Follows the rationale of H_1 that Motivational Leadership positively influences job performance

Table 4-3 Description and background for the Service Quality hypotheses

Paths that are not hypothesised

Two potential paths that are not hypothesised are Employee Empowerment (EM) → Job Performance (JP) and Work Values (WV) → Job Performance (JP).

No direct and specific theoretical support for EM→JP was identified during the conceptual stages of this research, and for this reason, this path has not been hypothesised. Nevertheless, if the modelling finds that (some or all of) the Employee Attitudes constructs (ME, JS and AOC) do mediate the EM→JP path, the direct EM→JP path will be estimated to provide a confirmation (or not) of the full mediation effect of the Employee Attitude constructs.

For the WV→JP path, the values→attitudes→behaviour (V→A→B) hierarchy suggests attitudes as mediators and no specific theoretical support for a direct

values→behaviour path was found in the organisational psychology literature. Of course, this is not to say that such a relationship cannot exist, therefore, based on the same rationale described above for the EM→Employee Attitudes→JP path, in the event that the model confirms the mediated WV→Employee Attitudes→JP path, then the direct WV→JP path will be estimated to confirm (or refute) the full mediation effect of the Employee Attitude variables in the hypothesised path.

Having identified the latent variables for inclusion in the study and developed the research hypotheses to articulate the relationships between these latent variables, the research goes on to (i) elaborate more fully the rationale for the inclusion of each of the latent factors and (ii) identify / develop a theoretically informed set of indicator variables for each of the latent factors.

5 MEASURING THE LATENT VARIABLES

Chapter 6 on methods describes the SEM (Structural Equation Modelling) process of latent variable modelling in detail. Briefly, however, a latent variable is a hypothesised variable (also referred as a factor or construct) which is not directly observable, although its 'presence' can be revealed by using confirmatory factor analysis (CFA) to measure the 'effects' of that latent variable on a number of 'indicator variables'. This is achieved (in simple terms) by measuring the amount of variance (a measure of dispersal around the mean) shared between the indicator variables (while also accounting for the degree of unobserved - or error - variance). Where there is a significantly large level of observed shared variance (called *covariance*) between these indicator variables, the latent variable, or factor, is considered to be 'manifest' by its effect on the indicator variables. Put another way, the existence of substantial shared variance (covariance) between the observable variables 'indicates' the (albeit abstract) existence of the factor.

For example, considering the indicator variables for the *Inspirational Motivation* (IM) factor in the Full-Range Leadership Model (FRLM) (Avolio and Bass 2004a: 96). The Multifactor Leadership Questionnaire (MLQ) asks subordinate respondents to rate their supervisor by responding to each of the following four statements using a five point scale which is bounded by 0 = *Not At All* and 4 = *Frequently, If Not Always*:

The person I am rating...

- Talks optimistically about the future
- Talks enthusiastically about what needs to be accomplished
- Articulates a compelling vision of the future
- Expresses confidence that goals will be achieved

The latent variable *Inspirational Motivation* is not directly observable since there is no one dimension which can be used to measure it. However, theory (in this case transformational leadership theory) proposes that where leaders demonstrate high levels of *Inspirational Motivation* behaviour, then their subordinates will (a) observe high frequencies of the four behaviours described in the statements and (b) correspondingly, report high scores for each of the indicator variables. Satisfactorily establishing the latent variables is the first stage in SEM analysis and underpins the second (structural relations) stage where relationships between latent variables are measured.

Unlike exploratory factor analysis (EFA) where there are no specific *a priori* restrictions governing which indicators should measure the effects of which latent variables (or indeed how many latent variables there might be), with the confirmatory (CFA) method of factor analysis used in SEM analysis, the role of theory is central. Specifically, with CFA researchers specify, or, hypothesise based on theory, which latent variables are to be measured with which specific indicators. The CFA method then confirms (hence its name) or refutes these hypotheses.

The remainder of this chapter elaborates the rationale for the inclusion of each of the latent factors and identifies / develops, from theory or from prior empirical research findings, a set of indicator variables (items) for each of the latent factors. As described above using the example from the MLQ, in the survey instrument, each indicator variable takes the form of a statement: the item statements are generated according to the advice of Hinkin (1998: 107-108) to (a) keep statements as short as possible and to (b) ensure that the statement wordings are understandable to the target population.

5.1 Dispositional factors / individual values

Work Values

The rationale for including a factor relating to individuals' values is grounded in the work of McGregor (1966) who described the Theory X / Theory Y model of managers' / employers' assumptions of subordinate employees' work orientation (see Section 2.3.2). Theory X management tends to view employees as typically self-serving and not being inclined to enjoy work – this perspective suggests that initiating structure leadership behaviours may be more effective. Theory Y on the other hand describes management assumptions which tend towards viewing employees as enjoying work and seeking challenges and responsibility at work – an orientation that is suited more to consideration styles of leadership.

Setting aside the question of how management assumptions inform leadership behaviours, this research seeks to evaluate what effect, if any, employees' work orientations / work values have on the attitudinal outcomes of Organisational Commitment, Job Satisfaction and Work Meaning. The hypothesised causal flow (illustrated in Figure 4-5) from Work Values → Employee Attitudes → Individual , group and organisational level outcomes is drawn from the *values→attitudes→behaviour (V→A→B) hierarchy* described by Homer and Kahle

(1988: 638-639). The V→A→B hierarchy is reflected in the alternative domain names (Values, Processes, Attitudes and Behaviours) illustrated at the foot of Figure 4-5.

The first step in operationalising (i.e. developing a method for measuring) the construct was to specify a definition for it (see e.g. Hair *et al.* 2006: 735), accordingly, the Work Values construct was defined as:

- *an individual's disposition toward work in general / set of general beliefs about work*

This definition draws upon the discussion on 'the meaning of work' in Ardichvili and Kuchinke (2009: 157) who also cite Sverko and Vizek-Vidovic's (1995: 3) definition of the meaning of work and working as:

> the set of general beliefs about work held by an individual, who acquires them through interaction with social environment

Ardichvili and Kuchinke (2009: 157) acknowledge the imprecise nature of the meaning of work concept noting that research in this area includes a range of discrete foci including work attitudes, work values and work orientation. Indeed, *Work Meaning* is treated as a separate construct with a different definition in this research; specifically, *Work Meaning* is defined here as an employee's attitude to their current job. The Work Meaning construct is discussed in greater detail in Section 5.3 below, however, to summarise:

Work Values reflect an individual's disposition toward work in general
Work Meaning reflects an individual's attitude to their current job

Searching the hospitality literature for precedents on methods of measuring work values revealed several articles that appeared to examine this issue. Ross (1992) studied job-attainment beliefs and work values among school leavers in Australia using Pryor's Work Aspect Preference Scale (WAPS). The WAPS scale, however, actually measures respondents' work preferences i.e. it is a measure of individual work needs rather than how they feel about work in general.
Mok *et al.* (1998) examined the leadership preferences and work values and of Hong Kong based Chinese hotel managers. In their study the work values measures were based on Hofstede's (1980) Values Survey Module. Once again, however, the measures in Hofstede's survey instrument for measuring values actually measure individuals' work preferences on a number of different dimensions.

Chen *et al.* (2000), White (2006) and Chu (2008) all used Super's (1962) 45-item Work Values Inventory (WVI) to evaluate the work preferences of hospitality management university students. Like Pryor's and Hofstede's survey instruments, the Work Values Inventory focuses on job preferences rather than disposition towards work. In these survey instruments, 'values' refers more to 'an individual's evaluation' of attributes or ' the value attached to each job attribute'. This is in contrast to the interpretation of values in this research as 'core beliefs' see e.g. (see e.g. the discussion of values in Ajzen 2001: 42).

Looking beyond the applied hospitality literature for ways of measuring the Work Values construct confirmed the popularity of Super's (1962) WVI and identified a similar scale developed by Steflre (1959) which also focuses on job preferences. A set of measures that addressed individuals' disposition toward work in general was identified in the MOW (Meaning of Working) International Research Program (1995) Survey Form C.

The set of measures consists of six statements and appears in the MOW survey form as shown in Figure 5-1.

For the final set of questions, we would like you to think about what working means to you. Please remember we are *not* referring only to your present situation. We are interested in knowing what beliefs and values you personally have regarding working as a result of your total working life.

To help explain what *working* means *to you,* please assign a total of 100 points, in any combination you desire, to the following six statements. The more a statement expresses your thinking, the more points you should assign to it. Please read all the statements before assigning points.

_____ Working gives you status and prestige.
_____ Working provides you with an income that is needed.
_____ Working keeps you occupied.
_____ Working permits you to have interesting contacts with other people.
_____ Working is a useful way for you to serve society.
_____ Working itself is basically interesting and satisfying to you.

Source: MOW International Research Program (1995: 4)

Figure 5-1 The source of the Work Values indicator variables

In addition to these six indicator variables, a seventh, *WV7: Working in general... Is one of the most important things in my life*, is drawn from London's (1983: 622) *Primacy of Work* concept which describes the satisfaction derived from one's career compared to other areas of life. This indicator is included to provide an all-encompassing measure of work values following the same rationale as item six in the Job Satisfaction item scale – this rationale is described below in Section 5.3.

The definition, rationale and individual items for the Work Values construct are summarised in Figure 5-2.

Construct name	**Work Values (WV)**					
Definition	An individual's disposition toward work in general / set of general beliefs about work					
Understanding of concept	Relates to beliefs/values about work in general rather than attitudes specific to the current job					
Inclusion rationale	To evaluate what effect, if any, work values / work orientations / have on employee attitudes					
Scale source/s	MOW International Research Team (1987) MOW International Research Program (1995)					
Scale semantic	**Agreement**					
Thinking about **work in general** (i.e. not just your current job) Working, in general...		**Level of agreement**				
		Strongly disagree				**Strongly agree**
WV1	Gives me status and prestige (gives me a feeling of being worthwhile)	1	2	3	4	5
WV2	Provides me with an income that is needed	1	2	3	4	5
WV3	Helps keep me busy/occupied	1	2	3	4	5
WV4	Lets me meet interesting people	1	2	3	4	5
WV5	Is a useful way for me to contribute to society	1	2	3	4	5
WV6	Is interesting and satisfying to me	1	2	3	4	5
WV7	Is one of the most important things in my life	1	2	3	4	5

Figure 5-2 The Work Values construct

The items WV1 to WV6 have been reworded to simplify the language to reflect that some respondents will not speak English as a first language. The item WV7 is interpreted from London's (1983) description of the Primacy of Work concept. The exact role of items WV2 and WV3 in the original set of statements is unclear since these two items run at something of a tangent to the other items (i.e. WV2 relates to transactional dimensions of working and WV3 relates more to 'work as

drudgery' in comparison to the other, more transformational-related statements). Nonetheless, in the absence of any clear rationale for removing them at this stage, the items are retained and their performance will be monitored during the modelling.

5.2 Interpersonal, group and organisational processes

Motivational Leadership

The Motivational Leadership (ML) construct is central to this research insofar as a core aim is to evaluate the contribution of motivational leadership to individual, group and organisational outcomes related to customer service in hospitality organisations.

Nine of the 12 hospitality research articles (Hinkin and Tracey 1994; Tracey and Hinkin 1994, 1996, 1998; Whitelaw and Morda 2004; Erkutlu 2008; Hinkin and Schriesheim 2008; Patiar and Mia 2009; Zopiatis and Constanti 2010) examining transformational leadership used the Multi-Factor Leadership Questionnaire (MLQ) developed by Bass and Avolio (Bass and Avolio 1989; Bass and Avolio 1995; Bass and Avolio 1997; Avolio and Bass 2004a).

The MLQ is, however, a proprietary survey instrument and its use requires permission from, and payment to, the publishers (Mind Garden Inc, Menlo Park, CA, USA). For this research, rather than simply repeat the items relating to the Inspirational Motivation (IM) construct in the MLQ, the scale which will be used for measuring the Motivation Leadership construct is developed from conceptual descriptions (i.e. not from the MLQ) of the Inspirational Motivational (IM) dimension of transformational leadership in Bass and Avolio (1990a), Avolio *et al.* (1999), Bass (1999), Avolio and Bass (2004a), and Bass and Riggio (2006).

Section 2.4.3 describes how the IM dimension in Bass and Avolio's (2008) Full-Range Leadership Model is focused on leaders' enthusiastic articulation of organisational/departmental/team vision and goals and their encouragement of employees towards achieving these goals. It is this vision→goal→effort behaviour set that has guided the development of the scale for this research.

The content of the items is not, however, unrelated to the MLQ:

- item ML1 combines MLQ items 9 and 26 into a more concise form;
- ML2 relates to MLQ item 13
- ML3 relates closely to MLQ item 36[4]

In this way, the four Inspirational Motivation items in the MLQ are reflected, but not reproduced, in this survey instrument. In addition to ML1, ML2 and ML3, the Motivational Leadership construct for this survey includes – somewhat speculatively - two items (ML4 and ML5) that arise from published descriptions of motivational leadership, but are not included in the Inspirational Motivation dimension of the MLQ.

ML4 relates to positive reinforcement / positive feedback from leaders and taps various work motivation research theories (goal-setting, equity, work design e.g. Hackman and Oldham's (1975) JCM – see Section 4.1 above) which specify positive feedback as an antecedent of employee motivation (see also Jex and Britt 2008: 247).

Recognition of achievement as a positive force in motivating employees is also described throughout the transformational leadership literature (see e.g. Bass and Riggio 2006: 30) albeit often in the context of the Individualised Consideration (IC) dimension (Bass and Riggio 2006: 84; Bass 1990: 20; and Bass and Avolio 1990: 22).

ML5 is related to the MLQ item 18, which belongs to the Idealized Influence (Attributes) (IIA) dimension and relates to leaders' 'positive role model' attributes. It is not unfeasible that positive role model behaviour will contribute to employee motivation and ML5 reflects this contention. The motivating nature of the leader as role model is also discussed by Avolio and Bass (2002: viii) and the positive impact of the leader as role model appears as a frequent leitmotif in (Bass and Riggio 2006).

[4] the MLQ items are numbered and described in Avolio and Bass 2004: 106-107. The actual wordings for the MLQ items is not repeated here for licensing reasons.

Construct name	Motivational Leadership (ML)					
Definition	**The frequency with which an employee observes their supervisor demonstrating motivational behaviour**					
Understanding of concept	Motivational leadership describes the ways in which leaders inspire employees through: (i) establishing, articulating and reinforcing a vision; (ii) valorising the goals set to realise the vision; (iii) encouraging and reinforcing employees' efforts towards successfully realising the goals and vision; and (iv) demonstrating positive role model behaviour.					
Inclusion rationale	Motivational Leadership is posited as a key intervention for raising hospitality employees motivation levels					
Scale source/s	Based on descriptions of the Inspirational Motivational (IM) dimension of transformational leadership in Avolio and Bass (2004a), Bass (1999) and Bass and Riggio (2006)					
Scale semantic	**Agreement**					
Thinking about your **current job**, please indicate how often your immediate supervisor/manager...		**Level of agreement**				
		Strongly disagree				**Strongly agree**
ML1	Talks enthusiastically about their 'vision' of how the company will improve over time	1	2	3	4	5
ML2	Talks enthusiastically about how to achieve this 'vision'	1	2	3	4	5
ML3	Encourages me to work towards achieving the 'vision'	1	2	3	4	5
ML4	Gives me positive feedback when I perform well	1	2	3	4	5
ML5	Puts the good of the group before their own interests	1	2	3	4	5

Figure 5-3 The Motivational Leadership construct

Employee Empowerment

Empowerment has attracted some degree of attention in the hospitality management research literature: conceptual papers include Lashley (1995, 1996) and, more recently, Brownell (2010) has discussed the role of the emerging Servant Leadership model in contributing to employee empowerment.

Conger and Kanungo have defined empowerment as:

> ...a process of enhancing feelings of self-efficacy among organizational members through the identification of conditions that foster powerlessness and through their removal by both formal organizational practices and informal techniques of providing efficacy information
>
> (Conger and Kanungo 1988b: 474)

In a services context, Hartline and Ferrell (1996) have described the positive benefits of empowerment as coming from:

> Allowing contact employees to use their discretion in serving customers has many positive influences on their responses and the service encounter.
>
> (Hartline and Ferrell 1996: 56)

Empowerment has been also related to transformational leadership theory in Bass and Riggio (2006: e.g. 151) and has been modelled alongside leadership in several hospitality leadership studies: Sparrowe (1994) found a correlation between positive LMX (Leader-Member-Exchange) scores and levels of employee perceptions of empowerment; Chiang and Jang (2008) found that empowerment predicted job satisfaction and organisational commitment; Clark *et al.* (2009) also found a causal link between empowerment and job satisfaction; and Gill *et al.* al (2010) found that transformational leadership predicted higher levels of employee desire for empowerment.

Empirical hospitality articles focusing on empowerment issues in hospitality have used a variety of measures for empowerment:

- Sparrowe (1994) used a 21 items scale developed by Thomas and Tymon (1993);
- Zohar measured unpredictability and uncontrollability as the inverse of empowerment using Cohen *et al.'s* (1983) Perceived Stress Scale;
- Hancer and George (2003) used an 11 item version of the 12 item scale originally constructed by Spreitzer (1992, 1995) and subsequently modified by Fulford and Enz (1995);
- Kim and George used Spreitzer's (1992, 1995) 12 item scale
- Hau-Siu Chow *et al.* (2006) used an adapted version of Hancer and George's 11 item scale;
- Chiang and Jang (2008) used Spreitzer's 12 item scale;

- Clark *et al.* (2009) used and 8 item empowering leadership style scale from Cook *et al.'s* (Cook *et al.* 1981) Leader Behavior Description Questionnaire Version 12 (LBDQ XII); and
- Gill *et al.* (2010) focused on employee desire for empowerment - operationalised as the extent to which hospitality service employees were '...willing to have freedom to use their own initiative and judgment in performing their jobs' (p. 266) – and drew upon the scales developed by Hartline and Ferrell (1996)

Spreitzer (1992, 1995) drew upon earlier work by Conger and Kanungo (1988b) and Thomas and Velthouse (1990) to develop a four-factor model of empowerment. The four factors are Meaning (the value of work goals or job purpose), Competence (an individual's feeling of self-efficacy at work), Self-Determination (autonomy to make decisions) and Impact (the degree to which the individual can influence processes and outcomes at work – this factor is referred to as *Personal Control* by Fulford and Enz (1995). Fulford and Enz (1995) employed this model in their study of service and non-service employees in North American hospitality organisations (private clubs). Fulford and Enz identified a modified three-factor structure where Self Determination and Impact merged to form a factor that the authors named Influence.

Hancer and George (2003) used Fulford and Enz's 12-item / 3-factor model in their empowerment survey of non-supervisory employees working in full-service restaurant chains. Hancer and George dropped one of the Competence items to improve the internal consistency of that factor – the three factors and the 11 related items are described below (Influence = In, Meaning = Me and Competence = Co).

> (In1) I have freedom in determining how to do my job
> (In2) I have influence over what happens in my workgroup
> (In3) I have a great deal of control over my job
> (In4) I have a chance to use personal initiative in my work
> (In5) I decide on how to go about doing my job
> (In6) My opinion counts in workgroup decision-making
> (Me1) My work is very important to me
> (Me2) My job activities are meaningful to me
> (Me3) I care about what I do on my job
> (Co1) I have mastered the skills to do my job
> (Co2) I am confident about my ability to do my job
>
> (Hancer and George 2003: 11)

The current research draws upon and modifies the hospitality catering-centred model established by Hancer and George (2003). For this study, Empowerment is conceptualised primarily as Influence, which embodies Spreitzer's original conceptual domains of Self-Determination and Impact and is interpreted as 'an individual's perceptions of (i) autonomy in decision making and (ii) ability to effect process and outcomes at work'.

Including the Competence and Meaning factors in this study was not desirable for the following reasons.

Firstly, regarding the Meaning factor, for this study Work Meaning is being conceptualised as a discrete factor which is not located within the Empowerment construct. The Work Meaning factor in this research is hypothesised as a consequent of Empowerment based on the rationale that increased individual perceptions of influence (self-determination and impact/personal control) may enhance work meaningfulness. With respect to Spreitzer's empowerment model, the current conceptualisation and hypothesis linking Empowerment and Work Meaning effectively repositions the Work Meaning factor as a consequent of the Influence factor rather than as a covariate with it. Theoretical and empirical support for this relationship can be found in organisational psychology literature on job crafting (e.g. Wrzesniewski and Dutton 2001; Ghitulescu 2006; Berg *et al.* 2010) where evidence has been found linking employee autonomy in the workplace to increased perceptions of work meaning (Wrzesniewski and Dutton 2001). Furthermore, the operationalisations of Meaning found in Spreitzer and in Fulford and Enz/Hancer and George are found to be somewhat nebulous, leading to a search for an operationalisation of the construct which embodies a more specific and substantive interpretation of the factor. Details of this critique are provided in Section 5.3 on *Work Meaning* below.

Secondly, regarding the Competence factor; while Hancer and George used principal components analysis (a form of exploratory factor analysis), this study uses confirmatory factor analysis (CFA). There are specific requirements for CFA regarding the number of items (indicators) required to adequately measure each latent factor – this is an aspect of SEM referred to as *factor identification* and is described fully in Section 6.1. In short, a single factor (latent construct, or variable) which is connected to other factors (latent variables) in an SEM model needs to be measured by at least 2 significant indicator variables – starting off with only two indicator variables (i.e. as per Hancer and George's Competence

factor measure) means that if one of these indicators does not have a statistically significant relationship with the latent variable, then that indicator cannot be included in the study. With only one remaining indicator variable, that factor is no longer viable for SEM analysis. NB, although there are procedures for working with one-item latent variables (see e.g. Hayduk 1987: 121) these techniques are far from straightforward.

Construct name	**Empowerment (EM)**					
Definition	Degree of empowerment of employees					
Understanding of concept	An individual's perceptions of (i) autonomy in decision making and (ii) ability to effect process and outcomes at work					
Inclusion rationale	Empowerment is closely related to motivation (Conger and Kanungo 1988b; Thomas and Velthouse 1990)					
Scale source/s	Hancer and George (2003), Fulford and Enz (1995)					
Scale semantic	**Agreement**					
Thinking about your **current job**, please tick a box to indicate how much you agree or disagree with each of the following statements		**Level of agreement**				
		Strongly disagree				**Strongly agree**
EM1	I can choose the best way of doing my job	1	2	3	4	5
EM2	I can make my own decisions in my work	1	2	3	4	5
EM3	I have influence over what happens in my work group	1	2	3	4	5
EM4	I have a great deal of control over my job	1	2	3	4	5
EM5	I am given responsibility at work	1	2	3	4	5
EM6	I am confident about my ability to do my job	1	2	3	4	5
EM7	I have mastered the skills to do my job	1	2	3	4	5
EM8	I have the knowledge that I need to make my own decisions at work	1	2	3	4	5
EM9	I am comfortable/happy to tell my supervisor and co-workers about my ideas, thoughts and suggestions about our work	1	2	3	4	5

Figure 5-4 The Empowerment construct

For this reason, the original proposal was to remove the Competence factor from this model and survey. However, while reviewing a separate article by Lundberg *et al.* (2009 - a study of motivation in the hospitality context), one item being used to measure *knowledge* aspects of motivation appeared to be closely related

to the Competencies factor and was deemed as being a potentially useful supplement to Hancer and George's existing two indicators for Competencies (and increasing the potential for successfully modelling this factor). The item is *I have the knowledge that I need to make my own decisions at work*. The item is included in the survey as EM8 where it complements EM6 and EM7 (which themselves correspond with Hancer and George's Co1 and Co2). Figure 5-4 summarises the items for measuring the Employee Empowerment factor.

Items In1 (I have freedom in determining how to do my job) and In5 (I decide on how to go about doing my job) were considered to be somewhat tautological and in the interests of parsimony these were combined (and the language simplified) into one item (EM1) *I can choose the best way of doing my job*. Regarding the other Influence items: EM2 corresponds with In4; EM3 with In2; EM4 is synonymous with In3; and EM5 corresponds with In4. One additional Influence-related item is included (as EM9) - once again drawn from Lundberg *et al.* (2009) – *I am comfortable/happy to tell my supervisor and co-workers about my ideas, thoughts and suggestions about our work*). This item is included - somewhat speculatively - on the basis that there was no item reflecting this aspect of *Influence* in Fulford and Enz or Hancer and George.

In summary, the Empowerment factor consists of two discrete factors: EM-I (Empowerment – Influence) and EM-C (Empowerment – Competencies). The latter, EM-C is proposed as a discrete latent variable somewhat speculatively since the original factor - derived from exploratory factor analyses by Fulford and Enz (1995) and Hancer and George (2003) – consisted only of two indicators (EM6 and EM7). For this research, and to aid identification of the model, the two original competencies indicators were supplemented with EM8 drawn from Lundberg *et al.* (2009). If the measurement model confirms EM-I and EM-C as distinct and valid constructs that covary significantly with the other constructs in the measurement model, then EM-I and EM-C will be modelled in the structural model as sub-factors of a second-level Empowerment construct.

Social Support

In the broader organisational psychology literature, social support / positive social environments have been found to contribute towards reducing a number of counterproductive organisational outcomes such as stress (e.g. Fisher 1985;

Bliese and Britt 2001), absence (Tamers *et al.* 2011) and burnout (Winnubst 1993) and to enhancing productive behaviours and organisational outcomes such as work motivation (Winnubst 1993).

Social support has been defined as "overall levels of helpful social interaction available on the job from co-workers and supervisors" (Karasek and Theorell 1990: 69) and by Bliese and Britt as a phenomenon that:

> ...is expected to help individuals cope with the negative effects of stressors because positive social environments provide confirmation of social identity, instrumental aid, and various forms of support (emotional, informational and appraisal) to group members
>
> (Bliese and Britt 2001: 426)

During this study, Social Support was identified as a construct of interest owing to its inclusion in three hospitality leadership studies. In the first of these, Borchgrevink and Boster (1994) hypothesised, and found in their sample of North American foodservice employees, that levels of Co-Worker Social Support were unrelated to levels of LMX (Leader-Member Exchange) relationship quality (a findings which supported the hypothesis that supervisor support is unrelated to co-worker support). Ross and Boles (1994) examined the effects of a range of supportive work relationships (supervisor support. peer cohesion and work involvement) on a number of individual-level work outcomes. Based on the responses of a sample of foodservers in the south east of the United States they found: (a) no correlation between peer cohesion (Social Support) and (i) job performance or (ii) extrinsic motivation; (b) that peer cohesion did not predict either role conflict or role ambiguity; and (c) peer cohesion did not predict job satisfaction. The authors offer a number of explanations for the poor predictive ability of Peer Cohesion highlighting (i) the low reliability of the construct (α = 0.57) in their survey, and (ii) low levels of peer networking in food servers compared with other job contexts in which social support had previously been measured. Examples of differing characteristics of jobs and employees included fewer communal lunches and less time socialising after work owing to part-time employment, staggered shifts and little free time owing to non-work commitments such as caring for young families and/or education/study. The last of the identified hospitality leadership studies to include the social support factor is that of Susskind *et al.* (2000a) who measured co-worker support as a

statistically significant predictor of service standards with a path coefficient of 0.43 (p=<0.001).

Another empirical hospitality study (not one related to leadership) measured the influence of Social Support on Taiwanese hospitality students during their industry internship experiences. Fei-Chuan *et al.* (2009) reported their findings that Social Support moderated the effect of Emotional Display Rules on Job Satisfaction – although their SEM model did not demonstrate good model fit on two key measures (Chi Square and the Comparative Fit Index[CFI]).

In the context of hospitality motivation research, Lee-Ross (1995, 1998a, 1998b) and Lundberg (2009) have measured beneficial effects of positive social envronments. Finally, although focusing on workers' experiences rather than organisational outcomes, recent work by Janta and Ladkin (2009) Janta (2011) and Janta *et al.* (in press) focusing on migrant Polish workers in the UK hospitality industry has also reported the beneficial role of positive social environments. Simons (2003: 348) also relates broader notions of positive social contexts to positive organisational outcomes in his review of hospitality motivation studies.

Regarding methods of measuring the social support construct in the hospitality literature:

- Ross and Boles (1994) used a scale from Moos (1981) but did not report details of all of the statements used to evaluate the indicator variables. It is likely that, in common with many psychometric scales for use in organisational studies (e.g. the Multi-Factor Leadership Questionnaire (Avolio and Bass 2004a) for measuring the Full-Range Leadership Model (FRLM) of transformational leadership) the scale is a proprietary one and restrictions are in place regarding the publication of the entire set of item statements for any particular scale;
- Borchgrevink and Boster (1994) used a four-item scale from Miller *et al.* (1990); and
- Susskind *et al.* (2000a) used a six-item scale developed from previous work by Litwin and Stringer (1968) and Eisenberger *et al.* (1986).

The source of Fei-Chuan *et al.'*s (2009) four-item scale is not clear owing to erroneous referencing in that article.

To employ a scale used in previous hospitality-specific work, the choice is, then, between Borchgrevink and Boster (1994) and Susskind *et al.* (2000a). The four-item scale used by Borchgrevink and Boster was chosen based on the following rationale:

- the four-point scale demonstrated better psychometric properties:
    - reliability α = 0.81 compared with α = 0.75 in Susskind *et al.*; and
    - higher factor loadings in Borchgrevink and Boster.
- the four-item scale is more succinct (versus six items in Susskind *et al.*); and
- Borchgrevink and Boster's survey was targeted at foodservice employees compared with mangerial staff from a variety of departments in hospitality organisations in Susskind *et al.*.

Details of the Social Support scale are provided in Figure 5-5.

Construct name	**Social Support (SS)**
Definition	The degree to which respondents feel that they are supported (at work) by co-workers
Understanding of concept	Social support can enhance employees' work motivation and service standards
Inclusion rationale	Is included in three separate hospitality leadership studies (Borchgrevink and Boster 1994; Ross and Boles 1994; Susskind *et al.* 2000a). Also included/discussed in a number of hospitality motivation studies and broader hospitality studies. Simons' (2004: 348) hospitality motivation review recommends work on relationships between social contexts and performance outcomes.
Scale source/s	Borchgrevink and Boster (1994)
Scale semantic	**Agreement**

Thinking about your **current job**, please tick a box to indicate how much you agree or disagree with each of the following statements		**Level of agreement**				
		Strongly disagree				**Strongly agree**
SS1	It is easy to talk with my co-workers.	1	2	3	4	5
SS2	My co-workers are willing to listen to my personal problems.	1	2	3	4	5
SS3	My co-workers go out of their way to make life easier for me.	1	2	3	4	5
SS4	My co-workers can be relied on when things get tough for me at work.	1	2	3	4	5

Figure 5-5 The Social Support construct

5.3 Primary organisational outcomes: employee attitudes

Both employee attitudes and job performance are described by Ambrose and Kulik's (1999: 232) as ways of measuring work motivation. Job satisfaction, affective organisational commitment and work meaning have been identified from the generic and applied hospitality literatures as employee attitudes that are relevant to the hospitality context.

Job Satisfaction

Jex and Britt (2008: 131) describe how job satisfaction can be defined as an individual's overall evaluation of their job (e.g. Locke 1976; Spector 1997) or as an employee's attitude toward his or her job (e.g. Eagly and Chaiken 1993). Huelsman (2007) echoes Jex and Britt in noting that as an attitude, job satisfaction can be separated into affective (emotional), cognitive (belief) and behavioural (job-related behaviours and behavioural tendencies) dimensions. Elsewhere, however, Weiss (2002) defines job satisfaction as '...a positive (or negative) evaluative judgment one makes about one's job or job situation'. Weiss goes on to argue that what is being measured by job satisfaction measurement scales is in fact 'evaluation' rather than 'affect', based on the ephemeral nature of affect in contrast with evaluative judgements which can be rather less transitory.

Whether defined as evaluation or as affect, the relationships between job satisfaction and its antecedents and consequences are not always straightforward (Byrne and Neuman 1992: 46-47). A significant volume of job satisfaction research has sought to identify and evaluate a causal relationship between job satisfaction and job performance but the identification of this 'holy grail' relationship has not been forthcoming (Landy 1985: 410) or, at best, weak (Iaffaldano and Muchinsky 1985). Byrne and Neuman (1992: 46-47) go on to cite a number of studies that suggest it is performance which predicts satisfaction rather than the other way around.

During the course of the literature reviews for this research, seventeen hospitality-related research studies have been identified where job satisfaction has been incorporated as a variable of interest (Hawkins and Lee 1990; Borchgrevink and Boster 1994; Ross and Boles 1994; Susskind *et al.* 2000a; Susskind *et al.* 2000b; Carbery *et al.* 2003; Testa 2004; Kim *et al.* 2005; Tutuncu

and Kozak 2007; Chiang and Jang 2008; Deery 2008; Erkutlu 2008; Øgaard *et al.* 2008; Tsai 2008; Fei-Chuan *et al.* 2009; Kuruüzüm *et al.* 2009; Yang 2010). These studies have measured the relationships between job satisfaction and a number of other variables including organisational commitment (Hawkins and Lee 1990; Susskind *et al.* 2000b; Chiang and Jang 2008; Kuruüzüm *et al.* 2009), turnover (Susskind *et al.* 2000a; Carbery *et al.* 2003), empowerment (Chiang and Jang 2008) and leadership (Tutuncu and Kozak 2007).

The seventeen hospitality studies above utilised a range of psychometric tools to measure job satisfaction (JS). An analysis of the articles revealed that:

- six of the studies had used a measure (drawn from the general organisational psychology literature) that none of the other hospitality studies had used;
- two (Kim *et al.* 2005; Kuruüzüm *et al.* 2009) had adapted a five-item scale from Lytle (1994);
- two (Susskind *et al.* 2000a; Susskind *et al.* 2000b) had used a three-item JS scale drawn from Hackman and Oldham's (1975) Job Diagnostic Survey (JDS); and
- four (Borchgrevink and Boster 1994; Tutuncu and Kozak 2007; Chiang and Jang 2008; Tsai 2008) had drawn on the Job Descriptive Index (JDI) developed by (Smith *et al.* 1969) to create adapted scales with varying numbers of items.

The most frequently-used item scale, then, was Smith *et al.*'s (1969) Job Description Index (JDI) and this reflects the JDI's pre-eminent position as the most-used measure of job satisfaction in the wider organisational studies literature (Ironson *et al.* 1989: 193). In its entirety, the JDI consists of 73 items which are allocated across 5 sub-scales designed to measure five factors:

- *Salary*: Satisfaction regarding salary
- *Job*: Satisfaction level towards the work itself – the job tasks
- *Position advancement*: Satisfaction regarding promotion opportunities
- *Supervisor*: Satisfaction regarding direct supervisors
- *Co-workers*: Satisfaction level towards co-workers

In the four hospitality studies measuring job satisfaction based on the JDI: Tsai (2008) used all 73 items; Tutuncu and Kozak (2007) used a 26-item adaption; Borchgrevink and Boster (1994) used a truncated 8-item version drawn from the 18-item *Job* sub-scale (see below); and Chiang and Jang (2008) used an even shorter three-item scale drawn from the JDI.

The 73- and 23-item versions are too lengthy for this research and no theory-based rationale for the choice of the eight-from-eighteen items used by Borchgrevink and Boster (either in Borchgrevink and Boster (1994) or in their source (Miller *et al.* 1990)). Similarly, no theory-based rationale was provided by Chiang and Jang (2008) for their choice of three items from the JDI (one related to general job satisfaction, one to empowerment satisfaction and one to happiness with the organisation). Furthermore, it is difficult to see how Chiang and Jang's *happiness with the organisation* measure relates to any of the original JDI items.

The challenge, then, is to create a more succinct method of measuring job satisfaction to keep the questionnaire reasonably short and which relates to Smith *et al.*'s JDI. Ironson *et al.* (1989) developed a method for truncating the JDI to form a unidimensional (rather than the original five dimensions) measure of job satisfaction which measured respondents' evaluation of general rather than specific job characteristics. Following a similar approach it was decided to use each of the five sub-scale concepts as an individual item in an attempt to generate a 'general job satisfaction' measure for this study.

This is a somewhat exploratory approach – not least because there is no guarantee that the five items representing the original sub-scales will covary sufficiently strongly to demonstrate convergent validity. This concern is underlined by the fact only moderate correlations (0.25 to 0.45) between the five sub-scales was oberved by Smith *et al.* (1969; cited in Ironson *et al.* 1989: 194). Different studies using different samples in different contexts do produce different correlations, however, and Tutuncu and Kozak (2007) reported inter-factor correlations as high as 0.644 (with many in the 0.300 to 0.600 range) in their application of a truncated JDI in a hospitality sample.

Nevertheless, because the approach being used here is somewhat tentative and exploratory, an additional item (JS6 - *All things considered, how satisfied are you with your job?*) was added to provide a 'back-up' global measure of job satisfaction. The successful use of such global measures is discussed, specifically in a job satisfaction context, by Yiing and Ahmad (2009: 62).

A further safety net is provided by the combined inclusion of the items JS1 and JS6 which, together, correspond directly with two of the three items used by Susskind *et al.* (2000a; 2000b). Susskind *et al.* use three items, one for

satisfaction with job tasks, one for satisfaction with the job in general and one measuring co-workers satisfaction with their jobs. The last item (satisfaction of co-workers) does not appear to correspond with either any of the items in the original JDI nor does it appear to correspond with the face validity of the Job Satisfaction construct which is aimed at measuring individuals' levels of satisfaction.

Construct name	**Job Satisfaction (JS)**					
Definition	Respondent's evaluative judgment about their job or job situation (Weiss 2002: 175)					
Understanding of concept	The nature of an individual's responses to a range of task-, job-, and work environment-related factors					
Inclusion rationale	Job Satisfaction can play a key role in determining job performance and can be influenced by characteristics of supervision					
Scale source/s	Smith *et al.*'s (1969)					
Scale semantic	**Satisfaction**					
Considering your **current job**, please indicate your level of satisfaction with each of the following aspects of your work		**Level of satisfaction**				
		Very unsatisfied				**Very satisfied**
JS1	The work itself (i.e. that actual daily tasks that you do)	1	2	3	4	5
JS2	The pay (your wages / salary)	1	2	3	4	5
JS3	The people I work with	1	2	3	4	5
JS4	My immediate supervisor(s)	1	2	3	4	5
JS5	The opportunities for promotion	1	2	3	4	5
JS6	All things considered, how satisfied are you with your job?	1	2	3	4	5

Figure 5-6 The Job Satisfaction construct

In summary, using this heavily truncated approach to measuring a general job satisfaction construct provides opportunites for / scope to:

- generate a new General Job Satisfaction factor measured in a hospitality foodservice sample (following Ironson 1989);
- use a two-item measure based on the job satisfaction factor employed by Susskind *et al.* (2000a; 2000b); or
- use a single-indicator global measure of jos satisfaction (following Yiing and Ahmad (2009)).

The details of the Job Satisfaction construct and the individual items are shown in Figure 5-6. The items' linkages with Smith *et al.*'s JDI subscales are as follows:

- JS1 corresponds with *Job* (relates to task satisfaction)
- JS2 corresponds with *Salary*
- JS3 corresponds with *Co-workers*
- JS4 corresponds with *Supervisor*
- JS5 corresponds with *Position advancement*
- JS6 is not linked with the JDI but reflects a global measurement of job satisfaction and 'satisfaction with work in general'

Work Meaning

Transformational leadership theory posits that leaders who demonstrate the characteristics of transformational leadership in general (Bass and Riggio 2006: 5) and of the *Inspirational Motivation* dimension in particular (Avolio and Bass 2004a: 96; Bass and Riggio 2006: 6, 28, 91) and also through setting meaningful goals (Bass and Riggio 2006: 151) can increase levels of work meaning for employees.

In reviewing the transformational leadership literature, the interpretation of 'meaning' and 'meaningful ' is not always made explicit, however. The implied interpretations revolve around notions of: meaning = worthwhile; meaning = goal clarity; and meaning = confluence of the leader's and followers' understanding of vision and goals.

Nebulous conceptualisations and operationalisations of concepts related to *Work Meaning* have already been encountered elsewhere during the course of this research. Firstly, as part of Hackman and Oldham's Job Diagnostic Survey (JDS – see Section 4.3.1 above) *Experienced Meaningfulness* was measured using two item statements:

- Most of the things I have to do on this job are useless and trivial (reverse coding)
- The work I do on this job is very meaningful to me

(Hackman and Oldham 1974: 62)

Later, Spreitzer's (1992, 1995) model of empowerment measured *Meaning* as a discrete component of Empowerment using three item statements:

- The work I do is very important to me (Meaning 1)
- My job activities are personally meaningful to me (Meaning 2)
- The work I do is meaningful to me (Meaning 3)

And this operationalisation was then adapted for use in a hospitality context by Fulford and Enz (1995) and then by Hancer and George (2003) using the following three item statements:

- My work is very important to me
- My job activities are meaningful to me
- I care about what I do on my job

The core concepts articulated by Hackman and Oldham remain in place throughout these examples: Work meaning = (a) work which is 'meaningful to me' and (b) work which is non-trivial ('important to me'). Unfortunately, the 'meaning of meaning' remains unclear (a criticism that can also be levelled at 'importance', since the characteristics/criteria which define importance are not articulated either).

In the light of the nebulous nature of the 'meaning of meaning' in the transformational leadership and work motivation literature, a review of the wider organisational psychology literature was undertaken to provide insights into this construct. Guiding this search were the definitions for the *Work Values* and *Work Meaning* factors described in Section 5.1 as:

1. ***Work Values*** reflect an individual's disposition toward work in general
2. ***Work Meaning*** reflects an individual's attitude to their current job

In the general organisational psychology field, James and James (1989) specified and tested a hierarchical confirmatory factor analysis (CFA) 'model of meaning' containing four first-order factors: Role Stress and Lack of Harmony (6 items); Job Challenge and Autonomy (3 items); Leadership Facilitation and Support (5 items); and Workgroup Co-operation, Friendliness, and Warmth (3 items) and where each of these factors explained some of the variance in a second-order factor labelled Psychological Climate. Meaning was defined by James and James as a set of beliefs that are informed by learned responses to, and interpretations of, environmental stimuli. The model was confirmed using a sample consisting of

(US) Navy personnel, systems analysts, manufacturing staff and fire-fighters. These authors did not, however, report the wording of the individual item statements.

An earlier study by Wollack *et al.* (1971) sought to evaluate "the meaning that an individual attaches to his role at work" using an exploratory factor analysis procedure. Two core domains of work meanings, intrinsic and extrinsic, were proposed. The intrinsic domain relates to 'work as its own reward' and is measured by three 'sub-scales': *Pride in Work* – the satisfaction and enjoyment from doing one's job well; *Job Involvement*- the degrees of active interest in co-workers, company functions and making contributions to job-related decisions; and *Activity Preference* – an individual's preference to remain active and busy while working. The extrinsic domain is composed of two sub-scales: A*ttitude toward Earnings* - the value an individual places on work earning; and *Social Status of Job* – an individual's evaluation of the influence their job has on their friends, relatives, and co-workers. Two sub-scales were included that did not readily fit into the intrinsic/extrinsic categorisation: *Upward Striving* – the desire for promotion and a better standard of living; and *Responsibility to Work* - the recognition of an 'obligation to work'. These domains and sub-scales are described in Figure 5-7.

The authors' model was tested using exploratory factor analysis with data collected from a sample of manufacturing employees and a survey instrument consisting of 91 items. Forty-five of these item were retained based on the psychometric properties of the derived factors which relate to the sub-scales described above (excepting the 'responsibility to Work' sub-scale which was removed owing to poor psychometric values). Only a sample of the actual item statements were included in the article.

A search of the hospitality studies literature did not identify any studies measuring 'work meaning' or 'meaning of work'. A choice had to be made, therefore, between the measures employed by James and James (1989) and by Wollack *et al.* (1971). Immediately it was apparent that neither set of measures was ideal because: (i) the full set of measures in each was too lengthy for this research; (ii) each contained a number of specific measures in each were not particularly relevant; and (iii) neither of the studies had reported the full range of individual item statements (for this research to draw upon).

On consideration of the content and characteristics of both models, Wollack *et al.*'s set of constructs were recognised as being the most relevant for this research. Parsimony in the design of the research instrument and the fact that some of the sub-scales used by Wollack *et al.* were not directly relevant to this study led to the decision to reduce their scale down to one item for each of the sub-scales – following the same logic and based on the same justifications as described in the Job Satisfaction section above. This decision was made on the basis that some or all of these items might combine to usefully explain the variance in a latent variable reflecting respondents' attitudes to their current job in terms related to "the meaning that an individual attaches to their role at work".

Once again, as with the Job Satisfaction construct, the Work Meaning construct for this research is regarded as a somewhat tentative effort to measure the Work Meaning construct in a hospitality sample while drawing loosely upon prior theory from a general organisational psychology source. Figure 5-7 describes how Wollack *et al.*'s domains and constructs were organised and Figure 5-8 illustrates the items and details for the Work Meaning factor in this research.

Intrinsic domain	
Sub-scale	**Interpretation**
Pride in work	satisfaction and enjoyment from doing job well
Job Involvement	degree to which a worker takes an active interest in co-workers and company functions and desires to contribute to job-related decisions
Activity Preference	a preference by the worker to remain active and busy at their job
Extrinsic domain	
Sub-scale	**Interpretation**
Attitude toward Earnings	the value an individual places in making money on the job
Social Status of Job	effect the job on a person's standing among his friends, relatives, and co-workers
Mixed character domain	
Sub-scale	**Interpretation**
Upward Striving	continually seeking a higher level job and better standard of living
Responsibility to Work	recognition of an obligation to work

Source: Wollack *et al.* (1971)

Figure 5-7 Wollack et al.'s domains and constructs

The scale items described in Figure 5-8 have been derived as follows:

- ME1, ME2, ME3 and ME5 all relate to the Intrinsic Domain sub-scales:

    - ME1 and ME3 are split to semantically satisfy the two concepts (satisfaction and enjoyment) in the *Pride in Work*
    - ME2 corresponds with *Activity Preference*
    - ME5 corresponds with *Job Involvement*
- the Extrinsic Domain is represented with ME4 (*Attitude to Earnings*) and ME6 (*Social Status of Job*);
- ME7 relates to *Upward Striving*; and
- *Responsibility to Work* is not included for this research – this follows the findings from Wollack *et al.* (p. 333).

Construct name	**Work Meaning (ME)**					
Definition	The meaning that an individual attaches to their role at work					
Understanding of concept	An exploratory construct, designed to develop a substantive measure of Work Meaning for the hospitality service sector. Intended to move beyond earlier nebulous interpretations such 'Work Meaning = important and meaningful'					
Inclusion rationale	Transformational leadership theory posits that motivational leaders enhance work meaning for subordinates					
Scale source/s	Wollack *et al.* (1971)					
Scale semantic	**Agreement**					
Thinking about your **current job**, please tick a box to indicate how much you agree or disagree with each of the following statements		**Level of agreement**				
		Strongly disagree				**Strongly agree**
ME1	My job provides me with satisfaction	1	2	3	4	5
ME2	I prefer to do only the minimum required at work (reverse coded)	1	2	3	4	5
ME3	I enjoy going to work	1	2	3	4	5
ME4	The most important thing about my job is the money I earn (reverse coded)	1	2	3	4	5
ME5	I like to contribute as much as I can to my job/team/company (e.g. volunteering for tasks, organising special events)	1	2	3	4	5
ME6	My job provides me with positive social status among my friends and family	1	2	3	4	5
ME7	Job promotion (opportunity for advancement) is very important to me	1	2	3	4	5

Figure 5-8 The Work Meaning construct

ME2 and ME4 are both reverse-worded / reverse-coded in an attempt to avoid acquiescence bias. There is, however, no consensus on the use or non-use of reverse-polarity items in psychometric scale design. Ray (1983), for example, found scales including reverse-polarity items (balanced scales) to perform better than unbalanced ones containing non-reversed items. Elsewhere, however, Herche and Engelland (1996) found that using reversed-polarity items negatively affected scale unidimensionality.

The target population for this research has a mixed geographic origin with 36 per cent having a non-UK (People 1st 2011a; 2011b; 2011c). Consequently, a significant proportion of respondents are likely to have a first language other than English. With regard to the issue of using psychometric scales in cross-cultural contexts (which includes language differences), (Wong *et al.* 2003) have found that using reverse polarity can introduce problems with construct validity in multivariate modelling. Based on the research above, it was decided to employ a small number of reverse-polarity items and to monitor the performance of these in the pilot study.

Organisational Commitment

Organisational commitment is the third employee attitude to be included as a latent variable in this study and has been defined as '...the relative strength of an individual's identification with and involvement in a particular organization' (Mowday *et al.* 1979: 226).

The organisational commitment construct is a commonly-studied employee attitude in organisational studies (Huelsman 2007) and was flagged as a variable of interest during the reviews of generic and applied hospitality leadership work (e.g. Bartkus *et al.* 1997; Yousef 2000; Chiang and Jang 2008; Erkutlu 2008; Yiing and Ahmad 2009). Furthermore, the examination of the applied hospitality literature revealed a number of studies that had included an organisational commitment measure.

A summary of these studies is provided in Table 5-1.

Article	Use of factor / findings	Measurement scale used
Hawkins and Lee (1990)	OC ↔ JS (0.62) (hotel sales and marketing staff)	Porter *et al.* (1974)
Bartkus *et al.* (1997)	OC → group cohesiveness (0.57) (travel sales staff)	Hunt *et al.* (1989)
Deery and Shaw (1999)	hierarchical cluster analysis links JS and OC in same cluster	Price and Mueller (1981)
Susskind *et al.* (2000a)	OC ↔ JS (0.67)	9-items, Balfour and Wechsler (1996)
Susskind *et al.* (2000b)	OC ↔ JS (0.68); JS → OC (0.81)	15-items, Mowday *et al.* (1979)
Carbery *et al.*(2003)	AOC → Intention to Quit (0.24)	AOC measured with 8-items, Meyer and Allen (1984)
Simons and Roberson (2003)	OC → DSB (0.26)	6-items, Mowday *et al.* (1979)
Kim *et al.* (2005)	JS → OC (0.40; not a good-fitting model, however)	5-items, Jaworski and Kohli (1993)
Robinson and Barron (2007)	conceptual paper; links JS and OC	N/a
Chiang and Jang (2008)	JS → OC (0.54); ME → OC (0.40 n/s)	3-items, Meyer and Allen (1984)
Deery (2008)	conceptual/review paper; high OC linked with low counter-productive behaviours	N/a
Erkutlu (2008)	found stronger correlations between AOC and transformational leadership than transactional leadership	9-items, Porter *et al.* (1974)
Cichy *et al.* (2009)	AOC → Job Dedication (0.15; not a good-fitting model, however)	AOC measured with 8 items, Allen and Meyer (1990)
Kuruüzüm *et al.* (2009)	AOC → JS (0.32); nb – reverses the directionality of the more common JS→OC causal link	20 items, Meyer *et al.* (1993)
Yang (2010)	JS → AOC (0.32; not a good-fitting model, however)	AOC measured with 8 items, Meyer and Allen (1984)

OC = Organisational Commitment
AOC = Affective Organisational Commitment
JS = Job Satisfaction
DSB = Discretional Service Behaviour
ME = Meaning

→ Causal effect
↔ Correlation
(strength in brackets)
n/s = not significant

Table 5-1 Hospitality studies employing Organisational Commitment

Organisational Commitment (OC) has been conceptualised and operationalised in a number of different ways: Mathieu and Zajac (1990: 171-172) note that many researchers follow the model developed by Porter, Mowday, Steers and colleagues (e.g. Porter *et al.* 1974; Mowday *et al.* 1979) which features the three domains of:

- Affective Commitment – AC, which describes an individual's emotional attachment to their organisation;
- Normative Commitment – NC, which describes the individual's perceived obligation to continue with their occupation / organisation; and
- Continuance Commitment – CC, which relates to an individual's assessment of the relative costs and benefits of staying with or leaving their job/organisation.

Carbery *et al.* describe these domains neatly:

> Employees with strong affective commitment remain because they want to, those with strong continuance commitment because they need to, and those with strong normative commitment because they feel they ought to do so.
>
> (Carbery *et al.* 2003: 657)

Of these three domains, Affective Commitment is of the greatest interest for this research as, of the three OC domains, it is this one that is the most amenable to being positively influenced by leader behaviour. Writing before the term Affective Commitment was coined, Buchanan (1974) describes this type of commitment as a:

> ...partisan, affective attachment to the goals and values of one's role in relation to the goals and values, and to the organisation for its own sake, apart from its purely instrumental worth
>
> (Buchanan 1974: 533)

Within Buchanan's definition it is possible to see the linkages with the Inspirational Motivation domain of transformational leadership wherein the valorisation of vision and goals is central. In contrast, Normative Commitment describes, in transactional leadership parlance, an obligational or 'contractual' commitment, while Continuance Commitment is based on an employee's rational assessment based on a range of job-related costs and benefits.

The most popularly-applied measure of OC in the hospitality literature has been the 24-item scale developed by Meyer and Allen (Meyer and Allen 1984; Allen and

Meyer 1990; Meyer *et al.* 1993) that used 8 items to measure each of the three domains. The eight items used by Allen and Meyer (1990: 6) to measure the Affective Commitment factor are listed in Table 5-2. The original scale was developed using responses from clerical, supervisory and managerial employees in two manufacturing organisations and one university. On examining the individual scale items, it was felt that some may be less appropriate in a hospitality service setting where many front line waiters and waitresses may not relate to their organisation in the same way as the more senior staff who would constitute a significant part of Allen and Meyer's original sample.

Item	Allen and Meyer's (1990) item statements	Applicability in a catering service context
1.	I would be very happy to spend the rest of my career with this organization	Not applicable
2.	I enjoy discussing my organization with people outside it	Maybe
3.	I really feel as if this organization's problems are my own	Doubtful
4.	I think that I could easily become as attached to another organization as I am to this one (R)	Applicable
5.	I do not feel like 'part of the family' at my organization (reverse coded)	Applicable
6.	I do not feel 'emotionally attached' to this organization (reverse coded)	Applicable
7.	This organization has a great deal of personal meaning for me	How will respondents interpret 'meaning'?
8.	I do not feel a strong sense of belonging to my organization (reverse coded)	Applicable

Table 5-2 Allen and Meyer's (1990) Affective Commitment scale

For Item 1, many of the target population will not perceive themselves as a 'career waiter' or 'career waitress'. For Item 2 it was considered that service staff may discuss their jobs with people outside of their work, but perhaps less often their 'organisation'. Item 3 was not considered to be an appropriate means of assessing commitment of the target population owing to its characteristic (partial) composition of part-time, temporary and, by definition, non-supervisory, employees. Furthermore, Items 1, 2 and 3 did not load particularly strongly on the Affective Commitment factor in Allen and Meyer's rotated factor matrix (0.55, 0.56 and 0.52 respectively). Item 7 was dropped owing to the difficulty in interpreting 'meaning' in a single unidimensional statement (as per the arguments provided immediately above in the discussion on operationalising and measuring *Work Meaning*).

Accordingly, Items 4 (AC3), 5 (AC1), 6 (AC2) and 8 (AC4) remain and these are described in Figure 5-9. In contrast to Allen and Meyer's scale, for this research only AC3 is reverse coded – this decision was taken based on the argument for minimising the number of reverse-polarity items articulated above in *Work Meaning* on the matter of reverse-polarity scale items. The factor is labelled as AOC (Affective Organisational Commitment) for this research.

Construct name	**Affective Organisational Commitment (AOC)**					
Definition	An individual's emotional attachment to their organisation					
Understanding of concept	Greater levels of AOC are found in individuals who identify more strongly with their organisation and organisational (team) goals					
Inclusion rationale	Positive AOC has been associated with a number of positive outcomes in the hospitality studies literature					
Scale source/s	Allen and Meyer (1990) and Meyer *et al.* (1993)					
Scale semantic	**Agreement**					
Thinking about your **current job**, please tick a box to indicate how much you agree or disagree with each of the following statements		**Level of agreement**				
		Strongly disagree				**Strongly agree**
AC1	I feel "part of the family" at my work / company	1	2	3	4	5
AC2	I feel "emotionally attached" to this company	1	2	3	4	5
AC3	I could easily become just as attached to another company (reverse coded)	1	2	3	4	5
AC4	I feel a strong sense of belonging to my company	1	2	3	4	5

Figure 5-9 The Affective Organisational Commitment construct

5.4 Secondary organisational outcomes: individual, group and organisational outcomes

The previous section described the development of the measures for the three Employee Attitude factors (Job Satisfaction, Work Meaning and Affective Organisational Commitment). Figure 4-5 describes Employee Attitudes as primary-level outcomes which are also hypothesised to be antecedents of the factors in the secondary outcome category. Three factors are proposed as secondary outcomes and are essentially performance measures. Job Performance reflects the 'performance beyond expectations' (see Section 2.4.3) concept in

Bass and Avolio's Full-Range Leadership Model (FRLM) (Bass 1988, 1999; Avolio and Bass 2004a; Bass and Avolio 2008) and is included in the model to measure performance at an individual level. The DSB (Discretionary Service Behaviour) factor was developed by (Blancero and Johnson 1997, 2001) and operationalised by Simons and Roberson (2003) and is included in this research as a measure of performance at the group level (following Simons and Roberson DSB is measured using respondents' perceptions of co-worker performance). Lastly, the Service Quality factor was developed specifically for this research as an exploratory factor designed to measure service quality based on employees' responses regarding the frequency of selected service failures.

Both Job Performance (JP) and Discretionary Service Behaviour (DSB) measure employees' job performance. Job Performance (JP) is developed from the research narratives that posit extra effort as a measure of motivated employees (e.g. Georgopoulos et al. 1957: 345) and leadership theory where extra effort is one outcome of transformational leadership (e.g. Bass and Avolio 2008; Limsila and Ogunlana 2008: 167). By employing these two measures, the research is specifically attempting to evaluate the influence of motivational leadership on employee performance. By using JP as a self-assessment and DSB as a peer-assessment, it is hoped that any self-reporting bias can be accounted for (or even that the existence of inflated self-assessment scores can be refuted).

Job Performance (individual-level outcome)

At the heart of Bass's theory of transformational leadership is the proposal that transformational leaders inspire and motivate their subordinates to expend 'extra effort' and 'perform beyond expectations' (Bass 1985; Bass and Riggio 2006, see especially Ch 4). Performance Beyond Expectations is measured using a three-item factor called Extra Effort in the Multi-Factor Leadership Questionnaire (MLQ; Avolio and Bass 2004a). The MLQ is, however, a proprietary survey instrument and, accordingly, an alternative four-item measure of job performance was developed for this research by drawing out the key components of 'extra effort' from the published literature on Bass's transformational leadership theory (Bass 1988; Bass and Avolio 1990a; Bass 1990a; Bass and Riggio 2006)

Construct name	Job Performance (JP)					
Definition	An individual service employee's extra effort					
Understanding of concept	Measures perceptions of own work intensity, quality, extra effort and guest-focused service behaviour					
Inclusion rationale	Transformational leaders are hypothesised to inspire Performance Beyond Expectations					
Scale source/s	Drawn from the transformational leadership theory literature including: Bass (1988, 1990) Bass and Avolio (1990a) and Bass and Riggio (2006)					
Scale semantic	**Frequency**					
Thinking about your **current job**, please tick a box for each statement to indicate how often you..		**Frequency**				
		Never				**Always**
JP1	Try to work harder	1	2	3	4	5
JP2	Want to do your job better	1	2	3	4	5
JP3	Find that you have done more than you expected to do	1	2	3	4	5
JP4	Go out of your way to deal with a guest's special request	1	2	3	4	5

Figure 5-10 The Job Performance construct

JP1 and JP2 are, to some extent, self-explanatory with regard to their substantive content (JP2 is slightly more cognitively- rather than behaviourally-focused). JP1 centres on magnitude of effort and JP2 centres on effort channelled towards improving quality of performance. JP3 embodies the concept of Performance Beyond Expectations and JP4 is designed to reflect the guest-focused / service-focused substantive content embodied in the Discretionary Service Behaviour indicators DSB2, DSB3 and DSB4 (see below). The guest-focused nature of JP4 relates the construct to the service context; further, by conceptually and substantively linking Job Performance (JP) with Discretionary Service Behaviour (DSB) it is intended to provide a degree of comparability between individual- and group-level performance outcomes.

Discretionary Service behaviour (Group- level outcome)

The development (by Blancero and Johnson 1997, 2001) of the DSB (Discretionary Service Behaviour) construct has been described above in Section 4.3.1 where it was identified as being relevant for this current study.

To employ the DSB construct for empirical research requires it to be operationalised and this process has been undertaken by Simons and Roberson (2003). Simons and Roberson (2003: 436) describe using the DSB concept for the development of a four item scale for structural equation modelling. They designed these items for a peer evaluation of co-worker behaviour based on Van Dyne and LePine's (1998) finding that peer evaluations were more representative of actual behaviour then self-assessment.

Construct name	**Discretionary Service Behaviour (DSB)**					
Definition	Co-workers' guest-directed extra effort					
Understanding of concept	DSB describes a service employee's discretionary (i.e. beyond expectations) guest-focused service behaviour					
Inclusion rationale	(A) to test the DSB construct in an independent sample following the work of Simons and Roberson (2003); and (B) to provide a performance measure at the group level					
Scale source/s	Blancero and Johnson (1997, 2001); Simons and Roberson (2003)					
Scale semantic	**Frequency**					
Looking at each of the four statements below, please tick a box to describe **how often you have seen** this behaviour **in your current workplace**.		**Frequency**				
		Never				**Always**
DSB1	My co-workers show they take guests' concerns very seriously	1	2	3	4	5
DSB2	If one of my co-workers does not know the answer to a guest's question, he or she makes an effort to find out	1	2	3	4	5
DSB3	My co-workers go out of their way to deliver a guest's special request	1	2	3	4	5
DSB4	If a guest approaches when one of my co-workers is busy, he or she stops whatever they are doing and talks with the guest	1	2	3	4	5

Figure 5-11 The Discretionary Service Behaviour construct

Only two of the four items were reported in Simons and Roberson (2003) – accordingly, the first author was contacted and he provided details of all of the items along with a brief background and rationale for their design (Simons 2010, personal communication). The four items developed and used by Simons and Robertson (Simons and Roberson 2003; Simons 2010) are described in Figure 5-11 alongside summary details of how the contruct relates to the current research.

For the purposes of this research, the DSB construct is attractive because:

(i) it corresponds closely with the concept of Performance Beyond Expectations and, therefore, with the Job Performance factor developed above; but
(ii) it measures a group-level organisational outcome (rather than the individual-level as is the case for the Job Performance construct above); and
(ii) it can contribute to the research by providing an additional behavioural measure of work motivation/extra effort which:

a. avoids self-reporting bias; and
b. is specifically designed for customer contact service encounters.

Service Quality (Organisational-level outcome)

Service Quality (SQ) has been identified as a core positive organisational outcome for hospitality organisations (Go *et al.* 1996: 1; Hartline and Ferrell 1996: 52-53; Wilkins *et al.* 2007) and of key importance in a more general organisational context as a key contributor to a number productive organisational outcomes including profitability, costs, customer satisfaction and retention, and positive word-of-mouth customer evaluations (Buttle 1996: 8). Service Quality has been measured using the SERVQUAL instrument developed by Parasuraman, Berry and Zeithaml (Parasuraman *et al.* 1985, 1988; Parasuraman *et al.* 1991) and the SERVQUAL instrument has been employed in a number of hospitality research studies (e.g. Lee and Hing; Armstrong *et al.* 1997; Atilla 2006; Murphy *et al.* 2007; Nam and Lee 2011). Elsewhere, Stevens *et al.* (1995) have adapted the 22-item, five-factor SERVQUAL instrument for the catering context, creating a 29-item, five-factor measurement scale called DINESERV.

Both SERVQUAL and DINESERV are based on assessments of discrepancies between customers' service expectations and their subsequent evaluations of the service provided. For this research, however, accessing customer evaluations of service quality is not a practical method. Specifically, this research involves gaining the support of hospitality organisations (hotels) in order to collect data from the population of interest (non-supervisory service employees in table service restaurants) within the participating hotels. In practice it was extremely difficult to secure the support of an adequate number of hotels – such difficulties were anticipated (although not to the extent that they were actually experienced!) and accordingly, during the research design stage it was considered that attempting a concurrent customer survey alongside the employee survey would:

- result in fewer hotels agreeing to participate; and
- of those who did agree to participate, fewer would return both employee and customer surveys.

Further problematic issues surrounding the idea of a customer survey included the practical consideration that hotel businesses would likely be resistant to customers being burdened with requests to participate in (i) any survey and (ii) particularly one that was not part of the business's own quality assessment programme. A further (methodological) consideration was that it would be extremely difficult to ensure that the surveyed customers were responding to the service they had from the responding employees (in order that the research could claim to examine the *leadership → motivation → customer service* causal link).

Based on the arguments and concerns discussed above, a method for measuring service quality based on employee perceptions was sought. A search of the social science literature revealed a study by Schneider *et al.* (1980) that found strong correlations between customer and employee perceptions of a number of service-related variables in 23 retail banks including general service quality ($r = 0.67$; $p<0.01$); this finding was replicated by Schneider and Bowen (1985) in a follow-up study also based on banking organisations. Another banking-sector study to evaluate correlations between employee perceptions of service climate and customer perceptions of service quality was undertaken by Johnson (1996) and found that employee perceptions of service climate correlated with overall customer satisfaction ($r = 0.40$; $p<0.01$).

Bitner *et al.* (1994) interviewed employees in hotel, restaurant and airline organisations and asked these employees to describe critical service encounters that caused satisfaction or dissatisfaction for their customers. These data were then compared with data from an earlier survey of hotel, restaurant and airline organisations' customers by the same research team (Bitner *et al.* 1990) where customers were asked to describe critical service encounters that caused them satisfaction or dissatisfaction. The 1994 study was designed to examine whether '...customers and employees report the same kinds of events and behaviors leading to satisfaction and dissatisfaction in service encounters' (Bitner *et al.* 1994: 97).

Bitner *et al.* (1994) sorted customer and employee responses into three categories for comparison:

- Group 1. Employee Response to Service Delivery and System Failures

- Group 2. Employee Response to Customer Needs and Requests
- Group 3. Unprompted and Unsolicited Employee Actions

A fourth group titled *Problematic Customer Behaviour* was created to accommodate some employee responses. Not surprisingly, during the first study, customers themselves had not mentioned any critical service encounters which fitted into this category and no comparisons were therefore possible using Group 4.

The comparative employee/customer data for groups one, two and three (reported in Bitner *et al.* 1994) have been entered into contingency tables (Figure 5-12) and chi square (χ^2) tests have been carried out to determine on which (if any) categories of customer and employee frequency of reports are statistically significantly different.

Group 1 - Employee Response to Service Delivery and System Failures			
	Satisfactory	Dissatisfactory	Row total
Employee data	**109**	**195**	*304*
Customer data	**81**	**151**	*232*
Column total	*190*	*346*	*536*
Group 1:	**χ^2 = 0.05; d.f. = 1; p = 0.823 (Fisher's exact p = 0.855)**		
Group 2 - Employee Response to Customer Needs and Requests			
	Satisfactory	Dissatisfactory	Row total
Employee data	**196**	**62**	*258*
Customer data	**114**	**55**	*169*
Column total	*310*	*117*	*427*
Group 2:	**χ^2 = 3.72; d.f. = 1; p = 0.054 (Fisher's exact p = 0.060)**		
Group 3 - Unprompted and Unsolicited Employee Actions			
	Satisfactory	Dissatisfactory	Row total
Employee data	**89**	**37**	*126*
Customer data	**152**	**146**	*288*
Column total	*241*	*173*	*414*
Group 3:	**χ^2 = 11.09; d.f. = 1; p = 0.0007 (Fisher's exact p = 0.0008)**		

nb – values are based on Pearson's χ^2; p values are also given for Fisher's exact test. Fisher's method is often reported for 2x2 contingency tables although this method correctly only applies where expected individual cell frequencies are small (Everitt and Skrondal 2010: 167). The smallest expected value in these analyses is 46.3.

Source: Bitner *et al.* (1994: 101)

Figure 5-12 Analysis of Bitner *et al.*'s customer/employee data

Bitner *et al.*'s 1994 article examined differences between groups so it was necessary to undertake a new analysis to examine with-group differences. The rationale for the current analysis is that categories where there is no statistically significant difference between frequencies of employee and customer responses will be suitable for use in measuring employee-based assessments of service quality. The chi square analysis shows that only in Group 3 is there a statistically significant difference between frequencies of employee and customer reports on satisfactory and unsatisfactory service encounters. The p value for Group 2 is reasonably close to the 0.05 cut-off reflecting the discrepancy between frequencies of customer and employee reports of Satisfactory critical service encounters that fall into the Group 2 category. There is no statistically significant difference, however, between employee and customer reports in Group 2's Dissatisfactory category.

Based on these analyses, it was decided to use the individual classifications found in Groups 1 and 2 of Bitner *et al.*'s (1990, 1994) studies. The specific service encounters reported by employees and customers that were classified into Groups 1 and 2 are as follows:

Group 1. Employee Response to Service Delivery and System Failures

1. To unavailable service
2. To unreasonably slow service
3. To other core service failures

Group 2. Employee Response to Customer Needs and Requests

4. To 'special needs' customers
5. To customer preferences
6. To admitted customer error
7. To potentially disruptive others

These service encounters were adapted for this study by altering the wording in an attempt to present a clear concept of the type of situation each of the service encounters refers to. The item wordings are described in Figure 5-13 and the order of items follows the descriptions of Group 1 items 1 to 3 and Group 2 items 4 to 7 above.

One shortcoming of this approach to measuring service quality is that is based on the frequency that each respondent is able to deal with each type of service failure / negative situation while maintaining customer satisfaction. Of course, it

is possible that individual respondents 'never' experience the service failure situation and, accordingly, a no response option was included. This was anticipated to have the effect of reducing the number of usable responses for this factor (and this was borne out in the completed data set). No preferable alternative system was arrived at, however.

Construct name	**Service Quality (SQ)**					
Definition	Employee ability to maintain satisfied customers in the face of adverse service conditions					
Understanding of concept	More frequent maintenance of customer satisfaction indicates higher levels of service quality					
Inclusion rationale	Service quality is a as a core positive organisational outcome for hospitality organisations					
Scale source/s	After Bitner *et al.* (1990, 1994)					
Scale semantic	**Frequency**					
In your **current job**, how often are you able to deal with each of the following situations **while keeping** your customer/s satisfied? *Leave blank (i.e. don't tick any box) any situations that never actually happen to you*		**Frequency** **Never** ← → **Always**				
SQ1	A customer's meal doesn't arrive with those of the rest of their group	1	2	3	4	5
SQ2	Service is slow	1	2	3	4	5
SQ3	A customer's meal is cold or not properly cooked	1	2	3	4	5
SQ4	A customer has special needs (e.g. diet, language, physical)	1	2	3	4	5
SQ5	A customer makes a large number of special requests	1	2	3	4	5
SQ6	A customer mistake (e.g. missed reservation, incorrect order) creates a difficult service atmosphere/climate/mood	1	2	3	4	5
SQ7	A customer or customers become disruptive (being loud / drunk / abusive)	1	2	3	4	5

Figure 5-13 The Service Quality construct

5.5 Summary of Chapters 4 and 5

Chapter 4 set out to develop a framework to accommodate and organise the latent variables (Figure 4-2) and to assist (alongside the findings from the reviews of the generic and hospitality leadership literature) in theoretically informing the development of the hypotheses for the design of the survey instrument and analytical framework (Figure 4-3 and Figure 4-5).

The work described in Section 4.1 revealed that the work motivation literature is somewhat fragmented, meaning that it was necessary (in Section 4.2) to shift the focus of the analysis to the broader industrial and organisational psychology level to develop this framework. That it was necessary to draw upon the overarching domain of industrial and organisational psychology reflects the fact that this research contains elements of leadership and work motivation studies, both of which are sub-areas of industrial and organisational psychology (see e.g. Alliger 1992).

Section 4.3 reviews the applied hospitality motivation literature and identifies Discretionary Service Behaviour (DSB) (Blancero and Johnson 1997, 2001; Simons and Roberson 2003) as a construct of interest and also finds support for the inclusion of the Social Support construct. A significant finding from Section 4.3 is that, like hospitality leadership studies, hospitality motivation studies remain at an early stage where researchers are utilising a range of available theoretical approaches and applying these to a number of specific organisational foci.

Chapter 5 elaborates the rationale for the inclusion of each of the latent factors and, with reference to the published research, describes and justifies the development of the indicator variables for each of the latent factors.

A common theme in developing the indicators for the factors has been the adaption of existing scales for use in this work. In some cases this has been undertaken to truncate a very large scale (e.g. Smith *et al.*'s Job Description Index [for the Job Satisfaction factor] at 73 items and Wollack *et al.*'s Survey of Work Values) and in others to focus on one or more sub-scales of interest from within a larger measurement instrument (as with Allen and Meyer's (1993) Organisational Commitment scale and Hancer and George's (2003) Empowerment scale). Restricting the length of the survey form is important for (a) minimising

non-responses due to respondent question fatigue and (b) demonstrating the brevity of the survey to hotel senior managers who in this case are 'gatekeepers' to the population of interest. The Service Quality construct stands somewhat separately in terms of how it was developed. Specifically, this construct is entirely exploratory having been developed from concepts and findings from a non-psychometric source study (Bitner *et al.* 1990, 1994).

It is entirely normal to make adaptions to existing scales to render them more appropriate for a specific context, either in relation to reducing the number of items or adjusting the substantive content. For examples of scale adaptions in the hospitality organisational studies context see the discussions above on previous work on Organisational Commitment and Employee Empowerment. Nevertheless, such a course of action does bring epistemological / methodological implications for the research. Specifically, an exploratory element is introduced to the research and, as a consequence, the confirmatory factor analysis (which provides the analytical method for the measurement model in SEM analyses) is no longer strictly confirmatory and the broader SEM process enters a model development mode.

Accordingly, under these conditions the researcher must prepare for the eventuality that some of the factors may not converge on a statistically acceptable solution and may therefore have to be removed from the model. Somewhat less severely, it may the case that one or more indicators have to be dropped from a latent factor in order to achieve statistical convergence and this may affect the substantive content of the factor. Such modifications may also have implications for the broader structural model where causal relations between factors are evaluated. The issues are examined in greater detail in the following section.

6 METHODS FOR DATA COLLECTION AND ANALYSIS

This research aims to explore and evaluate the contribution of motivational leadership to employee work motivation in hospitality services and to do this within the broader organisational / motivational context by also measuring how a number of non-leadership phenomena contribute to employee work motivation. Structural equation modelling provides a method to empirically examine and evaluate these inter-relationships.

Following a general introduction to SEM, this chapter goes on to discuss the chosen modelling approach, the specific type of SEM analysis that will be performed and details of how the models will specified, estimated and tested.

The data requirements for SEM analysis inform the survey design in general and the design of the survey instrument in particular. This chapter also describes the concomitant development of the survey instrument and refinement of the measurement scales following which the procedure for the administration of the survey instrument is detailed.

A more detailed description of, and justification for, the specific methods employed in the SEM analyses is provided in Chapter **Error! Reference source not found.** alongside the development of the first SEM model. The development of the subsequent models is then reported in a less exhaustive manner with new techniques introduced as appropriate.

6.1 Structural equation modelling

Structural equation modelling (SEM) is a multivariate statistical procedure for providing insights into the relationships between phenomena. SEM is particularly useful when the phenomena of interest cannot readily be measured using a single variable – that is, when dealing with multifaceted phenomena that can be more accurately measured (and more adequately represented) using a range of variables rather than just one. SEM achieves this by using the confirmatory factor analysis (CFA) technique to measure these unobservable (latent) variables based on the 'effect' that the latent variable has on the observable (indicator) variables. Latent variables can also be referred to as factors, or constructs, and indicator variables are also referred to as items.

The process of measuring the latent variables is known as the *measurement model*. Having satisfactorily established the measurement model (according to a range of statistical criteria) , the SEM analyst then goes on to evaluate the inter-relationships between the latent (unobservable) variables – this process is known as the *structural model*. Structural models typically test and measure causal relationships between latent variables.

Figure 6-1 illustrates this process with an example SEM model consisting of three latent variables, each of which is measured with three indicator variables. Boxes A, B and C highlight the confirmatory factor analysis (CFA) measurement models for the Job Satisfaction, Job Performance and Intention to Quit factors. Box D highlights the structural part of the model, that is, where the relationships between the factors are measured. The nature of the relationships between variables is indicated by the direction of the linking arrows.

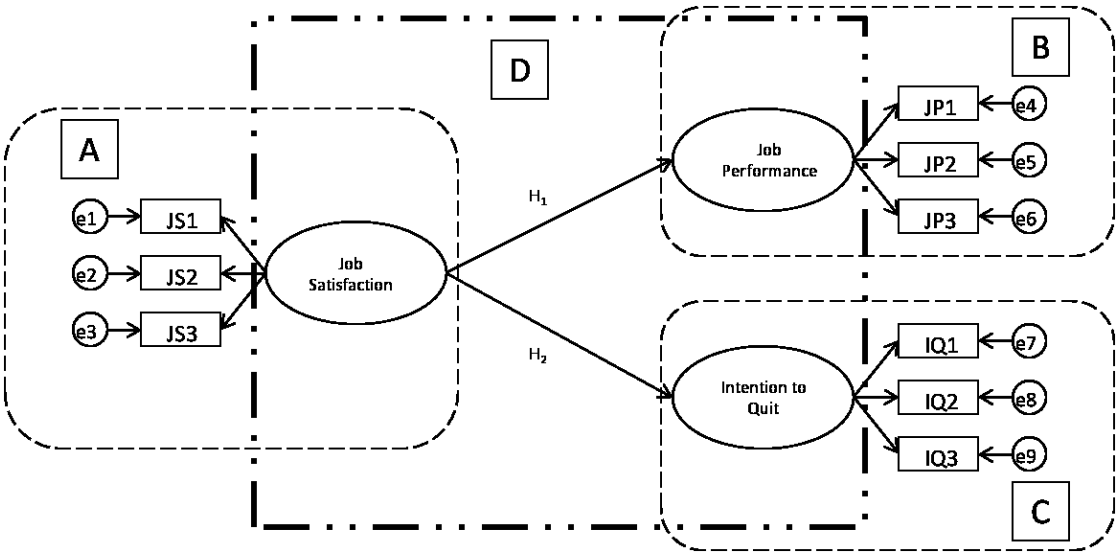


Figure 6-1 Example structural equation model

In this example, Job Satisfaction is hypothesised to have a causal effect on both Job Performance (H_1) and Intention to Quit (H_2). The nature of the hypotheses are usually informed by theory or previous empirical research and are articulated in such a way that the specific effect is made clear. In this example, H_1 may suggest that Job Satisfaction exerts a positive effect on Job Performance and H_2 states that Job Satisfaction has a negative effect on Intention to Quit – that is, when Job Satisfaction is higher, Intention to Quit is lower.

In SEM, oval or round boxes are used to represent unobserved (latent) variables and rectangular (or square) boxes represent observed (indicator) variables. The

arrows pointing from the latent variables (Job Satisfaction, Job Performance and Intention to Quit) to the observed variables indicate the 'effect' that the latent variable is having on the observed variables: thus, the observed variables 'indicate' the existence of the latent variable by representing the effects of the unobservable variable. Employees who have high levels of Job Satisfaction, for example, are expected to exhibit relatively high scores for JS1, JS2 and J3 compared with employee who have lower levels of Job Satisfaction. In organisational psychology, observable variables, such as JS1, JS2 and JS3 in this example, are often measured by asking respondents to indicate their thoughts, feelings, perceptions etc. using a scalar measure.

In organisational psychology research, five point response scales are often used (as are four point scales, seven point scales and sometimes even 10 point scales). This research makes use of five point scales: (i) to satisfy the requirements for the effective use of maximum likelihood estimation during the structural equation modelling stage (see Section 6.3); (ii) following the extensive use of five-point scales in the previous studies that have been drawn upon to generate the data for the latent factors; and (iii) following the findings of Preston and Coleman (2000: 12) on the psychometric properties and respondent preferences for rating scales.

Job Satisfaction, in this example, may be measured (within a larger questionnaire) by asking employees to respond to the following statements:

Please indicate your level of satisfaction with each of the following aspects of your work		Your level of satisfaction Very unsatisfied				Very satisfied
JS1	The actual daily tasks that you do	1	2	3	4	5
JS2	The pay (your wages / salary)	1	2	3	4	5
JS3	The people you work with	1	2	3	4	5

Surveys can be designed to includes responses using a range of scale semantics including level of satisfaction (as in this example), level of agreement, or level of frequency (e.g. ranging from 'not at all' to 'very frequently').

Referring once again to Figure 6-1, the small circles labelled e1 to e9 represent the proportion of the variance in each indicator variable that is not accounted for by the latent variable. This ability to include unmeasured (or 'error') variance in the model results in more accurate predictions about the size of effects (the strength of inter-relationships) and is a key advantage of SEM over the more traditional linear modelling approaches (e.g. regression analysis, and analysis of

variance) where models are fitted to raw data based on the assumption that there is no error in the measurement of the independent variable/s (Raykov and Marcolides 2006: 2-3).

Other major advantages of SEM analyses are the ability to test complex multivariable models and to test hypotheses about both direct and indirect effects.
SEM analyses can be used in both confirmatory mode (for the purposes of theory-testing) and in exploratory mode (for theory-building). In theory-building, the operation is exploratory insofar as models are tested, modified and tested again in the search for an optimal model (Kline 2005: 10-11).

6.2 Modelling approach

This research employs Jöreskog's (1993: 295) Model Generating (MG) approach in which the model is modified and tested again using the same data. Raykov and Marcolides (2006: 7) write that:

> In contrast to the confirmatory mode of SEM applications, theory development assumes that no prior theory exists—or that one is available only in a rudimentary form—about a phenomenon under investigation.

This describes very well the context for this research. While a number of hospitality studies focussing on leadership, and on motivation, and several linking leadership with motivation/job performance have been published, the overall state of knowledge remains rudimentary. This situation is largely due to the wide ranges of (a) theoretical approaches adopted and (b) specific foci chosen by individual researchers/research teams (as described in Chapter 3 for hospitality leadership studies and section 4.3 for hospitality motivation studies).

While the broad approach to the SEM analyses is model generating, the specific type of SE (structural equation) model to be used is the structural regression model (Kline 2005: 209). The strategy for developing and testing the structural regression models is based on Anderson and Gerbing's (1988) two-step procedure with each step following the five-stage development procedure described by Schumaker and Lomax (2004).

6.3 Data assumptions and software

Regarding data assumptions for SEM. Section 6.6.1 (below) describes in detail how the choice of maximum likelihood (ML) estimation is driven by the requirement to use a model estimation technique that provides diagnostic information for the iterative development of models (in particular, the estimation of modification indices to guide model modifications). The ML estimation method assumes that data are continuous; because, however, a large proportion of psychometric data are collected using attitudinal (Likert-type) scales that generate ordinal-level data, a number of studies have been undertaken to evaluate the performance of ML estimation techniques when applied using such ordinal scaled data. Byrne (2001: 83; 2010: 148) cites a number of such studies (Muthén and Kaplan 1985; Babakus *et al.* 1987; Bentler and Chou 1987; Atkinson 1988; West *et al.* 1995) which have demonstrated that where ordinal data approximate a normal distribution and variables use four or more data points then continuous methods (such as ML estimation) '...can be used with little need for concern' (Byrne 2001: 83, and see also Raykov and Marcolides 2006: 31 for a similar assessment).

Regarding issues of distributional normality, both skewness and kurtosis can influence the model fit diagnostics and parameter estimates in SEM analyses. Byrne (2010: 330) and West *et al.* (1995: 56-57) note that it is not uncommon for psychometric data being used in SEM analyses to depart from the normal distribution. This is because responses to scaled data can often cluster around one two scale points, thus creating deviations from normal kurtosis and possibly also deviations from normal skewness.

In relation to model fit, West *et al.* (1995: 59) note that significant multivariate non-normality can impact on model χ^2 (chi-square) values by biasing χ^2 upward, resulting in the rejection of too many models that should have good fit (i.e. with model χ^2 $p>0.05$). For model development this situation can give rise to models being simplified (indicator variables being removed) beyond the point where good fit might have been achieved.

In relation to parameter estimates, Byrne (2010: 103; 148-149) describes the influence of skewness and kurtosis in some detail. Briefly, skewness typically has an impact on the measurement of means while kurtosis has an influence on the measurement of variances and covariances. Because the latter (variances and

covariance) are central to SEM analysis, problems with kurtosis are generally regarded as being of greater importance.

Raykov and Marcolides (2006: 29) suggest that researchers first check univariate normality and then multivariate normality. Curran *et al.* (1996) examined the issue of distributional non-normality when estimating CFA models and found that univariate skewness values of less than 2 and univariate kurtosis values of less than 7 are acceptable (i.e. had no impact on parameter estimates and model fit statistics). Those authors were, however, unable to determine at what point multivariate non-normality becomes a problem. More recently, Bentler (2005, cited in Byrne 2010: 104) has suggested that when Mardia's coefficient for multivariate non-normality (Mardia 1970) is greater than 5, then a departure from multivariate normality is indicated. Elsewhere, Raykov and Marcolides (2006: 30) and Hair *et al.* (2006: 743) have both cited a number of empirical studies demonstrating that ML estimation is robust in the face of minor deviations from normality.

For this research, none of the measured variables depart (or even approach departing) from Curran *et al.*'s (1996: 26) bounds of 2 for univariate skewness or 7 for univariate kurtosis (Appendix II reports the univariate skewness and kurtosis estimates for all of the observed variables). Accordingly, following the arguments detailed by Byrne (2001: 83 and 2010: 148), ML estimation methods are employed for this research.

Multivariate normality is measured using AMOS's critical ratio (C.R) for multivariate kurtosis which is equivalent to Mardia's (1970) normalised estimate of multivariate kurtosis (Byrne 2010: 104). Where an optimal model specification demonstrates a multivariate kurtosis C.R. value greater than 5, the model is re-estimated (following the procedure described by Byrne 2010: 329-352) using AMOS's bootstrap procedure for estimating models with multivariate non-normal data. The bootstrap estimation procedure generates confidence intervals for each estimated parameter allowing these to be checked for robustness to multivariate non-normality as required. The relevant estimates for multivariate normality and associated bootstrapped parameter estimates are reported in Appendix IV.

Structural equation modelling is undertaken using the IBM AMOS Version 18 software for SEM analysis and the data screening and other analyses are undertaken using IBM SPSS Statistics Version 18.

6.4 Modelling strategy

The two-step SEM modelling procedure described by Anderson and Gerbing (1988) firstly (during Step 1) establishes a confirmatory factor analysis (CFA) measurement model in which:

(a) the relationships between the observed variables (also referred to as items, or indicators) and the latent factors are specified (according to theory or previous empirical research findings); and

(b) all of the latent factors are allowed to intercorellate freely (indicated with bi-directional connecting arrows that specify a non-causal correlation).

Where each observed variable (indicator) is linked only to one latent factor, the CFA is described as being unidimensional or congeneric. In multidimensional CFAs, indicators can have loadings on two or more latent factors. In practice, it is more usual for CFAs to be specified in unidimensional formats since this allows for more exact estimates of convergent and discriminant validity to be made (Kline 2005: 167-168). Convergent and discriminant validity are both aspects of construct validity and will be discussed in greater depth below.

Step 2 of Anderson and Gerbing's two-step approach proceeds when a measurement model with satisfactory fit has been established. Step 2 involves respecifying the model by replacing, as dictated by the theory to be tested, the bi-directional (non-causal) arrows with uni-directional arrows indicating causal relations between latent factors. Independent latent factor variables (also refered to as exogenous factors in SEM analyses while dependent variables are referred to as endogenous variables) may still (but not neccesarily) covary in a non-causal manner as specified by the theory to be tested and some connections between factors may be dropped altogether (indicating no hypothesised relationship between these variables).

Within the Model Generating (MG) approach to structural equation modelling it is possible to modify – or respecify - the measurement and structural models in such a way that model fit is improved. During Step 1 this is often achieved by removing poorly performing indicators (observed variables) based on the statistical feasibility of parameter estimates (the strength and statistical significance of indicators' respective factor loadings) in combination with an assessment of the appropriateness of indicators' standard errors (Byrne 2010:

67) and their associated standardised residual covariances (Byrne 2010: 86; and, see also Shumaker and Lomax 2004: 177). This respecification is often carried in an iterative fashion while the researcher monitors the overall effect of individual changes on the broader model. Further, any model modifications should be carried out in the light of appropriate consideration of the substantive changes (i.e. the theoretical implications for the model) that they will bring about.

So, having developed a measurement model which exhibits good fit and provides evidence for acceptable convergent and discriminant validity, Step 2 of the procedure develops the structural model to provide an assessment of predictive validity. Part of the rationale for the two step procedure is described by Jöreskog and Sörbom (1993) who write that:

> The testing of the structural model, i.e., the testing of the initially specified theory, may be meaningless unless it is first established that the measurement model holds. If the chosen indicators for a construct do not measure that construct, the specified theory must be modified before it can be tested. Therefore, the measurement model should be tested before the structural relationships are tested.
>
> (Jöreskog and Sörbom 1993: 113)

During Step 2, the structural model is developed following similar principles of iterative improvement as with the measurement model. In the case of the structural model however, the modifications typically take the form of respecifications to the pattern of between factor (rather than within factor) parameters[5]. Once again, this process should be strongly related to and guided by consideration for the substantive implications of any changes made (Schumaker and Lomax 2004: 71; Kline 2005: 65; Hair *et al.* 2006: 797-798).

The five stage procedure described by Schumaker and Lomax (2004) throughout their guide to SEM analysis is based on the Anderson and Gerbing Two-Step procedure and breaks each of the two step into the following five stages:

1. model specification;
2. model identification;

[5] It is possible to make changes to the factor structures (i.e. removal of indicator variables) during the development of the structural model, however, following any such change it is then necessary to re-estimate the measurement model to ensure that the requirements of construct validity continue to be met.

3. model estimation;
4. model testing; and
5. model modification.

Reporting of estimates

Throughout the analysis and discussion sections, standardised parameter estimates will be used. Unstandarised estimates are reported in Appendix III to allow for future comparative research and following the advice of Kline (2005: 318-319). Appendix III also reproduces the correlation matrices for the finalised models according to Boomsma's (2000: 470) recommendations.

6.4.1 Building the models

Following the model generating approach, the models were developed in an iterative manner wherein the core hypotheses are firstly examined and, thereafter, successive constructs are added to the model and the model re-assessed to evaluate the role of each additional construct. This iterative approach to the model development process was adopted for a variety of reasons.

Firstly, the core hypotheses (in this case H_1 to H_4 which test the relationships between motivational leadership, work meaning and job performance/work motivation) could be tested in the absence of additional and potentially confounding constructs.

Secondly, as will be reported in Chapter 7, some of the constructs were not able to be included in the models owing to either a lack of discriminant validity or an absence of statistically significant covariance with other constructs. By building the models in an iterative manner, it was possible to efficaciously identify such constructs that do not covary with the other constructs in the model.

Thirdly, the iterative approach allows for a clearer appreciation of the role that each construct plays in the model. For example, the transition from Model 4 to Model 5b revealed that the effect of employees' work values on attitudes to work is reduced to a non-significant level when the employee empowerment construct was added to model. In this example, had these constructs been included

together in the initial model, the small effect that Work Values can have may have been overlooked. As it is, some interesting questions for future research are raised by the finding that Work Values do appear to have some (albeit a small) effect on employees attitudes to work and job performance/work motivation.

In a similar vein, the hypotheses relating to Work Meaning (H_3 and H_4) could not (with hindsight) have been tested if the full model was initially specified. Because the three employee attitude constructs (Work Meaning, Affective Organisational Commitment and Job Satisfaction) did not demonstrate sufficient discriminant validity, they could not be included as discrete entities within one model. Section 7.6 describes how these constructs were amalgamated into a broader employee attitudes construct – however, had this amalgamation been undertaken prior to testing Work Meaning as a discrete construct (and in the absence of the other two employee attitude constructs), it would not have been possible to test H_3 (ML→ME) and H_4 (ME→JP).

While building the models in this way, the measurement model for each successive model was initially specified with all of the indicator variables, even though some of these indicator variables were found not to perform well in the previous model. By building each successive model iteration 'from scratch', two issues are addressed. Firstly, that the model-based imputation of missing values (see Section 6.6.1 below) is based on the specific model that is being estimated and tested. Secondly, this approach was able to confirm (or refute) the robustness of the measurement of the individual constructs. That is, by estimating, testing and modifying each model 'from scratch' it was possible to make an assessment of the consistency of factor structures across models.

6.5 Instrumentation

The overall research aim is to explore and evaluate the contribution of motivational leadership to employee work motivation in hospitality services. The specific objectives as described in Chapter 1 are to:

1. critically evaluate the field of hospitality leadership studies to identify relevant issues and inform the research design;
2. develop a theoretical framework to:
    a. locate the variables of interest in relation to existing organisational psychology theories;

b. articulate the likely linkages between variables; and
c. guide the formulation of specific hypotheses;

3. identify/generate measurement scales for the latent variables;
4. refine the measurement scales; and
5. test and evaluate the relationships between variables using survey data collected from hotel restaurant waiting staff.

Objective 1 has been satisfied though reviews of the generic and applied (hospitality) leadership and work motivation research literatures. The theoretical framework for the research (Objective 2) was developed through the integration of the findings from the literature reviews with the broader theoretical structures of work motivation studies and industrial and organisational psychology. The development of the theoretical framework assisted in the generation of specific research hypotheses by providing an underpinning rationale for specifying causal relations based on fundamental principles of industrial and organisational psychology. The variables (constructs) of interest were operationalised (Objective 3) based on the findings from further interrogations of the applied and generic leadership, work motivation and organisational psychology literatures.

Objectives 4 and 5 were pursued through the design a survey instrument and the collection of data from a sample of non-supervisory foodservice employees (waiting staff) working in table service restaurants in hotels.

The remainder of this chapter describes the design of the survey instrument (a respondent-completed questionnaire), the refinement of the survey instrument and the measurement scales and the administration of the questionnaire.

6.5.1 Questionnaire design and refinements

As described above in Chapter 5, the item statements have been generated according to the advice of Hinkin (1998: 107-108) to (a) keep statements as short as possible and to (b) ensure that the statement wordings are understandable to the target population.

To provide independent and external validation of the brevity and clarity of the item statements, and also an assessment of the face validity (the extent to which the item statements actually represent the defined construct) a draft

questionnaire was subjected to a process of expert judging (Hair et al. 2006: 781; Hardesty and Bearden 2004). The draft questionnaire was circulated amongst the PhD supervisory team (Dr Peter Lugosi with expertise in hospitality studies and Prof Adam Blake with expertise in survey design for multivariate statistical analysis), Dr Caroline Hattam (a personal friend with expertise in survey-based econometric analysis of organisational decision-making) and Mr Alan Cutler, the Chief Executive of Hospitality Leadership Ltd training and consultancy organisation and author of various articles and books examining leadership issues in hospitality businesses (e.g. Cutler 2006; Cutler *et al.* 2006; Cutler 2010).

A number of modifications to item statement wordings were made based on the feedback from these individuals regarding the brevity, clarity and face validity of the item statements. An additional item statement was added at this stage. Following the hospitality leadership work of Tracey and Hinkin (1994, 1996) and the more general transformational leadership theory work of Bass and Avolio (see e.g. Bass and Avolio 2004), MC1 'I clearly understand what my company's goals / targets are' was added as a measure of Mission Clarity. Employees' Mission Clarity (clear understanding of organisational goals) is hypothesised to be an outcome of transformational leadership and Tracey and Hinkin (1996) found that transformational leadership had a significant and moderate (β = 0.31) effect on hospitality employees' mission clarity.

Following these modifications, the survey was pre-tested during March 2010 (the pre-test survey form is illustrated in Appendix VI) using a cohort of Bournemouth University hospitality management undergraduate students (n = 39) who provided additional feedback regarding the clarity of the item statements. Three minor changes to the wordings of item statements were made based on the students' feedback. In addition, some concerns about the clarity of the Service Quality (SQ) item statements were raised. No modifications were made to the SQ statements, however, as it was realised that this construct was attempting to capture quite a complex phenomenon (employees' ability to maintain customer satisfaction in the face of adverse service conditions).

Following the expert judging and student-based pre-test, the questionnaire was piloted using an actual sample of waiting staff in commercial hotel business (the pilot survey form is illustrated in Appendix VII). The objective of this pilot survey was to trial the survey administration method and to trial the questionnaire with 'real' respondents. Before describing the administration of the pilot survey,

however, a discussion regarding access to hospitality organisations for data collection purposes follows.

Access to hospitality organisations

To gain access to hotels for data collection, in the first instance, Alan Cutler of the independent consultants Hospitality Leadership Ltd was contacted. Alan had previously worked with Bournemouth University School of Tourism on a small-scale research project looking at leadership issues in hospitality organisations. Alan provided contact details for relevant managers in six hotel groups. The first managers with whom cooperation was able to be arranged represented two hotel groups: (i) a group of ten 4 star hotels in the south east of England; and (ii) a larger group of 4 star hotels across the UK with 27 individual facilities.

Alan was also instrumental in providing a contact within the National Skills Academy for Hospitality. This group is part of the People1st[6] organisation and its remit is to identify, endorse and promote qualifications and learning opportunities in the hospitality sector. The National Skills Academy for Hospitality was happy to endorse the survey work and have their logo included on the questionnaire and on the stationery used to contact hotels. It was hoped that this endorsement would have a positive effect on the recruitment of hotels to participate in the data collection.

Details of the administration method

The pilot survey was administered with the participation of the first two hotel groups (described above) with which cooperation was successfully arranged. Initial contact was made with a senior human resources staff member in each of the two hotel groups. In one group, contact was then delegated to the head of food and beverage and in the other group, to a less senior human resources/personnel employee. With the first group (the group of ten hotels in the south east of England), the head of food and beverage supplied the number of non-supervisory waiting staff in each hotel facility and a 'survey pack' containing the relevant number of questionnaires was then sent to each hotel's general

[6] The sector skills council for hospitality, passenger transport, travel and tourism in the UK.

manager (GM). The questionnaires were distributed to individual employees in an (unsealed) FREEPOST return envelope containing the questionnaire (with an introduction and instructions on page one) and a separate prize draw entry form. Completion of the prize draw entry form was optional (see below). Respondents were asked to mail the completed questionnaire directly back to Bournemouth University or to return the sealed FREEPOST envelope to a nominated staff member who would then return all of the completed forms to Bournemouth University. For the second hotel group, an identical distribution method was implemented by the human resources/personnel employee.

Regarding the prize draw incentive, respondents were offered the opportunity to enter a prize draw for shopping vouchers (prizes ranging from £50 to £10). A number of studies (Church 1993; Etter and Perneger 1997; Laurie *et al.* 1999; Singer *et al.* 1999; Groves *et al.* 2000) have evaluated the impact of monetary and lottery-type incentives on survey responses and the findings from these studies indicate that such methods can generate increases in response rates of between 7.9 and 19.1 per cent (Church 1993). In terms of the influence on the demographic nature of the respondent profile, Etter and Perneger (1997) and Laurie *et al.* (1999) note that survey incentives can increase responses from low-income and elderly groups. Groves *et al.* (2000) investigated the effect of offering incentives to potential respondents in groups with high and low theorised disposition towards participation in their survey. They found that incentives increased the proportion of respondents in both groups, although the proportion of low-disposition/low-likelihood respondents was raised to a greater degree than for the high-disposition/high-likelihood respondents.

Given the lack of evidence suggesting any negative consequences likely to arise from the use of survey incentives, the prize draw method of incentivisation was pursued.

Results from the survey pilot

As noted above, cooperation was first established with two from the six hotel groups that were initially contacted. Accordingly, for the pilot survey, two hundred questionnaires were distributed to (a) three of the ten south east England hotels (with 50, 40 and 20 recipients respectively; total = 110) and (b) three hotels within the 27 facility UK-wide hotel group (each with 30 recipients;

total = 90). Thirty two valid responses (16 per cent) in total were received: 18 survey forms (16.4 per cent) from the south east hotel group and 14 survey forms (15.5 per cent) from the UK-wide hotel group. Four incomplete questionnaires, 2 from each group, were also received.

Dillman (2006: 323) notes the challenges that can be faced by researchers attempting to administer respondent-completed surveys within organisations (as opposed to surveys of individuals or households). A number of organisational studies researchers have discussed how surveys targeting respondents within organisations often demonstrate low response rates (see e.g. Hager *et al.* 2003, White and Luo 2005) and Dillman (2006: 323) helps to quantify typical response rates by describing an analysis of 183 business surveys carried out in 1991 where the mean response rate was found to be 21 per cent.

The 16 per cent return rate from the pilot fell a little short of the 21 per cent mean return rate described by Dillman. However, a second wave of pilot surveys was not sent owing to concerns about exhausting the goodwill of the participating hotels by asking them to participate in three and not two survey waves (the planned two waves were pilot plus full survey, a second pilot wave would have taken the total to three). Further, the time between distribution and receipt of the pilot survey forms was 6 weeks – once again, wishing not to exhaust the goodwill of the participating hotels (in particular the UK-wide group with a further 24 hotels to be included in the full survey) by engaging them for an extended period, priority was given to moving onto the full survey implementation.

Following the guidelines for preliminary (i.e. pre-test) assessment of data for SEM analysis provided by Hair *et al.* al (2006: 780-781), the data from these 32 questionnaires were used to evaluate the suitability of the indicator variables by assessing distributional normality, mean values and (using both exploratory and confirmatory factor analysis) the factor structures and item loadings. The characteristics of the data are as follows.

Regarding distributional normality, each indicator variable was checked for univariate normality and only one variable (EM6) violated the bounds of either 2 for univariate skewness or 7 for univariate kurtosis described by Curran *et al.* (1996). Specifically, the skewness value for EM6 was 2.1, however, as this did not transgress the boundary by a great deal and because the sample size was quite small, it was considered that removing EM6 at this stage may be a hasty

decision. None of the variables exceeded Curran *et al.'s* threshold of 7 for univariate kurtosis (see Section 6.3 on data assumptions for details of distributional normality).

Hair *et al.* (2006: 780) suggest that mean values for individual indicator variables should not approach the upper or lower limits of the scale range. For these data, the highest mean score was 4.45 (DSB2) and the lowest was 2.55 (SQ7). Hair *et al.* did not offer any specific guidance regarding a threshold that indicates when a mean value is too close to an upper or lower limit; in this case, because 4.45 is not more than 'halfway' between the upper scale points 4 and 5 the score was deemed to be satisfactorily distant from the upper polar extreme of 5. Using this same logic, the lower bound mean score of 2.55 is sufficiently distant from the lower polar extreme of 1 not to cause any concern.

Confirmatory factor analysis (CFA) of the individual constructs was used to check the statistical significance and magnitude of the item loadings – that is, the strength of association between each indicator variable and the construct that is hypothesised to influence that variable. Once again, no specific cut-off value is proposed by Hair *et al.* (2006: 780-781) regarding the level at which an indicator is failing to perform adequately well at the pre-test stage. In a more general context, Hair *et al.* (2006: 777, 795) note that factor loadings should preferably be above 0.7 and at least 0.5 (see Section 7.2.5 below on assessment of construct validity for more details on this). Accordingly, for the pre-test assessment, indicator variables loading below 0.5 were considered as candidates for removal from the survey.

Six indicator variables loaded below the 0.5 level (EM2 at 0.47; ME2 at -0.06; and ME4 at 0.18; AOC3 at 0.36; DSB3 at 0.47; and DSB4 at 0.42). In total, two variables (ME2 and ME4) had non-statistically significant factor loadings.
The indicator variable EM2 (I can make my own decisions at work) was removed as it had a clear item content overlap with indicators EM1 (I can choose the best way of doing my job) and EM4 (I have a great deal of control over my job) and was removed from the survey. Indicator variables ME2 and ME4 loaded very weakly and also failed to meet the criterion of statistical significance leading to their removal from the survey. The indicator AOC3[7] loaded at only 0.36 and was

[7] AOC3 was also the weakest-loading item (0.45) in Allen and Meyer's (1991) study from which the Affective Organisational Commitment scale is drawn.

therefore removed from the survey. Because DSB3 and DSB4 were not part of an exploratory construct (DSB has been previously – and successfully - measured using the same 4 indicator variables by Simons and Roberson 2003) it was decided to retain these two indicators in the survey and to monitor their future performance.

As discussed above in Section 5.3, there is no consensus on the use or non-use of reverse-polarity items in psychometric scale design. Ray (1983) found evidence supporting their use while both Herche and Engelland (1996) and Wong (2003) found that reverse wording caused problems with scale unidimensionality and construct validity.

Because the use of reverse worded items is not without problems (in particular, Wong's issues with reverse worded items in cross-cultural research), only three indicators in this pilot survey were (somewhat cautiously) included with reverse wordings. These indicators were ME2, ME4 and AOC3 and, indeed, each of these performed poorly in the pilot survey. These particular indicators were chosen for reverse wording because, firstly, AOC3 followed the original wording from Allen and Meyer's (1990) Affective Commitment scale. The ME2 and ME4 indicators were chosen for reverse wording because the Work Meaning (ME) scale was the only other scales that was both amenable to reverse wording and not based on an existing set of indicator wordings.

The three indicators (AOC3, ME2 and ME4) were all removed from the survey and the cautious conclusion drawn is that reverse worded statements do not work well in hospitality service contexts where respondents are from a variety of cultural backgrounds. (NB – ME2 and ME4 also negatively affected the unidimensionality [see below] of the Work Meaning construct, reflecting Wong's (2003) findings for cross-cultural context psychometric research).

Regarding factor structures / unidimensionality, exploratory factor analysis (EFA) was used to check that the indicator variables for each construct did indeed share a single common cause (i.e. were unidimensional). The Employee Empowerment (EM) indicators were an exception to this as these are hypothesised to measure two discrete factors (EM-I, Empowerment – Influence; and EM-C, Empowerment – Competencies). The EFA analyses were performed using maximum likelihood estimation (the same estimation method used in the CFA analyses). Varimax rotation of the factor matrix was applied to maximise the clarity of the factor

structures (see e.g. Hair *et al.* 2006: 122-127). All constructs performed as hypothesised except the Work Meaning construct. Following the removal of the problematic ME2 and ME4 indicators, the Work Meaning construct was found to be unidimensional, as hypothesised.

The exploratory Service Quality (SQ) construct which included a non-response option (for respondents who never experienced the specific type of service failure described in a particular item statement) was examined to evaluate the volume of non-response and to assess the likely impact of such non-response on the ability to perform SEM analyses using this construct. For the seven SQ items, 5 of the 32 respondents used the non-response option. The distribution of non-responses was as follows: SQ1 = 5, SQ2 =3, SQ3 = 4, SQ4 = 1, SQ5 = 0, SQ6 = 4, SQ7 = 3. This was a suitably low rate of non-response and, together with the good item loading levels (the range was 0.670 to 0.895) and the unidimensionality of the scale, provided a rationale for maintaining the SQ construct in the survey.

Aside from the removal of the four item statements described above, one further modification was made to the survey questions on respondents' demographic characteristics. Question 10 was included in the pilot survey in form shown below:

Q10 Work Status
(please tick all that apply)

Full-time	*Part-time*	*Seasonal*	*Temporary*	*Permanent*
☐	☐	☐	☐	☐

However, although all respondents ticked either full- or part-time, 27 of the 32 respondents failed to indicate their tenure status. Accordingly, Q10 was reworded as two separate questions for the full survey.

Summary of the pilot findings

The pilot survey found that (subject to the minor modification to demographic question 10) the questionnaire works well for a 'live' sample of respondents. Four item statements were removed owing to low item loadings and (in the case of ME2 and ME4) problems with unidimensionality.

6.5.2 Administration of the full survey

Administration of the full survey was carried out using the same procedures as with the pilot study with regard to the methods of distributing and returning the questionnaires. To engender a higher response rate, the researcher became significantly more vigorous in explaining to hotel contacts the importance for the success of the study of proactively and insistently encouraging recipients to complete and return the survey forms. There is some evidence that this strategy did make a positive difference to the response rate. Specifically, the response rate from the south east of England hotel group increased from 16.4 per cent during the pilot survey to 54.9 per cent (from the remaining seven hotels in this group) and the overall response rate to the full survey was 37.9 per cent (see below). No pilot/full survey response rate comparison can be made for the UK-wide group with a remaining 24 hotels to survey as, unfortunately for the research, the group appointed a new manager to the job position that the researcher was in contact with and this manager declined to continue to participate in the survey.

Of the six hotels/hotel groups that Alan Cutler provided contact details for, ultimately only two participated in the survey work. The south east of England group in the pilot and full surveys and the UK-wide group in the pilot. The other four hotels either refused to participate (n = 1) or procrastinated sufficiently (over a course of four to six weeks) to avoid participation (n = 3).

The hotel contacts described above represented the initial set of hotels to be contacted; to progress the survey the researcher subsequently contacted (based on suggestions from individuals in his professional network) four UK hospitality industry members' organisations (hotel associations) and several individual hotels. The remainder of the participating hotels were recruited through these efforts.

In total, just over 100 hotels were contacted, 59 hotels agreed to co-operate with the research and 27 of these actually returned survey forms (a co-operation rate of 46 per cent).

In terms of individual survey forms distributed and returned:

- 1,459 survey forms were distributed;
- 234 survey forms were returned;
    - representing a response rate of 16 per cent[8]

[8] This proportion of returns is identical to the pilot survey response.

Setting aside those hotels that did not return any survey forms, and therefore, although indicating that they would, effectively did not participate in the research:

- 618 survey forms were distributed;
- 234 survey forms were returned;
    - representing a response rate of 37.9 per cent[9]

The hospitality leadership articles that had been identified for this research were examined to identify typical response rates for postal surveys within organisations in this area of social science. Eight studies published during the previous 10 years that had employed a postally-administered survey were identified (Chiang and Jang 2008; Kozak and Uca 2008; Clark *et al.* 2009; Patiar and Mia 2009; Asree *et al.* 2010; Gill *et al.* 2010; Kim, B. *et al.* 2010; Zopiatis and Constanti 2010). The response rates for these studies ranged from 19 to 66 per cent with a mean response rate of 40 per cent. The response rate achieved for this survey (37.9 per cent) is close to this average.

Assessment of the sample

The 59 hotels that agreed to participate had the following star ratings: (i) three star n = 12; (ii) four star n = 36; (iii) five star n = 5; and (iv) no star rating identified n = 6. Of the 27 that returned survey forms, six (22.2 per cent) had a three star rating, nineteen (70.4 per cent) had a four star rating and two (7.4 per cent) did not mention a star rating on their web sites. None of the five star rated hotels (n = 5) that were contacted ultimately participated in the survey.

To assess whether or not star rating had any effect on the propensity of hotels to participate, contingency tables were constructed - by cross-classifying hotels' star ratings and participation status (did / did not participate) - to test for the independence of the two variables using the chi-squared statistic. Using the three star rating categories (3, 4 and 5 star) prevented a meaningful analysis since the low number of 5 star hotels created too many cells in the contingency table (>20 per cent) with expected values less than 5 (thus violating one of the assumptions of the contingency table chi square test). To counter this issue, two alternative contingency tables were constructed. In the first, the 5 star hotels (none of which participated in the research) were removed from the analysis resulting in a finding

[9] Owing to the way in which the pilot survey was administered it was not possible to calculate a similar figure for the pilot.

that there is no association between 3 star / 4 star rating and participation in the survey (χ^2 p = 0.868; Fisher's exact p = 0.565). The second alternative test combined the four and five star hotels into one category and also resulted in a finding that there is no association between hotels with a 3 star rating and hotels with 4/5 star ratings and participation in the survey (χ^2 p = 0.823; Fisher's exact p = 0.540).

Hotel size was measured based on the number of survey forms sent to each – this equates with the number of non-supervisory waiting staff employed by each. The mean number of survey forms distributed to participating hotels was 22.9; for those hotels that did not return any forms (and therefore effectively did not participate in the survey) the mean number of survey forms distributed was 19.6. An ANOVA[10] test was performed to assess whether or not number of non-supervisory waiting staff had any effect on the propensity of hotels to participate. This test indicated that there is no association between staff numbers and propensity to participate in the survey (F = 0.536; *d.f.* = 1; p = 0.467).

A common reason cited for non-participation was "we are too busy", although it was clear from the discussions with the general managers that those who did participate were more open to this type of co-operation and more positive with regard to the role of research in hospitality management and organisational management. There is no reason to believe that the participating hotels had different approaches to leadership than non-participating hotels.

Regarding the individual respondents, of the 234 responses, a total of 213 useable cases were retained following the data screening process described in Section 6.6 below. The suitability of this sample size is assessed in two ways: firstly, it is considered alongside various published guidelines relating to sample size for SEM analysis; and, secondly, it can be compared with reported sample sizes for other leadership-focused hospitality studies that have utilised structural equation modelling.

Recommendations regarding minimum sample sizes for SEM analysis include:

- Loehlin (1992) who recommends at least 100 cases, preferably 200

[10] NB - the ANOVA test can be used in the same way as the *t*-test to compare means between two groups. Hair et al. (2006: 387) describe the *t*-test as '...a special case of *ANOVA* for two groups or levels of a treatment variable'.

- Hoyle (1995) who recommends a sample size of at least 100 to 200
- Kline (2005: 15) who considers less than 100 to be 'untenable' other than for very simple models
- Schumaker and Lomax (2004:49) who surveyed the literature and found sample sizes of 250 to 500 to be used in "many articles" and "numerous studies ..that were in agreement" that fewer than 100 or 150 subjects was below the minimum
- Hair *et al.* (2006: 741) who write that minimum sample sizes for maximum likelihood estimation are 100 to 150 and that 200 provides a sound basis for estimation
- Hair *et al.* (2006: 742) add that where factor loadings are in the range of 0.67 to 0.74 then the sample size should be 'more in the order of 200'

Other authors base their guidelines not on absolute sample size, but on sample size relative to the number of observed variables. Examples of such guidelines include:

- Kline (2005: 178) who suggests at least 10 cases per observed variable
- Stevens (Stevens 1996) who suggests at least 15 cases per observed variable
- Garson (2011b) who suggests that sample size should be at least 50 more than 8 times the number of observed variables in the model

Based on the guidelines for absolute sample size described above, this sample, at greater than 200 cases, is adequate for SEM analysis; in relation to the guidelines for the ratio of cases to observed variables, based on the minimum guideline of 10 cases per observed variable, 213 cases allows for the estimation of a model containing 21 observed variables.

A further model-based assessment of sample adequacy is available when using the AMOS software for SEM analysis. Hoelter's Critical N (CN) (Hoelter 1983) specifically concerns the adequacy of sample size for calculating the χ^2 value for that model. Hoelter's recommendation was that where CN is ≥200 then the sample size is large enough to for χ^2 to be calculated satisfactorily. Garson (2011b) notes that a CN of less than 75 is considered insufficient to accept a model by chi-square. Hoelter's CN is reported for each SEM model in Chapter 7 detailing the analysis of the data.

A further check on the adequacy of the sample was undertaken by comparing the current sample size with reported sample sizes for other leadership-focused

hospitality studies that have utilised structural equation modelling. Seven hospitality-leadership studies were identified that had used SEM analysis (Sparrowe 1994; Tracey and Hinkin 1996; Borchgrevink *et al.* 2001; Chiang and Jang 2008; Hinkin and Schriesheim 2008; Clark *et al.* 2009; Asree *et al.* 2010) and the mean sample size for these studies was found to be 285.6. Clarke *et al.* (2009) represented something of an outlier with a very large sample size of 797 (excluding Clarke *et al.*, the range of sample sizes was from 88 to 291). A median value was calculated to reduce the impact of the large outlier. The median was found to be 237 - with the outlier removed entirely, the mean value was found to be 200.

In summary then, the sample size of 213 compares well with both the general guidelines for SEM analysis and with previous published leadership studies in hospitality settings.

Representativeness of the sample

In strict terms, the sample cannot be properly considered as a probability sample where each member of the population of interest has an equal probability of receiving a survey form. Practically, for the population of interest for this research, it is not possible to access or develop a sampling framework within which to randomly select recipients of survey forms. Such a sampling framework would include every hotel with a table service restaurant in the UK and such a listing does not exist.

The Inter-Departmental Business Register (IDBR) is the most comprehensive database of UK businesses and is maintained by the ONS (Office for National Statistics). The IDBR uses the 2007 revision to the Standard Industrial Classification (UK SIC 2007) meaning that it would be possible to identify hotel businesses in the database. The coverage of the IDBR is not comprehensive, however. The IDBR contains data on 2.1 million businesses (Office for National Statistics 2011b) and there are a total of 4.5 million businesses in the UK (Office for National Statistics 2011a).

Regardless of any such methodological shortcomings, however, cold calling hotel businesses following their selection from a list of organisations as the IDBR was not considered likely to yield good results. Indeed, the lack of enthusiasm for co-

operation shown by many of the hotel general managers - even when contact was supported and endorsed by either the hotel association to which that hotel belongs – supports this position.
In practical terms, the sample consists of non-supervisory waiting staff working in table service restaurants in 3 and 4 star hotels in the UK and can therefore be considered reflective of this constituency.

Evaluating survey non-response

Survey research findings can be influenced by non-response bias that can be introduced where the responses of persons who did complete the survey differ substantially from those who do not complete the survey (see e.g. Keegan and Lucas 2005). For example, if married couples were under-represented in a particular survey, and married couples have significantly different opinions and/or experiences from the remainder of the population, then a form of systematic bias has been introduced to the survey data.

In this survey, bias could potentially have been introduced through the discriminatory selection of recipients on the part of the person distributing the survey forms, thus preventing some potential respondents actually receiving the survey form. The specific concern for this survey had been that hotels might select employees who enjoy good leader relations in order to produce a favourable result for that hotel or hotel group. To counter this possibility, the researcher made it clear to all of the participating hotels that, because the statistical analysis required a sample size of 200 or more, it would be impossible to make any inferences about individual hotels or even hotel groups and that they should not, therefore, be concerned in any way about any findings emerging that might be unfavourable for their organisation.

While steps have been taken to counter this particular source of non-response bias, it is nevertheless good practice to evaluate, as far as possible, the nature of any survey non-response so that any potential bias on the findings can be anticipated, investigated and ultimately accounted for. The remainder of this section follows a structured approach to evaluating the nature of any survey non-response. The effects of any such non-response on the research findings (i.e. the resulting non-response bias) will be evaluated following the development of the statistical models using multi-group SEM analyses (see Section 7.15).

Armstrong and Overton (1977) suggest several methods for evaluating the potential impact of non-response on survey findings: (i) researchers' subjective estimates of the likely nature of the non-response bias based on the characteristics of the non-respondents (see e.g. Kirchner and Mousley 1963; and Vincent 1964 for using this technique based on socio-demographic variables); (ii) extrapolation, which is based on the assumption that 'late responders' are more like non-responders than 'early responders' and then examining differences in data between early and later responders; and (iii) comparing respondents' characteristics with known characteristics for the population of interest.

Regarding the use of **subjective estimates of the effect of non-response bias**, there is not a great deal of literature in the hospitality leadership area to guide such a process. In the case of nationality, Testa (2002, 2004, 2009) has found evidence for greater levels of high-quality leader-member relations between supervisors and staff with the same nationality. Elsewhere, however, Wong and Chan (2010) found no evidence for nationality influencing employees' leadership perceptions. With respect to respondent age, none of the identified hospitality leadership articles have included age (neither employee or supervisor) as an independent variable in their respective analyses.

Owing to the way that this survey was administered it is not possible to distinguish between early and late responders and therefore the **extrapolation** approach for assessing non-response bias is not a feasible option. The method of administration involved the survey forms being sent to a hotel contact person who then distributed the forms to the potential respondents. The forms were then either returned directly to Bournemouth University by respondents, or were returned firstly to the hotel contact who then returned them to the University. Because it is not known to the researcher when each respondent received the survey form, nor when that respondent completed and returned it (was it returned directly or via the hotel contact?) it is not possible to determine early from late respondents.

The most efficacious method for determining the characteristics of survey non-response was to examine the characteristics of the sample and **compare these with known population values**. Known (approximate) population values were identified using the current People 1st's Industry Profiles for the hotels and restaurants sector (People 1st 2011a, 2011b) (figures for the waiter category were obtained directly from People 1st (2011c)). All of these data are derived

from UK Labour Force Survey findings published during 2009 and 2010 (People 1st 2011c).

Table 6-1 describes the entire range of descriptive statistics for the sample and Table 6-2 contains the profiles for both the hotels and restaurant sectors and the waiters category and compares these with the sample characteristics on the key comparable indicators.

Variable	Values	Frequency	Percentage (valid responses)
Gender	Male	93	44.5
	Female	116	55.5
	Missing	*4*	
Age	18-24	114	54.5
	25-34	70	33.5
	35-44	12	5.7
	45-54	7	3.3
	55-64	6	2.9
	Missing	*4*	
Employment status	Full-time	123	61.2
	Part-time	78	38.8
	Missing	*12*	
Tenure	Permanent	152	83.1
	Temporary	24	13.1
	Seasonal	7	3.8
	Missing	*30*	
Time in job	1 to 2 months	24	11.5
	3 to 6 months	27	13
	6 months to 1	46	22.1
	1 to 2 years	45	21.6
	More than 2 years	66	31.7
	Missing	*5*	
Employee origin	UK	76	36
	EU	74	35.1
	Non-EU	61	28.9
	Missing	*2*	

Total n = 213

Table 6-1 Descriptive statistics for the sample

With regard to gender, males are somewhat over represented in the sample in comparison to the waiters category, but similar to the figures in the hotel and restaurant categories. Similarly, regarding employment status (full or part time employment) the sample characteristics are very close to the People 1st Industry Profile characteristics for hotels and restaurants but somewhat different compared to the waiters category where part time workers are significantly under-

represented in the survey. These findings for gender and employment status are likely due to the fact that, while waiting staff have been surveyed as the population of interest, the respondents are, nevertheless, *waiting staff in hotels*, rather than waiting staff in all hospitality organisations.

Criterion	Population (UK)						Sample	
	Hotels		Restaurants		Waiters			
Gender (%)	Female	Male	Female	Male	Female	Male	Female	Male
	57	43	48	52	72	28	55.5	44.5
Full-/ Part-Time (%)	Full	Part	Full	Part	Full	Part	Full	Part
	65	35	53	47	32	68	61	39
Origin (%)	UK	non-UK	UK	non-UK	UK	non-UK	UK	non-UK
	75	25	64	36	75	25	36	64
Age	≤24	25-34	>34	≤24	25-34	>34	≤24	25-34	>34	≤24	25-34	>34
	30	26	44	41	26	33	66	18	16	54.5	33.5	12

Source of population values: (People 1st 2011a, 2011b, 2011c)

Table 6-2 Comparison of sample characteristics with known population values

For respondent origin, the sample contains a higher proportion of non-UK respondents in comparison with all three categories. Finally, regarding respondent age, a rather complex picture emerges. Younger (<24 years) respondents are over-represented in the sample in comparison with the hotel and restaurant sector data, however, in comparison with the waiters category, the sample slightly under-represents younger employees. Importantly, the sample closely reflects the idiosyncrasy on the' waiters' population values insofar as employees over the age of 34 are found in much fewer numbers than in the general 'hotels' and 'restaurants' categories.

These complexities in comparing the sample characteristics with the range of known population values reflects the fact that none of the categorisations in the published figures accurately reflect the population of interest for this survey. For example, the waiters category includes all employees in the UK who are categorised as waiters according to the UK Standard Occupational Classification (Office for National Statistics 2000). This category will therefore include workers in not only hotel restaurants, but also those in all restaurants, cafés, casinos, hospitals, workplace canteens and so on. In a similar fashion, the figures for the hotels and restaurants categories will include data from all manner and quality of accommodation providers and catering businesses. Put another way, there are no

published population values for the specific population of interest that this research focuses on (waiting staff in hotels with table service restaurants) or that focus on the more specific constituencies (types of organisations) that form the sample for this research (3 and 4 star hotels).

Assessing the likely impacts of non-response bias is clearly problematic in the light of the difficulties arising from attempting to evaluate survey non-response through comparisons of the sample characteristics with known values from similar, but not identical, populations.

It is possible, however, to use SEM analysis to move beyond the subjective estimation of non-response effects. Specifically, in order to explore whether or not respondents' demographic characteristics have any influence on the study findings, multi-group SEM analyses will be performed to explore the differences between groups. These multigroup analyses are reported in Section 7.15.

The benefit of SEM multi-group analysis in the context of survey non-response is that, where a multi-group SEM model indicates that group membership does not influence the measured relationships within a SE model, then we can be assured that, even in the absence of a perfect understanding of the representativeness of the sample, the estimated relationships are likely to be generalisable to the population of interest.

6.6 Data screening

Prior to initiating the modelling work, the data were screened for missing values, distributional normality, presence of outliers and an analysis of non-response assessed how consistently the sample compares with the population of interest.

6.6.1 Treatment of missing data

Missing data are not uncommon in survey research (e.g. Byrne 2010: 353) and a common source of missing data when using respondent-completed questionnaires is non-response to one or more survey questions. Not surprisingly, an initial examination of the completed data set for this research shows that there are some missing values. Such non-response can occur where some respondents are

unwilling to answer sensitive questions relating to, for example, age or income. More significantly in the context of this research, is the issue of individual item statements (or even whole sections of the questionnaire containing item statements) not being completed.

Specific concern over non-response to individual item statements relates to the limitations that this can place on the range of methods available for developing the structural equation models. These concerns are described in greater detail below.

Methods to deal with missing item statement data include (i) removing all cases containing missing data (*listwise* deletion), (ii) excluding cases from a specific analysis where a variable in that analysis is affected by missing data (*pairwise* deletion) and (iii) replacing the missing data using estimates of what the values might have been had they been entered by respondents.

Pairwise and (especially) listwise deletions both result in sample size attrition (Schumaker and Lomax 2004: 25-26) and pairwise deletions can cause other problems with SEM covariance matrices (see e.g. Kline 2005: 53-54). Because of the sample size issue, Schumaker and Lomax (2004: 26) note that it is generally preferable to replace missing values rather than simply remove cases with missing values.

Missing value replacement (imputation) techniques include *mean imputation* where missing values are replaced by the mean value (representing the most likely value for that observation) for that variable, calculated from the values of the completed responses. This method has negative consequences for SEM since increasing the number of observations with mean values reduces the amount of variance. Alternatively, *regression imputation* uses the actual observed values in that variable as predictors (in regression equations) of the replacement values. Once again, however, for SEM analyses, issues can arise with the undesirable effects that this technique can have on variances (and covariances) (Byrne 2010:357). Finally, in recent years, *model-based imputation* methods have emerged that improve upon both mean and regression methods. The model-based methods replace missing data with values that are calculated from model-specific statistics (see e.g. Kline 2005: 55) and are generally regarded as superior to means substitution and regression imputation, particularly when sample sizes are below 250 (Hair *et al.* 2006: 739-740).

The AMOS software for SEM analysis offers researchers an alternative method for estimating models in the presence of missing data that relies neither on removing cases nor imputing data. Rather it uses a special - and effective (Byrne 2010: 359) - form of maximum likelihood (full information maximum likelihood, FIML) estimation to compute model parameters where variables contain missing data (Kline 2005: 56; Arbuckle 2009: 270). Shumaker and Lomax (2004: 43) note that FIML has become the favoured approach for dealing with missing data in SEM analyses.

The FIML method, however, is not particularly suitable for the model generating approach to SEM utilised in this research. This is because the FIML method (in AMOS at least) does not allow for the computation of a standardised residual covariance matrix (SRCM) or modification indices, both of which provide information related to unmeasured variance in the model and are of key importance for model modification and development. A further drawback with the FIML method (which affects some of the analyses in this research) is its inability to calculate bootstrapped estimates that are used to provide confidence intervals for parameter estimates where data are multivariate non-normal. Finally, the standardised root mean square residual (SRMR) estimate - which is a useful measure of global model fit (see Section 7.2.6) - cannot be calculated with the FIML method.

Based on the information described above, the favoured approach for dealing with missing data in this research, is to firstly replace the missing data using the model-based imputation method (using the AMOS software). This is the next-best method for dealing with missing data short of using the FIML method and it allows for (i) the use of modification indices for model development and (ii) bootstrapped estimates to check the robustness of parameter estimates in models where data are multivariate non-normal. Following Schumaker and Lomax's 'advice for prudent researchers', (2004: 43) the parameter estimates and goodness of fit statistics from the models that have been developed using data sets containing imputed data will then be compared with estimates for the same (fully-developed) models calculated using the FIML method.

In summary, the final models developed from model-based missing value replacement will be re-estimated using the FIML to check that the imputation process has not adversely affected the ultimate findings from the research.

In addition to the considerations described above, the selection of imputation method is dependent on the characteristics of the missing data in terms of their type, extent and degree of randomness (Hair *et al.* 2006: 54). The model-based imputation method for replacing missing values is robust against all degrees of randomness (Hair *et al.* 2006: 58), nevertheless, this research goes on to follow Hair *et al.*'s (2006: 53) four-step process to evaluate the type and extent of the missing data and to characterise its degree of randomness.

Prior to beginning the four-step process, an initial examination of the 234 returned survey forms found that of these, 8 had not been completed at all and a further 2 were missing around half of the 53 item scale questions. These 10 survey forms were removed from the database leaving 224 survey forms to examine.

Step 1 – Type of missing data

Step 1 of Hair *et al.*'s (2006) process is to determine whether or not the missing data are **ignorable**.

The missing data associated with the Service Quality (SQ) latent construct are ignorable, since these are missing by design. Specifically, the approach to measuring SQ for this research is to record the frequency that each respondent is able to deal with each type of service failure / negative situation, while maintaining customer satisfaction. Because it is possible that an individual respondent 'never' experiences the particular service failure situation being described, respondents were instructed simply not to respond in these circumstances.

Because they are ignorable, the Service Quality (SQ) data (measured using 7 item statements) are not included in the following discussion. Furthermore, because of the inherent missing data in the measurement of the SQ latent construct, the SQ data are analysed in a separate modelling exercise using a truncated sample based on listwise deletion of cases.

Step 2 – Extent of missing data

The remaining missing data are **non-ignorable** and Step 2 is to determine the **extent** of these.

Hair *et al.* (2006: 54-55) note that there are no hard-and-fast rules for determining exactly how few missing data are acceptable before moving on to complete the data set with replacement values. General rules of thumb provided by Hair *et al.* (2006: 55-56) are that: (A) it should be possible to undertake the planned analysis effectively using only the cases with no missing values at all; (B) variables with 15 per cent of values missing are candidates for deletion; (C) generally, missing data under 10 per cent for an individual case can be ignored, provided it occurs in a non-random fashion; and (D) removal of a variables or case is justified if this removal significantly decreases the volume of missing data.

For the remaining 46 item statement variables (53 item statements in total minus the 7 measuring SQ = 46) across the 224 cases, analyses were performed to establish: (i) the percentage of variables containing missing vales; (ii) how the missing values are distributed amongst cases; and (iii) the overall level of missing data in the data set. Having measured these aspects of the data set, Hair *et al.* (2006: 55) recommend further examination to identify non-random patterns of missing data such as concentration of missing data on specific sets of questions/statements and attrition in questionnaire completion.

SPSS's Missing Value Analysis (MVA) module produces summary descriptive statistics for the proportion of cases and variables with missing values, the proportion of missing values in each variable and the proportion of all data points that do not contain a value. The MVA module does not, however, provide a value for the number of missing values for each case. Accordingly, a new variable (named *Miss_Per_Case*) was manually computed in SPSS to provide a sum of missing values per case.

The MVA analysis reveals that 6 of the 46 variables (13 per cent) in the data set have no missing values and that 99 per cent of data points are complete.

With regard to rule of thumb (A), the 177 cases with no missing data do provide an adequate sample size to perform the planned analysis (see the discussion on sample sizes for SEM in section 6.5.2).

Considering rule of thumb (B), all variables are significantly below the level of 15 per cent missing values that indicates they are candidates for deletion. The largest proportion of missing values per variable is 3.1 per cent (applying to 4 variables).

Considering rule of thumb (C) 6 cases with greater than 10 per cent missing values are flagged for attention.

The next step is to examine the missing data for non-random patterns.

Six cases had a clear non-random pattern of missing data – specifically, these respondents had not completed any of the 4 DSB (Discretionary Service Behaviour) item statements. This may be an example of 'end of questionnaire attrition' (see e.g. Hair *et al.* 2006: 55) as the four DSB items appear on the back page of the survey form, separate from the other item scale statements. Although, notably, 3 of these 6 respondents actually went on to complete the demographic questions following the DSB item statements.

Hair *et al.* (2006: 55) note that, to a large extent, researcher judgment is required in assessing the impact of missing data on any particular data set. For this research, considering the requirement to avoid a concentration of missing data on specific sets of questions/statements, an *ad hoc* guideline was introduced to prevent concentrated missing data on individual latent constructs. Specifically, it was decided to remove cases where missing values constitute more than one third of the total values per latent construct. In practical terms, this means that for latent constructs measured with 3 to 5 items, no more than 1 item per case could be missing. For latent constructs with 6 to 8 items no more than 2 items could be missing.

Five cases with instances of more than one third of values missing within a latent construct were identified:

- 1 case was missing 2 DSB items (DSB has 4 items in total);
- 1 case was missing 4 ML (Motivational Leadership) items (ML has 5 items in total);
- 1 case was missing 3 ML items and 3 JP (Job Performance) items (JP has 4 items in total);
- 1 case was missing 3 ME (Work Meaning) items (ME has 5 items in total); and
- 1 case was missing 2 ME items (ME has 5 items in total).

These 11 cases with non-random, or concentrated patterns of missing values were removed from the data set leaving 213 cases. This results in the data set containing only two cases where more than one value was missing per latent construct. The first case was missing 2 values (33.3 per cent) from the Job Satisfaction (JS) construct and the second case was missing 2 values (29 per

cent) from the Work Values (WV) construct. Neither of these violates the 'greater than one third' guideline for this research.

Following the removal of these cases, the characteristics of the missing values in the data set were re-evaluated and can be summarised as follows:

- 17 (37 per cent) of the 46 variables have no missing values;
- 177 (83 per cent) of the 213 cases have no missing values; and
- 99.5 per cent of data points are complete.

Missing data distribution by variable is summarised in Table 6-3 and their distribution by case in Table 6-4.

The distribution of missing data by variable continues to more than adequately satisfy rule of thumb (B) which states that variables with 15 per cent missing data are candidates for deletion. Table 6-3 shows that missing values account for no more than 2.8 per cent in the affected variables.

Variable/s (n = 213)	Number of missing observations	Percentage of missing observations[a]
JS5	6	2.8
ME1, SS4	4	1.9
EM3, EM7, ME6	3	1.4
EM6, JS2, ME3, ME7, SS1, WV5	2	0.9
AC1, AC2, AC4, DSB4, EM9, JS3, JS4, JS6, SS3, WV1, WV4, WV6, WV7	1	0.5

a – based on 46 item statement variables

Table 6-3 Distribution of missing values by variable

Regarding the level of missing values per case (see Table 6-4), only one case (with 5 missing values) is flagged for attention. Attention is warranted because greater than 10 per cent of all data points are missing; specifically, 5 missing values = 10.9 per cent of all data from the 46 item statements.

The five missing values are found across four different latent constructs as follows:

- 1 in Motivational Leadership (ML4);
- 1 in Work Meaning (ME7);
- 1 in Employee Empowerment (EM7); and
- 2 in Job Satisfaction (JS2 and JS5).

This case is, however, retained based on the following rationale:

- the 5 missing values are spread across 4 latent constructs;
- there is no violation of the 'more than one third of the total values per latent construct' condition described above;
- 10.9 per cent is very close the guideline figure of 10 per cent in rule of thumb (C); and, significantly
- considering rule of thumb (D), removing the case does not significantly improve the extent of the missing data (changes to all missing data points and missing data per variable are negligible).

Cases with...	Number of cases	Per cent of all cases	Per cent missing values per case[a]
No missing values	177	83.1	0
One missing value	24	11.3	2.2
Two missing values	10	4.7	4.3
Three missing values	1	0.5	6.5
Five missing values	1	0.5	10.9
Total cases	*213*	-	-

a – based on 46 item statement variables

Table 6-4 Distribution of missing values by case

Step 3 – Randomness of missing data

Step 2 has allowed for the removal of concentrated occurrences of missing values and established that the data set is now within acceptable limits for calculating replacement values and moving on to the SEM analyses.

Step 3 and 4 of Hair *et al.*'s four-step procedure are somewhat redundant in this example. Specifically, step 3 characterises the degree of randomness of the missing data and this informs the selection of imputation method in step 4. In this example, the preferred method of data imputation is the model-based method, and this method is robust even where data are missing not at random.

Nevertheless, it is a useful exercise to move through step 3 in order to clarify the characteristics of the differing degrees of randomness and to fully report the characteristics of the missing data in this research.

Missing data are categorised by Hair *et al.* (2006: 56) according to three different types:

(i) non-random missing values – also referred to as Not Missing at Random (NMAR, Byrne 2010: 354) and non-ignorable missing data (Schumaker and Lomax 2004: 43; Garson 2011a);
(ii) Missing at Random (MAR); and
(iii) Missing Completely at Random (MCAR).

Non-random missingness in variable X can be determined where there are statistically significant differences in the values of an independent variable Y when the observations on Y are disaggregated using X = missing and X = not missing. For example, where a categorical variable (Y) is measuring gender and X is a attitudinal scale variable, a new, dichotomous missing/not missing variable (X_1) can be recoded from X. A chi square (χ^2) test can then reveal if there is a statistically significant measure of association between X_1 and Y. A positive result indicates that gender may be having an effect on whether or not variable X is missing. Simply removing cases where X is missing might then bias the survey findings with regard to gender dimensions. This is one reason (aside from attrition of sample size) why it is often preferable to replace missing values rather than simply remove them.

Using the same example, variables X (an attitudinal scale variable) and Y (a categorical gender variable) as above, where data are **Missing at Random** (MAR), we see that while there is not a random distribution of missing data between females and males, within each sub-group (female and male) the missing data are distributed at random.

Where data are **Missing Completely at Random** (MCAR), there is no correlation between missingness of data and any other variable.

Following the guidelines in Hair *et al.* (2006: 57) each of the 29 item statements with missing data was cross-tabulated with the demographic variables in the survey to assess whether or not these demographic variables influence the presence of the missing data. The demographic variables are:

- gender;
- age;
- full-time / part-time;

- permanent / seasonal / temporary;
- length of service; and
- respondent origin (UK / non-UK).

The analysis was carried out using the SPSS Missing Value Analysis (MVA) module and revealed some minor fluctuations in the proportions of missing data attributable to age (and its effect on non-response to JS5) and length of service (and its effect on non-response to EM3). However, the absolute volumes of missing data in these variables involved are so small (the JS5 variable is missing 5 out of 213 total observations and EM3 is missing is missing 3 out of 213) that these fluctuations cannot be regarded as meaningful in a statistical sense. To investigate this further χ^2 (chi square) tests were carried out on age/JS5 and length of service/EM3. These tests confirmed that it is not possible to infer statistical meaningfulness on these findings as the assumptions of the χ^2 test are not met (i.e. the proportions of expected counts less than 5 are >20 per cent).

Using the SPSS MVA module once again, the item statement data were tested for their MCAR (Missing Completely at Random) status using Little's (1988) MCAR test. This procedure tests the hypothesis that the missing data are missing completely at random (MCAR) and a p value of <0.05 means that this hypothesis should be rejected – meaning that the missing data cannot be classified as MCAR. The analysis produced a p value of 0.002 and so the hypothesis that the missing data are MCAR is rejected.

In conclusion, the data meet the assumptions for MAR but fail the test for MCAR. Additionally, the characteristics of the missing data satisfy the four rules of thumb described by Hair *et al.* (2006: 55-56).

6.6.2 Distributional normality

As noted in Section 6.3 above, none of the measured variables violate Curran *et al.*'s (1996: 26) bounds of 2 for univariate skewness or 7 for univariate kurtosis (see Appendix II for details).

Multivariate normality is measured using AMOS's critical ratio (C.R) for multivariate kurtosis which is equivalent to Mardia's (1970) normalised estimate of multivariate kurtosis (Byrne 2010: 104). C.R. values greater than 5 can be

regarded as indicative of the existence of multivariate non-normality (Bentler 2005 cited in Byrne 2010: 104). Where an optimal model specification demonstrates a multivariate kurtosis C.R. value greater than 5, the model is re-estimated, following the procedure described by Byrne (2010: 329-352), using AMOS's bootstrap procedure which generates confidence intervals for each parameter. In this way parameters are checked for their robustness in the light of multivariate non-normality as required. Critical ratio estimates for multivariate normality, and bootstrapped estimates where appropriate, are reported in Appendix IV.

7 ANALYSIS

7.1 Re-statement of the analytical framework

Before moving on to estimate the models, the twenty hypotheses to be tested are illustrated once again (for reference) in Figure 7-1 below. The development and estimation of the models then follows, beginning in Section 7.2 with Model 1 which deals with Hypotheses 1 (ML→JP) and 2 (ML→DSB).

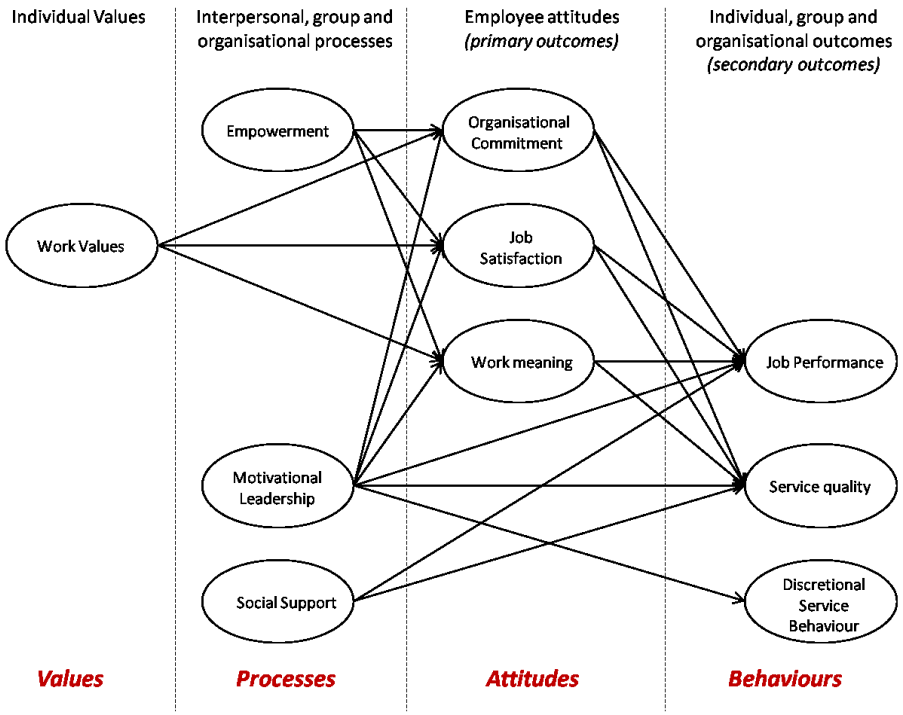


Figure 7-1 Organising framework including the DSB construct

7.2 Model 1, Step 1: the measurement model

This section describes Step 1 of the two-step modelling procedure (Anderson and Gerbing 1988) in which the Confirmatory Factor Analysis (CFA) measurement model is developed. Within the two-step procedure, Shumaker and Lomax's (2004) five stages (model specification; model identification; model estimation; model testing; and model modification) are followed. The development of the first model (Model 1) is used to exemplify the processes and justifications for the selection of specific methods for evaluating CFA - and structural regression (SR) – are provided.

Section 7.3 goes on to describe Step 2 where the structural model is estimated.

Model 1 tests hypotheses H_1 and H_2 which are articulated as:

H_1(ML→JP): as employees experience greater levels of Motivational Leadership they will also experience greater levels of Job Performance.

H_2(ML→DSB): as employees experience greater levels of Motivational Leadership they will also report greater levels of Discretionary Service Behaviour.

7.2.1 Measurement model specification

During Step 2 of the two-step procedure, the structural model specification expresses the research hypotheses by linking the latent factors with uni-directional connectors indicating causal relationships. During Step 1, however, the measurement model is specified in such a way that all of the latent factors are allowed to freely correlate using bi-directional connectors indicating non-causal relationships. The focus of the measurement model is not on investigating the causal relations between latent factors, but on ensuring that the individual latent constructs (factors) are adequate in their role of measuring the concepts they are intended to (convergent validity) and that each latent factor is in fact measuring a unique construct (discriminant validity).

In specifying the measurement model, the researcher is focused on specifying – from the theory that has been developed – which indicator variables load onto which latent factors. In a congeneric measurement model (such as is being used in this research), each indicator variable (the rectangles in Figure 7-2) loads onto only one latent factor (the ellipses in Figure 7-2).

The 13 circular terms connecting to the indicator variables are error variances and represent measurement error – this can be conceptualised as the inherent unreliability in the capturing of data (introduced by sampling errors, mis-interpretations of questions on the part of respondents, mistakes by respondents etc). In SEM analysis, error variance is calculated as a product of (a) the proportion of variance in the indicator *not* explained by the latent factor and (b) that indicator's variance (the average of the squared differences from the mean for that indicator) (Garson 2011b). It is possible to specify links between error covariance terms – the theoretical implications of this are that the researcher is hypothesising that these linked error variances indicate that those indicators are influenced not only by the latent factor, but also by some other common, but unmeasured, factor.

It is not unusual for error variances to be linked (creating error covariances) in model generating SEM, and this is often done during the model modification stage (Kline 2005: 64-65) in order to improve model fit. Indeed, Bentler and Chou (1987: 108), 1987, p. 108) have argued that forcing errors to be uncorrelated is highly restrictive and "rarely appropriate for real data". When introducing error covariances in this way, however, researchers should always give consideration to the theoretical implications it has for the model - not least because including previously unspecified error covariances introduces an unknown and unmeasured common factor into the model which can only serve to weaken the *a priori* theory (see e.g. Kline 2005: 318).

The specification for measurement model CFA 1:1 is illustrated in Figure 7-2.

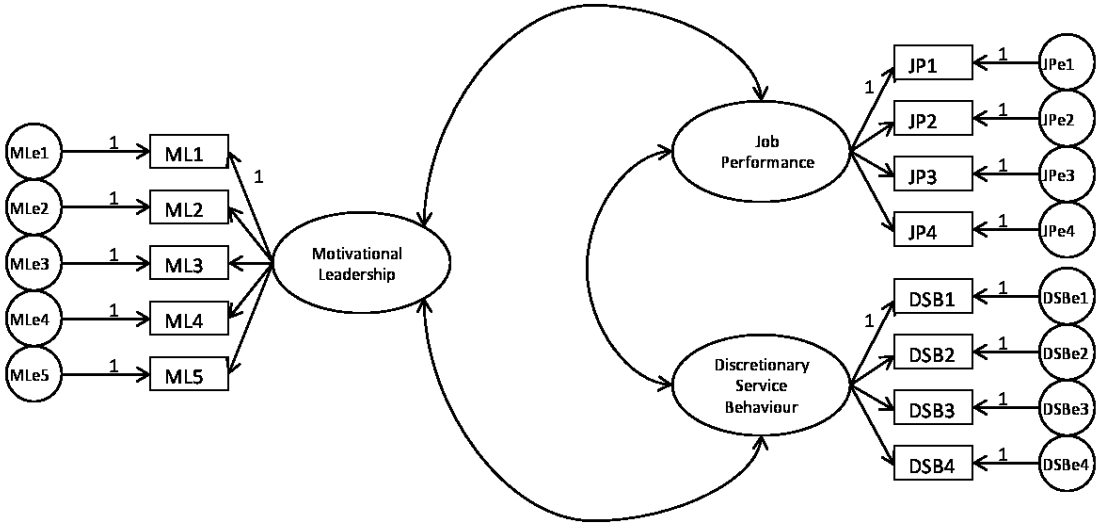


Figure 7-2 Specification for the measurement model CFA 1:1

Two constructs, Job Performance (JP) and Discretionary Service Behaviour(DSB), are specified with 4 indicators while the Motivational Leadership construct (ML) has 5 indicator variables. This means that the model exceeds the requirements for model identification (see Section 7.2.2 below). Each indicator corresponds with an individual item statement in the questionnaire (see Appendix VIII) and the inclusion of each set of item statements (i.e. the measurement scale for each construct) is based on the discussions in Chapter 5.

7.2.2 Measurement model identification

Model identification is essentially concerned with satisfying the requirements that: (a) it should be possible to solve the equations (identify a unique solution) for the relationships that are described by the theoretical model; and (b) every latent

(unobserved) factor must be assigned a scale (or metric) in order that estimates of effects can be calculated.

The latter issue is dealt with by constraining the unstandardised coefficient (loading) of one indicator per latent factor to 1, as illustrated in Figure 7-2. This type of constraint is referred to as a unit loading identification (ULI) constraint; an alternative method (not used here) exists, wherein the variance of the latent factor is constrained to 1, this being referred to as a unit variance identification (UVI) constraint. Also for scaling purposes, a unit loading identification (ULI) constraint (value = 1) is applied to each indicator's unstandardised residual path coefficient (the connecting line between each indicator and its error term) - again, these constraints can be seen in Figure 7-2. A more detailed discussion of model identification can be found in Kline (2005: 170-171).

The former issue, that of identifying a unique solution for each parameter to be estimated can be addressed by using the following guidelines from Hair *et al.* (2006: 785; 792):

- the **four indicator rule** stating that for a single factor CFA model, 4 indicators are required for the model to be identified;
- the **three indicator rule** which "is satisfied when all factors in a congeneric (indicators load onto only one factor) model have at least three significant indicators" and;
- the **two indicator rule** which "states that a congeneric factor model with two significant items per factor will be identified as long as each factor also has a significant relationship with some other factor".

Regarding the 'two indicator rule' it should be noted that while factors with only two items can be successfully integrated into SEM models following the criteria above, (i) two indicator factors can be subject to estimation problems at later stages of the SEM process (Hair *et al.* 2006: 786) and (ii) researchers should be aware of the issue of interpretational confounding where some of the substantive meaning of the factor is accounted for by the nature of the other latent factors in the model and not just by that factor's own indicators (see e.g. Burt 1976).

The specification of four and five indicators (respectively) for the latent factors in Model 1 exceeds these recommendations and concurs with Rigdon's (1995: 376) advice to initially specify models with sufficient parameters to allow for the deletion of parameters during model modification.

7.2.3 Measurement model estimation

Following the discussion in Section 6.3, the measurement model (and the subsequent structural model) is estimated using the Maximum Likelihood (ML) estimation method.

As described in Sections 6.3 and 6.6.2, and reported in Appendix II, none of the measured variables for this research violated the bounds of 2 for univariate skewness, or 7 for univariate kurtosis noted by Curran et al. (1996: 26). As with all of the structural equation models in this research, multivariate normality is assessed for the optimal measurement and structural regression model specifications. Details of multivariate normality for the data used to estimate Model 1 are described in Sections 7.2.10 (measurement model) and 7.3 (structural regression model) and are fully reported along with the corresponding bootstrapped estimates in Appendix IV.

7.2.4 Measurement model testing

Procedures for assessment of model fit fall into two broad categories: (a) assessments of construct validity (how well the indicators variables measure the constructs they are intended to); and (b) overall assessments of model fit. Model fit reflects the extent to which the relationships proposed in the theoretical model can actually be observed in the collected data and is measured using a combination of individual fit indices.

It is not uncommon for the initially specified model to fit the data rather poorly (see e.g. Kline 2005: 185) – the assessment of model fit being made according to a number of fit indices (see Section 7.2.6 below). Typically, then, following an assessment of unsatisfactory model fit, the measurement model is respecified by examining various measures of construct validity (Section 7.2.5 below). Identifying poorly performing indicator variables allows these variables to be removed from the model. As these poorly performing indicators are removed, it is usual to see improvements in both construct validity and overall model fit. It is, of course, important that researchers carefully report model modifications and that any changes made are done so with consideration for, and reference to, the theoretical implications of these changes (Boomsma 2000: 475).

The remainder of this section (7.2) describes the issues associated with construct validity and model fit and goes on to report the diagnostic information for the initial specification of Model 1. The following sections (7.2.8 to 7.2.10) then describe the process of measurement model modification. Having established a measurement model which exhibits good construct reliability and model fit, the next stage is to undertake work on the structural equation model. This process is reported in Section 7.3.

7.2.5 Assessment of construct validity

The rationale for conducting CFA (confirmatory factor analysis) in SEM is to represent (using a range of observable indicator variables) latent constructs which are not directly observable. Therefore, it is important to assess construct validity - the extent to which the latent constructs actually represent the concepts they are designed to measure. Hair *et al.* (2006: 776) describe this as assessing "the extent to which a set of measured items actually reflects the theoretical latent construct those items are designed to measure". There is not a single and definitive test for construct validity (Kline 2005: 60) and Hair *et al.* (2006: 776-779) provide a detailed discussion of four measures of construct validity:

(i) convergent validity – the extent to which items (indicators) of the latent construct *converge*, that is, "share a high proportion of variance in common" (Hair *et al.* 2006: 771). Three ways to estimate convergent validity are detailed:

- **factor loadings** – the amount of variance in each indicator explained by the latent factor
- **average variance extracted** – the average variance extracted (AVE) is the variance accounted for by the latent factor averaged across the indicators
- **construct reliability (CR)** – high measures (>0.7) for CR are indicative that all of the indicators consistently represent the same latent factor.

(ii) discriminant validity – the extent to which the latent variable is distinct from other latent variables in the model.

(iii) nomological validity – is concerned with whether or not the correlations among latent factors in the CFA make sense (with respect to the hypothesised relationships or prior research).

(iv) face validity – also known as content validity (Hair *et al.* 2006: 136), this is the correspondence between the observed variables and the construct that is intended to be measured by the latent factor.

The four sub-sections below describe the procedures that have been used to assess these four aspects of construct validity: following this, Section 7.2.6 provides details of the procedures used to assess model fit. The measurement model for Model 1 is then tested against these criteria (Section 7.2.7) following which Section 7.2.8 to 7.2.10 describe the subsequent modifications to the measurement model for Model 1.

Convergent validity

Factor loadings To proceed with the analysis, all of the indicators' factor loadings should be statistically significant (Hair *et al.*, 2006: 777; Byrne, 2010: 68). Hair *et al.* (p. 796) note, however, that statistical significance alone does not indicate that a particular item is contributing to the model adequately. They suggest (2006: 777, 795) that factor loadings should preferably be above 0.7 and at least 0.5. The rationale for these figures is that:

(i) the square of the standardised loading - known as the squared multiple correlation (SMC) (Kline 2005-177), or commonality estimate (Schumaker and Lomax 2004: 170) - represents how much of the item's variance is accounted for by the latent construct; and

(ii) therefore, a factor loading of 0.71, when squared, describes a situation where 0.5 (0.71*0.71) of the item variance is accounted for by the factor.

Hair *et al.* (2006: 796) write that low loading items are "candidates for deletion" and suggest that the associated standardised residual covariances and modification indices[11] are consulted to further evaluate the performance of these

[11] The standardised residual covariance matrix provides information about the levels of unmeasured (residual, or error) covariance between specific indicator variables. That is, covariance not accounted for by the model. The modification indices estimate the extent to which model fit would improve if the path between two indicator variables' error variances is freed (i.e. a connecting path between them is created). There should be a good theoretical rationale for linking error variances in this way (Kline 2005: 318).

indicators. Researchers must keep in mind, however, that statistics alone should not drive model modification (see e.g. Boomsma 2000: 474-476 for a discussion on how modifications should be defensible primarily from a theoretical perspective) and Hair *et al.* do remind us (2006: 777) that even as factor loadings fall below 0.7 they can still be considered as being important components in the model. Kline (2005: 186) notes that an indicator may have a standardised loading as low as 0.2 before it can be considered to 'substantially fail' to load on its factor.

Average variance extracted This is a summary indicator of convergence insofar as it describes the proportion of variation in the indicator variables - averaged across all of the indicators - accounted for by the latent factor. Fornell and Larker (1981: 47) recommend that latent factors should have an AVE of ≥0.5 on the basis that if the AVE is less than 0.5, then the variance owing to measurement error is greater than the variance explained by the construct, and the validity of the individual indicators, as well as the latent factor, is questionable.

Construct reliability relates to the amount of variance in the factor indicators that is actually accounted for by the factor (and not measurement or random error). Coefficient alpha, developed by Cronbach (1951), is a commonly used estimate for item reliability (also referred to as internal consistency); however, its suitability for use in SEM applications has been criticised on the basis of its over- and, more commonly, under-estimating of reliability (Raykov 1998; Hair *et al.* 2006: 777). Accordingly, some effort has been made by SEM researchers to develop alternative measures (see, e.g. Fornell and Larcker 1981; Bacon *et al.* 1995; Raykov 1997, 1998). This work utilises the method of construct reliability developed by Fornell and Larker (1981, see below) and recommended by Hair *et al.* (2006: 777) and Garson (2011b). Kline (2005: 59) notes that there is no 'gold standard' for reliability scores and provides the following guidelines: reliability coefficients of around 0.90 are considered excellent, around 0.80 are very good and around 0.70 are adequate.

Measures employed for AVE and construct reliability Neither AVE or CR are available as outputs in AMOS, accordingly, these were calculated separately in Microsoft Excel using the methods developed by Fornell and Larker (1981). Fornell and Larker's method for calculating AVE goes beyond that recommended by Hair *et al.* (2006: 777) in that it measures "the amount of variance that is

captured by the construct in relation to the amount of variance due to measurement error" (Fornell and Larcker 1981: 46).

The formula used for calculating AVE is:

$$\frac{\textit{sum of squared standardised factor loadings}}{\textit{sum of squared standardized factor loadings + sum of error variances}}$$

(Fornell and Larcker 1981: 47)

The formula used for calculating construct reliability is:

$$\frac{\textit{squared sum of standardised factor loadings}}{\textit{squared sum of standardised factor loadings + sum of error variances}}$$

(Fornell and Larcker 1981: 46)

Discriminant validity

Discriminant validity concerns the extent to which individual latent factors measure discrete constructs, that is, the extent to which the individual factors are truly distinct. Kline (2005: 60, 73) points to correlations between latent factors in the region of >0.85 and >0.90 as being indicative of constructs which are not sufficiently distinct from one and other. Fornell and Larcker (1981: 47) provide the rule of thumb that to "fully satisfy the requirements for discriminant validity", then the estimate for the proportion of AVE (average variance extracted) for each individual latent factor should exceed the proportion of the estimate for the squared correlation between the factors.

Nomological validity

Following Hair *et al.* (2006: 811), in order to assess the adequacy of the nomological validity for the measurement model, the relationships between the constructs were examined to ensure that the measured correlations between latent factors are not counter to what is implied by the theory behind the model. In particular, the correlation estimates between the latent factors are checked for statistical significance. Elsewhere, Shumaker and Lomax (2004: 106) consider

nomological validity as an issue to be addressed during the testing of the structural (rather than measurement) model.

Because the structural model specifies theory-driven direction and causality of relationships, Shumaker and Lomax's approach makes greater sense with regard to ensuring that the relationships between factors does not run counter to theory. Nevertheless, one can see how the measurement model provides a preliminary indication of nomological validity insofar as the measurement mode provides an assessment of whether or not the factors do in fact covary (at a statistically significant level) with each other; this being a prerequisite for a successful structural model.

Face validity

Face validity is the extent to which the content of the items (the questions/statements) is consistent with the with the construct definition (i.e. do the items measure the concept they are intended to?) and is established prior to the data collection stage of the modelling process (see Chapter 5 above on developing the measures for the constructs). Face validity can also be referred to as construct validity (see e.g. Kline 2005: 60).

7.2.6 Assessment of model fit

One of the advantages of SEM analysis is that it provides researchers with the ability to make assessments with respect to the adequacy with which the overall theoretical model accurately reflects the collected data (Kline 2005: 15). Step 1 of Anderson and Gerbing's (1988) two-step procedure concentrates on establishing a statistically and substantively robust measurement model – that is, the focus during Step 1 is on the pattern (intra-factor) relationships. Ultimately, however, during Step 2, SEM analysis allows researchers to test hypotheses related to both the pattern (intra-factor) and structural (inter-factor) relations simultaneously (Kline 2005: 209).

There is no single test of statistical significance that can be used to indicate a correct model in structural equation modelling (Schumaker and Lomax 2004: 81). A considerable number of fit indices have been developed for use in SEM, and

selecting which ones to employ presents something of challenge for researchers (Kline 2005: 133-134). Kline goes on to describe how:

> Because a single index reflects only a particular aspect of model fit, a favorable value of that index does not by itself indicate good fit. This is also why model fit is usually assessed based in part on the values of more than one index. That is, there is no single "magic index" that provides a gold standard for all models.
>
> (Kline 2005: 134)

Hooper *et al.* (2008: 56) reviewed the findings of Boomsma (2000) Hayduk *et al.* (2007) and Hu and Bentler (1999) and came to the same conclusions as Kline (2005: 134) in recommending that researchers use a combination of:

(i) the model chi-square (including its degrees of freedom and associated p value);
(ii) the root mean square error of approximation (RMSEA; Steiger 1990) (including its related 90 per cent confidence interval);
(iii) the Bentler comparative fit index (CFI; Bentler 1990); and
(iv) the standardised root mean square residual (SRMR).

In addition to these four fit indices recommended by Kline (2005), Hooper *et al.* (2008: 56) suggest that researchers also utilise one of the parsimony fit indices such as the PNFI for model comparisons.

Before describing each of the selected fit indices in greater detail, the three broad categories of fit indices are introduced.

Absolute fit indices provide a direct measure of the accuracy with which the researcher's hypothesised model reproduces the observed data. These fit indices are based on comparisons between the sample covariance matrix and the model-implied covariance matrix.

Incremental (comparative) fit indices are *model comparison* fit indices. That is, they assess the extent to which a hypothesised model fits in comparison with a *baseline* model (also referred to as an *independence* or *null* model). The null model assumes that none of the observed variables are correlated. Because there are no correlations between any of the observed variables, no data reduction (identification of common factors) can occur. The adequacy of fit of the

hypothesised model is then established by measuring the improvement in model fit (over the null model) brought about by the specification of multi-item constructs which explain the inter-item correlations that do exist in the sample data when these are analysed according to the hypothesised model.

Parsimony fit indices are used to determine the optimal model from a number of competing models. The fit of each model is calculated relative to its complexity. Parsimony fit measures improve as (i) model fit improves and (ii) model complexity (number of estimated parameter paths) is reduced. The rationale for parsimony fit indices is that, since more complex models are expected to fit the data better, there should be some model fit measures that account for model complexity. These indices are not appropriate for assessing the fit of a single model, but are used to compare the fit of two or more models with varying levels of complexity.

Model chi-square tests the hypothesis that the sample covariance matrix (i.e. the covariance matrix derived from the collected data) is not significantly different from the covariance matrix implied by the theoretical model. Because the objective of SEM is to establish a model which concurs (closely) with empirical observations, the researcher is seeking a non-significant (i.e. ≥0.05) *p* value from the chi-square test. Model chi-square has come under criticism (see e.g: Jöreskog 1969; Bentler and Bonett 1980), however, on the basis that the chi-square is so sensitive to sample size that even good-fitting models can be rejected when sample sizes exceed around 200 (Schumaker and Lomax 2004: 100). Nevertheless, chi-square offers a useful comparison measure for hierarchical models evaluated with the same data and it is included in the formula for many of the alternative fit measures. For these reasons it is usually included in SEM model assessments (Kline 2005: 137).

RMSEA (root mean square error of approximation) was developed by (Steiger and Lind 1980) and belongs within the family of absolute fit indexes. The calculation of the RMSEA is based on a non-central chi-square distribution (as opposed to the central chi-square distribution used in the model chi-square test). In practical terms, this means that the RMSEA does not assume that the researcher's model fits the observed data perfectly. The RMSEA value provides an indication of the degree of misspecification of the researcher's model, with lower values indicating better fit. Hair *et al.* (2006: 748) note that RMSEA values of <0.10 are typically achieved for most acceptable models; elsewhere, Browne

and Cudeck (1989, 1993) provide a graduated range of RMSEA interpretations: ≤0.05 indicates close fit; >0.05 and <0.08 indicates reasonable fit; and ≥ 0.10 indicates poor fit. The PCLOSE test provides a *p* value for a significance test to support or reject a finding of RMSEA ≤ 0.05. PCLOSE tests the null hypothesis that the population RMSEA is no greater than 0.05 – accordingly, a PCLOSE value of ≥0.05 is sought indicating that we cannot reject the null hypothesis and can conclude that an RMSEA value of less than 0.05 is supported. A further advantage of the RMSEA is that it is possible to calculate a confidence interval and associated upper and lower boundaries for the likely RMSEA value (Maccallum *et al.* 1996). Lastly, the RMSEA also takes model complexity into account and, because of this, it can also be regarded as a parsimony-adjusted fit index (Kline 2005: 137). Therefore, if two competing models have the same explanatory power, the RMSEA will favour the simpler (or most parsimonious) one. For these reasons, the RMSEA has attracted significant support as 'one of the most informative fit indices' (Diamantopoulos and Siguaw 2000: 85).

CFI (Comparative Fit Index) was developed by (Bentler 1990) and belongs to the family of comparative (or incremental) fit indices. It is favoured because it takes account of sample size (i.e. it is among the least affected by variations in sample size: see e.g. Fan *et al.* 1999) and performs well with smaller sample sizes (Tabachnick and Fidell 2007). Values >0.95 are usually sought for CFI (Hooper *et al.* 2008) although Hair *et al.* (2006: 753) provide some useful and nuanced guidelines where CFI should achieve values of between 0.90 and >0.95 depending on sample size and the number of observed variables in the model.

The **SRMR** (standardised root mean residual) belongs within the absolute fit index category and is based on the difference between the residual covariance matrix derived from the sample data and the residual covariance matrix predicted by the theoretical model. A perfectly fitting model will have an SRMR value of 0 and as the SRMR value rises the model deteriorates – as such, the SRMR is a 'badness-of-fit' measure Hair *et al.* (2006: 748). Acceptable values for SRMR range from <0.10 (Kline 2005: 141) to <0.08 (Hu and Bentler 1999). Once again, Hair *et al.* (2006: 753) provide guidelines accounting for sample size, model complexity and the relative performance of the CFI index in combination with SRMR.

Finally, **Hoelter's Critical N** (CN) (Hoelter 1983) is focussed not on model fit but on adequacy of sample size (Byrne 2010: 83). AMOS includes Hoelter's CN in its model fit output and the value of this indicates the adequacy of the sample size

for calculating the χ^2 value for that model. Hoelter's recommendation was that where CN is ≥200 then the sample size is large enough to for χ^2 to be calculated satisfactorily. Garson (2011b) notes that a CN of less than 75 is considered insufficient to accept a model by chi-square.

Fit measure	Desired	Acceptable
χ^2	p ≥ 0.05	With 12 to 30 observed variables, significant p-values can result even with good fit (Hair *et al.* 2006: 753)
RMSEA	< 0.06	< 0.08
pclose	> 0.05	> 0.05
CFI	> 0.96	> 0.95
SRMR	< 0.09	< 0.10
Hoelter's CN	> 200	> 75 but preferably closer to 200

Figure 7-3 Summary of acceptable threshold levels

In summary, the selection of these particular fit indices for use in this research: (a) is based on a review of the available fit indices and taking into consideration their appropriateness for the characteristics of the models in this research; (b) follows the recommendations of Hooper *et al.* (2008) and Kline (2005); and (c) reflects Hair *et al.*'s (2006: 805) recommendation to use at least one absolute and one incremental fit index in addition to the model chi-square. Figure 7-3 summarises the acceptable threshold levels for this research.

7.2.7 Testing the measurement model (CFA 1:1)

The measurement model for Model 1 was specified as illustrated in Figure 7-2 and the estimates calculated using AMOS version 18. Maximum Likelihood (ML) estimation was used and missing values were replaced using AMOS's model-based imputation function. Table 7-1 shows the results from the initially-specified (CFA 1:1) model.

An examination of the model results reveals that the model does not demonstrate a particularly good fit (a significant chi-square; RMSEA > 0.06; and CFI <0.95) although the SRMR is within Hu and Bentler's (1999) guideline of <0.08.

Nevertheless, (i) all of the indicator variables have statistically significant loadings on the factors, (ii) the variance extracted (AVE) values for the latent factors are all acceptable at ≥0.5, and (iii) the construct reliability (CR) values are all more than satisfactory at ≥0.08.

Construct	Item	Standardised factor loading estimates		
		ML	**JP**	**DSB**
Motivational Leadership	ML1	.898		
	ML2	.943		
	ML3	.889		
	ML4	**.602**		
	ML5	**.606**		
Job Performance	JP1		.847	
	JP2		.860	
	JP3		**.556**	
	JP4		**.494**	
Discretionary Service Behaviour	DSB1			.798
	DSB2			.775
	DSB3			.677
	DSB4			.693
Average variance extracted (AVE)		0.560	0.557	0.585
Construct reliability (CR)		0.860	0.826	0.849
Model fit statistics	χ^2 = 203.726; d.f. = 62; sig = 0.000 RMSEA = 0.104 (0.120; 0.088; pclose = 0.000) CFI = 0.905 SRMR = 0.0725 CN (0.05) = 85			

Table 7-1 Estimates for the measurement model CFA 1:1

Finally, looking at the factor loadings for each indicator variables, we can see that 4 items are flagged for attention:

- ML4 and ML5 lie around the lower bounds of the 0.6 to 0.7 range; and
- JP3 and JP4 are both below 0.6.

DSB3 and DSB4 are close enough to 0.7 not to warrant attention for the time being.

The model meets the requirements for nomological validity insofar as the latent factors all covary at a statistically significant level (p = <0.001) and in the hypothesised direction (in this case, all in a positive direction).

The process of model modification towards improving the model fit is now described. Throughout the model development process described in Sections 7.2

to 7.11, indicator variables will be referred to using their respective acronyms (e.g. ML1, DSB4). This procedure is generally followed in order to achieve brevity throughout the technical process of model modification and development. In some cases, however, the substantive content of an indicator (i.e. the actual statement used) will be referred to in order to clarify the theoretical implications of a modification.

Section 7.13 is devoted to an in-depth discussion of the substantive implications of the model modifications and explicitly discusses the wording of each relevant indicator / item statement. Prior to Section 7.13, it is possible to identify the content of any item statement by consulting Appendix VIII or the relevant section of Chapter 5 where the selection of the item statements for measuring each construct is discussed in detail.

7.2.8 Measurement model modification

Kline (2005: 186-188) describes 'two general classes of problems that can be considered in respecification'; these being (i) factors and (ii) indicators.

Considering the former, Kline recommends examining the strength of factor correlations for evidence of poor discriminant validity noting (2005: 60 and 73) that factor correlations in the region of >0.85 and >0.90 are indicative of constructs which are not sufficiently distinct from one and other. In this model, the largest between factor correlation is 0.442, indicating that the constructs are distinct from each other.

The other rule of thumb with regard to discriminant validity (see Section 7.2.5 above) is that of Fornell and Larker (1981: 47) who recommend that the estimate for the proportion of AVE (average variance extracted) for each individual latent factor should exceed the value of each of the squared correlations between the factors. For CFA 1:1, the lowest AVE is 0.557 (for the JP factor) and the highest squared inter-factor correlation estimate is 0.195. We can therefore conclude that the initially specified model performs adequately for discriminant validity.

Table 7-2 shows the squared correlation estimates and Table 7-3 integrates the squared correlation estimates with the AVE values from Table 7-1 to provide an at-a-glance comparison of the estimates for determining discriminant validity.

Factor correlation	Correlation estimate	Squared correlation estimate
ML ↔ JP	0.442	0.195
ML ↔ DSB	0.375	0.141
JP ↔ DSB	0.331	0.110

Table 7-2 Factor correlations and squared correlation estimates for the initially specified measurement model (CFA 1:1)

In Table 7-3 AVE estimates are on the diagonal and squared correlations are displayed beneath the diagonal.

	ML	JP	DSB
ML	***0.560***	-	-
JP	0.195	***0.557***	-
DSB	0.141	0.110	***0.585***
AVE values are on the diagonal and squared correlation estimates below the diagonal			

Table 7-3 Discriminant validity estimates for CFA 1:1

Turning to an examination of the indicator variables. Hair *et al.* (2006: 796) recommend that low loading items (<0.7) are "candidates for deletion" and that the decision to remove such indicators from the model should be made with reference to other model diagnostics including the relevant standardised residual covariance values. Of course, as noted above, theoretical considerations must also guide the model modification process. Schumaker and Lomax (2004: 71) write that substantive interest should be the 'guiding force' in model modification and go as far as to say that, even where a particular parameter exhibits a problem, if it is of '*sufficient substantive interest* then it should probably remain in the model (Schumaker and Lomax 2004: 71, emphasis added).

Before considering the substantive implications of removing the low-loading indicators, an examination of the standardised residual covariances is undertaken to identify which indicators are exhibiting large volumes of unmeasured variance.

There is a range of approaches to interpreting the standardised residual covariance matrix: Schumaker and Lomax (2004: 71) write that values >1.96 or >2.58 "indicate that a particular covariance is not well explained by the model"; Byrne (2010: 86) notes that values >2.58 "are considered to be large"; and Hair et al. (2006: 797) say that a value >4 "flags a problem" while values between 2.5 and 4 deserve attention unless there are no other concerns specific to that variable's diagnostics. Considering these guidelines, for this research, SRC values greater than 2.58 will be addressed by seeking to remove an associated indicator

variable but with due consideration for the substantive implications this may have for the model.

Considering the four indicator variables in the initially specified model that have been flagged for attention:

- ML4 has a moderately low loading of 0.602 and two standardised residuals >2.58 (at 3.295 and 3.264)
- ML5 has moderately low loading of 0.606 and one standardised residual >2.58 (at 3.264)
- JP3 has a moderately low loading of 0.556 and one standardised residual >2.58 (at 2.605)
- JP4 has a lower loading (0.494), one standardised residual >1.96 (at 2.359) and two standardised residuals >2.58 (at 2.605 and 3.308)
    - JP4's very large standardised residual covariance (3.308) is shared with DSB4 flagging DSB4 as a candidate for removal

Considering the substantive implications of removing these variables (this is, how their removal affects the construct's content validity, in other words, the meaning of the construct). Both ML4 and ML5 were included somewhat speculatively (see Section 5.2) and their removal from the construct will not affect the core substantive content of the ML construct. ML4 relates to the recognition/feedback dimension of Motivational Leadership and ML5 describes the leader putting the group interests before their own. Removing these would leave three 'core' items (ML1, 2 and 3) related to transformational leaders' 'vision→goal→effort' behaviour. Removing ML4 and ML5, then, results in a very clear vision- / goal-related ML construct that very closely reflects the central goal-setting, goal-clarification and goal-encouragement dimensions of Motivational Leadership as described by Avolio and Bass (2004a: 96) (see Section 2.4.3).

Secondly, considering JP3 and JP4. JP3 is related, substantively, to JP1 – both relate to intensity of work (JP1 = Try to work harder; JP3 = Find that you have done more than you expected to do). Therefore, if JP3 was removed from the model, the substantive content of work intensity remains in the construct.

JP4, on the other hand, has an important substantive role to play in the wider model. Considering the relationship between the Job Performance (JP) construct and the Discretionary Service Behaviour (DSB) construct: DSB was designed (by Blancero and Johnson 1997 and 2001) specifically for application in a services context and all of its items explicitly relate extra effort to the customer service

context. The operationalisation of DSB (by Simons and Roberson 2003), which is followed here, measures DSB at the team level. In this research, the JP construct acts as a corollary to DSB, measuring extra effort at the individual level. JP1, 2 and 3 reflect *general* Extra Effort following the transformational leadership literature (see section 2.4.4), but JP4 is specifically worded to encapsulate the guest/service orientation for the hospitality context. In short, JP4 is the individual-level counterpart for the DSB construct (in particular, DSB2, 3 and 4; DSB1 concerns taking guests' concerns seriously, rather than extra effort)[12]. Accordingly, JP4 is retained on these substantive grounds.

Arising from the examination of the standardised residual covariances (SRCs) was the large shared SRC between JP4 and DSB4. SRCs of this magnitude should not remain in the model as they are indicative of a model (or at least part of a model) that does not fit the data well. The substantive implication of removing DSB4 are not of great significance as DSB2, 3 and 4 all measure team members' extra effort with regard to very similar aspects of customer service. DSB4 is removed rather than JP4 for the reasons outlined above.

These findings and the actions taken on their basis are summarised in Table 7-4.

Item	Loading	Standardised residual covariances (SRCs)			Action taken / justification
		>1.96	>2.58	>4	
ML4	0.602	0	2	0	**Removed** from model / moderate loading + two SRCs >2.58
ML5	0.606	0	1	0	**Removed** from model / moderate loading + one SRCs >2.58
JP3	0.556	0	1	0	**Removed** from model / moderate loading + one SRCs >2.58
JP4	0.494	1	2	0	*Retained* owing to substantive interest
DSB4	0.693	0	1	0	**Removed** from model / one SRCs >2.58 (with JP4); because JP4 is substantively more important than DSB4, JP4 is retained

Table 7-4 Modifications made to the initially specified measurement model (CFA 1:1)

[12] DSB1 = My co-workers show they take guests' concerns very seriously;
DSB2 = If one of my co-workers does not know the answer to a guest's question, he or she makes an effort to find out;
DSB3 = My co-workers go out of their way to deliver a guest's special request; and
DSB4 = If a guest approaches when one of my co-workers is busy, he or she stops whatever they are doing and talks with the guest

7.2.9 Measurement model: first respecification (CFA 1:2)

The model is now respecified without the inclusion of ML4, ML5 and JP3 and DSB4 and the estimates for the respecified model are described in Table 7-5.

The model fit statistics have all improved in comparison with the initially specified model (CFA 1:1). The model chi-square, however, remains below 0.05 indicating that the model does not fit the data as well as it might. The AVE values for each of the factors have improved; the CR value for ML has increased and for JP and DSB, the CR values have decreased slightly. The respecified model also performs satisfactorily with regard to discriminant validity – the minimum AVE is 0.604 and the maximum squared inter-factor correlation estimate is 0.195. The requirements for nomological validity continue to hold with all factor covariances at statistically significant levels (p = <0.01).

Construct	Item	Standardised factor loading estimates		
		ML	**JP**	**DSB**
Motivational Leadership	ML1	.903		
	ML2	.957		
	ML3	.873		
Job Performance	JP1		.868	
	JP2		.857	
	JP4		.459	
Discretionary Service Behaviour	DSB1			.839
	DSB2			.776
	DSB3			**.618**
Average variance extracted (AVE)		0.766	0.618	0.604
Construct reliability (CR)		0.908	0.820	0.819
Model fit statistics	χ^2 = 41.830; d.f. = 21; sig = 0.013 RMSEA = 0.059 (0.088; 0.027; pclose = 0.282) CFI = 0.983 SRMR = 0.0446 CN (0.05) = 185			

Table 7-5 Estimates for CFA 1:2

One factor loading is flagged for attention – DSB3 has dropped from 0.677 to 0.618 prompting an examination of the standardised residual covariance (SRC) matrix to see if there are any other problems associated with DSB3. The standardised residual covariance matrix reveals that DSB3 shares a residual covariance value of 2.689 with JP4. Because SRC values greater than 1.96, and particularly those greater than 2.58, are indicative of a component of the model that does not correspond well with the data, a useful modification here will be to

remove one of these (DSB3 or JP4) items and re-estimate the model. For the same substantive rationale described above, JP4 is retained. Removing DSB3 does not radically alter the face validity of the DSB construct as DSB2 and DSB3 both deal with very similar aspects of extra effort directed towards high quality customer service.

7.2.10 Measurement model: second respecification (CFA 1:3)

The measurement model is re-specified once again (without DSB3) and the estimates are described in Table 7-6.

Factor loadings for ML and JP remain almost unchanged (movements of 0.001 to ML2, JP2 and JP4). For DSB1 the factor loading has improved considerably (from 0.839 to 0.946) and DSB2 has dropped by a similar amount (from 0.776 to 0.686). All of the factor loadings are now satisfactory (JP4 remains lower than ideal but is retained on substantive grounds).

Construct	Item	Standardised factor loading estimates		
		ML	**JP**	**DSB**
Motivational Leadership	ML1	.903		
	ML2	.958		
	ML3	.873		
Job Performance	JP1		.868	
	JP2		.858	
	JP4		.458	
Discretionary Service Behaviour	DSB1			.946
	DSB2			.686
Average variance extracted (AVE)		.767	.618	.733
Construct reliability (CR)		.908	.820	.842
Model fit statistics	χ^2 = 15.979; d.f. = 17; sig = 0.525 RMSEA = 0.000 (0.059; 0.000; pclose = 0.899) CFI = 1.000 SRMR = 0.0314 CN (0.05) = 366			

Table 7-6 Estimates for CFA 1:3

The fit measures for the model are all satisfactory:

- model χ^2 is non-significant at 0.525 (indicating that the observed covariance estimates are not significantly different from those implied by the theoretical model);

- RMSEA is 0.000 (upper limit 0.059; lower limit 0.000 with a pclose value of 0.899 (i.e.≥0.05) indicating that this finding for RMSEA is robust);
- CFI is satisfactory at 1.000 (i.e. >0.96); and
- SRMR (0.0314) is satisfactory at <0.09.

Hoelter's CN (indicating the adequacy of sample size for the model) is now considerably above the recommended value of 200 (for CFA1:1 CN was 85 and for CFA 1:2 CN was 185).

AVE values are all above 0.5 (having improved considerably on those for CFA 1:1) and all of the CR values are above 0.8 (in the range described by Kline (2005: 59) as 'very good' to 'excellent'). All of the inter-factor correlations remain statistically significant and the estimates for these are illustrated in Table 7-7.

Factor correlation	Correlation estimate
ML→JP	0.409
ML→DSB	0.377
JP→DSB	0.320

Table 7-7 Correlation estimates for CFA 1:3

The measures for discriminant validity are satisfactory with none of the squared correlation estimates exceeding the lowest of the AVE (average variance extracted) estimates (Table 7-8).

	ML	JP	DSB
ML	***0.767***	-	-
JP	0.167	***0.618***	-
DSB	0.142	0.102	***0.733***
AVE values are on the diagonal and squared correlation estimates below the diagonal			

Table 7-8 Discriminant validity estimates for CFA 1:3

An examination of the standardised residual covariance matrix reveals no standardised residuals exceeding 1.96.

A final consideration regarding the parameter estimates for CFA 1:3 is the issue of multivariate non-normality. West *et al.* (1995) provide details of using the bootstrap procedure in SEM analyses to evaluate the stability of parameter estimates under conditions of multivariate non-normality – a condition which Byrne (2010: 330) notes is common to most data sets in SEM analyses. In this

case, while the data for Model 1 were found to be univariate normal (Section 7.2.3), a multivariate C.R. (critical ratio) value of 10.9 for CFA 1:3 is indicative of departure from multivariate normality. Accordingly, model CFA 1:3 was re-estimated using AMOS's bootstrap function. This analysis found that all of the parameters were robust under the conditions of multivariate non-normality (see Appendix IV for details of both the C.R. estimate and the subsequent bootstrapped estimates).

With the measurement model now exhibiting adequate parameter estimates and model fit statistics, it is possible now to move on to Step 2 and estimate the structural regression model in order to test the research hypotheses.

7.3 Model 1, Step 2: the structural model

Having satisfactorily established the measurement model, the model can be converted to its structural regression form. For Step 2, the indicator variables will no longer be illustrated in the figures, as the main focus of attention is on the structural parameters (the causal paths between constructs). With respect to how the individual items load onto the constructs, the structural model is specified in the same way as CFA 1:3, that is, with eight indicators in total; three loading on ML, three on JP and two on DSB.

In contrast to Step 1, where the measurement model was specified with bi-directional non-causal covariance arrows connecting each latent factor to all of the others, the structural model (Step 2) replaces these connecting arrows with uni-directional connections indicating causal relations. These uni-directional connections represent the theory-driven hypotheses that underpin the hypothesised model. These causal effects are illustrated in Figure 7-4 and articulated by hypotheses H_1 and H_2 as follows:

- (H_1) as employees experience greater levels of Motivational Leadership they will also experience greater levels of Job Performance
- (H_2) as employees experience greater levels of Motivational Leadership they will also report greater levels of Discretionary Service Behaviour

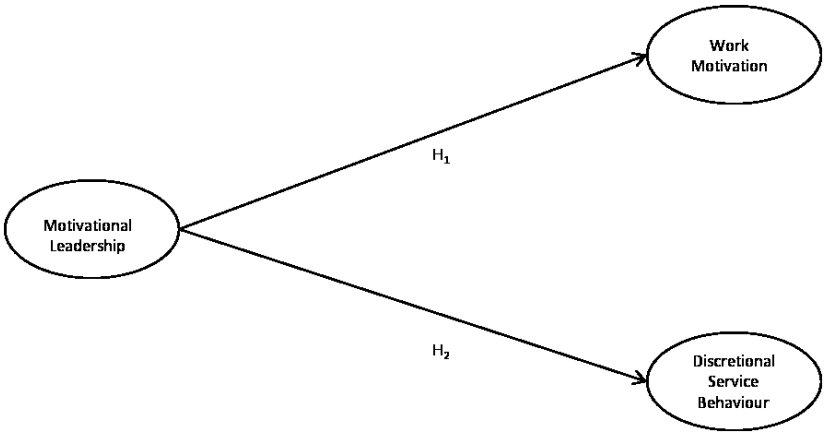


Figure 7-4 The structural model specification SEM 1:1

Model SEM 1:1 is specified with one exogenous (independent) and two endogenous (dependent) latent variables. The guidelines for ensuring that the model is identified (Hair *et al.* 2006: 785; 792) are followed insofar as ML and JP follow the three indicator rule and DSB satisfies the two indicator rule (provided its relationship to ML is statistically significant). The model is estimated using the ML (maximum likelihood) method.

Figure 7-5 shows the parameter estimates and model fit statistics for SEM 1:1.

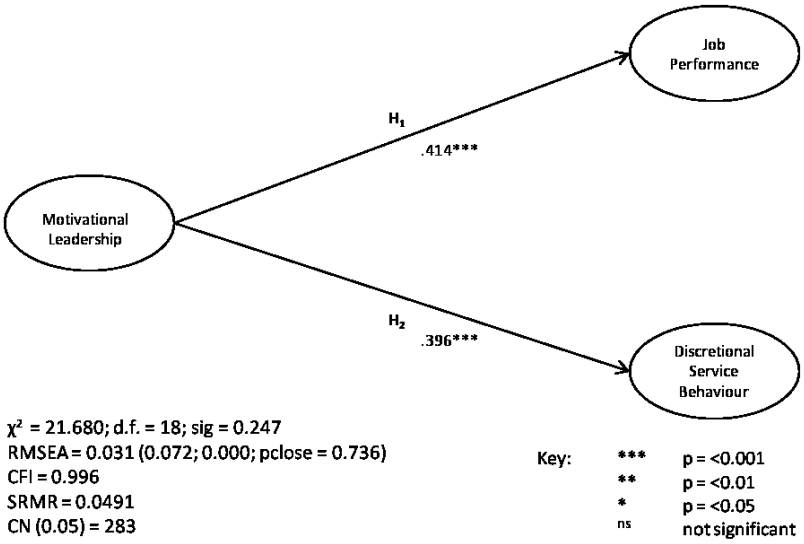


Figure 7-5 Estimates for SEM 1:1

Once again, the fit measures for the model are all satisfactory:

- model χ^2 is non-significant at 0.247;

- the RMSEA is satisfactory at 0.031 with the upper limit of 0.072 still within Browne and Cudeck's (1989, 1993) >0.05 and <0.08 range of 'reasonable fit' and a satisfactory pclose value;
- CFI is satisfactory at 0.996 (i.e. >0.96);
- SRMR (0.0491) is satisfactory at <0.09; and
- Hoelter's CN of 285 is above the recommended 200.

The structural paths are both statistically significant at the 0.001 level (meaning that we can reject the null hypotheses that the described relationships do not exist) and the coefficients show that Motivational Leadership has an effect size of 0.414 on Job Performance and 0.396 on Discretionary Service Behaviour. In statistical terms, these figures mean that for every (standardised) change of value in Motivational Leadership, Job Performance will change by 0.414 of that value and Discretionary Service Behaviour will change by 0.396 of that value. In more practical terms, the effect size (or strength of association) describes how much of the variance of the dependent variable is predictable from knowledge of levels of the independent variable (Tabachnick and Fidell 1989: 54).

The absence of any empirical precedents for these effect sizes makes it difficult to judge the importance of these effect sizes. No identified research has measured the effect of motivation leadership on employee performance and, while Simons and Roberson's study employed the DSB construct, their leadership focus was on employee satisfaction with their leader rather than leader behaviour.

Kline (2005: 121-122) writes that without any theoretical or empirical guidance on what magnitude of effect represents an 'important' effect for any particular relationship, it can be difficult to interpret effect sizes. This research is largely exploratory (insofar as it is examining research questions hitherto not addressed in hospitality contexts) and therefore falls into what Kline (p. 122) refers to as a "new research area". In such circumstances, Kline recommends the guidelines on interpreting effect sizes provided by (Cohen 1988). Specifically, these guidelines suggest that:

- small effect = effects sizes less than 0.1;
- medium effect = effect sizes around 0.3; and
- large effect = effect sizes around 0.5 or greater.

Based on these guidelines the effects of the structural coefficients of 0.414 and 0.396 are interpreted as medium to large effects. These findings represent important contributions for this research in:

(i) confirming that motivational leadership does indeed have a positive influence on employee job performance in hospitality catering service (a relationship that has not, hitherto, been measured in a hospitality context); and

(ii) the similar strength of the ML→DSB relationship provides a validation of the ML→JP link insofar as DSB is a peer-assessment of extra effort designed to minimise inflated performance self-assessment.

A final set of values which should be considered when interpreting the effect sizes in the structural model is the squared multiple correlations (SMCs). In a structural equation model, an SMC value is reported for each endogenous variable. The SMCs are analogous to R^2 values in regression analysis and are calculated by raising the path coefficient to the power of 2 – i.e. the SMC is the square of the structural coefficient. The SMC value represents the amount of variance explained in that factor *by the structural relationships* in the model (i.e. the percentage of variance in the latent dependent variable explained by the latent independent variable/s) . For model 1, the SMC for ML→JP is 0.414^2 = 0.171 and for ML→DSB it is 0.396^2 = 0.157.

In substantive terms, the SMC values reflect the ability of each structural relationship to fully explain the variance in the endogenous (dependent) variable. Lower estimates for SMCs signal that the structural coefficient estimates are less reliable than if the SMC values were higher.

Knowing the SMC values for the two endogenous variables in Model 1 is not terribly informative – that is, they are simply the squared values of the structural coefficients. However, in models where an endogenous variable is influenced by more than one predictor variable, it is not such a straightforward matter to calculate the SMC. Accordingly, for this research, in models where an endogenous variable has more than one predictor, SMC values will be displayed on the model illustrations.

As with the measurement model (CFA 1:3), model SEM 1:1 was found to have a multivariate C.R. value of 10.9. As this estimate is indicative of departure from multivariate normality, AMOS's bootstrapped estimation procedure was performed. This procedure indicated that all of the parameters are robust under the prevailing conditions of multivariate non-normality (once again, the full details of both the C.R. estimate and the subsequent bootstrapped estimates can be found in Appendix IV).

7.4 Model 2

Model 2 (Figure 7-6) builds upon Model 1 by introducing Work Meaning (ME) as mediator variable between Motivational Leadership (ML) and Job Performance (JP). Work Meaning is an endogenous variable (being a dependent of ML) that has a dual role insofar as it is also a predictor of JP. In structural models, dual-role mediator variables such as ME are hypothesised to "transmit some of the causal effects of prior variables onto subsequent variables" (Kline 2005: 68). Following the estimation and testing of the structural model, any such mediation effect will be tested rigorously to establish (a) whether or not it is observed in the model and, if it is observed, whether the mediation effect is full or partial.

In addition to H_1 and H_2, Model 2 tests hypotheses H_3 and H_4 which are articulated as follows:

H_3 (ML→ME): as employees experience greater levels of Motivational Leadership they will also experience greater levels of Work Meaning

H_4 (ME→JP): as employees experience greater levels of Work Meaning they will also experience greater levels of Job Performance

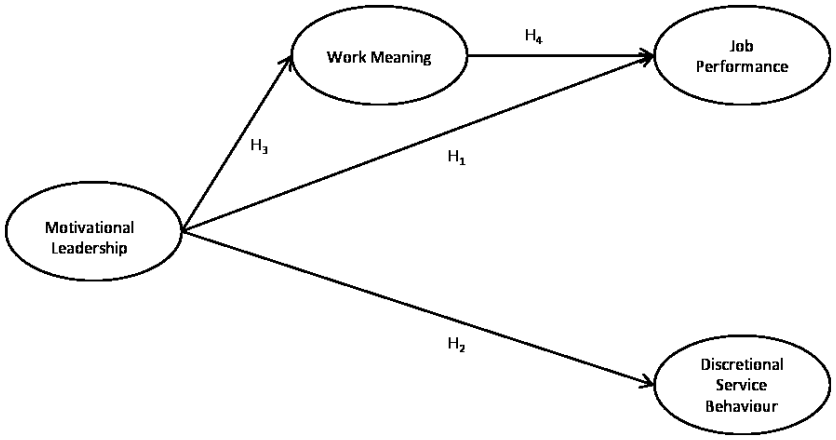


Figure 7-6 Structural specification for Model 2

Work Meaning is introduced into the model building process independently of the other two Employee Attitude factors (Job Satisfaction and Affective Organisational Commitment) because of its core theoretical role in the research. Specifically, Work Meaning is posited in the transformational leadership literature as a key outcome of motivational leadership; accordingly, it was deemed important that its relationships with Motivational Leadership and Job Performance are evaluated in the absence of the potentially confounding related attitudinal variables, Job Satisfaction and Affective Organisational Commitment.

Before estimating the structural model, it is necessary to estimate and develop a good-fitting measurement model and to ensure that the assumptions of convergent and discriminant validity are met. Maximum Likelihood (ML) estimation was used and missing values were replaced using AMOS's model-based imputation function.

The measurement model is initially specified with all of the indicator variables, even though some of these (for ML, JP and DSB) were found not to perform well in the previous model. By building each successive model iteration 'from scratch', two issues are addressed. Firstly, that the model-based imputation of missing values is based on the specific model that is being estimated and tested. Secondly, this approach will confirm (or refute) the robustness of the measurement of the individual constructs. That is, by estimating, testing and modifying each model 'from scratch' it is possible to make an assessment of the consistency of factor structures across models.

The estimates and model fit diagnostics for the initially-specified measurement model, CFA 2:1 are described in Table 7-9.

Construct	**Item**	**Standardised factor loading estimates**			
		ML	**ME**	**JP**	**DSB**
Motivational Leadership	ML1	.894			
	ML2	.937			
	ML3	.894			
	ML4	**.613**			
	ML5	**.615**			
Work Meaning	ME1		.879		
	ME3		.861		
	ME5		**.610**		
	ME6		.794		
	ME7		**.303**		
Job Performance	JP1			.849	
	JP2			.859	
	JP3			**.556**	
	JP4			**.493**	
Discretionary Service Behaviour	DSB1				.799
	DSB2				.774
	DSB3				.674
	DSB4				.696
Model fit statistics	χ^2 = 324.084; d.f. = 129; sig = 0.000 RMSEA = 0.084 (0.096; 0.073; pclose = 0.000) CFI = 0.906 SRMR = 0.0736 CN (0.05) = 103				

Table 7-9 Estimates for CFA 2:1

Although all factor loadings and covariances are statistically significant, the model diagnostics indicate a model that does not fit adequately well: χ^2 is significant; RMSEA is not satisfactory at 0.084 (also the upper limit is 0.096) and the pclose value of 0.000 indicates that the RMSEA estimate is not robust; CFI is not satisfactory at <0.96; SRMR is satisfactory at <0.09; and CN is not satisfactory at <200. The AVE and CR values will be estimated when the CFA has been modified and has satisfactory fit.

Following the same procedure described above for Model 1, the factor loadings and standardised residual covariances are checked for CFA 2:1. Table 7-10 summarises the modifications made. Once again, DSB4 shares a problematic standardised residual covariance with JP4 and, once again, DSB4 is removed and JP4 retained.

Item	Loading	Standardised residual covariances (SRCs)			Action taken / justification
		>1.96	>2.58	>4	
ML4	0.613	1	3	0	**Removed** from model / moderate loading + four excessive SRCs
ML5	0.615	1	0	0	**Removed** from model / moderate loading + one excessive SRC
ME5	0.610	2	2	0	**Removed** from model / moderate loading + four excessive SRCs
ME7	0.303	4	0	0	**Removed** from model / very low loading
JP3	0.556	1	1	0	**Removed** from model / moderate loading + two excessive SRCs
JP4	0.493	2	2	0	*Retained* owing to substantive interest
DSB4	0.696	0	1	0	**Removed** from model / one SRCs >2.58 is shared with JP4; because JP4 is substantively more important than DSB4, JP4 is retained

Table 7-10 Modifications to CFA 2:1

The measurement model is respecified without ML4, ML5, ME5, ME7, JP3 and DSB4. The new set of estimates and fit diagnostics are described below in Table 7-11.

Construct	Item	Standardised factor loading estimates			
		ML	**ME**	**JP**	**DSB**
Motivational Leadership	ML1	.904			
	ML2	.953			
	ML3	.878			
Work Meaning	ME1		.892		
	ME3		.871		
	ME6		.778		
Job Performance	JP1			.872	
	JP2			.854	
	JP4			.458	
Discretionary Service Behaviour	DSB1				.845
	DSB2				.773
	DSB3				**.614**
Model fit statistics	χ^2 = 69.398; d.f. = 48; sig = 0.023 RMSEA = 0.046 (0.068; 0.018; pclose = 0.592) CFI = 0.985 SRMR = 0.0433 CN (0.05) = 200				

Table 7-11 Estimates for CFA 2:2

The model fit statistics have improved considerably, only the χ^2 p value is not satisfactory at <0.05. Examining the factor loadings flags DSB3 as a potential problem with a moderate loading of 0.614 and an inspection of the standardised residual covariance matrix reveals that DSB3 shares a large (2.697) SRC value (with JP4). Once again, retaining JP4 for substantive reasons leads to the removal of DSB3. The model is re-estimated once again and the estimates are described in Table 7-12.

All factor loadings are now satisfactory (although JP4 is, as usual, only of moderate strength), all factor covariances are statistically significant and positive, the model fit statistics are all satisfactory and the requirements for convergent and discriminant validity are all met (AVEs >0.5; CRs > 0.7; and the highest squared multiple correlation value is 0.307). Multivariate normality is assessed and the C.R. value was estimated at 14.5; the subsequent bootstrapped estimates indicated that the parameters are robust to multivariate non-normality (see Appendix IV).

The substantive implications for the removal of items ML4, ML5, JP3, DSB3 and DSB4 were described during the development of Model 1. The development of the Model 2 has also seen the removal of ME5 and ME7 from the Work Meaning factor – how have these modifications affected the substantive content of Work Meaning?

Construct	Item	Standardised factor loading estimates			
		ML	ME	JP	DSB
Motivational Leadership	ML1	.904			
	ML2	.953			
	ML3	.878			
Work Meaning	ME1		.892		
	ME3		.870		
	ME6		.778		
Job Performance	JP1			.871	
	JP2			.855	
	JP4			.457	
Discretionary Service Behaviour	DSB1				.947
	DSB2				.685
Average variance extracted (AVE)		0.768	0.744	0.618	0.733
Construct reliability (CR)		0.908	0.897	0.819	0.843
Model fit statistics	χ^2 = 35.204; d.f. = 38; sig = 0.599 RMSEA = 0.000 (0.043; 0.000; pclose = 0.980) CFI = 1.000 SRMR = 0.0336 CN (0.05) = 322				

Table 7-12 Estimates for CFA 2:3

Section 5.3 describes how the development of the set of indicator variables for the Work Meaning construct drew upon Wollack *et al.*'s (1971) in an exploratory way. The indicators measure three domains; *Intrinsic* (ME1, ME2, ME3 and ME5), *Extrinsic* (ME4 and ME6) and *Upward Striving* (ME7). Items ME2 and ME4 were dropped from the survey following the survey pilot tests (Section 6.5.1). Following the removal of ME5 and ME7 the remaining items represent the following:

- ME1 and ME3 – Satisfaction and Enjoyment with Work (Intrinsic); and
- ME6 – Positive Social Status from Work (Extrinsic).

Substantively, then, the Work Meaning construct can now be interpreted as Satisfaction, Enjoyment and Social Status from Work.

With a satisfactory measurement model, the structural model is now estimated using the factor structure from Table 7-12 and the structural specification illustrated in Figure 7-3 and Figure 7-7.

The model fit statistics (Figure 7-7) indicate that the structural model fits the data well and all of the structural coefficients are statistically significant. Accordingly, no further modifications are required. As with CFA 2:3, the critical ratio (C.R.) for SEM 2:1 is estimated at 14.5; accordingly, the model is re-estimated using

AMOS's bootstrap estimation function which indicated that all parameters are robust under the conditions of multivariate non-normality (see Appendix IV).

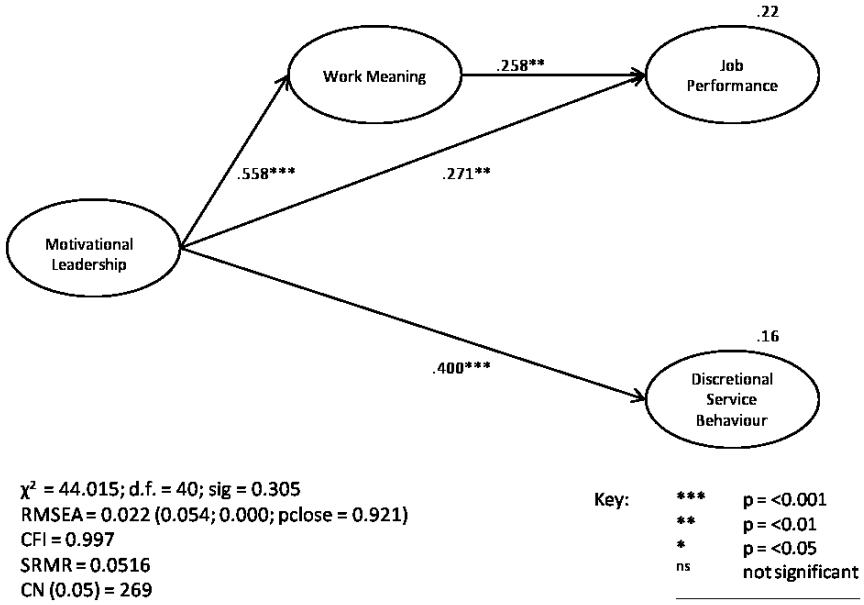


Figure 7-7 Estimates for SEM 2:1

The structural coefficient ML→DSB (H_2) remains at much the same magnitude as in Model 1 (0.400 compared with 0.396 previously). Reflecting the inclusion of Work Meaning as a mediating factor, the ML→JP path (H_1) has, however, changed considerably from 0.414 in Model 1 to 0.258 in Model 2. This is because some of the effect of ML on JP is now being 'transmitted' by the mediating variable ME.

Testing for mediator effects

It is necessary now to statistically assess the extent to which the influence of Motivational Leadership (ML) on Job Performance (JP) is mediated by Work Meaning (ME). Accordingly, the procedures outlined in Hair *et al.* (pp. 866-870) are followed to assess whether ME is acting as a full or partial mediator.

Firstly, a chi square difference test was undertaken to compare the difference in global model fit between a constrained SE model (Figure 7-8) which did not contain the ML→JP path (that is, only the indirect ML→ME→JP path sequence was specified) and the hypothesised model SEM 2:1 – the constrained model and its estimates are illustrated in Figure 7-8.

The constrained model (SEM2:1b, Figure 7-8) yielded a satisfactory model fit with χ^2 = 53.494, d.f. = 41, sig = 0.091; RMSEA = 0.038; CFI = 0.991; and SRMR = 0.0746 and all structural coefficients were statistically significant.

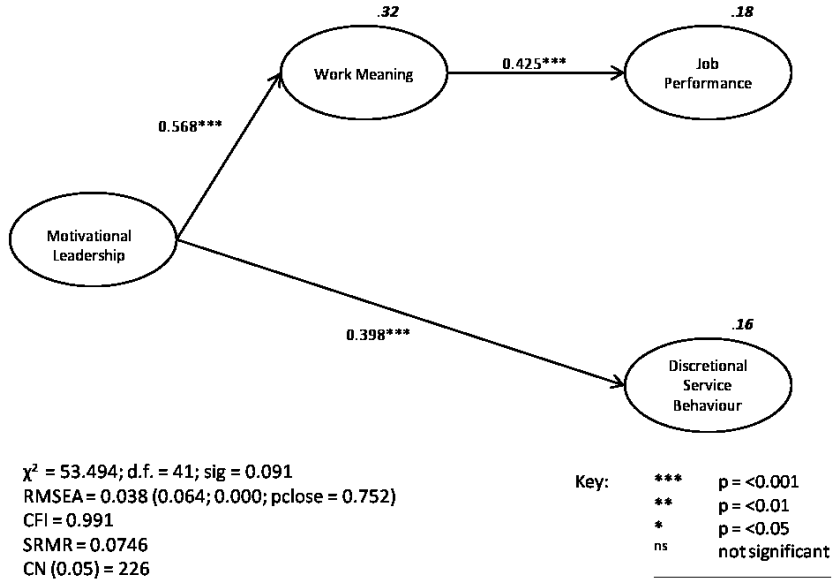


Figure 7-8 Constrained model SEM 2:1b

The chi square estimates for the constrained model were then compared with those from the hypothesised model (SEM 2:1, Figure 7-7). The chi square difference ($\Delta\chi^2$) between these two models is 9.479 (53.494 - 44.015) and with 1 d.f. (degree of freedom) - this yields a p value of 0.0021. It can be concluded from this finding that, because the global model fit for SEM 2:1 (the hypothesised model containing the direct ML→JP path) is statistically significantly better (because the p value for the χ^2 difference test is <0.01) than the constrained model (SEM 2:1b), that full mediation of the ML→JP path by ME is not supported.

To assess whether or not Work Meaning (ME) has a partial mediation effect on the ML→JP relationship it is necessary to estimate a third model in which there is no indirect effect (ME→JP) on Job Performance (JP). This model is illustrated in Figure 7-9 along with the estimates for the structural coefficients and the global fit measures.

The structural coefficient values for the ML→JP path are now compared between model SEM 2:1c and the hypothesised model SEM 2:1. In the constrained model (SEM 2c) the value (effect size) for the ML→JP path is 0.422 while in the hypothesised model (SEM 2) this value is 0.271. When comparing the originally specified model (2:1) with Model 2:1c, because the value of ML→JP in 2:1 is

significant but reduced in comparison with 2:1c, then we can conclude that partial mediation of the ML→JP path by ME is supported (Hair *et al.* 2006: 867).

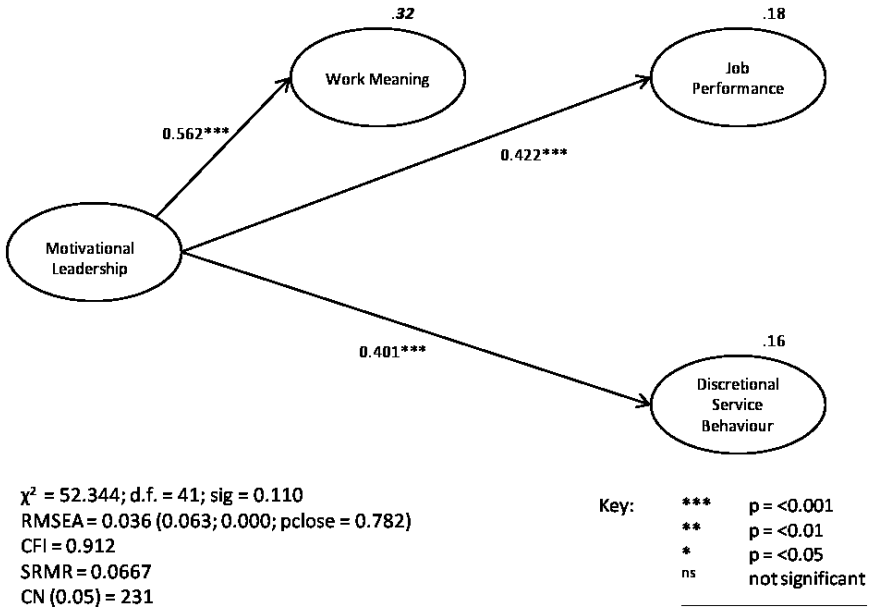


Figure 7-9 Constrained model SEM 2:1c

The diagram in Figure 7-7 shows only the direct effects amongst the variables. Because of the inclusion of ME as a mediating variable, a full understanding of the inter-relationships in the model must also take account of the indirect effects – i.e. those effects of ML on JP that are 'transmitted' through ME.

Calculating the magnitude of the indirect and total effects is a straightforward task. The indirect effect of ML→JP via ME is calculated as a product of the ML→ME and ME→JP coefficients:

- 0.558 * 0.258 = 0.144.

The total effect is simply the sum of the direct and indirect effects:

- direct effect (0.271) + indirect effect (0.144) = 0.415.

The total (standardised) effects for Model 2 are illustrated in Table 7-13.

Independent variables	**Dependent variables**		
	ME	**JP**	**DSB**
ML	0.558	0.415	0.400
ME	-	0.258	-

Table 7-13 Total (standardised) effects for Model 2

Understanding both the direct and indirect effects in the model influences our understanding of the impact that Motivational Leadership has on Job Performance. In Model 1 the ML→JP effect was estimated at 0.414 and in Model 2 the total effect is almost exactly the same at 0.415. Significantly, however, we can now see that some of that effect is 'transmitted' via Work Meaning – that is, some of the positive effect of motivational leadership on job performance is a result of the motivational leaders increasing levels of work meaning for employees.

In concluding this section, we can accept Model 2:1, as illustrated in Figure 7-7, as the optimal model (among those tested) for explaining the causal relationships between these four latent variables. Additionally, we can accept H_3 and H_4 and confirm that, in this sample at least, Work Meaning is an outcome of Motivational Leadership and a predictor of Job Performance.

This finding represents a particularly significant and important contribution for this work. Specifically, no prior empirical evidence has been found (during the literature searches) that addresses the theoretical contribution of motivational leadership to employees' work meaning. Accordingly, the observation of the ML→ME→JP path endows this research with relevance beyond the confines of hospitality studies and is an important finding for the broader areas of services management and leadership studies.

7.5 Model 3

Model 2 introduced Work Meaning separately from the other attitudinal variables (Job Satisfaction and Affective Organisational Commitment) because of the core theoretical role ascribed to Work Meaning as an outcome of Motivational Leadership. Model 2 showed that Work Meaning (ME) partially mediates the relationship between Motivational Leadership (ML) and Job Performance (JP).

Model 3 now introduces Job Satisfaction (JS) and Affective Organisational Commitment (AOC) into the model. In addition to re-testing H_1 to H_4 in the enlarged model, the additional hypotheses to be tested are:

H_5 (ML→JS): as employees experience greater levels of Motivational Leadership they will also experience greater levels of Job Satisfaction

H_6 (JS→JP): as employees experience greater levels of Job Satisfaction they will also experience greater levels of Job Performance

H_7 (ML→AOC): as employees experience greater levels of Motivational Leadership they will also experience greater levels of Affective Organisational Commitment

H_8 (AOC→JP): as employees experience greater levels of Affective Organisational Commitment they will also experience greater levels of Job Performance

The structural part of the model is specified as illustrated in Figure 7-10 and the measurement model is initially specified with all of the relevant indicator variables loading on each respective factor – the initial factor structure can be seen Table 7-14 which describes the initial parameter estimates and model fit statistics.

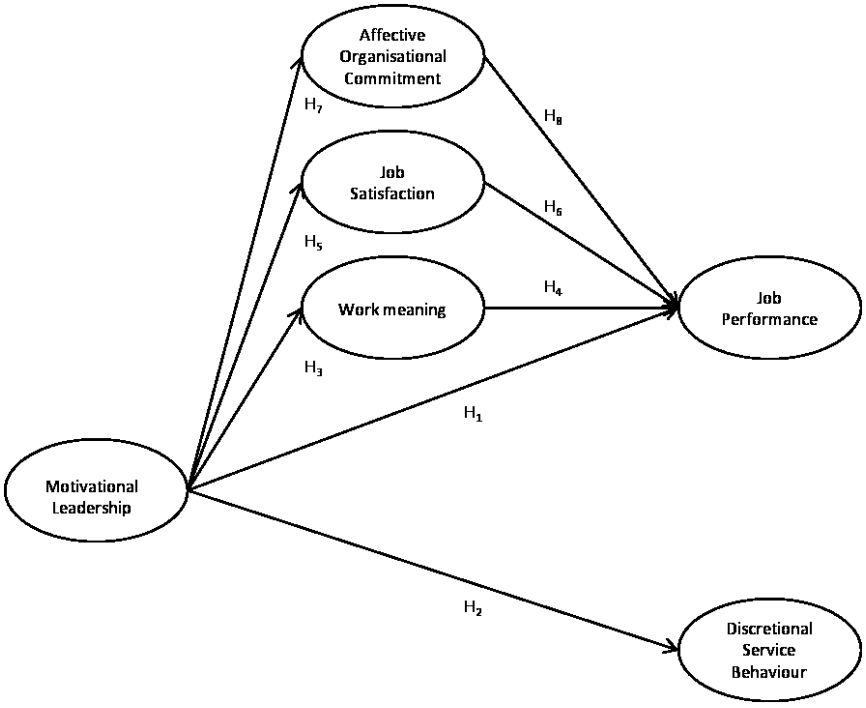


Figure 7-10 Structural specification for Model 3

Maximum Likelihood (ML) estimation was used and, once again, missing values were replaced using AMOS's model-based imputation function.

For CFA 3:1, all factor loadings and covariances are statistically significant. The model diagnostics at the foot of Table 7-14 indicate a model that does not fit the data very well.

Examining the factor loadings reveals several below the 0.700 level – these include several that have, by now, become 'usual suspects', specifically, ML4, ML5, ME5, ME7, JP3 and JP4. Additionally, in the Job Satisfaction factor, JS2, 3 and 4 are not loading very strongly (at 0.599. 0.456 and 0.610 respectively).

Construct	Item	Standardised factor loading estimates					
		ML	ME	JS	AOC	JP	DSB
Motivational Leadership	ML1	.891					
	ML2	.932					
	ML3	.898					
	ML4	**.623**					
	ML5	**.623**					
Work Meaning	ME1		.873				
	ME3		.856				
	ME5		**.611**				
	ME6		.809				
	ME7		**.282**				
Job Satisfaction	JS1			.774			
	JS2			**.599**			
	JS3			**.456**			
	JS4			**.610**			
	JS5			.732			
	JS6			.864			
Affective Organisational Commitment	AOC1				.827		
	AOC2				.847		
	AOC4				.886		
Job Performance	JP1					.851	
	JP2					.856	
	JP3					**.556**	
	JP4					**.495**	
Discretionary Service Behaviour	DSB1						.803
	DSB2						.771
	DSB3						.675
	DSB4						.693
Model fit statistics	χ^2 = 648.622; d.f. = 309; sig = 0.000 RMSEA = 0.072 (0.080; 0.064; pclose = 0.000) CFI = 0.903 SRMR = 0.0696 CN (0.05) = 115						

Table 7-14 Estimates for CFA 3:1

The standardised residual covariance matrix was examined and all of these low-loading items were also associated with standardised residual covariance values above greater than the ± 1.96 or ± 2.58 values that signal large volumes of unmeasured (error) variances.

Accordingly, with the exception of JP4 (for the usual substantive reasons) all of these low-loading indicators were removed and the model re-estimated. Table

7-15 describes the estimates and model fit diagnostics for the second iteration of the measurement model (CFA 3:2).

All factor loadings and covariances remain statistically significant and all factor loadings are at acceptable levels. A check of the standardised residual covariance matrix shows that JP4 shares large SRCs with DSB4 (3.514) and DSB3 (2.562). DSB3 also had an SRC of -2.268 with AOC2.

DSB4 was removed and the model re-estimated (DSB3 was flagged for attention but not removed as, at this stage of the model development, making simple iterations allows the researcher to see more clearly what changes are brought to bear on the overall model).

Construct	Item	Standardised factor loading estimates					
		ML	ME	JS	AOC	JP	DSB
Motivational Leadership	ML1	.891					
	ML2	.932					
	ML3	.898					
Work Meaning	ME1		.873				
	ME3		.856				
	ME6		.809				
Job Satisfaction	JS1			.774			
	JS5			.732			
	JS6			.864			
Affective Organisational Commitment	AOC1				.827		
	AOC2				.847		
	AOC4				.886		
Job Performance	JP1					.851	
	JP2					.856	
	JP4					.495	
Discretionary Service Behaviour	DSB1						.803
	DSB2						.771
	DSB3						.675
	DSB4						.693
Model fit statistics	χ^2 = 245.607; d.f. = 137; sig = 0.000 RMSEA = 0.061 (0.073; 0.049; pclose = 0.070) CFI = 0.960 SRMR = 0.0488 CN (0.05) = 143						

Table 7-15 Estimates for CFA 3:2

The next model iteration (CFA 3:3) was found to be little better in terms of model fit; further, DSB3's loading had dropped considerably to 0.614 (see Table 7-16) and it is responsible for the only two SRCs in the model greater than ±1.96 (shared with JP4 and AOC2). Accordingly, DSB3 was removed and the model re-estimated.

Construct	Item	Standardised factor loading estimates					
		ML	ME	JS	AOC	JP	DSB
Motivational Leadership	ML1	.904					
	ML2	.951					
	ML3	.881					
Work Meaning	ME1		.876				
	ME3		.867				
	ME6		.800				
Job Satisfaction	JS1			.778			
	JS5			.740			
	JS6			.891			
Affective Organisational Commitment	AOC1				.828		
	AOC2				.850		
	AOC4				.883		
Job Performance	JP1					.882	
	JP2					.843	
	JP4					.457	
Discretionary Service Behaviour	DSB1						.849
	DSB2						.767
	DSB3						.614
Model fit statistics	χ^2 = 195.514; d.f. = 120; sig = 0.000 RMSEA = 0.054 (0.068; 0.040; pclose = 0.287) CFI = 0.971 SRMR = 0.0434 CN (0.05) = 179						

Table 7-16 Estimates for CFA 3:3

Table 7-17 shows that all factor loading are now acceptable and there are no SRCs greater than ±1.96. The model fit diagnostics suggest a model that fits reasonably well insofar as (almost) all of the values are in the acceptable ranges. The exception to this is the χ^2 p value at <0.05 (Hoelter's CN is slightly below 200 but not by a great deal).

No further modifications are suggested by the modification indices (MIs). NB - the role of the MIs in model development will be explained in greater detail when they are employed to guide model modifications in Model 3b.

Regarding the substantive implications of the removal of JS2, JS3 and JS4; the construct is now measured by three indicators:

- JS1 – satisfaction with actual work tasks;
- JS5 – satisfaction with promotional opportunities; and
- JS6 – satisfaction with work in general.

Summarising these, we can interpret Job Satisfaction as 'Satisfaction with work in general, specific tasks and promotional opportunities'.

Construct	Item	Standardised factor loading estimates					
		ML	**ME**	**JS**	**AOC**	**JP**	**DSB**
Motivational Leadership	ML1	.905					
	ML2	.951					
	ML3	.880					
Work Meaning	ME1		.876				
	ME3		.867				
	ME6		.800				
Job Satisfaction	JS1			.778			
	JS5			.740			
	JS6			.891			
Affective Organisational Commitment	AOC1				.828		
	AOC2				.851		
	AOC4				.882		
Job Performance	JP1					.882	
	JP2					.844	
	JP4					.456	
Discretionary Service Behaviour	DSB1						.950
	DSB2						.683
Average variance extracted (AVE)		0.768	0.745	0.684	0.764	0.618	0.734
Construct reliability (CR)		0.909	0.898	0.866	0.907	0.819	0.843
Model fit statistics	χ^2 = 144.838; d.f. = 104; sig = 0.005 RMSEA = 0.043 (0.059; 0.024; pclose = 0.748) CFI = 0.984 SRMR = 0.0378 CN (0.05) = 189						

Table 7-17 Estimates for CFA 3:4

Before moving on to estimate the structural model, it is necessary to confirm that the measurement model complies with the requirements for convergent and discriminant validity. As in previous models, this is done by checking the values for construct AVEs (Average Variance Extracted), CR (Construct Reliability) and the squared correlation estimates for the model.

Examining these values in Table 7-17 it can be seen that all of the CR values are satisfactory at > 0.7. The lowest AVE values are 0.618 for JP and 0.684 for JS and these are lower than the highest squared correlation estimates (ME ↔ AOC = 0.774; ME ↔ JS = 0.796; AOC ↔ JS = 0.677). As described in Section 7.2.5, where any squared correlation estimates are greater than the lowest AVE values in a model, then the constructs are failing to measure truly distinct factors. Kline's (2005: 60, 73) advice that correlations between latent factors in the region of >0.85 and >0.90 are indicative of constructs that are not sufficiently distinct from one and other also flags these constructs as problematic (the [non-squared]

correlation estimates between these constructs are: ME ↔ AOC = 0.880; ME ↔ JS = 0.892; and AOC ↔ JS = 0.823).

These three constructs, ME, JS and AOC, with the highest squared correlation estimates (and therefore having the strongest correlations with each other) are the three attitudinal variables, Work Meaning, Job Satisfaction and Affective Organisational Commitment. On the one hand, the finding that these constructs are not empirically distinct is somewhat disappointing – on the other hand, the fact that these constructs are all located within the Employee Attitudes domain does provide a theory-based rationale for their convergence.

Following the empirical findings and their theoretical underpinnings, the research goes on to respecify Model 3 with all of the Employee Attitude indicators loading on one construct and to develop a new model (Model 3b) from this starting point.

7.6 Model 3b

The structural part of Model 3b is specified as illustrated in Figure 7-11 and the measurement model is specified with the indicator variables for Work Meaning (5 items), Job Satisfaction (6 items) and Affective Organisational Commitment (3 items) all loading on a single Employee Attitudes (EA) construct (see Table 7-18). Two new hypotheses H_{21} and H_{22} are generated to replace the original hypotheses H_3 to H_8.

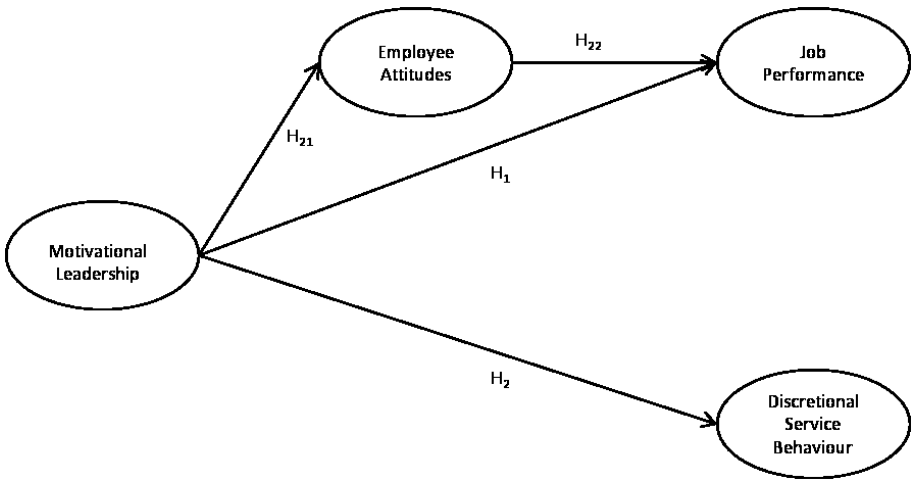


Figure 7-11 Structural specification for Model 3b

The exact description of H_{21} and H_{22} cannot be formulated until such a time as the new EA construct has been successfully measured as a distinct construct and its identity determined through the interpretation of the indicators that load on the

new construct. Theoretical support for the new relationships (ML→EA and EA→JP) is provided by the *values→attitudes→behaviour (V→A→B) hierarchy* described by Homer and Kahle (1988: 638-639) and described in Section 4.2 above.

Theoretical integration of the new construct and hypotheses will be re-visited (i) when (and if) a valid construct is revealed and (ii) in the light of the construct's relationships with the other variables in the model.

As with previous models, Motivational Leadership is initially specified with 5 items and Job Performance and Discretionary Service Behaviour with 4 items each. The first step is to use AMOS's model-based imputation procedure to replace the missing values. Following this, the initial model is estimated.

Construct	Item	Standardised factor loading estimates			
		ML	EA	JP	DSB
Motivational Leadership	ML1	.893			
	ML2	.935			
	ML3	.896			
	ML4	**.618**			
	ML5	**.619**			
Employee Attitudes	ME7		**.264**		
	ME6		.799		
	ME5		**.592**		
	ME3		.827		
	ME1		.847		
	AC4		.821		
	AC2		.782		
	AC1		.788		
	JS6		.825		
	JS5		.686		
	JS4		**.604**		
	JS3		**.450**		
	JS2		**.554**		
	JS1		.747		
Job Performance	JP1			.852	
	JP2			.856	
	JP3			**.554**	
	JP4			.494	
Discretionary Service Behaviour	DSB1				.801
	DSB2				.773
	DSB3				.673
	DSB4				.696
Average variance extracted (AVE)		0.500	0.521	0.557	0.585
Construct reliability (CR)		0.750	0.935	0.826	0.849
Model fit statistics	χ^2 = 751.420; d.f. = 318; sig = 0.000 RMSEA = 0.080 (0.088; 0.073; pclose = 0.000) CFI = 0.876 SRMR = 0.0754 CN (0.05) = 102				

Table 7-18 Estimates for CFA 3b:1

Referring to Table 7-18, all factor loadings and factor covariances are statistically significant although the model fit diagnostics for the initially-specified measurement model indicate that the model is not a close fitting one. There are, however, several low factor loadings that explain this poor fit. More importantly, the initial model demonstrates discriminant validity with the highest squared correlation estimate at 0.416 (ML ↔ EA) and the lowest AVE is 0.500.

The low loading items are recognisable from previous model iterations (ML4, ML5, ME5, ME7, JS2, JS3, JS4 and JP3). These were all associated with high SRCs (standardised residual covariances) and were removed and the measurement model re-estimated. The results of this, a several subsequent model modifications are summarised as follows.

Model CFA 3b:2

- DSB4 shares a high (3.505) SRC with JP4; **DSB4 removed** (JP4 retained on substantive grounds, as previously)
- JS5 is flagged for observation owing to a high SRC (2.560) with ML3

Model CFA 3b:3

- **DSB3 removed** owing to a moderate loading (0.611) and also a high SRC (2.701) with JP4
- JS5 remains on observation owing to 2.565 SRC with ML3

Prior to moving on to the modifications made to iteration CFA 3b:4, it is useful to say a few words about the use of modification indices (MIs) for SEM model development. For each parameter that is fixed to zero in a CFA or SEM model (i.e. a potential path between two variables that is not included) a modification index value is calculated by AMOS (and most other SEM software programmes). For each pair of variables that could be connected by a path, the modification index value provides an estimate of the improvement in model chi square (χ^2_M) that will be observed if this path is freed. In practical terms, a high MI value indicates that these two variables are linked by a common, but unmeasured, influence (i.e. a common factor that is not included in the model) (Byrne 2010: 110).

There should always be a good theoretical rationale for linking error variances in this way[13] (Kline 2005: 318) and models that include error covariances are often criticised for 'capitalising on chance' (see e.g. Kline 2005: 147). In this context, capitalising on chance refers to introducing error covariances – i.e. introducing unmeasured and un-theorised linkages between variables - to satisfy the observed data, rather than modifying the model substantively i.e. changing the content (and therefore the meaning) of the model based on theory.

In adopting a model generating approach, this research is somewhat exploratory, and, by its exploratory nature, is to some extent inherently capitalising on chance! Put another way, while the meanings and structures of the models are based in theory, the development of the models is guided to some degree by the nature of the collected data. Nevertheless, the use of covaried error terms is avoided because, not only does this technique capitalise on chance, it also introduces unmeasured (and un-theorised) variance into the model.

Accordingly, for this research, the modification indices are used in a more circumspect (cautionary) way. That is, when models have been modified as far as is possible using evidence from the magnitudes of factor loadings and the standardised residual covariance matrices, high MI values are then used to flag pairs of variables for inspection. In particular, flagged pairs of variables are examined to see if there is a large degree of overlap in item content – an application of modification indices described by Byrne (2010: 110). Where content overlap is identified, the weaker performing variable is removed and the model re-estimated to see if model fit has improved. Indicator variable performance is judged by comparing factor loadings, or, where factor loadings are very similar, by comparing the total magnitude standardised residual covariances (SRCs) associated with each indicator variable[14]. The variable with the greatest associated SRC (in other words, the part of the model that is less well-explained by the data) is then removed.

[13] For example, it is uncommon to link the paths between error terms in two separate constructs. During the descriptions of model modifications to follow, the phrase 'theoretically plausible' will be used to distinguish between MI values that indicate potentially acceptable modifications and those that would make no substantive sense.

[14] SCR values can be both positive and negative, with deviations from zero in either direction signalling unmeasured variance. Accordingly, to compare magnitude of SRCs between variables, all SRC values were rendered positive by being raised to power of 2 (i.e. they were squared).

Model CFA 3b:4

- Model fit continues to be unsatisfactory (χ^2 p = 0.000; RMSEA = 0.71; CFI = 0.951)
- There are no variables flagged for attention based on their factor loadings
- There are no SRCs greater than 2.58, although JS5 remains on observation owing to an SRC of 2.57 shared with ML3
- Looking then to the modification indices (MIs):
    - the largest MI value is that between indicator variables AC2/AC4 (27.73)
    - AC2 and AC4 have similar factor loadings (0.794 and 0.824)
    - AC4 has a greater magnitude of SRCs (10.8) than AC2 (5.2)
    - **AC4 is removed**

Regarding the substantive implications of modifications to the new Employee Attitudes construct; the exploratory nature of this new construct (combining ME, AOC and JS into one latent variable) provides something of a 'free hand' in making modifications. Specifically, the meaning of the new Employee Attitudes construct is yet to be interpreted, and that interpretation will depend on the nature of the remaining indicator variables.
Nevertheless, care will be taken to minimise the impact of indicator by seeking item overlap – i.e. a theoretical rationale – before indicator removal. In this case, removing AC4 does not have a major substantive impact as the three AOC indicator variables all measure closely-related components: AOC1 describes 'being part of the family (at work)', AOC2 describes 'emotional attachment (to work)' and AOC4 describes 'strong sense of belonging (to the organisation)'.

Model CFA 3b:5

- Model fit continues to be unsatisfactory by chi square (χ^2 p = 0.000) although RMSEA and CFI have improved (RMSEA = 0.059; CFI = 0.968)
- There are no variables flagged for attention based on their factor loadings
- There are no SRCs greater than 2.58, although JS5 remains on observation owing to an SRC of 2.55 (i.e. approaching the 2.58 threshold discussed in Section 7.2.8) shared with ML3
- Looking then to the modification indices (MIs):
    - the largest MI value (20.199) is shared between JS5 and JS6
    - substantively, there is a clear item overlap between JS6 (All things considered, how satisfied are you with your job?) and ME1 (My job provides me with satisfaction)

- therefore, removing either JS6 or ME1 will not impact the substantive content of the construct as the 'satisfaction' component of the factor is retained
- using the standardised residual covariance matrix, **JS6 is removed** on the basis that it is associated with a far greater magnitude of unmeasured variance than ME1 (7.109 versus 2.084)

Model CFA 3b:6

- Model fit continues to improve but chi square remains <0.05 (χ^2 p = 0.010; RMSEA = 0.043; CFI = 0.983)
- The SRC between JS5 and ME3 has risen considerably to 2.9
- There are no specific substantive reasons to chose between retaining JS5 (satisfaction with promotional opportunities) and ME3 (I enjoy going to work)
- JS5, however, has a lower factor loading than ME3 (0.653 versus 0.851) and far greater magnitude of unmeasured variance associated with it (20.7 versus 3.6)
- **JS5 is removed**

Model CFA 3b:7

- Model fit is now satisfactory (χ^2 p = 0.100; RMSEA = 0.032; CFI = 0.992)
- All SRCs are satisfactory at between ±1.96
- The modification index (MI) values suggest problems with unmeasured variances between several indicator variables in the new Employee Attitudes construct:
  - the largest of these is between AOC1 and AOC2 (10.583)
  - there is some item overlap between these items - AOC1 describes 'being part of the family (at work)' and AOC2 describes 'emotional attachment (to work)'
  - consulting the standardised residual covariance matrix reveals that AOC1 has a greater magnitude of associated unmeasured variance
  - **AOC1 is removed**

Model CFA 3b:8

- Model fit is now good – the parameter estimates, model fit and construct validity values are reported in Table 7-19.

Construct	Item	Standardised factor loading estimates			
		ML	EPA	JP	DSB
Motivational Leadership	ML1	0.904			
	ML2	0.953			
	ML3	0.878			
Employee Positive Attitudes	JS1		0.740		
	AOC2		0.763		
	ME1		0.881		
	ME3		0.859		
	ME6		0.793		
Job Performance	JP1			0.873	
	JP2			0.853	
	JP4			0.457	
Discretionary Service Behaviour	DSB1				0.946
	DSB2				0.686
Average variance extracted (AVE)		0.768	0.698	0.618	0.732
Construct reliability (CR)		0.908	0.920	0.819	0.842
Model fit statistics	χ^2 = 50.131; d.f. = 59; sig = 0.788 RMSEA = 0.000 (0.029; 0.000; pclose = 0.999) CFI = 1.000 SRMR = 0.0336 CN (0.05) = 330				

Table 7-19 Estimates for CFA 3b:8

Importantly, the model now has adequate discriminant validity – Table 7-20 shows that the largest squared correlation estimate (ML ↔ EPA r = 0.325) is lower than the smallest AVE value of 0.618 for the JP construct.

	ML	EA	JP	DSB
ML	***0.768***	-	-	-
EA	0.325	***0.698***	-	-
JP	0.168	0.174	***0.618***	**-**
DSB	0.142	0.141	0.102	***0.732***

AVE values on the diagonal and squared correlation estimates below the diagonal

Table 7-20 Discriminant validity estimates for CFA3b:8

With a satisfactory measurement model, it is now possible to estimate and test the structural model using the new factor structure from Table 7-19 and the structural specification illustrated in Figure 7-11. Firstly, however, it is necessary to interpret the meaning of the new construct and, subsequently, to articulate the related hypotheses H_{21} and H_{22}.

Interpreting Employee Attitudes

To interpret the content and generate an identity for the new Employee Attitudes construct, the nature of remaining indicators variables is considered in terms of both how they relate to each other and each indicator's originating construct - Job Satisfaction (JS), Affective Organisational Commitment (AOC) and Work Meaning (ME).

Three interpretations are proffered based on the range of approaches to categorising the five indicators shown in Figure 7-12:

- interpretation (A) highlights a satisfaction component and a positive affect component;
- interpretation (B) highlights the discrete aspects of 'positive affect'; and
- interpretation (C) relates the new construct back to Wollack *et al.*'s (1971) Work Meaning concept by highlighting the substantive content of each of the ME indicators.

Interpretation A	
I am generally satisfied with my job (ME)	Job satisfaction (General) (Specific)
I am satisfied with the daily work tasks (JS)	
I enjoy going to work (ME)	Positive affect
I am emotionally attached to the company (AOC)	
My job provides me with positive social status (ME)	
Interpret B	
I am generally satisfied with my job (ME)	Job satisfaction (General) (Specific)
I am satisfied with the daily work tasks (JS)	
I enjoy going to work (ME)	Enjoyment
I am emotionally attached to the company (AOC)	Emotional attachment
My job provides me with positive social status (ME)	Social Status
Interpretation C (relating the findings back to Wollack *et al.*'s 1971 Work Meaning concept)	
I am generally satisfied with my job (ME1)	Pride in Work: Satisfaction
I enjoy going to work (ME3)	Pride in work: Enjoyment
My job provides me with positive social status (ME6)	Social Status of Job
I am emotionally attached to the company (AOC)	Emotional attachment
I am satisfied with the daily work tasks (JS)	Satisfaction with job tasks

Figure 7-12 Interpretations for the Employee Attitudes construct

With reference to Wollack *et al.*'s Work Meaning model (upon which the Work Meaning construct for this research is based, see Figure 7-13) ME1 and ME3 relate to the *Pride in Work* (Intrinsic) domain and ME6 relates to the *Social Status of Job* (Extrinsic) domain.

One consideration is that the new construct can be interpreted as a larger Work Meaning (ME) construct consisting of the three indicators from the ME construct in Model 2 plus JS1 and AOC2. However, while the content of JS1 (satisfaction with daily/job tasks) fits with the *Pride in Work* domain in Figure 7-13, it is more difficult to see how AOC2 (emotional attachment to the company) fits with Wollack *et al.'s* characterisation, or any of the other characterisations, of work meaning discussed in Section 5.3.

Intrinsic domain	
Sub-scale	**Interpretation**
Pride in work	satisfaction and enjoyment from doing job well
Job Involvement	degree to which a worker takes an active interest in co-workers and company functions and desires to contribute to job-related decisions
Activity Preference	a preference by the worker to remain active and busy at their job
Extrinsic domain	
Sub-scale	**Interpretation**
Attitude toward Earnings	the value an individual places in making money on the job
Social Status of Job	effect the job on a person's standing among his friends, relatives, and co-workers
Mixed character domain	
Sub-scale	**Interpretation**
Upward Striving	continually seeking a higher level job and better standard of living
Responsibility to Work	recognition of an obligation to work

Source: Wollack *et al.* (1971)

Figure 7-13 Wollack et al.'s Work Meaning domains

The five indicators in the final construct can be summarised, then, as overall job satisfaction, satisfaction with job tasks, enjoyment, prestige and emotional attachment. In an attempt to categorise these indicators, it was felt that identifying a common factor amongst these is best (and most simply) achieved by relating the construct to the broader Employee Attitudes domain of the organising framework (Figure 7-1) in which the original JS, ME and AOC constructs are

located. Accordingly, the new construct is interpreted as Employee Positive Attitudes (EPA)[15].

The new hypotheses can now be expressed as follows:

H_{21} (ML→EPA): as employees experience greater levels of Motivational Leadership they will also experience greater levels of Positive Attitudes.

H_{22} (EPA→JP): as employees experience greater levels of Positive Attitudes they will also report greater levels of Job Performance.

Regarding theoretical support for hypothesis H_{21} (ML→EPA), the rationale and justifications for the original ML→ME, ML→JS and ML→AOC are articulated in Section 4.4. The new construct, EPA, contains components of Work Meaning, Job Satisfaction and Affective Organisational Commitment, albeit now combined to form a broader 'positive attitude' construct. Because EPA is a new construct, there is no specific empirical precedent for how a combined 'Employee Positive Attitude' will relate to motivational leadership and job performance. However, in the transformational leadership theory literature, there are various discussions of where transformational and inspirational leadership can positively influence employees' attitudes (examples include Avolio *et al.* 1991: 15; Bass and Riggio 2006: 32; Avolio and Bass 2004: 19).

Regarding theoretical support for hypothesis H_{22} (EPA→JP), this is supported broadly by the *values→attitudes→behaviour (V→A→B) hierarchy* described by Homer and Kahle (1988: 638-639). In more specific terms, each component of the new construct (ME, JS and AOC) has theoretical and/or empirical support as outlined in Section 4.4

Estimating SEM 3b

Figure 7-14 illustrates the parameter estimates and model fit diagnostics for SEM 3b. The model fits well according to all of the indicators and all of the structural coefficients are statistically significant.

[15] *Positive Employee Attitudes* (PEA) was considered, but dropped, as there is no theoretical basis for a leguminous covariate of motivational leadership.

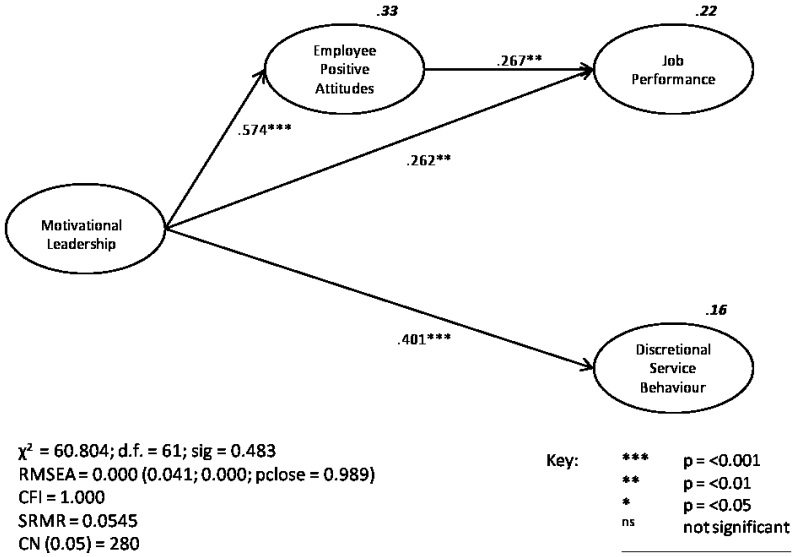


Figure 7-14 Parameter estimates and model fit for SEM 3b

Checking the AMOS output for multivariate normality finds that the CR value for multivariate kurtosis of 14.9 is indicative of multivariate non-normality and, accordingly, the model is re-estimated using the bootstrap procedure. The bootstrapped estimates and their associated confidence intervals indicate that these parameter estimates are robust under the conditions of multivariate non-normality and the model can be accepted.

A final task remains for Model 3b. Specifically, it is necessary to test the mediation effect of the new Employee Positive Attitudes (EPA) construct.

Testing the mediator effect

Testing to evaluate the full or partial nature of the mediator effect of (Employee Positive Attitudes) EPA on the ML→JP relationship was undertaken following the same procedure from Hair *et al.* (2006: 866-8701) that was employed for Model 2 above (Section 7.4).

Firstly, a constrained model with no direct effect (ML→JP) was estimated (SEM $3b_1$). This constrained model produced the following fit statistics: $\chi^2 = 69.552$, d.f. = 62, sig = 0.238; RMSEA = 0.024, CFI = 0.995, SRMR = 0.0700. The chi square difference ($\Delta\chi^2$) between models SEM 3b ($\chi^2 = 60.084$) and SEM $3b_1$ ($\chi^2 = 69.552$) was calculated at 8.748 (69.552 – 60.804). With 1 degree of freedom this yields a p value of 0.0031. Accordingly, (because p <0.01) full mediation of the ML→JP path by EPA is not supported.

To determine whether or not Employee Positive Attitudes (EPA) has a partial mediation effect on the ML→JP relationship it is necessary to estimate a third model (SEM $3b_2$) in which there is no indirect effect (EPA→JP) on Job Performance (JP). The structural coefficient values for the ML→JP path are now compared between model SEM $3b_2$ and the hypothesised model SEM 3b. In the constrained model (SEM $3b_2$) the value (effect size) for the ML→JP path is 0.422 while in the hypothesised model (SEM 3b) this value is 0.262. When comparing the ML→JP path between the constrained model (SEM $3b_2$) with the hypothesised model, because ML→JP is statistically significant in both models, but the parameter estimate is reduced in size in the hypothesised model (0.422 in SEM $3b_2$ and 0.262 in SEM 3b), we can conclude that partial mediation is supported (Hair *et al.* 2006: 867).

7.6.1 Model 3 / Model 3b summary

Model 3 was specified and estimated and to test hypotheses H_1 to H_8 as illustrated in Figure 7-15.

The three Employee Attitude constructs - Job Satisfaction (JS), Affective Organisational Commitment (AOC) and Work Meaning (ME) – did not, however, demonstrate satisfactory discriminant validity (i.e. they were found not to be measuring distinct constructs). The model was re-specified with just one Employee Attitudes construct and developed into the model (Model 3b) illustrated in Figure 7-16.

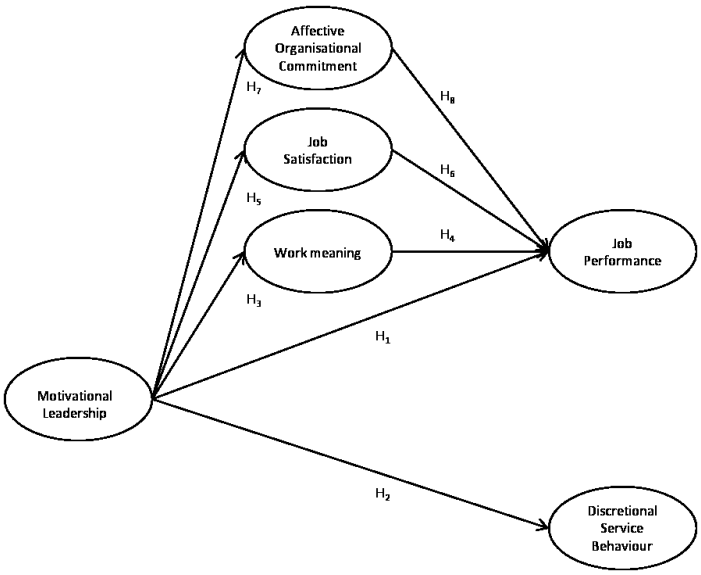


Figure 7-15 The original Model 3 specification

The new, combined employee attitudes construct has five indicator variables JS1, AOC2, ME1, ME3 and ME6 and has been labelled as Employee Positive Attitudes (EPA). Details of the item statements for each of the indicator variables can be found above in Figure 7-12.

The respecification and new EPA construct required the generation of two new hypotheses, labelled $\mathbf{H_{21}}$ (representing the ML→EPA path) and $\mathbf{H_{22}}$ (representing the EPA→JP path).

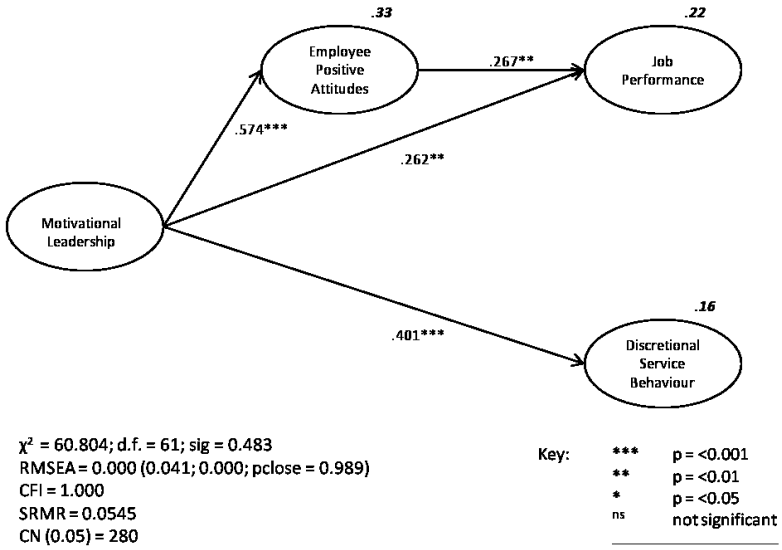


Figure 7-16 Model 3b structure, estimates and fit statistics

The EPA construct was found to have a partial moderation effect between the Motivational Leadership and Motivation constructs. The magnitude of the total effect between the constructs in Model 3b are described in Table 7-21.

Independent variables	Dependent variables		
	EPA	**JP**	**DSB**
ML	0.574	0.415	0.401
EPA	-	0.267	-

Table 7-21 Total (standardised) effects for Model 3b

The effect sizes for the portions of the structural model that include the new EPA construct are very similar to those for Model 2 where the Work Meaning (ME) construct takes the place of EPA. This reflects the similarity in the factor structure for ME (consisting of indicators ME1, ME3 and ME6) and the factor structure for EPA, which contains the same three ME indicators plus JS1 and AOC2.

Despite the similarity of factor structures between ME and EPA, the new construct was not identified as a measure of work meaning because of the inclusion of the AOC2 indicator which relates to employees' emotional attachment to their organisation. The specific impact of this last point is that no existing conceptualisations of work meaning that have been identified include any component related to emotional attachment – indeed, emotional attachment is specific to Affective Organisational Commitment.

In substantive terms, and following from the findings of Model 2, Model 3b tells us that motivational leaders, in addition to enhancing work meaning for employees, enhance a broader class of positive attitudes to work and that these positive attitudes in turn give rise to enhanced job performance by employees.

7.7 Model 4

Model 4 sees the introduction of the Work Values construct to the modelling process. Once again, the reformation of the Employee Attitude variables into the new EPA construct requires a new hypothesis to be articulated. Accordingly, in place of H_9, H_{10} and H_{11} (which linked Work Values with the original ME, JS and AOC constructs), H_{23} now states that:

- employees with more positive dispositions towards work in general will also report higher levels of positive work-related attitudes

Broad theoretical support for H_{23} comes from the *values→attitudes→behaviour (V→A→B) hierarchy* described by Homer and Kahle (1988: 638-639).

The structural model is specified as illustrated in Figure 7-17 and tests H_{23} (as described above) and re-tests H_1, H_2 and H_{22} within the context of the latest model configuration. Once again, the measurement model is initially specified with all of the measured (indicator) variables loading onto their associated factor (5 indicators for ML, 4 for JP and DSB, 14 for EPA and 7 on Work Values).

The first step is to specify the measurement model (with the indicators as described above and with double-headed covariance arrows inter-connecting each construct) and to use this configuration to replace the missing values using AMOS's model-based imputation method.

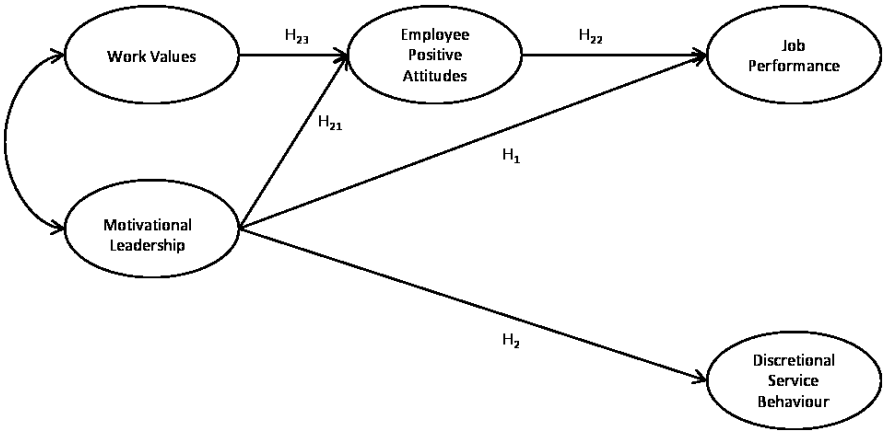


Figure 7-17 Structural specification for Model 4

Before estimating the measurement model using the now complete data set, it is worthwhile briefly describing the double-headed arrow connecting Motivational Leadership (ML) and Work Values (WV) in Figure 7-17. Model 4 is the first model in this research to include more than one exogenous construct – that is, both ML and WV are independent latent variables that have no causes contained within the model (unlike the dependent, endogenous latent variables, that are each hypothesised to be influenced by another one or more latent variables in the model).

In SEM it is usual to assume that exogenous variables are correlated, unless there is a specific theory-based rationale arguing against this (Garson 2011b). Kline (2005: 67-68) describes this correlation as representing the unanalysed association between the two constructs, going on to say that the correlation is unanalysed in the sense that no predictions are offered to explain *why* these constructs covary.

The procedure for measurement model development used in for Models 1 to 3 is followed once more. For brevity, the modifications leading to the final measurement model specification are summarised in Table 7-22.

Following these 6 modification steps, the measurement model now demonstrates satisfactory fit and all factor loadings and factor covariances are statistically significant (see Table 7-23). The constructs all demonstrate convergent (all AVEs >0.5 and all CRs > 0.07) and discriminant validity (the highest squared correlation estimate is ML $\leftrightarrow$ EPA at 0.325 and the lowest AVE is 0.617).

Step	Diagnostic observations and actions (Model 4)
1	The usual indicators **+ WV2** load low on their factors For the usual substantive reasons, JP4 is retained, though loading only 0.489 **ML4 ML5 JP3 ME5 ME7 JS2 JS3 JS4 WV2 are all removed**
2	No major loading issues. Flagged for observation are WV3 at 0.654, JS5 at 0.677 and DSB3 at 0.669 Standardised residual covariance matrix (SRCM) highlights high levels of unmeasured variance between DSB3/JP4 DSB4/JP4 and JS5/ML3 **DSB3, DSB4 and JS5 removed**
3	All SRCs are under 2.58 Modification indices highlight AOC2/AOC4 as the largest MI; there is item content overlap (as described in Model 3); AOC2/4 loadings are similar; AOC4 has greater associated unmeasured variance in the SRCM than (12.7 versus 8.7 for AOC2) **AOC4 removed**
4	All SRCs are under 2.58 Modification indices (MIs) highlight WV4/WV7; there is no obvious item overlap and no statistical means of identifying one as being weaker (i.e. as a better choice for removal) Next pairing highlighted by MIs is JS1/JS6; JS6 overlaps with ME1 (as per model 3) **- JS6 removed** Also highlighted by the MIs is AOC1/AOC2; these have item content overlap (as per Model 3) and the SRCM shows that AOC1 has much higher levels of unmeasured variance – **AOC1 removed**
5	All SRCs are under 2.58 MIs highlight WV7/WV4 and WV3/WV4 for inspection; no item overlap leads to an examination of the SRCM WV7 has greatest unmeasured variance (7 = 17.6; 4 = 10.8; 3 = 14.2) **WV7 removed**
6	All SRCs are under 2.58 MIs highlight WV3/WV4 and WV3/WV6 for inspection No item overlap but WV3 significantly weaker on loading values **WV3 removed**
7	Good fit

Table 7-22 Modification steps for CFA 4:1 to 4:7

The removal of WV2 (*Working, in general*... Provides me with an income that is needed) and WV3 (...Helps keep me busy/occupied) was anticipated - Section 5.1 describes how these items are semantically somewhat different from the other WV statements. The removal of WV7 (...Is one of the most important things in my life) was also not surprising since this item did not belong to the original set of statements in the MOW (1995) survey form. None of these item removals has a significant impact on the substantive content of the WV construct, which – based on the remaining indicators WV1, WV4 and WV5[16] - continues to be defined as "an

[16] WV1 = *Working, in general*... Gives me status and prestige (gives me a feeling of being worthwhile)

WV4 = ...Lets me meet interesting people

WV5 = ...Is a useful way for me to contribute to society

individual's disposition toward work in general / set of general beliefs about work".

Construct	Item	Standardised factor loading estimates				
		ML	WV	EPA	JP	DSB
Motivational Leadership	ML1	.904				
	ML2	.953				
	ML3	.878				
Work Values	WV1		.725			
	WV4		.764			
	WV5		.816			
	WV6[(a)]		.835			
Employee Positive Attitudes	JS1			.740		
	ME1			.876		
	ME3			.857		
	ME6			.798		
	AOC2			.767		
Job Performance	JP1				.891	
	JP2				.837	
	JP4				.448	
Discretionary Service Behaviour	DSB1					.922
	DSB2					.703
Average variance extracted (AVE)		0.768	0.721	0.699	0.617	0.722
Construct reliability (CR)		0.908	0.911	0.921	0.818	0.836
Model fit statistics	χ^2 = 129.655; d.f. = 109; sig = 0.086 RMSEA = 0.03 (0.048; 0.000; pclose = 0.968) CFI = 0.990 SRMR = 0.0433 CN (0.05) = 220					

[(a)] Item removed in the structural model

Table 7-23 Estimates and construct validity for the final measurement model specification CFA 4:7

Once again, and reassuringly, all of the previously-established factor structures (i.e. the indicator variables and therefore the identity of the factors) remain the same as in previous models. This provides evidence that the factor identities are robust to the addition of additional covariates in the model and that future validations of the models are likely to successfully measure the factors using the combinations of indicator variables develop here.

The structural model (SEM 4:1) is estimated using the intra-factor specification described in Table 7-23 and the structural specification illustrated in Figure 7-17.

The structural model is found to fit well based on all fit measures except for chi square, which has a p value of 0.011. Examination of the standardised residual covariance matrix (SRCM) reveals that this lack of good fit can be accounted for by the large SRC values shared between WV6 and JP1. There is no item content overlap between these indicators and an examination of the standardised residual covariance matrix reveals that WV6 has a greater amount of unmeasured variance associated with it (30) than does JP1 (at 23.3). The removal of WV6 (Work in general is interesting and satisfying to me) does not significantly reduce the substantive content of the Work Value construct.

The model is re-estimated as SEM 4:2: the structural parameter estimates and model fit statistics for SEM 4:2 are illustrated in Figure 7-18.

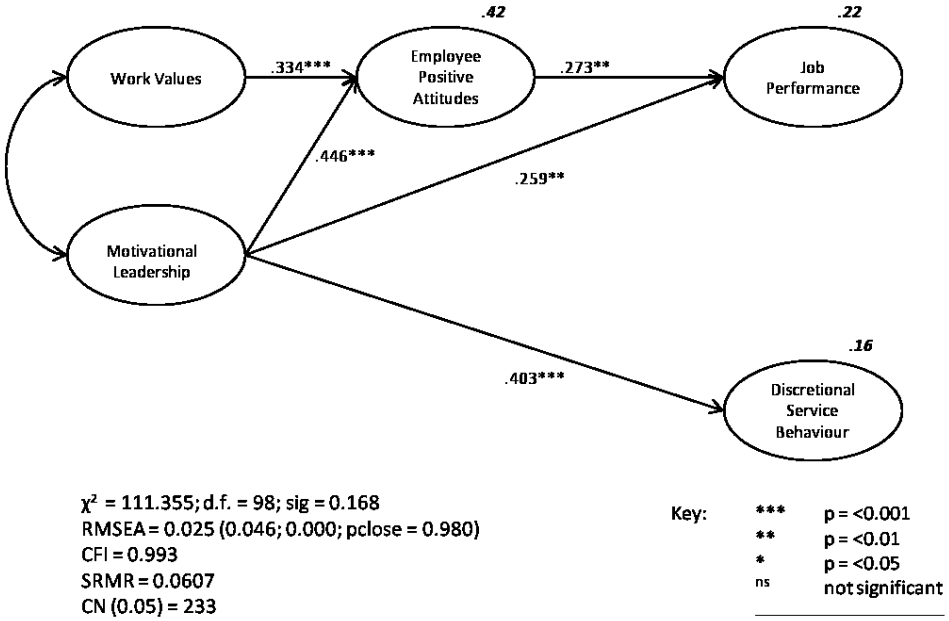


Figure 7-18 Estimates for Model 4 (SEM 4:2)

A further measurement model (CFA 4:8) is estimated without the WV6 indicator to ensure that model fit and convergent and discriminant validity are upheld. Model fit is satisfactory (χ^2 = 93.572, d.f. = 94, sig = 0.493; RMSEA = 0.0000 (0.036; 0.000; pclose = 0.998); CFI = 1.000; SRMR = 0.0386; and Hoelter's CN = 267). Convergent validity is maintained (all AVEs >0.5 and all CRs >0.07) and the highest squared correlation estimate is ML ↔ EPA at 0.325 and the lowest AVE is 0.655 (for JP).

The assessment of distributional normality indicates that the data demonstrate multivariate non-normality (multivariate kurtosis critical ratio = 16.6). Both the CFA 4:8 and SEM 4:2 models were, therefore, re-estimated using the bootstrap

method. All of the model parameters were found to be robust to the non-normal multivariate distribution as described in Appendix IV.

Model 4 mediation and total effects

A constrained model with no direct effect (ML→JP) was estimated (SEM $4{:}2_1$). The chi square difference ($\Delta\chi^2$) between models SEM 4:2 (χ^2 = 120.67) and SEM $4{:}2_1$ (χ^2 = 111.355) was calculated at 9.315. With 1 degree of freedom this yields a p value of 0.0023. Accordingly, (because $p < 0.01$) full mediation of the ML→JP path by EPA is not supported.

To determine whether or not Employee Positive Attitudes (EPA) has a partial mediation effect on the ML→JP relationship it is necessary to estimate a third model (SEM $4{:}2_2$) in which there is no indirect effect (EPA→JP) on Job Performance (JP).

The structural coefficient values for the ML→JP path are now compared between model SEM $4{:}2_2$ and the hypothesised model SEM 4:2. In the constrained model (SEM $4{:}2_2$) the value (effect size) for the ML→JP path is 0.424 while in the hypothesised model (SEM 4:2) this value is 0.259. When comparing the ML→JP path between the constrained model (SEM $4{:}2_2$) with the hypothesised model, because ML→JP is statistically significant in both models but the parameter estimate is reduced in size in the hypothesised model (0.424 in SEM $4{:}2_2$ and 0.259 in SEM 4:2) we can conclude that partial mediation is supported (see Hair *et al.* 2006: 867).

Table 7-24 describes the total (combined direct and indirect) effects for Model 4 (SEM 4:2). In comparison to Model 3b, the total effect of ML on EPA has dropped considerably (from 0.574 to 0.446), the total effect of ML on JP is slightly down (from 0.415 to 0.380) and ML→DSB is much the same (0.403 versus 0.401 in Model 3). Also remaining at a similar level is the EPA→JP path (0.273 versus 0.267 in Model 3).

In Model 4, there is a second mediation effect to be tested – that is, the hypothesised full mediation of the WV→JP path by EPA. To confirm the full mediation effect of EPA - following Hair *et al.*'s guidelines (2006: top of p. 868) – a direct path between WV and JP is estimated. Because this path is not significant (p = 0.139) the full mediation of the WV→JP path by EPA is supported.

The Work Values (WV) construct has a direct (and total) effect on EPA of 0.334 and, interestingly, the squared multiple correlation (SMC) value for EPA (analogous to the R^2 value in a regression model and representing the proportion of variance in the dependent variable explained by the predictor variables) has risen from 0.33 (in Model 3b) to 0.42 in Model 4. The total effect of Work Values on Job Performance, is, however, small, at 0.091.

Independent variables	**Dependent variables**		
	EPA	**JP**	**DSB**
ML	0.446	0.380	0.403
EPA	-	0.273	-
WV	0.334	0.091	-

Table 7-24 Total (standardised) effects for Model 4

In conclusion, Model 4 has confirmed H_{23} that employees with more positive dispositions towards 'work in general' (their Work Values) do also report higher levels of positive work-related attitudes. The strength of this causal relationship is estimated at 0.334. The magnitude of the effect of Work Values ultimately on Job Performance (JP), however, is less strong, at only 0.091.

7.8 Model 5

Model 5 introduces the Employee Empowerment (EM) construct to the model development process. As with Model 3b and Model 4, the re-specification of the 3 Employee Attitude constructs requires a new hypothesis to be developed to articulate the new EM→EPA causal path. Accordingly, H_{24} states that:

- employees who experience greater levels of empowerment will also report higher levels of positive work-related attitudes

Once again, theoretical support for the new hypothesis can be found in the *values→attitudes* vector of the *values→attitudes→behaviour (V→A→B) hierarchy* described by Homer and Kahle (1988: 638-639). Furthermore, considering the theoretical (and empirical) support for the effect of empowerment on the original (ME, JS and AOC) constructs (see Section 4.4) it is clear that since the new EPA construct contains elements of ME, JS and AOC, we might reasonably expect empowerment to have an effect on the new factor (which is composed of ME, JS and AOC indicators).

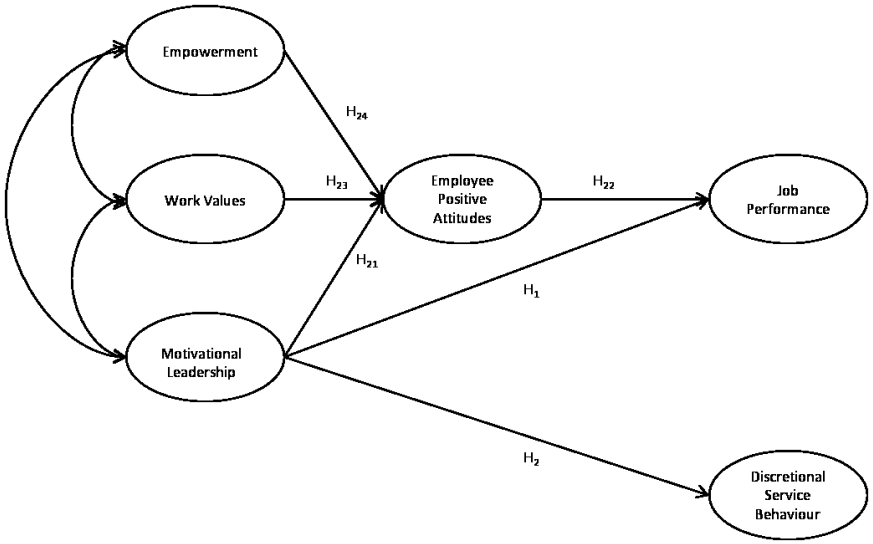


Figure 7-19 Structural specification for Model 5

The structural relationships in Model 5 are specified as illustrated in Figure 7-19 and the measurement model is initially specified (as per previous models) with all of the measured (indicator) variables loading on their respective factors. This initial specification is used, firstly for the model-based data imputation procedure (to replace the missing data) and, secondly, to estimate and test the measurement model in the usual way.

In Section 5.2, the EM construct was introduced as containing two sub-factors, EM-I (Influence) and EM-C (Competencies). This conceptualisation reflected the nature of the scale developed by Hancer and George (2003). The Competencies sub-factor was recognised as being somewhat speculative owing to the requirement to locate and include a third indicator variable from beyond Hancer and George's conceptual framework; nb - this third indicator was identified from Lundberg *et al.* (2009).

Section 5.2 notes that if the measurement model confirms EM-I and EM-C as distinct and valid constructs that covary significantly with the other constructs in the measurement model, then EM-I and EM-C will be modelled in the structural model as sub-factors of a second-level Empowerment construct.

Following an initial development of the measurement model for Model 5, it was found that the EM-C sub-factor did not covary significantly with either the Motivational Leadership ($p = 0.152$) construct or the Discretionary Service Behaviour construct ($p = 0.190$). Accordingly, the EM-C sub-factor and its associated indicator variables (EM6, EM7 and EM8) were removed from the analysis. This modification is not entirely unexpected (EM-C was included

somewhat speculatively) and the broader substantive consequences of the removal of EM-C are entirely manageable since the construct of core interest in this research is EM-I (Influence) as described in Section 5.2.

Once again, for brevity, the modifications leading to the final measurement model specification are summarised and described in Table 7-25.

Step	Diagnostic observations and actions (Model 5)
1	The usual indicators load low on their factors For the usual substantive reasons, JP4 is retained, though loading only 0.491 **ML4 ML5 JP3 ME5 ME7 JS2 JS3 JS4 WV2 are removed**
2	EM9's loading has dropped from 0.640 to 0.616 – **EM9 removed** WV3 (at 0.653) is flagged for observation Standardised residual covariance matrix (SRCM) highlights high levels of unmeasured variance between DSB3/JP4 DSB4/JP4 and JS5/ML3 In addition, DSB3, DSB4 and JS5 all load at <0.700 **DSB3, DSB4 and JS5 removed**
3	WV3 remains only moderate at 0.654 No issues highlighted in the SRCM Check of modification indices reveals: • AOC2/AOC4 has the highest MI value - **AOC4 removed** (higher SRCs than AOC2) • JS6/JS1 and JS6/AOC1 both have high MI values – **JS6 removed** (JS6 has item content overlap with ME1) • WV3/WV4 has a high MI – **WV3 removed** (WV4 has a higher factor loading of 0.749 against WV3's 0.654)
4	All indicators load satisfactorily (except JP4) and all SRCs are <2.58 Modification indices highlight AOC1/AOC2 as the largest MI where there is item content overlap (as described in Model 3); AOC1/2 loadings are similar; AOC1 has greater associated unmeasured variance in the SRCM (14.5 versus 9.1 for AOC2) – **AOC1 removed**
5	All indicators load satisfactorily (except JP4) and all SRCs are <2.58 Modification indices highlight WV4/WV7 with highest theoretically plausible MI value; no item content overlap; factor loadings are very similar; WV7 has highest associated unmeasured variance in the SRCM (WV4 = 15.5; WV7 = 19.6) **WV7 removed**
6	All indicators load satisfactorily (except JP4) and all SRCs are <2.58 Modification indices highlight EM4/EM5 with highest theoretically plausible MI value; there is a clear item content overlap (EM4 = I have a great deal of control over my job; EM5 = I am given responsibility at work); EM4 has lower factor loading (0.705 versus 0.777) and higher levels of associated unmeasured variance in the SRCM (11.1 versus 5.2) **EM4 removed**
7	Good fit (almost)

Table 7-25 Modification steps for CFA 5:1 to 5:7

Following these 6 modification steps, the constructs all demonstrate content validity (AVEs >0.5 and CR values >0.7) and model fit is reasonable (the only issue is the χ^2 p value at 0.045, just below the 0.05 level). The parameter

estimates and model fit diagnostics for the current model iteration (CFA 5:7) are described Table 7-26.

Before translating CFA 5:7 into the structural model, a final check to confirm discriminant validity is made. This reveals that the constructs do not demonstrate discriminant validity – specifically, the lowest AVE (EM = 0.582) does not exceed the highest squared correlation estimate of 0.602 (for EPA ↔ EM).

No further modifications are suggested by the range of diagnostic information (factor loadings, the standardised residual covariance matrix or the modification indices). The next stage, therefore, is to check and remove any outlier cases (following the guidelines for using the Malahanobis distance values (D^2) provided by Byrne 2010: 105-106) and then to re-estimate the measurement model to see if discriminant validity has improved.

Construct	Item	Standardised factor loading estimates					
		ML	**WV**	**EM**	**EPA**	**JP**	**DSB**
Motivational Leadership	ML1	.903					
	ML2	.954					
	ML3	.878					
Work Values	WV1		.728				
	WV4		.761				
	WV5		.814				
	WV6[(a)]		.837				
Empowerment	EM1			.769			
	EM3			.718			
	EM5			.655			
Employee Positive Attitude	JS1				.740		
	AOC2				.773		
	ME1				.874		
	ME3				.850		
	ME6				.803		
Job Performance	JP1					.882	
	JP2					.846	
	JP4					.451	
Discretionary Service Behaviour	DSB1						.908
	DSB2						.714
Average variance extracted (AVE)		0.768	0.721	0.582	0.700	0.617	0.716
Construct reliability (CR)		0.908	0.911	0.806	0.921	0.818	0.833
Model fit statistics	χ^2 = 186.157; d.f. = 155; sig = 0.045 RMSEA = 0.031 (0.046; 0.005; pclose = 0.954) CFI = 0.987 SRMR = 0.0424 CN (0.05) = 211						

[(a)] Item removed in the structural model

Table 7-26 Estimates and model fit for CFA 5:7

Univariate outliers are cases with extreme values on one variable whereas multivariate outliers have extreme scores on two or more variables. It is possible to identify multivariate outliers by checking for extreme Malahanobis distance D^2 values (Byrne 2010: 105-106) and also using the associated p values, where $p<0.001$ signals a potential multivariate outlier (Kline 2005: 51-52). Using this method, four outliers were identified and removed (case numbers 193, 68, 158 and 58 – details are provided in Appendix IV).

The measurement model is now re-estimated (CFA 5:8) with 209 cases.
CFA 5:8 achieves discriminant validity: the lowest AVE (EM = 0.612) now exceeds the highest squared correlation estimate (EPA ↔ EM = 0.555).

In addition, model fit has improved: χ^2 = 179.311, d.f. = 155, sig = 0.088; RMSEA = 0.027 (0.044; 0.000; pclose = 0.992); CFI = 0.990; SRMR = 0.0413; and CN (0.05) = 215. All factor loadings are satisfactory and statistically significant and all parameters are robust to multivariate non-normality (see Appendix IV).

Following the structural specification illustrated in Figure 7-19 and the measurement model specification described in Table 7-26, SEM 5:1 is estimated using 209 cases. There are two issues with SEM 5:1. Firstly, the structural path WV→EPA is not statistically significant. Secondly, the model χ^2 p value is 0.025, that is, it is below the 0.05 threshold for model χ^2 and indicates that the model does not fit the data well.

An examination of the standardised residual covariance matrix (SRCM) reveals the source of this problem: the SRC value for WV6/JP1 is above the 2.58 threshold (see Section 7.2.8). Looking to the diagnostic information to identify which of these two indicators is the weaker performing one, we see that WV6 has a factor loading of 0.824 and JP1 has a factor loading of 0.900 and, in the standardised residual covariance matrix, WV6 has a higher level of associated unmeasured variance compared with JP1 (30.2 versus 21.1). Accordingly, WV6 is removed and the model re-estimated. Firstly, a modified CFA model (without WV6) is estimated to ensure that convergent and discriminant validity are maintained. This revised CFA model continues to satisfy the criteria for construct validity and also demonstrates an improved model fit – importantly, the model χ^2 p value is now >0.05 (χ^2 = 148.259, d.f. = 137, sig = 0.241; RMSEA = 0.020 (0.040; 0.00; pclose = 0.997); CFI = 0.995; SRMR = 0.0398; and CN (0.05) = 231).

The re-estimated model (SEM 5:2) is illustrated along with the parameter estimates and model fit statistics in Figure 7-20.

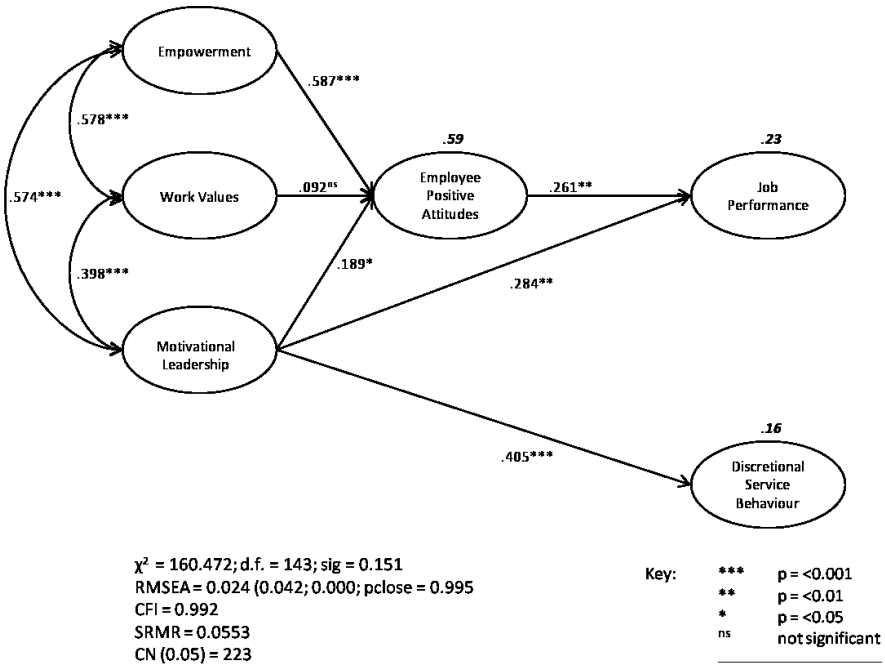


Figure 7-20 Estimates and model fit for SEM 5:2

The model fit is now satisfactory, however, the WV→EPA path remains non-statistically significant ($p = 0.255$; $\beta = 0.092$). This situation is somewhat unexpected because the previous model iteration (Model 4, without Employee Empowerment) estimated the WV→EPA path at $p < 0.001$ and $\beta = 0.334$.

An examination of the correlations (r) between the independent variables provides a possible explanation for this phenomenon. Specifically, the moderately high correlations[17] (EM ↔ WV, $r = 0.578$ and EM ↔ ML, $r = 0.574$) between the Employee Empowerment construct and the other two independent variables (Work Values and Motivational Leadership) draws attention to a potential problem with multicollinearity between independent variables. Cohen *et al.* (2003) describe the difficulty that this situation generates (in a general multiple regression context) as follows:

> ...as one of the independent variables, X_i becomes increasingly correlated with the set of other IVs [Independent Variables] in the regression equation, X_i will have less and less unique information that

[17] Kline (2005: 56-57) describes high multicollinearity in SEM analysis as being indicated by inter-factor correlations greater than approximately $r = 0.85$

> it can potentially contribute to the prediction of Y [the dependent variable]
>
> (Cohen *et al.* 2003: 419)

Cohen *et al.* go on to describe how, under these conditions, individual regression coefficients can change in magnitude, making them difficult to interpret.

Elsewhere, Hair *et al.* (2006) describe how the presence of multicollinearity:

> ...creates "shared" variance between variables, thus decreasing the ability to predict the dependent measure as well as ascertain the relative roles of each independent variable
>
> (Hair *et al.* 2006: 228)

Hair *et al.* (2006:228) describe two implications of multicollinearity that concur with the current situation:

- as multicollinearity increases, the ability to demonstrate that the estimated regression coefficients are significantly different from zero can become markedly impacted due to increases in the standard error; and
- high degrees of multicollinearity can also result in regression coefficients being incorrectly estimated.

Examining the correlations between independent variables (as undertaken above) is a useful initial step in diagnosing multicollinearity, however, an absence of high correlations does not confer that multicollinearity is not present (Hair *et al.* 2006: 227). A number of diagnostic procedures are available to identify and assess multicollinearity, however, these are not available in the AMOS structural equation modelling software, nor any other SEM software (McIntosh 2009). Accordingly, to evaluate the degree of multicollinearity present, the observed variables for each of three independent variables - Motivational Leadership (ML), Work Values (WV) and Employee Empowerment (EM) and the relevant dependent variable, Employee Positive Attitudes (EPA) - were summed to create four summated scale variables suitable for use in a multiple regression model (SPSS's regression procedures can generate multicollinearity diagnostics).

The regression model was specified and estimated using SPSS and the overall model fit was satisfactory ($F = 68.436$, d.f. = 3, $p < 0.001$) with the three independent variables (ML, WV and EM) accounting for approximately half of the variance in Employee Positive Attitudes ($R^2 = 0.496$). As with the SE model (SEM 5:2), Employee Empowerment was the most influential predictor with a

standardised beta weight of 0.449 ($p < 0.001$), this was followed in magnitude by Motivational Leadership ($\beta = 0.261$, $p < 0.001$) and Work Values ($\beta = 0.139$, $p < 0.05$).

The multicollinearity diagnostics produced by SPSS are the tolerance, the variance inflation factor (VIF, which is the inverse of the tolerance value) and the condition index. There are no specific statistical criteria for thresholds for any of these multicollinearity diagnostics (Cohen *et al.* 2003: 424-425) and opinions differ regarding rules of thumb for what is acceptable for each method of ascertaining the likelihood of multicollinearity.

For VIF, Hair *et al.* (2006: 230) suggest that values >10 are problematic although this threshold should be lowered when sample sizes are smaller; Garson (2012) writes that VIF values >4.0 indicate problems with multicollinearity; and Cohen *et al.* (2003: 423), with reference to the >10 rule of thumb, write that "We believe that this common rule of thumb guideline is too high (lenient) for most behavioral science applications".

Regarding the condition index approach to assessing multicollinearity, Cohen *et al.* (2003: 424) reiterate the "traditional rule of thumb" that condition index values >30 "indicate highly severe problems of multicollinearity" - while also noting that "no strong statistical rationale exists for this choice". Garson (2012) writes that condition indices >30 suggest serious collinearity problems and indices >15 are indicative of possible collinearity problems. The guideline that condition indices >15 indicate multicollinearity problems is also noted by Belsley (1991, cited in van Vuuren et al. 2007: 121).

For the regression model estimated with the summated scales, none of the VIF values exceeds 4 (EM = 1.569, WV = 1.325 and ML = 1.385). However, two condition indices (one condition index, or dimension, is generated for each independent and the constant – therefore four in total for this model) exceed 15 (at 15.998 and 17.063 respectively). An examination of the related variance proportions, following Garson's (2012) guidelines, reveals that because two variables (EM and WV) have variance proportions >0.5 (EM = 0.98; WV = 0.72) on the two dimensions with condition indices >15, then these variables (EM and

WV) have a high linear dependence and multicollinearity can be considered a problem[18].

Having employed regression techniques with summated scale variables to identify collinearity (albeit at an apparently moderate level) between the Employee Empowerment and Work Values constructs, the next step is to seek a suitable remedy for this situation.

A number of remedies for multicollinearity are discussed by Cohen et al. (2003: 425-430) including: (i) the combination of independent variables if they are measuring the same or very similar concepts (p. 426); (ii) the collection of additional data to increase sample size and improve the precision of the structural coefficient estimates (p. 427); and (iii) removal of one or more independent variables (p. 430).

Remedy (i) is not appropriate in this instance because the discriminant validity estimates from the measurement model (CFA 5:8) confirm that the EM, WV and ML constructs do indeed measure discrete concepts. Remedy (ii) is recommended for future research to pursue this analysis using a larger sample. For the current research, remedy (iii) is followed and the Work Values construct is removed (because this construct has the non-significant structural coefficient). Remedy (iii) (removal of one or more independent variable) is also supported, specifically in an SEM context, by Kline (2005: 57).

The decision to remove the Work Values construct is further supported following the outcome of a second approach to investigating the issue of the non-significant WV→EPA path. This second course of action is described as follows.

Following the parsimonious principle (see e.g. Kline 2005: 145-147 and Raykov and Marcolides 2006: 41-43), which guides researchers to find a parsimonious model that maintains a satisfactory fit to the data, it is common in SEM analyses to remove non-significant parameters (see also Byrne 2010: 185).

Removing parameters in this way requires researchers to compare the alternative 'nested' models using the chi square difference test ($\Delta\chi^2$) with the objective of finding "a parsimonious model which fits the data reasonably well" (Kline 2005:

[18] NB – Garson (citing Belsley *et al.* 1980) notes that it is possible to find one multicollinearity diagnostic (in this case the condition index) indicating a problem while another (the VIF) does not.

145-146). The chi square difference test ($\Delta\chi^2$) can be used to indicate the point at which model trimming has reached an optimal stage. This is done simply by taking the difference in the model chi-square value for the two models (simple model / larger chi-square *minus* complex model / smaller chi-square value) and then using the difference in degrees of freedom between the two models to calculate a chi-square probability value. Where the difference is found to be significant ($p \leq 0.05$), it can be concluded that the more complex model is preferred over the simplified model. Garson writes:

> ...the goal is to find the most parsimonious model which is not significantly different from the saturated model, which fully but trivially explains the data. After dropping a path, a significant chi-square difference indicates the fit of the simpler model is significantly worse than for the more complex model and the complex model may be retained. ...as paths are trimmed, chi-square tends to increase, indicating a worse model fit and also increasing chi-square difference.
>
> (Garson 2011b)

Put another way, because more complex models (for the same data) are expected to have a lower χ^2 value, and less complex models (with fewer parameters to be estimated) are expected to have a higher χ^2 value, if a model is trimmed (a parameter is removed) it is expected that χ^2 will rise. Therefore, when we remove a path from a model, then we expect fit to worsen and we hope to observe a non-significant worsening (indicating that the more parsimonious model fits the data equally well in comparison with the more complex model). It is the χ^2 difference test and its p value that is used to indicate whether or not the worsening of fit is statistically significant.

The WV→EPA path was removed from model SEM 5:1 and the constrained model (SEM $5{:}1_1$) was re-estimated. The results of the chi square difference test are described in Table 7-27.

Constrained model (SEM $5{:}1_1$ with WV→EPA fixed to zero)		**Initial model (SEM 5:1 with WV→EPA free)**		**Chi square difference ($\Delta\chi^2$)**		
chi sq	d.f.	chi sq	d.f.	chi sq diff	d.f. diff	sig
161.745	144	160.472	143	1.273	1	0.259

Table 7-27 Chi square difference test for SEM 5:1 and SEM $5{:}1_1$

The $\Delta\chi^2$ p value of 0.259 indicates that the model fit has not statistically significantly worsened and that we should therefore accept the constrained model (without the WV→EPA) path as the best alternative.

In removing the WV→EPA path, however, we are effectively removing WV from the model, since it now has no causal effect on any construct. This leads us back to the same situation described following the implementation of remedy (iii) from Cohen *et al.* (2003: 430).

The removal and the Work Values construct and the likely theoretical implications of multicollinearity for the research are discussed in the concluding chapter (Section 8.2).

7.9 Model 5b

Following the removal of the Work Values construct, a new model (Model 5b) is specified as illustrated in Figure 7-21. The measurement model for Model 5b is initially specified (as per previous models) with all of the measured (indicator) variables loading on their respective factors.

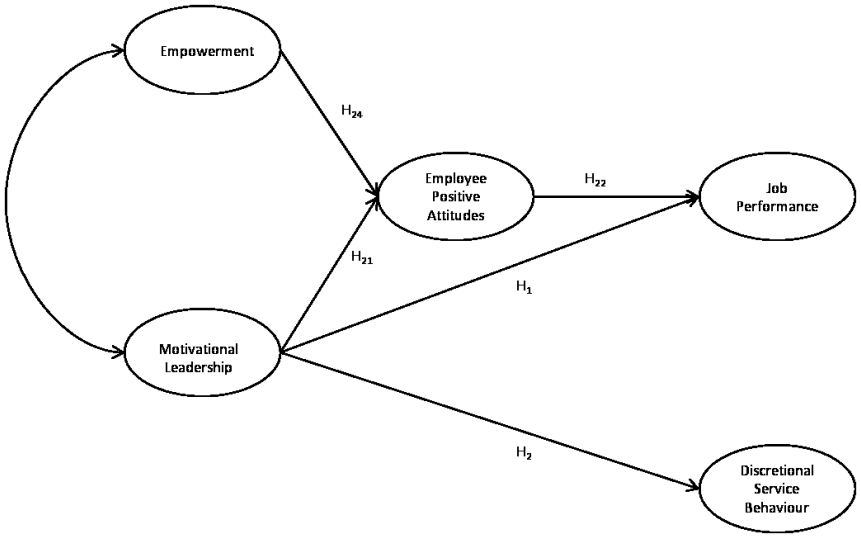


Figure 7-21 Structural specification for Model 5b

This initial specification is used, firstly for the model-based data imputation procedure (to replace the missing data) and, secondly, to estimate and test the measurement model in the usual way. As with Model 5, EM-C (Competencies) does not covary significantly with the ML (p = 0.151) or DSB (p = 0.202) constructs; additionally, the covariance with JP is not significant (p = 0.057).

Once again, the Competencies sub-factor and its indicators (EM6, EM7 and EM8) are removed and the measurement model is re-developed with one EM construct (relating to Hancer and George's Influence sub-factor).

Following steps 1 to 7 as described in Table 7-28, CFA5b:8 is estimated and produces good model fit. Importantly, the new model demonstrates discriminant validity with the lowest AVE value (0.607 for EM) exceeding the highest squared multiple correlation value (0.545 for EM $\leftrightarrow$ EPA).

The parameter estimates and model fit statistics are described in Table 7-29. With a satisfactory measurement model, the structural model (SEM 5b:1) is now specified according to Figure 7-21. The structural coefficients are all statistically significant however the χ^2 p value is just short of the 0.05 threshold (χ^2 p = 0.049). An inspection of the standardised residual covariance matrix reveals no SRCs greater than 2.58. The modification indices do, however, indicate that EM4 and EM5 share some unmeasured variance and therefore account for some of the model mis-fit. It is theoretically plausible to remove one of these items since they measure similar components of the Empowerment construct.

Step	Diagnostic observations and actions (Model 5b)
1	Step 1 is the same as for Model 5, based on low factor loadings: **ML4 ML5 JP3 ME5 ME7 JS2 JS3 JS4 WV2 are removed**
2	EM9 loading has dropped to 0.614 – **EM9 removed** SRCs highlight DSB4/JP4 at 3.499 - **DSB4 removed** (based on the usual substantive reasons for retaining JP4)
3	SRCs highlight DSB3/JP4 at 2.694 – **DSB3 removed** SRCs also indicate that JS5/ML3 (at 2.579) should be flagged for observation
4	SRC value for JS5/ML3 now at 2.584; JS5 is the weaker variable (loading = 0.680 versus 0.879) - **remove JS5**
5	Modification indices highlight AOC2/AOC4 as the largest MI; there is item content overlap (as described in Model 3); AOC2/4 loadings are similar; AOC4 has greater associated unmeasured variance in the SRCM than (12.8 versus 7.1 for AOC2) - **AOC4 removed**
6	Modification indices highlight ME1/ME3 as the largest MI; however, it is problematic to remove one of these; there is no item content overlap and these two indicators embody two key substantive components of the EPA factor (satisfaction and enjoyment, which are derived from Wollack *et al.*'s Intrinsic Meaning domain) The next (theoretically plausible) high MI value AOC1/AOC2; these items have clear item content overlap (as described in Models 3 and 4); as with Models 3 and 4, AOC1 is found to perform less well than AOC2 (higher associated SRCs) - **AOC1 removed**
7	Modification indices highlight JS1/JS6 as the indicator pairing with the largest MI that it is theoretically plausible to address by making a modification; as with previous models, JS6 has item content overlap with ME1 – **JS6 removed**
8	Good fit

Table 7-28 Modification steps for CFA 5b:1 to 5b:8

As described in the development of the measurement model for the original Model 5, there is a clear item content overlap between EM4 = I have a great deal of control over my job and EM5 = I am given responsibility at work. In the latest model (SEM 5b:1) the standardised loading estimate for EM4 is 0.787 and for EM5 it is 0.709.

From the standardised residual covariance matrix, the total unmeasured variance associated with EM4 is 7.5 and for EM5 this value is 10. With a lower loading and a greater level of associated unmeasured variance, EM5 is removed.

Construct	Item	Standardised factor loading estimates				
		ML	**EM**	**EPA**	**JP**	**DSB**
Motivational Leadership	ML1	.904				
	ML2	.953				
	ML3	.878				
Employee Empowerment	EM1		.749			
	EM3		.728			
	EM4		.784			
	EM5[(a)]		.708			
Employee Positive Attitudes	JS1			.740		
	ME1			.877		
	ME3			.849		
	ME6			.803		
	AOC2			.771		
Job Performance	JP1				.861	
	JP2				.865	
	JP4				.458	
Discretionary Service Behaviour	DSB1					.929
	DSB2					.698
Average variance extracted (AVE)		0.768	0.607	0.700	0.618	0.725
Construct reliability (CR)		0.908	0.861	0.921	0.820	0.838
Model fit statistics	χ^2 = 125.093; d.f. = 109; sig = 0.139 RMSEA = 0.026 (0.046; 0.000; pclose = 0.982) CFI = 0.992 SRMR = 0.0386 CN (0.05) = 228					

[(a)] Item removed in the structural model

Table 7-29 Estimates and model fit for CFA 5b:8

Following the removal of EM5, the model is re-estimated as SEM 5b:2. The parameter estimates and model fit statistics are all satisfactory and are illustrated in Figure 7-22. Prior to discussing these, however, because the factor structure of the measurement model has been modified (the indicator EM5 has been

removed), it is necessary to re-estimate the measurement model and check the construct validity.

The re-estimated measurement model (CFA 5b:9) does demonstrate both content and discriminant validity. All AVE values (average variance extracted) are greater than 0.5 and all CR (construct reliability) values are greater than 0.7. Discriminant validity is achieved with the lowest AVE value (0.600 for EM) exceeding the highest squared multiple correlation value (0.560 for EM ↔ EPA).

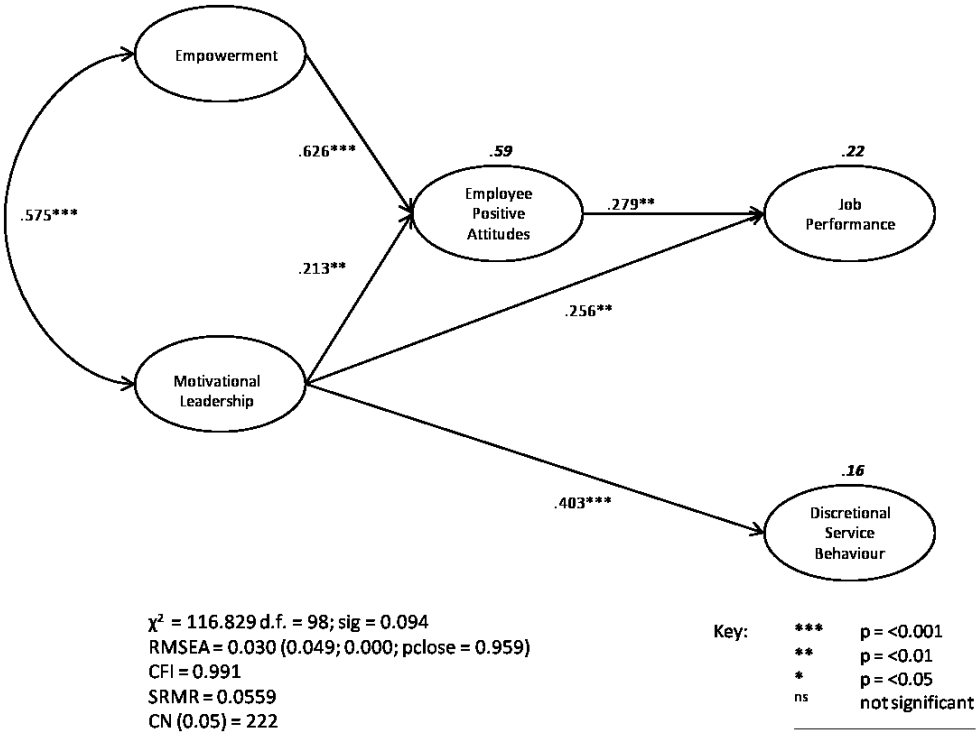


Figure 7-22 Estimates and model fit for SEM 5b:2

In the finalised structural model (SEM 5b:2, Figure 7-22) all parameters are statistically significant and the model demonstrates good fit to the data. The critical ratio (CR) for multivariate kurtosis was 17.7 and a bootstrapped model estimation was run to check on the robustness of the parameter estimates in the light of this. The bootstrapped estimates (for both the structural and measurement models) indicated that all parameters are robust under the conditions of multivariate non-normality (see Appendix IV for details).

The substantive implications of the item removals in the EM construct are dealt with in greater depth in Section 7.13 below. In brief, the substantive content of the EM factor that is of central interest in this research - Hancer and George's

(2003) Influence dimension – remains adequately measured by items EM1, EM3 and EM4.

The correlation between EM and ML is moderately high ($r = 0.578$, $p < 0.001$) and the ML→EPA path has dropped in magnitude from $\beta = 0.446$ in Model 4 to $\beta = 0.213$. The moderately high correlation and the change in the ML→EPA structural coefficient suggests that collinearity between the EM and ML constructs may be continuing to influence the estimates of EM and ML on EPA. The implications of this will be discussed further in the final chapter (Section 8.2).

Mediator and total effects for Model 5b

Testing the mediator effect of EPA was carried out in the same way as with previous models and confirmed that EPA acts as a partial mediator between ML and JP.

A constrained model with no direct effect (ML→JP) was estimated (SEM $5{:}2_1$). The chi square difference ($\Delta\chi^2$) between models SEM 5:2 ($\chi^2 = 125.182$) and SEM $5{:}2_1$ ($\chi^2 = 116.829$) was calculated at 8.353. With 1 degree of freedom this yields a p value of 0.0039. Accordingly, (because $p < 0.01$) full mediation of the ML→JP path by EPA is not supported.

To determine whether or not Employee Positive Attitudes (EPA) has a partial mediation effect on the ML→JP relationship it is necessary to estimate a third model (SEM $5{:}2_2$) in which there is no indirect effect (EPA→JP) on Job Performance (JP).

The structural coefficient values for the ML→JP path are now compared between model SEM $5{:}2_2$ and the hypothesised model SEM 5:2. In the constrained model (SEM $5{:}2_2$) the value (effect size) for the ML→JP path is 0.424 while in the hypothesised model (SEM 5:2) this value is 0.256. When comparing the ML→JP path between the constrained model (SEM $5{:}2_2$) with the hypothesised model, because ML→JP is statistically significant in both but reduced in size in the hypothesised model (0.424 in SEM $5{:}2_2$ and 0.256 in SEM 5:2) we can conclude that partial mediation is supported (see Hair *et al.* 2006: 867).

As with Model 4, there is a second mediation effect to be tested in Model 5b, specifically, the hypothesised full mediation of the EM→JP path by EPA. To confirm the full mediation effect of EPA - following Hair *et al.*'s guidelines (2006: top of p. 868) – a direct path between EM and JP is estimated. Because this path is not significant (p = 0.141) the full mediation of the WV→JP path by EPA is supported.

Table 7-30 describes the total (combined direct and indirect) effects for Model 5b (SEM 5:2).

Independent variables	**Dependent variables**		
	EPA	**JP**	**DSB**
ML	0.213	0.315	0.403
EPA	-	0.279	-
EM	0.626	0.174	-

Table 7-30 Total (standardised) effects for Model 5b

In comparison with previous models, the total effect of ML on JP has dropped:

- in the latest model, the total effect, $ML \rightarrow JP_{TOT} = 0.315$;
- in Model 4 $ML \rightarrow JP_{TOT} = 0.380$;
- in Model 3b $ML \rightarrow JP_{TOT} = 0.415$;
- in Model 2 $ML \rightarrow JP_{TOT} = 0.415$; and
- in Model 1 ML→JP = 0.415 (there only is a direct effect in Model 1).

The reason for this effect size dropping as the models have become more complex is that, as extra constructs have been added, these extra constructs (ME/EPA, WV and finally EM) have been able to account for some of the effect on JP.

Comparison of Models 5 and 5b

Model 5b was arrived at following the finding (during the development of the structural model for Model 5) that the WV→EPA path was not statistically significant. Removing that non-significant path on the ground of parsimony was tantamount to removing the WV factor entirely and thus the structure for Model 5b (i.e. Model 5 minus the WV construct) was arrived at.

Having now developed Model 5b, it is worthwhile comparing this with the earlier Model 5 (version SEM 5:1, with the WV construct and its [non-significant] WV→EPA path). The rationale for this comparison is described by Kline (2005: 323) who urges researchers to consider alternative models that explain the same theory in a different way. Kline goes on to note that, where the overall fits of these competing models are similar, then researchers must specify their reasons for why a particular model is preferred.

Models 5 and 5b are compared using their model fit diagnostics in Table 7-31.

Fit measure	SEM 5:1 estimated on 209 cases	SEM 5b:2 estimated on 213 cases (no WV factor)
χ^2 (*d.f.; p*)	160.472 (143; 0.151)	116.829 (98; 0.094)
RMSEA (upper; lower; pclose)	0.024 (0.042; 0.000; 0.995)	0.030 (0.049; 0.000; 0.959)
CFI	0.992	0.991
SRMR	0.0553	0.0559
Hoelter's Critical N	223	222
ECVI	1.223	0.910

Table 7-31 Comparison of Models 5 and 5b

The findings from this comparison are that:

- both models have a good fit to the data as indicated by the chi square measure
- both demonstrate good fit based on the RMSEA, CFI and SRMR measures
- there is a negligible (0.001) difference in the values for CFI
- there is slightly more unexplained variance in Model 5b as indicated by the higher RMSEA and SRMR values (although these differences are very small)
- there is a negligible (1) difference in the values for Hoelter's Critical N

The final comparison criteria, the Expected Cross-Validation Index (ECVI) has not yet been introduced. The ECVI was developed by Browne and Cudeck (1989) to assess "...in a single sample, the likelihood that the model cross-validates across similar-sized samples from the same population" (Byrne 2010: 82). There is no specific range of acceptable values, rather, models exhibiting smaller ECVI values have the greatest potential for replication. According to the ECVI values described in Table 7-31, Model 5b has the greatest potential for cross-validation in an independent sample.

Following this comparison, Model 5b is accepted as the optimal model based on the following criteria:

- there is little difference in adequacy of model fit measures between the two models;
- Model 5b it is more representative, making use of all 213 valid cases (in comparison with 209 cases in Model 5); and
- Model 5b has a smaller ECVI values, indicating that it has a greater potential for cross-validation in an independent sample.

7.9.1 Employee attitudes and discretionary service behaviour

Section 4.4 above described (i) how Simons and Roberson (2003) measured the Affective Commitment → DSB path in their structural equation model and (ii) noted that this relationship may not be theoretically robust. Specifically, it not clear how an individual's affective organisational commitment (an individual's attitude) can influence the behaviour of colleagues (DSB was measured by Simons and Roberson, in the same as in this research, as a respondent's assessment of their colleagues' service-orientated extra effort).

As a matter of interest, the Model 5b structural model was respecified (as SEM 5b:3, see Figure 7-23) to include the EPA→DSB path (which reflects Simon's and Roberson's Affective Commitment → DSB path insofar as individual attitudes are being hypothesised as predictors of colleagues' behaviours). The path (β = 0.255) was found to be significant at the 0.001 level and a χ^2 difference test found that, in comparison with Model 5b:2, model fit was improved by a statistically significant amount ($\Delta\chi^2$ p = 0.005).

One theoretical rationale that can be employed to underpin the practical (rather than statistical) existence of the EPA→DSB path is that, employees who experience motivational leadership and are concomitantly higher on positive work attitudes (EPA) have colleagues who experience the same leader behaviour and, as a consequence exhibit extra effort. This argument falls down, however, when we consider that this effect is already being measured (more directly) by the existing JP→DSB path that essentially posits the same premise – i.e. that respondents' colleagues experience the same type of leader behaviour and that this has a positive effect on their performance. Indeed, the JP→DSB path in the original SEM 5b:2 drops from β = 0.403 to β = 0.245 in SEM 5b:3. In effect,

what is being witnessed by this respecification is the transference of some of the direct ML→DSB effect via the EPA construct.

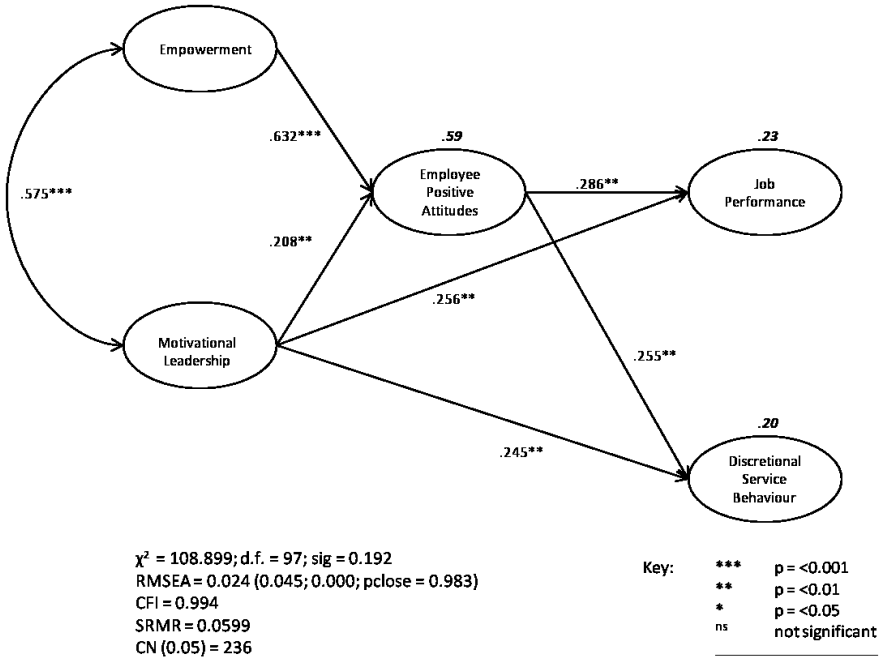


Figure 7-23 SEM 5b:3 with the EPA→DSB path

The inclusion of the EPA→DSB path does bring another effect into play, however: there is now an indirect (fully mediated) effect of EM on DSB via EPA (EM→EPA→DSB; β = 0.161). Once more, this path can be rationalised on the basis that employees working in close proximity experience the same levels of empowerment.

In summary, the difference made by introducing the previously unhypothesised EPA→DSB path are that:

- the total effect of ML→DSB is down from 0.403 to 0.298;
    - 0.298 is made up of: direct = 0.245 and indirect = 0.053
- some of the variance in DSB now explained by:
    - EM→EPA→DSB (β = 0.161) and
    - by EPA→DSB (β = 0.255)
- the total variance explained in DSB has risen from 0.16 to 0.20.

Statistically, SEM 5b:3 is a better model owing to its improved global fit measures, however, in conclusion, the fact that the new EPA→DSB path appears simply to re-direct some (0.059) the ML→DSB effect through EPA combined with the conceptual difficulties in theoretically sustaining the notion that one person's attitudes can influence another's behaviour, leads to the rejection of the

EPA→DSB path from the model and a return to SEM 5b:2 as the optimal model (see Figure 7-22).

7.9.2 Model 5 / Model 5b summary

Model 5b has established that the strongest effects on job performance come from motivational leadership (0.315), followed by employees' positive attitudes (0.279) and then from empowerment (0.174).

The development of the final model (5b) has seen the removal of the WV factor from the model. This decision was made on the grounds that the WV→EPA path was found to be non-significant and, in seeking a parsimonious solution (see e.g. Byrne 2010: 185), this path was removed from the model. As noted above, removing this path was tantamount to removing the WV factor entirely, thus the structure for Model 5b (with no WV construct) was arrived at.

Models 5 and 5b represent alternative explanations of the same set of inter-linkages and a comparison of these competing models was undertaken using the range of model fit statistics described in Table 7-31. Following this comparison, Model 5b was selected as the optimal explanation of the relationships between the constructs.

7.10 Model 6

Model 6 sees the introduction of the Social Support (SS) construct to the model. Social support has been included in three previous hospitality leadership studies (Borchgrevink and Boster 1994; Ross and Boles 1994; Susskind *et al.* 2000a) with mixed evidence for its positive influence in hospitality work environments (see Section 5.2 for details). Within the organising framework for this research, Social Support is hypothesised to be a predictor of Job Performance and Service Quality.

Indicator variable SS1 was removed owing to a poor factor loading of 0.517 and the remainder of the CFA model was developed along similar lines to previous ones (i.e. the same factor structure as was reported for CFA 5:8b was resolved). At this stage the model fit was adequate (χ^2 = 167.306, d.f. = 137, sig = 0.040;

RMSEA = 0.032; CFI = 0.987; and SRMR = 0.0370) excepting for the chi square p value at 0.040. However, because the Social Support construct did not covary at a statistically significant level with the Job Performance construct (p = 0.227) the model was not suitable for further development as a structural model. Because of this lack of statistically significant covariance between Social Support and Job Performance, the hypothesis (H_{15}) that employees experiencing higher levels of Social Support will also experience higher levels of Job Performance cannot be tested and is effectively not confirmed.

The second hypothesis involving Social Support, H_{16} (Social Support→Service Quality) stating that employees experiencing higher levels of Social Support will also report greater success in maintaining customer satisfaction in the presence of service failures, is also effectively not confirmed because the Service Quality construct does not covary at a statistically significant level with any other construct in the model. This finding is reported below in Section 7.11 where the introduction of the Service Quality (SQ) construct is described.

7.11 Model 7

The Service Quality (SQ) construct is defined as 'Employee ability to maintain satisfied customers in the face of adverse service conditions' and is measured using an exploratory seven item scale developed from earlier research findings by Bitner *et al.* (1994) that compared customer and staff perceptions of satisfaction or dissatisfaction in critical service encounters. The SQ construct is hypothesised as an outcome of Social Support (H_{16}), Affective Organisational Commitment (H_{17}), Job Satisfaction (H_{18}), Work Meaning (H_{19}) and Motivational Leadership (H_{2o}).

To incorporate SQ into the existing model (Model 5b), a CFA model was specified containing all indicator variables for the constructs ML (Motivational Leadership), EM (Empowerment), EPA (Employee Positive Attitudes), JP (Job Performance) and DSB (Discretionary Service Behaviour). The data set used to estimate this model contained 122 responses which was the number of cases where all of the seven SQ items were completed - recalling that for the measurement of the SQ construct, a non-response option was made available for individuals who never experienced service failure in a particular critical service encounter (Section 5.4). The CFA model was estimated with the following results:

- all SQ indicators loaded well (at >0.7) and all SQ factor loadings were statistically significant;
- the SQ construct, however, did not covary at a statistically significant level with any other construct.

The model specification was modified in the usual way, with analyses of the standardised residual covariances and modification indices being used to indicate where modifications to improve this situation might be made. Ultimately, three indicator variables were removed (SQ3, SQ5 and SQ7) from the SQ construct. Following these modifications, the truncated SQ construct (consisting of indicators SQ1, SQ2, SQ4 and SQ6) was estimated alongside the ML, EM, EPA, JP and DSB constructs as per the final CFA specification used in Model 5b. However, no statistically significant covariances between the SQ construct and any others were found.

Because the modelling above was undertaken using the constructs present in Model 5b, as a further check on the adequacy of the SQ construct, it was modelled alongside the constructs used in the previous model iteration, Model 5, which included the Work Values (WV) construct. Although it was not possible to develop this model to a state of adequate fit, and SQ continued to covary at non-statistically significant levels with the constructs as described above, SQ did covary at a statistically significant level ($p = 0.034$) with the Work Values construct. Accordingly, a CFA model containing only the SQ and WV constructs was estimated. It was not possible, however, to develop a model that exhibited satisfactory fit and in which the covariance between the SQ and WV constructs remained statistically significant.

7.12 Post-development validation of the model

Two aspects of validation are dealt with in this section: (i) cross-checking the model-based data imputation process; and (ii) cross-validating the model using a split-sample multi-group analysis of invariance.

Cross-checking the imputation method

As described above in Section 6.6.1, the AMOS software provides a special form of maximum likelihood (full information maximum likelihood, FIML) estimation to compute model parameters where variables contain missing data (Kline 2005: 56; Arbuckle 2009: 270). The FIML method, however, does not allow for the computation of a standardised residual covariance matrix (SRCM) or modification indices (MIs) and is therefore not appropriate for model development processes, where the SRCM and MI estimates provide essential information for evaluating levels of shared unmeasured covariance between indicator variables.

Accordingly, the model-based imputation method (also provided by AMOS and which does allow for estimation of modification indices) was used for the model development process. Shumaker and Lomax (2004: 43) note that it 'is prudent' for researchers to cross-check SE models that have been estimated using data imputation with AMOS's Full Information Maximum Likelihood (FIML) method.

Model 5b was therefore re-estimated using the FIML approach. The model fit estimates (Table 7-32) indicate that there is no significant difference in model fit between the model developed using the imputed data set and the same model estimates using the FIML method. Six of the thirteen standardised factor loadings differed between models by 0.001 and one differed by 0.003; of the five standardised structural coefficients, two varied between models with differences of 0.001, one had a difference of 0.002 and one had a difference of 0.003. Essentially, there was no substantial difference in magnitudes of parameter estimates and all parameter estimates remained statistically significant.

Fit measure	Model-based data imputation method	FIML method	No missing values n = 177
χ^2 (*d.f.; p*)	116.829 (98; 0.094)	115.758 (98; 0.106)	111.333 (98; 0.169)
RMSEA (upper; lower; pclose)	0.030 (0.049; 0.000; 0.959)	0.029 (0.048; 0.000; 0.964)	0.028 (0.050; 0.000; 0.948)
CFI	0.991	0.991	0.992
SRMR	0.0559	N/a[(a)]	0.0617
Hoelter's Critical N	222	224	194

[(a)] SRMR is not defined in AMOS where missing values are present

Table 7-32 Post-development comparisons for Model 5b

These findings show that there have been no substantial or adverse consequences on the model parameter estimates as a result of employing the model-based data imputation method in preference to the generally favoured FIML estimation method.

A general rule of thumb for missing data approaches provided by Hair *et al.* (2006: 55-56) is that, before undertaking any data imputation, it should be possible to undertake the planned analysis effectively using only the cases with no missing values at all. There are 177 cases with no missing data in the current data set - according to the guidelines for SEM sample sizes described in Section 6.5.2, such a sample should be adequate for analysis to proceed. To provide an empirical check on the adequacy of the 177 cases for SEM analysis, Model 5b was re-estimated using only the data from these 177 cases.

The model fit statistics for this model are described in Table 7-32 (alongside the results of the FIML estimates) and show that, once again, there is no appreciable difference in the overall fit. All factor loadings and structural coefficients remain statistically significant. All of the factor loadings and structural coefficients vary to some extent from the values in the original Model 5b, and this reflects the fact that the data set has changed significantly. The variations are greater than in the previous model comparison, in this case ranging between 0.001 and 0.6. However, the only substantive difference between the model estimated with 177 cases and the original Model 5b is that the squared multiple correlation value for the Job Performance (JP) construct has dropped to 0.18 (from 0.22 in Model 5b with 213 cases).

The one model fit measure that has changed somewhat is Hoelter's Critical N which assesses adequacy of sampling size. Reflecting the smaller sample size (177 cases versus 213 cases in the full data set), this estimate has dropped slightly below the preferred level of 200 to 194. Nevertheless, this estimate is very close to 200 and is considerably above the minimum of 75 suggested by Garson (2011b). Based on these findings, it is concluded that the sample size of 177 cases with no missing values was adequate for undertaking SEM analysis. As a consequence, the general rule of thumb for missing data approaches provided by Hair *et al.* (2006: 55-56) is satisfied.

Split-sample cross-validation of the model

The most effective method of validating an SEM model is to test the model in a strictly confirmatory mode using data from an independent sample drawn from the same population (Blunch 2008: 98). Given the amount of time taken to successfully collect data suitable for the exploratory model that has been developed above, a second round of data collection for undertaking an independent sample for a cross-validation exercise was not possible.

In the absence of an independent sample, one approach to cross-validation is to randomly split the existing sample and to use the two resulting sets of cases to perform multi-group SEM analyses to confirm (or refute) group invariance (Hair *et al.* 2006: 819). If the models estimated using the data split into two groups demonstrate adequate fit and there is no statistically significant difference in parameter estimates, then it can be concluded that the model is likely to cross-validate in an independent sample.

This procedure was carried out and the steps are summarised below:

- the RANDBETWEEN function in Microsoft Excel was used to generate 213 random numbers between 2,000 and 200,000 (these limits were set arbitrarily);
- these random numbers were pasted into the SPSS database and the cases were then sorted by ascending random number;
- the sample was split into two groups (Group 1 [G1] = 106 cases and Group 2 [G2] = 107 cases) at the midway point in the ascending order of random numbers. These groups are each just above the 100 cases lower limit for sample size in SEM analysis described in Section 6.5.2 above;
- following the steps described by Hair *et al.* (2006: 820-824) and Byrne (2010: 266-271) these two groups were used to:
    - confirm that global model fit for both groups is satisfactory; and
    - evaluate the equivalence of the factor loadings, structural coefficients and factor covariances.

The loose cross-validation (where separate models are estimated using the split samples) found that models both demonstrated satisfactory global fit:

- G1: χ^2 = 98.923, d.f. = 98, sig = 0.455; RMSEA = 0.009; CFI = 0.999; and SRMR = 0.0655; and
- G2: χ^2 = 111.601, d.f. = 98, sig = 0.164; RMSEA = 0.036; CFI = 0.987; and SRMR = 0.0700.

Following the loose cross-validation, a baseline multi-group SEM analysis was performed using the two split sample groups. This procedure estimates both groups at the same time and calculates a set of overall model fit statistics based on the estimates for both groups. This is apparent when we look at the degrees of freedom for the baseline multi-group model where, in this example, there are 196 degrees of freedom which is exactly double the 98 degrees of freedom for the original Model 5b. The fit statistics for the baseline multi-group model indicate a satisfactory fit (this is a necessary pre-requisite for continuing the multi-group analysis in SEM) and are as follows:

- χ^2 = 210.523, d.f. = 196, sig = 0.227; RMSEA = 0.019; CFI = 0.993; SRMR = 0.0704; and Hoelter's CN = 232

The baseline model is also referred to as the unconstrained model, differentiating it from the subsequent models in which the factor loadings, structural coefficients and factor covariances are successively constrained to evaluate inter-group equivalence. Table 7-33 describes the model fit statistics for the baseline and successively constrained models.

Because each of the models demonstrates good overall fit, it is possible to move on to the next stage of cross-sample validation where the successively constrained models are compared and assessed using chi square difference tests. Constrained Model 1 (CM1) is compared to the baseline model, Constrained Model 2 (CM2) is compared with CM1 and finally CM3 is compared with CM2.

Model specifications	χ^2	d.f.	p	RMSEA	CFI
Unconstrained (baseline)	*210.523*	*196*	*.227*	*0.019*	*0.993*
Factor loadings constrained (CM1)	221.447	207	.234	0.018	0.993
Structural Coefficients constrained (CM2)	230.863	212	.178	0.021	0.990
Structural Covariances constrained (CM3)	234.591	215	.171	0.021	0.990

Table 7-33 Model fit for the baseline and constrained models

The difference in the model chi-square value between successive models is calculated by subtracting the smaller chi-square value of the less constrained model from the larger chi-square of the more constrained model. The difference

in degrees of freedom between the two models is then used in combination with the difference in chi-square value to calculate a chi-square probability value.

A non-significant ($p \geq 0.05$) chi square p value signals equivalence of parameter estimates across groups. The logic of this test is that:

- the chi square value for the less-constrained model indicates the closeness of fit of the sample covariance matrices *for both groups* compared to the model implied covariance matrix
- the more-constrained model then imposes a situation of *no difference between groups* for the parameters that are constrained (fixed to zero) for both groups
- where the change in chi square value is small enough to be non-statistically significant, this indicates that the differences between groups for those parameters in the less-constrained model were close to zero and, as a consequence, we can conclude that those parameters are statistically equivalent across the groups.

Table 7-34 shows that for each model iteration, the chi square difference p value is ≥ 0.05. This finding shows that Model 5b demonstrates full metric invariance (Hair *et al.* 2006: 825). Put another way, this means that it can be can concluded that the factor loadings, structural path coefficients and structural covariances are statistically equivalent across the random split-sample groups. This finding indicates that the Model 5b is likely to cross-validate in an independent sample.

Assuming the unconstrained model to be correct:			
	$\Delta \chi^2$	Δ d.f.	p
Factor loadings constrained (CM1)	10.923	11	0.450
Structural Coefficients constrained (CM2)	20.339	16	0.205
Structural Covariances constrained (CM3)	24.067	19	0.194
Assuming Model CM1 to be correct:			
Structural Coefficients constrained (CM2)	9.416	5	0.094
Structural Covariances constrained (CM3)	13.144	8	0.107
Assuming Model CM2 to be correct:			
Structural Covariances constrained (CM3)	3.728	3	0.292

Table 7-34 Chi-square difference tests for Model 5b validation

There was one noteworthy difference between the estimates for the two groups in the unconstrained model. Specifically, three structural path coefficients were found to be non-statistically significant. These were for the paths ML→JP ($p = 0.111$) and EPA→JP ($p = 0.121$) in Group 1 and in Group 2 ML→EPA ($p = 0.062$).

Given the finding described above - that these paths are statistically equivalent across groups - the non-statistical significance of these three parameter estimates is likely to have arisen as a consequence of the smaller sample sizes (Group 1 = 106 and Group 2 = 107 cases) as described by Kline (2005: 41).

In summary, the post-development model validations have shown that:

- the model-based imputation method is robust; and
- that the final model (Model 5b) is likely to cross-validate in an independent sample drawn from the same population.

7.13 Post-modification construct identities

The model development process has resulted in the selection of Model 5b (see Section 7.9 above) as the optimal model that explains the observed data in accordance with the proposed theoretical linkages between the latent constructs. For reasons of parsimony, one of the measured constructs (Work Values) was not retained in the model as its effect on Employee Positive Attitudes was not statistically significant. A further two of the measured constructs, Social Support and Service Quality, were not able to be included in the model as they were found not to covary at a statistically significant level with the other constructs.

Aside from the three constructs that were not included in the final model, other changes to the theorised model included modifications with minor substantive implications that were made to the Motivational Leadership, Empowerment, Job Performance and Discretionary Service Behaviour constructs. Modifications with major substantive changes were made when the three Employee Attitude variables (Job Satisfaction, Work Meaning and Affective Organisational Commitment) were merged to form the new Employee Positive Attitudes construct. The substantive implications of the modifications to construct composition are discussed below.

Section 7.2.5 above describes content validity (also known as face validity) as the correspondence between the observed (indicator) variables and the construct that is intended to be measured by the latent construct.

Following the model generating approach, as Models 1 to 5b were being developed, various indicator variables were removed from the analysis in order to

satisfy the requirements for construct validity and/or to improve model fit. The justifications for and the substantive implications of removing these variables have been discussed during each of the models. It is worthwhile, however, revisiting the modifications and the associated re-interpreted constructs to contextualise these within the framework of the hypothesised model and the research in general. The modifications to each construct are described briefly below and the final interpretations of the constructs are summarised in Figure 7-24.

The Work Values construct was ultimately measured with indicators WV1 (Gives me status and prestige), WV4 (Lets me meet interesting people) and WV5 (Is a useful way for me to contribute to society). These themes can be summarised as follows:

WV1 = social status;
WV4 = social interaction; and
WV5 = societal contribution.

Accordingly, the final Work Values construct is interpreted as 'an individual's general beliefs/values regarding the social and societal benefits of work and working'. Regarding the modifications to the WV construct: removal of WV2 and WV3 was not a cause for concern since these had been noted during the construct development stage as being somewhat semantically different from the other item statements (see Section 5.1). Neither was the removal of WV7 a great surprise as this item did not belong to the original set of statements in MOW (1995) survey form, coming instead from London (1983). WV6 was removed owing to a high standardised residual covariance value; with hindsight, its departure is fitting as it does not share any obvious social theme as do WV1, 4 and 5.

Motivational Leadership saw the removal of ML4 and ML5. These two speculatively-included items related to the positive feedback from leaders (ML4) and the leader putting the group interests before their own (ML5). The remaining indicators ML1, ML2 and ML3 all focus on leader vision→goal→effort behaviour: establishing a vision (ML1), articulating the vision (ML2) and encouraging effort towards the achieving the vision (ML3). The core vision→goal→effort components of the ML construct, therefore, remain.

Employee Empowerment (EM) was measured in the survey instrument using an 8-item scale, which was reduced from Hancer and George's 2003 11-item empowerment scale. Following the model development process in Models 4 and 5, the EM scale was reduced to three items (EM1, EM3 and EM4). The removal of indicators EM6, EM7 and EM8 makes substantive sense as these all measure Hancer and George's (2003) Competencies sub-factor (which measured employee perceptions of self-efficacy). The primary focus of this research was on Hancer and George's Influence factor (which is represented adequately by the remaining indicators (1, 3 and 4). Indicators that did measure the Influence factor but which were removed are:

- EM2 - dropped during the scale/survey development stage of the research
- EM9 - drawn from Lundberg *et al.* (2009) and speculatively included as part of the Influence sub-factor;
- EM5 - removal has no substantive implications as it has considerable item overlap with EM4.

In summary, the remaining items (EM1, 3 and 4) adequately measure the core concept of interest, that is, the Influence dimension of Hancer and George's (2003) empowerment measure.

The indicators for the exploratory Work Meaning construct were subsumed into the EPA (Employee Positive Attitudes) construct during the development of Models 3 and 3b. The previous model, Model 2, is included in the final findings of this research as a valid model that measures the mediating role of work meaning between motivational leadership and job performance. Two items (ME2 and ME4) were removed from the Work Meaning construct during the survey and scale development stage of the research. During the development of Model 2, ME5 and ME7 were removed from the model owing to low factor loadings. The remaining items (ME1, ME3 and ME6) describe employees' *Satisfaction, Enjoyment and Social Status from Work* and the inclusion of these means that both the Intrinsic and Extrinsic dimensions of work meaning from Wollack *et al.*'s (1971) work are represented in the Work Meaning construct for this research.

Following the failure of the three initial employee attitude constructs - Work Meaning (ME), Job Satisfaction (JS) and Affective Organisational Commitment (AOC) - to achieve satisfactory discriminant validity, the Employee Positive Attitudes (EPA) construct was developed as an amalgamation of these. As an exploratory and *ad hoc* construct, this new construct was able to be interpreted

somewhat flexibly, although efforts were made to relate the identity of the new construct to the original constructs and to the broader Employee Attitudes category of the organising framework in which all three of the initial constructs are located. The steps for interpreting the new EPA construct are discussed in some detail in Section 7.6 above. In many ways, the EPA construct is similar to Work Meaning, however it also contains the emotional attachment component that was originally part of the Affective Organisational Commitment construct.

Both Job Performance (JP) and Discretionary Service Behaviour (DSB) measure employees' work motivation. Job Performance (JP) is developed from (i) research narratives that posit extra effort as a measure of motivated employees (e.g. Georgopoulos et al. 1957: 345) and (ii) leadership theory where extra effort is one outcome of transformational leadership (e.g. Bass and Avolio 2008; Limsila and Ogunlana 2008: 167).

Job Performance saw the removal of JP3 (How often do you find that you have done more than you expected to do?). Perhaps the JP3 item did not work well with this sample because waiting staff cannot practically 'do more than they expected to do'. That is, a member of the waiting staff expects to serve all of the customers that arrive during a serving, and by the end of the service, all of the customers have been attended to.

Put another way, 'expected effort' is somewhat delimited by the requirement to serve all the customers and effort beyond this is neither a requirement nor is it feasible (since there are no more customers to serve). JP4 was retained throughout the model development owing to its core substantive role of relating the JP construct to the service context and its reflection of the DSB2 indicator in the Discretionary Service Behaviour construct. The Job Performance construct remains largely unchanged.

Discretionary Service Behaviour was included in the survey with all four items as described by Simons (2010). There is a considerable degree of item content overlap amongst the four indicators, in particular, between items DSB2 (answering a guest's question), DSB3 (delivering a guest's special request) and DSB4 (taking time to talk with a guest). Accordingly, the removal of DSB3 and DSB4 has not drastically altered the meaning of the factor.

Construct	Definition
Motivation Leadership (ML)	Frequency of respondents' observations of the following leader behaviours: (i) establishing, articulating and reinforcing a vision; (ii) valorising the goals set to realise the vision; and (iii) encouraging employees' efforts towards successfully realising the goals and vision.
Employee Empowerment (EM)	An individual's perceptions of their own (i) autonomy in decision making; and (ii) ability to effect process and outcomes at work.
Work Values (WV)	An individual's general beliefs/values regarding the social and societal benefits of work and working.
Work Meaning (ME)	The satisfaction, enjoyment and feelings of positive social status that an individual gets from their work.
Employee Positive Attitudes (EPA)	An employee's overall job satisfaction, satisfaction with job tasks, enjoyment of work, positive social status from work and emotional attachment to their organisation.
Job Performance (JP)	Employees' work intensity, work quality and guest-focused service behaviour (self-assessed).
Discretional Service Behaviour (DSB)	Co-workers' guest-directed extra effort (peer-assessed).

Figure 7-24 Summary of modified construct definitions

A final note on the post-modification construct identities is that, following the iterative process of model building, the factor structures (i.e. the specific indicator variables that load onto each construct) remained stable. This can be taken as an encouraging sign that the constructs are somewhat robust; at least, in the absence of the opportunity to cross-validate the models in an independent sample, it can be seen that the core constructs retain the same identities even as new constructs are added to the model.

7.14 Construct relationships and effect sizes

The modifications made during the development of the models have also affected the character of the set of research hypotheses. The final set of hypotheses and research findings are summarised in Table 7-35. A complete listing of all hypotheses, including those that were superseded, is included in Appendix I.

A total of eight hypotheses are listed in Table 7-35. The reduced number in comparison with Table 4-2 is accounted for as follows:

- H_5 to H_{14} are superseded by H_{21} to H_{23} following the restructuring of ME, JS and AOC into the new EPA (Employee Positive Attitudes) construct;

- H_{15} and H_{16} cannot be tested as Social Support did not resolve as a valid construct; and
- H_{17} to H_{20} could not be tested as Service Quality did not resolve as a valid construct.

No.	Description	Outcome (Model no.) (effect size[b])
H_1	Motivational Leadership → Job Performance	Confirmed (M5b) (0.315)
H_2	Motivational Leadership → Discretionary Service Behaviour	Confirmed (M5b) (0.403)
H_3	Motivational Leadership → Work Meaning	Confirmed (M2) (0.558)
H_4	Work Meaning → Job Performance	Confirmed (M2) (0.258)
H_{21}	Motivational Leadership → Employee Positive Attitudes	Confirmed (M5b) (0.213)
H_{22}	Employee Positive Attitudes → Job Performance	Confirmed (M5b) (0.279)
H_{23}	Work Values → Employee Positive Attitudes	*NOT confirmed* (M4/5)[a]
H_{24}	Empowerment → Employee Positive Attitudes	Confirmed (M5b) (0.626)

[a] WV→EPA was confirmed in Model 4 (0.334) but the introduction of Employee Empowerment in Model 5 reduced the effect of WV to a non-significant level ($p>0.05$)

[b] effect sizes are standardised regression coefficients and are referred to below as beta weights (β) following Kline (2005: 31)

Table 7-35 Research hypotheses and research findings

The effect sizes for hypotheses 1, 2, 21, 22 and 24 are all for the total effects and are taken from the final model (5b) as this is the model that explains the relationships between the greatest number of constructs.

Hypotheses 3 and 4 and their respective effect sizes are drawn from Model 2 - Models 3 to 5b went beyond the findings of Model 2 and the identity of the Work Meaning (ME) construct was lost as it was merged into the broader Employee Positive Attitudes (EPA) construct. Model 2, however, remains valid and maintains a high degree of interest insofar as it empirically establishes the effect of motivational leadership on employees' work meaning – an effect that has been theorised (Avolio and Bass 2004: 96; Bass and Riggio 2006: 6, 28, 91), but for which empirical evidence was not found during the course of this research. Regarding the interpretation of the effect sizes, the extent to which a given effect size represents a small, medium or large level of practical importance is highly dependent on the research context (Kline 2005: 121; Stevens 2009: 9). Accordingly, in seeking to interpret the comparability and potential practical

importance of the effect sizes observed in this research, the primary recourse is to compare the effect sizes with those previously reported in the literature.

Regarding the strength of association between motivational leadership and work meaning, as noted above, no empirical precedents have been identified with which to compare the current finding. While there may be some unidentified non-hospitality leadership studies that have measured this relationship, the comprehensive review of published hospitality leadership studies undertaken for this research has conclusively found that this relationship has not previously been measured.

Hypotheses 21, 22 and 24 all relate to the new construct, Employee Positive Attitudes (EPA). Because EPA represents a new conceptualisation, it follows that there are no empirical findings to compare the current effect sizes with. The most relevant findings are those of Erkutlu (2008) who found in his survey of hospitality employees in Turkish hotels that Inspirational Motivation had a positive effect on job satisfaction (β = 0.02) and on organisational commitment (β = 0.25).

Regarding the influence of motivational leadership on job performance. Once more, because this is the first study to evaluate this relationship in a hospitality context, there are no prior empirical (hospitality) findings with which to compare the current results. One useful comparison for the effect of motivational leadership on job performance (albeit not in a hospitality context) comes from Avolio and Bass (2004a, 2004b) who report correlation matrices based on their meta-analyses of the Multi-Factor Leadership Questionnaire (MLQ) for assessing their Full-Range Leadership Model (FRLM).

Based on their analysis of 1,143 European self-rater respondents (all economic sectors), Avolio and Bass (2004b) report an inter-factor correlation of 0.550 between the Inspirational Motivation (IM) and Extra Effort (EE) constructs of the MLQ (Multi-Factor Leadership Questionnaire). This correlation estimate is 0.560 for the corresponding US sample with n = 3,755 also from all economic sectors (Avolio and Bass 2004a: 71).

This inter-factor correlation is, of course, based on the factor covariances found in a CFA (confirmatory factor analysis) model rather than the path coefficients in a structural model. The CFA model for Model 5b finds a correlation estimate of

0.408. While the construct definitions and corresponding measurements in this study are not identical to those found in the MLQ, the concepts are similar, and an inter-factor correlation of 0.408 is not radically different from Avolio and Bass's 0.550 estimate for European employees.

Finally, regarding Hypothesis 2 (ML→DSB), there is no prior research with which to compare the effect size for this relationship. The DSB (Discretionary Service Behaviour) construct is a relatively new conceptualisation, developed by Blancero and Johnson (1997, 2001) and operationalised by Simons and Roberson (2003). Simons and Roberson's (2003) study is the only known empirical application of the DSB construct and those researchers measured the influence of Affective Commitment on DSB, finding this path significant with an en effect size of 0.260 (p. 440).

Summary of effect sizes

Summarising the above, we find that there are few prior empirical findings with which to compare the effect sizes in the current research. This is not surprising considering that the research is largely exploratory (insofar as it is examining research questions hitherto not addressed in hospitality contexts[19]) and therefore falls into what Kline (p. 122) refers to as a "new research area". In such circumstances, Kline recommends the guidelines on interpreting effect sizes provided by (Cohen 1988). Specifically, these guidelines suggest that:

- effects sizes less than 0.1 = small effects;
- effect sizes around 0.3 = medium effects; and
- effect sizes around 0.5 or greater = large effects.

(Kline 2005: 122)

Based on these guidelines the relevant effect sizes from Models 2 and 5b (and summarised in Table 7-35 above) are interpreted as follows (ranked in descending order of magnitude):

- H_{24} (EM→EPA) $\beta = 0.626$ = large.
- H_3 (ML→ME) $\beta = 0.558$ = large;
- H_2 (ML→DSB) $\beta = 0.403$ = medium to large;
- H_1 (ML→JP) $\beta = 0.315$ = medium;

[19] And in the case of the newly formed EPA construct, is entirely novel

- H_{22} (EPA→JP) β = 0.279 = medium;
- H_4 (ME→JP) β = 0.258 = medium;
- H_{21} (ML→EPA) β = 0.213 = small to medium; and
- EM→EPA→JP β = 0.174 = small to medium.

The final path in the list above was not expressed as a hypothesis owing to it being a fully-mediated path (i.e. there is no direct line connecting EM with JP). The indirect effect of EM on JP (β= 0.174) is, however, described in Table 7-30 along with the other standardised total effects for Model 5b. This mediated path represents the indirect effect of EM on JP that has been 'transmitted' through EPA and is calculated as the product of the two direct effects 0.626 * 0.279 = 0.174 and classed as a small to medium effect.

7.15 Multi-group analyses

SEM analyses can also be used to investigate and assess the ways in which effect sizes (relationships between variables) are moderated by categorical independent variables such as demographic or employment characteristic variables. Where effect sizes are significantly moderated and the difference in effect sizes between groups is deemed to be considerable, there may be implications with regard to the ways in which organisations manage different groups of employees. Moderator effects such as these can be assessed using multi-group SEM analyses and this section describes how multi-group analyses are employed to:

(i) highlight differences in effects sizes across demographic grouping (gender, age etc). Any such variations in effect sizes can then be considered in the light of survey non-response to assess how non-response may be influencing the research findings;

(ii) assess the moderator effects of respondents' degree of supervisor contact and perceptions of training and information provision; and

(iii) examine to effect of employee work orientations in moderating inter-factor relationships by using Work Values as a grouping variable.

7.15.1 Demographic variables

Section 6.5.2 above compares the descriptive statistics for the sample with available known population values published in the current People1st Industry Profile characteristics for hotels and restaurants (People 1st 2011a, 2011b, 2011c). Several differences between the sample and the population values were described in Section 6.5.2 and these are summarised in Table 7-36. Other respondent characteristics for which no published population values were identified are employment tenure (temporary / permanent) and length of employment.

Multi-group analysis can be used to assess whether or not categorical variables (e.g. gender, age) have an influence on the relationships between constructs in an SE model. For example, it may be hypothesised that male employees may behave differently in response to certain leadership styles in comparison with females, or that a particular intervention may impact younger employees' attitudes to a greater or lesser degree in comparison with older employees.

Category	Description of the sample in comparison with:	
	Hotels and Restaurant staff	**Waiting staff**
Gender	Similar to population values	Males over-represented
Part-time / Full-time	Similar to population values	Part-time under-represented
Respondent origin	Non-UK employees over-represented	
Age	<24 over-represented	<24 slightly under-represented

Table 7-36 Sample demographics comparison with known population values

In the context of assessing the ways in which survey non-response may be influencing the relationships between variables in the models, multi-group SEM can be used to identify whether or not group membership has a statistically significant influence on model parameter estimates. Where effect sizes are found to be moderated by group membership, the nature of these between-group differences can be considered alongside survey non-response to provide a subjective evaluation of the ways in which the survey findings may be influenced by the characteristics of the sample. Findings such as these can generate useful insights into how the survey findings might generalise to the population of interest.

The guidelines for moderation testing provided by Hair *et al.* (2006: 870-876) were followed to assess what (if any) differences on effect sizes were observed when respondents were grouped by gender, age, origin, full- / part-time, temporary/permanent tenure and length of service.

The procedure for moderation testing follows a similar procedure to that described for the multi-group split-sample cross-validation of the model in Section 7.12. To test for moderating effects in a structural model, it is first necessary to establish either full or partial metric invariance in the measurement model. This involves checking that internal factor structures (how indicator variables load onto their respective factor) are consistent across groups (Hair *et al.* 2006: 873). It is possible to move on to testing the structural model for invariance in path coefficients where the associated multi-group measurement model demonstrates adequate fit (based on the thresholds for model fit described earlier in Figure 7-3) and full metric invariance (all indicators equivalent across groups) or partial metric invariance (at least two factor loading estimates equal across groups) (Hair *et al.* 2006: 825). Chi square difference tests are used to assess invariance (or its opposite, non-equivalence) at both measurement model and structural model stages in the same manner as described in Section 7.12.

Unlike the split sample analysis for model validation undertaken in Section 7.12, where group sizes were almost equal (106 cases versus 107 cases), when the groups are defined based on the demographic variables, the groups sizes are not always well-balanced. Also, owing to missing values in the demographic data, total sample sizes are lower. Table 7-37 summarises the group sizes and extent of missing data for the demographic variables.

Variable	**Demographic categories**	
Gender	**Female**	**Male**
(missing n = 4)	116	93
Age	**Less than 24 years**	**24 or more years**
(Missing n = 4)	114	95
Length of employment	**Less than 1 year**	**More than 1 year**
(Missing n = 5)	97	111
Part- /Full-time	**Part-time**	**Full time**
(Missing n = 12)	78	123
Respondent origin	**UK**	**Non-UK**
(Missing n = 2)	76	135
Tenure	**Seasonal/Temporary**	**Permanent**
(Missing n = 30)	**31**	**152**

Table 7-37 Distribution of the respondent characteristics data

Using the groups defined by the demographic variables outlined in Table 7-37, Models 2 and 5b were examined for between-group invariance. Considering that the smaller groups for part-time/full-time (n = 78) and respondent origin (n = 76) fell some way below the minimum recommended sample size (100) for SEM, these two groups were not expected to perform well in terms of producing multi-group models for the more complex Model 5b.

It was hoped, however, that for the simpler Model 2, adequate model fit might be achieved. Multi-group analyses based on the tenure groupings (seasonal/temporary n = 31 versus permanent n = 152) were not attempted on either Model 2 or 5b since 31 cases is below any recommended minimum for case numbers in SEM analysis (see Section 6.5.2).

The results of the multi-groups analysis for Model 2b are summarised in Table 7-38. The only poorly-fitting multi-group model found was that based on the gender grouping. For this model, although the χ^2 estimates were significant (in the measurement model, p = 0.039 for the unconstrained model and 0.021 for the constrained; in the structural model 0.014 unconstrained and 0.011 constrained), the CFI and RMSEA estimates were adequate (CFI >0.96 and RMSEA <0.06). For the gender-based multi-group model, because the χ^2 p value was < 0.05 (i.e. not satisfactory) but the CFI and RMSEA values are satisfactory, the findings of invariance measurement and structural models can be cautiously accepted. For the remaining four multi-group models, model fit was satisfactory according to all fit measures and none of the groupings moderated the effect sizes for structural paths in Model 2.

Grouping	CFA model fit	CFA invariance	SEM model fit	Structural path invariance
Gender	χ^2 sig	Full metric	χ^2 sig	Invariant
Age	Good fit	Full metric	Good fit	Invariant
Length of employment	Good fit	Full metric	Good fit	Invariant
Part- /Full-time	Good fit	Full metric	Good fit	Invariant
Respondent origin	Good fit	Full metric	Good fit	Invariant

Table 7-38 Moderator analysis for Model 2

Because group membership does not influence parameter estimates, any concerns that generalising the survey findings to the population of waiting staff in table service hotels may be adversely affected by survey non-response are minimised.

As anticipated, because Model 5b is more complex (more observed variables and more parameters to be estimated), the multi-group analyses for this model did not produce such useful results. The findings for Model 5b are summarised in Table 7-39 where it can be seen that only the 'age' grouping produced a fully satisfactory set of multi-group models based on the estimates for model fit.

The finding for the age grouping leads to the conclusion that age does not moderate the measurement or structural relations found for Model 5b.

Grouping	CFA model fit	CFA invariance	SEM model fit	Structural path invariance
Gender	χ^2 sig	Partial metric	χ^2 sig	Invariant
Age	Good fit	Full metric	Good fit	Invariant
Length of employment	χ^2 sig	Full metric	χ^2 sig	Invariant
Part- /Full-time	χ^2 sig	Full metric	χ^2 sig	Invariant
Respondent origin	χ^2 sig	Partial metric	χ^2 sig	Invariant

Table 7-39 Moderator analysis for Model 5b

For the remaining four groups, as with the multi group model based on gender in Model 2, although the p value for the χ^2 estimate was significant (< 0.05 indicating less than satisfactory model fit) the CFI values were all satisfactory at > 0.96 and all RMSEA estimates were satisfactory at below 0.06.

Based on these findings, it is concluded that age does not moderate any relationships between constructs in Model 5b. For the other four multi-group models (gender, length of employment, part-time/full-time and respondent origin) the findings suggest that group membership does not moderate effect sizes between constructs in Model 5b. However, although the CFI and RMSEA estimates for model fit were within acceptable ranges, the significant χ^2 p value estimates for model fit for each of these four multi-group models prevent firm

conclusions being drawn regarding the moderating effect of the demographic variables (excepting age) for Model 5b.

7.15.2 Supervisor contact, training and information

Included in the survey for use as moderating variables were degree of respondent contact with their supervisor and respondent perceptions of the adequacy of training and information that they had received for their work tasks.

The inclusion of 'supervisor contact' was based on the premise that degree of employee contact with their supervisor may influence the extent to which leader behaviour modifies employee attitudes and behaviours. The statements on adequacy of training and information provision were included to investigate the potential that these areas of staff management can provide positive interventions to effect improved employee motivation and job performance in hospitality organisations.

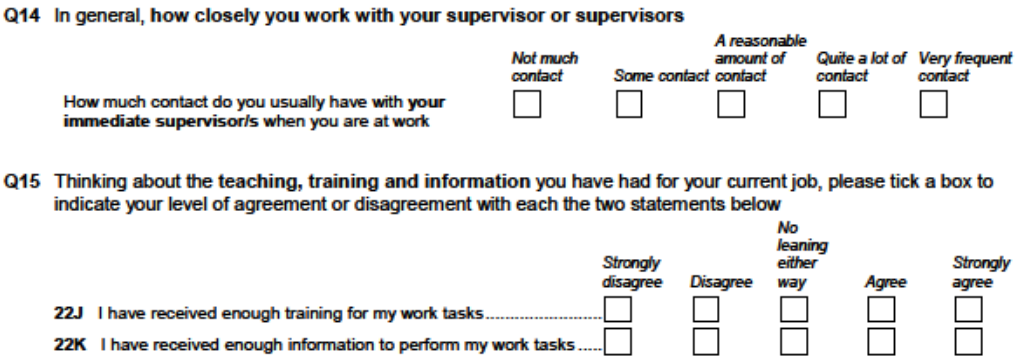


Figure 7-25 Contact, training and information statements

Each of these variables was measured on a five point scale as illustrated in Figure 7-25. To form the groups for the multi-group analysis the data were reduced to the dichotomous categories described in Table 7-40. Each of the variables was negatively skewed, with the majority of responses clustered on values four and five ('quite a lot' and 'very frequent' for supervisor contact and 'agree' and 'strongly agree' for training and information). To create meaningful dichotomous categories, for each of these variables, values 4 and 5 were recoded as 'less' and 'more' (so, less contact/more contact; less training/more training; less information/more information) and values 1, 2 and 3 were allocated as missing

values. The resulting distributions across the missing / less / more categories are described in Table 7-40.

Variable	Work characteristic categories	
Contact	**Less**	**More**
(Missing values n = 39)	76	98
Training	**Less**	**More**
(Missing values n = 48)	107	58
Information	**Less**	**More**
(Missing values n = 43)	114	66

Table 7-40 Group distributions for work characteristic categories

Once again, the multi-group analyses for moderator effects were carried out on both Model 2 and Model 5b.

For Model 2:

- contact with supervisor - model fit was good for both the measurement and structural multi-group models and no moderation effect was found;
- adequacy of training – findings suggest no moderation effect but model fit is less than satisfactory for the structural model; and
- adequacy of information – findings do suggest a moderation effect but model fit is not satisfactory for either the measurement or structural models.

For the more complex Model 5b, model fit was poor for measurement and structural models for each of the three groupings. As with Model 2, adequacy of information was signalled as producing a moderation effect but the poor model fit statistics prevent anything more than a cautious interpretation of this effect.

In summary, the only finding that can be confidently concluded from the analyses reported above is that age does not moderate any of the relationships in Model 2. The lack of adequacy in achieving model fit for these multi-group models is likely a reflection of the smaller sample sizes in comparison with the demographic-based multi-group models examined in the previous section.

7.15.3 Work values

Section 2.3.2 introduced the humanistic tradition in leadership studies. This strand of research recognised employees' personal objectives as contributors to organisational and individuals' outcomes. The notion that organisations and

people could be managed in such a way that organisational and personal objectives could be met was promoted with the underlying rationale that by *humanising* the workplace, employees could become more satisfied and more productive. McGregor's (1966) Theory X / Theory Y work described (a) 'traditional' (Theory X) leaders who believe employees are self-serving and require inducements to achieve organisational goals and (b) more employee-oriented (Theory Y) leaders who believe that, provided with a suitable work environment, employees can be self-actualising and self-motivating.

Following this reasoning, and based on the premise that leadership is not the sole motivating factor in the workplace, this research sought to measure the contribution of work values to work motivation.

Work values (WV) were found to have a significant and positive effect on employees' positive attitudes (EPA) (WV→EPA β = 0.334) and a smaller (fully mediated by EPA) indirect effect on job performance (JP) in Model 4 (WV→EPA→JP β = 0.091). These effects of work values were, however, negated when employee empowerment was added to the model, suggesting that while work values do have an influence on outcomes such as employees' positive attitudes and job performance, these effects are considerably diminished when set alongside the more influential employee empowerment factor.

To further investigate the role of work values in influencing individual and organisational outcomes, a multi-group analysis was conducted to investigate the question of whether or not employees' work orientations moderate the relationships between constructs in structural models 2 and 5b.

The first step was to create a dichotomous categorical variable with which to specify the groups. Following the guidelines for creating summated scales in Hair *et al.* (2006: 135-139), the three Work Values items (WV 1, 4 and 5) that formed the Work Values construct in Model 4 were used to create the summated scale. In this way, the rules of thumb described by Hair *et al.* (2006: 139) (that the variables should form a unidimensional construct with good reliability and which demonstrates convergent, discriminant and nomological validity) are adhered to.

The distribution of the summated variable reflected those of the individual variables insofar as the new variable was negatively skewed. The distribution is illustrated in Figure 7-26.

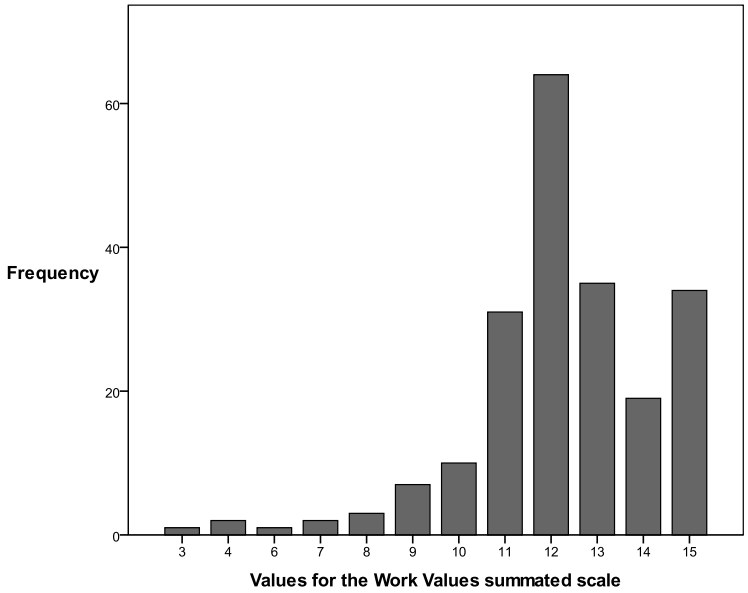


Figure 7-26 Distribution of the Work Values summated scale variable

To create a meaningful categorisation:

- the new summated variable was recoded to designate value 3 to 9 as missing;
- the remaining six values were recoded as follows:
    - values 10, 11 and 12 were combined to create a category labelled 'moderate work values'; and
    - values 13, 14 and 15 were combined to create a category labelled 'high work values'

This recoding created two approximately equal and meaningful categories, moderate and high work values, as described in Table 7-41. Values 3 to 9 that were designated as missing represented only 16 of the 209 valid values in the original summated scale and four of the 20 missing values were missing from the survey forms.

Variable	Work values	
Contact	**Moderate**	**High**
(Missing values n = 20)	105	88

Table 7-41 Distribution of the Work Values reduced and recoded summated scale variable

Following a by now familiar theme, the tests for moderator effects using the Work Values summated scale categories produced good fitting multi-group measurement and structural models when applied to Model 2 and models with unsatisfactory fit when applied to Model 5b.

The findings are that respondents' work values do not moderate any of the relationships in Model 2. For model 5b, non-moderation is indicated, but with significant model χ^2 p values (albeit with adequate CFI [> 0.96] and RMSEA [< 0.06] estimates) these findings are not conclusive.

7.15.4 Summary of multi-group moderator analyses

Table 7-42 summarises the findings from the moderator analyses. Only one grouping variable showed any indication of producing a moderating effect on the structural relationships in Models 2 and 5b, however, owing to unsatisfactory model fit for those analyses, these findings cannot be regarded as conclusive.

Conclusive findings are indicated by 'strong reliability of findings' in Table 7-42. For Model 5b only one grouping variable demonstrated such a finding, specifically, age was found not to moderate any structural relationships. Several more such conclusive findings were achieved for Model 2 where age, full-/part-time, respondent origin, length of service, supervisor contact or employee work values were all found not to exert a moderating effect on the structural relations in Model 2.

Grouping variable	Model 2		Model 5b	
	Finding	Reliability of finding	Finding	Reliability of finding
Gender	No moderation	Weak	No moderation	Weak
Age	No moderation	Strong	No moderation	Strong
Full- /part-time	No moderation	Strong	No moderation	Weak
Respondent origin	No moderation	Strong	No moderation	Weak
Length of service	No moderation	Strong	No moderation	Weak
Supervisor contact	No moderation	Strong	No moderation	Weak
Training provision	No moderation	Weak	No moderation	Extremely weak
Information provision	***Moderation***	Weak	***Moderation***	Extremely weak
Employee work values	No moderation	Strong	No moderation	Weak

Table 7-42 Summary of findings from moderator analyses

Where the demographic and work characteristic variables showed strong support for non-moderation[20], an indication that these research findings are not adversely affected by non-response bias is provided and, accordingly, there can be some degree of confidence that the findings will generalise to the population of interest. As a caveat, however, the strongest indication for generalisability of findings would be provided by model cross-validation in an independent sample, an exercise that has not been possible within the scope of this research.

7.16 Model 8: Mission Clarity

The final variable to be subjected to analysis concerns employee mission clarity. Hinkin and Tracey (1994: 55) defined mission clarity as employees' understanding of the purpose, mission and goals of their organisation and those authors found that transformational leadership (TL) behaviour exerted a positive influence on employees' levels of goal clarity (GC) (Hinkin and Tracey 1994 TL→GC β = 0.37; Tracey and Hinkin 1996 TL→GC β = 0.31).

For this research, mission clarity was measured using a single statement at the end of Question 5 in the survey form and was worded "I clearly understand what my company's goals/targets are" with response options on a five-point scale from Strongly Disagree to Strongly Agree. This item is labelled as MC1 in the coded version of the survey form in Appendix VIII although in the pre-test (Appendix VI) and pilot (Appendix VII) questionnaires it was labelled as GF1 (Goal Focus).

The theoretical link between transformational / motivational leadership and mission clarity is emphasised in the Inspirational Motivational (IM) dimension of transformational leadership (see e.g. Avolio and Bass 2004a: 96) and a goal-setting element to employee empowerment is described by Nixon (1994) and, in a hospitality context, by Erstad (1997). Elsewhere Lashley (1995, 1996) has discussed the goal-related dimensions of employee empowerment in terms of employee empowerment creating a shared sense of purpose between managers and employees (i.e. employees have greater clarity regarding organisational/team goals) and also cites greater employee commitment to goals as an outcome of employee empowerment. Goal, or mission, clarity would appear to be a key element in underpinning employees' contribution to goal achievement.

[20] In Model; 2: age, full-/part-time, respondent origin and length of service in Model 2; and in Model 5b, age.

Based on the theoretical underpinnings described above, a structural regression model (Model 8) was specified with both the Motivational Leadership (ML) and Employee Empowerment (EM) constructs as predictors of Mission Clarity (MC1). The model and parameter estimates are illustrated in Figure 7-27.

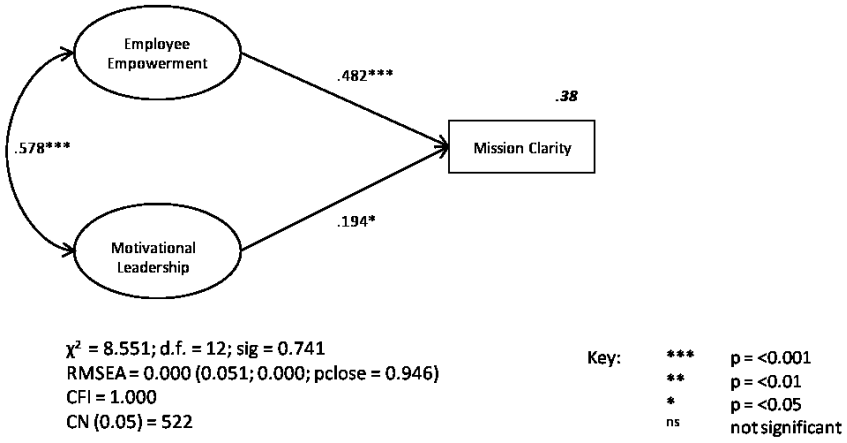


Figure 7-27 Estimates for Model 8: Mission Clarity

The analysis shows that both motivational leadership and employee empowerment contribute significantly to employee mission clarity. Together, these two variables explain 38 per cent of the variance in the Mission Clarity variable. The effect sizes are 0.482 for the EM→MC path and 0.194 for the ML→MC path. Following the discussion of Kline (2005: 122) and Cohen (1988) in Section 7.14 above, these effects are interpreted as large and small-to-medium respectively.

8 REVIEW, DISCUSSION AND CONCLUSION

This chapter concludes the thesis by discussing the research findings with regard to the theoretical and practical implications that flow from them, and how future research might build upon them.

Before looking to the future, the rationale for the research design is reviewed and the model development process is summarised, highlighting the significant modifications to, and important findings from, each iteration of the model. The contributions of, and new conceptualisations from, the research are then discussed along with suggestions for future research to address both the issues that arise from the research findings and from the limitations of the current research.

8.1 Précis of the research

This research has aimed to:

- explore and evaluate the contribution of motivational leadership to employee work motivation in hospitality services.

Addressing calls in the broader leadership (Lowe and Gardner 2000: 496-498) and organisational studies (Johns 2001; Rousseau and Fried 2001) literature for more integrated research approaches that link workplace phenomena (i.e. do not study individual phenomena in isolation), motivational leadership has been located within the broader organisational / motivational context by measuring a number of non-leadership contributors (e.g. empowerment and employees' work values) to employee work motivation.

The following specific research objectives have been pursued:

1. critically evaluate the field of hospitality leadership studies to identify relevant issues and inform the research design;
2. develop a theoretical framework to:
    a. locate the variables of interest in relation to existing organisational psychology theories;
    b. articulate the likely linkages between variables; and
    c. guide the formulation of specific hypotheses;

3. identify/generate measurement scales for the latent variables;
4. refine the measurement scales; and
5. test and evaluate the relationships between the latent variables using survey data collected from hotel restaurant waiting staff.

To underpin the critical review of the field of hospitality leadership studies (Objective 1), the research began by describing the major theoretical developments in the generic leadership studies field, while also drawing out relevant issues for consideration in this study. The issues identified were:

- employees' work orientations / work values (Section 2.3.2);
- adequacy of information provision and training and degree of autonomy / empowerment (Section 2.3.3);
- motivational leadership and job performance (Section 2.4); and
- work meaning emerges as a variable of interest from Sections 2.3.2, 2.3.3 and 2.4.

The review of generic leadership studies provided a framework within which to categorise the theoretical approaches utilised in the published hospitality leadership research. The research identified 46 published articles examining leadership issues in hospitality contexts that utilised theory drawn from the field of leadership studies. The review of these articles found that the hospitality leadership field is fragmented with regard to the range of approaches taken and the research questions pursued.

Because of this lack of theoretical or empirical consistency and integration, it is difficult to specify knowledge gaps in the area. One important gap identified was the significant lack of hospitality studies that have addressed the causal link between leadership and job performance.

With regard to the theoretical foci of the hospitality leadership studies, the analysis revealed that transformational leadership has been the most-utilised theoretical approach (26 per cent of all papers), in particular, during the 1990s (40 per cent of all published studies) and during 2000-2010 (26 per cent of all published studies).

Because transformational leadership has been the most frequently utilised theoretical approach, it provides the broadest theoretical and empirical knowledge base upon which to build. Accordingly, future hospitality leadership research

might fruitfully focus on this approach to enhance our understanding of the field through a process of iterative augmentation of knowledge generation. Transformational leadership theory is also capable of accommodating the full range of leader behaviours by conceptualising both transformational and transactional leader behaviours. This breadth of scope lends transformational leadership a contextual flexibility that means it can be used as a measurement tool for understanding leader behaviour and leadership outcomes in the wide range of organisational contexts (e.g. differing: organisational focus such as catering, events or accommodation; organisational size; leader behaviour / leadership style; nature of customers e.g. leisure / business) that exist in the hospitality sector.

Significantly, transformational leadership, through its Inspirational Motivational (IM) dimension, addresses a key issue in hospitality management, that of employee work motivation. Inspirational Motivation (IM) describes the capacity of transformational leaders to inspire, motivate and provide and shape meaning for employees by emphasising priorities, purpose and a vision for goal achievement (Avolio *et al.* 1991; Bass 1999). For service staff experiencing challenging employment characteristics (e.g. low pay, long and anti-social hours, unstable and seasonal employment, low job status, lack of career progression opportunities and poor levels of employment benefits), the presence and influence of an inspirational leader who can provide or enhance work meaning, motivate them to perform well and increase their levels of job satisfaction may be welcomed.

These findings from the review of the generic and hospitality-specific leadership literatures informed the decision to draw upon the Inspirational Motivational (IM) dimension of transformational leadership theory to measure motivational leadership.

Regarding work motivation, this can be measured using both attitudinal and behavioural measures (Ambrose and Kulik 1999: 232). The review of hospitality leadership research identified three attitudinally-based variables that can each be regarded as manifestations of employee work motivation. Employee job satisfaction and affective organisational commitment are frequently used in both the general and hospitality-specific organisational psychology and organisational behaviour research while the third attitude measure, work meaning, is drawn from transformational leadership theory (Avolio and Bass 2004a: 96; Bass and Riggio 2006: 6).

Two principal behavioural measures of work motivation are employed. The first (Job Performance) is a respondent self-assessment measure of extra effort drawn from the transformational leadership literature (Avolio and Bass 2004; Bass and Riggio 2006) and the second (Discretionary Service Behaviour) is a peer-assessment of extra effort based on earlier work by Blancero and Johnson (1997, 2001) and by Simons and Roberson (2003). An exploratory third measure of job performance (Service Quality) is included that utilises a scale (developed for this research) that attempts to measure performance based on service quality.

In summary, the initial reviews of the literature informed the design of the research wherein the contribution of motivational leadership to employee work motivation is evaluated by:

(i) drawing upon a core aspect of transformational leadership theory (motivational leader behaviour); to

(ii) addressing a significant knowledge gap in the hospitality leadership literature - the link between leadership and job performance.

With regard to the goal of adopting more integrated research approaches that link workplace phenomena, the literature review process also sought to identify non-leadership variables that may contribute to service employees' attitudes and behaviours. Accordingly, employee work orientations (work values) and employee perceptions of empowerment were both measured as predictors of employee attitudes, and social support (peer support) was measured as a predictor of job performance.

The review of the hospitality leadership research literature also identified Pittway *et al.'s* 1998 review of leadership-related hospitality research. In common with the current research, Pittaway *et al.* sought to identify how future research in the field of hospitality leadership might usefully progress. It is argued in this research (in Section 3.11.2 above), however, that because Pittaway *et al.*'s analytical framework was based on ontological perspectives drawn from generic leadership studies, their analysis does not adequately address the requirements for progressing applied (hospitality) leadership research studies following the iterative and deductive model of positivistic social science.

The current research takes a contrasting approach to that of Pittaway *et al.* by basing its recommendations for future hospitality leadership research on a

detailed analysis of the approaches to and findings from the existing hospitality leadership research literature.

The conclusion and recommendations from the current research are that:

(i) the hospitality leadership studies field remains at an early evolutionary stage; and

(ii) for the field to progress researchers should begin to adopt augmentative approaches (rather than the generally *ad hoc* approaches that appear to characterise the field of study) that draw upon and progress the findings and theoretical developments of existing hospitality studies.

The organising framework for the research (Objective 2) was developed from reviews of the generic work motivation research and the overarching field of industrial and organisational (I/O) psychology. Using this organising framework it was possible to accommodate the range of identified latent variables (constructs) and specify likely causal relations between them. The organising framework is illustrated in Figure 8-1.

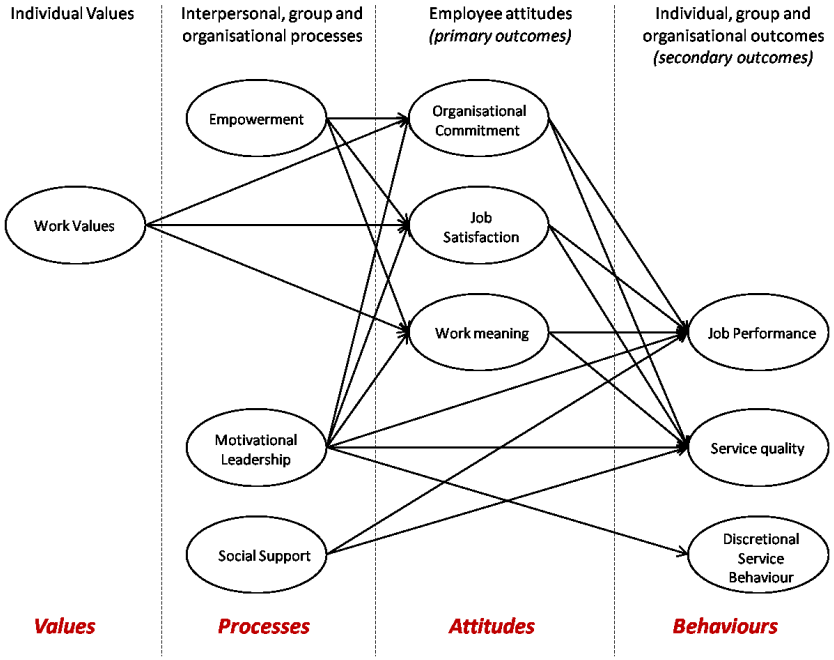


Figure 8-1 Organising framework for the research

The organising framework describes 20 hypotheses illustrated with single-headed arrows (→) and these hypotheses are described fully in Table 4-2 and Table 4-3 (Section 4.4). During the development of the statistical models, a number of hypotheses were dropped or superseded owing to constructs that: (a) did not

demonstrate statistically significant correlations with the other constructs in the model (Social Support and Service Quality); (b) did not demonstrate discriminant validity within the wider model (Job Satisfaction, Affective Organisational Commitment and Work Meaning[21]); or (c) did not exert a statistically significant effect on any other constructs (Work Values). This process is described in Section 8.2 below.

Following the evolutionary development of the models, a smaller set of eight hypotheses that had been satisfactorily tested remained. These hypotheses are described in Table 8-1 below along with a further two hypotheses relating to mission clarity that are not included in the organising framework.

Objectives 3 and 4 were concerned with the development (based on interrogation of existing literature and expert judging) and refinement (by means of the pre-test and pilot surveys) of the measurement scales for the latent variables illustrated in Figure 8-1.

Research Objective 5, to test and evaluate the relationships between the latent variables, was accomplished using data collected using a questionnaire survey of hotel restaurant waiting staff. The data collection process and assessment of the data are described in Sections 6.5 and 6.6 while Section 8.2 below summarises the model development process highlighting the significant modifications to, and important findings from, each iteration of the model. The contributions of the research, new conceptualisations and implications for research and for practice are then discussed in Section 8.3.

8.2 The model development process

Data were collected from waiting staff in hotel restaurants in the UK and analysed using structural equation modelling (SEM). A model generating (MG) approach was utilised in which models are developed through iterative modification and re-testing with the same data (Jöreskog 1993: 295; Raykov and Marcolides 2006: 7).

[21] The Work Meaning construct performed satisfactorily in the absence of the other two attitudinal constructs (Model 2) but in later models (Models 3 to 5b), the three attitudinal constructs were consolidated into one construct owing to a lack of discriminant validity between them.

This development process resulted in two substantive models:

- Model 2, describing the relationships between Motivational Leadership (ML), Work Meaning (ME), Job Performance (JP) and Discretionary Service Behaviour (DSB); and
- Model 5b, describing the relationships between Employee Empowerment (EM), Motivational Leadership (ML), Employee Positive Attitudes (EPA), Job Performance (JP) and Discretionary Service Behaviour (DSB).

The model development process is reviewed immediately below and the important findings from each model iteration are highlighted. Section 8.3 then goes on to discuss these relationships and their implications for hospitality and leadership research in greater detail.

The models were developed in an iterative manner with the core hypotheses being examined first and successive constructs being added to the model thereafter. In this way, the core hypotheses (H_1 to H_4) testing the relationships between motivational leadership, work meaning and job performance (JP and DSB) are tested in the absence of additional, and potentially confounding, constructs.

This approach was justified by two findings. Firstly, the hypotheses relating to Work Meaning (H_3 and H_4) could not (with hindsight) have been tested if the full model was initially specified. This is because the three employee attitude constructs (Work Meaning, Affective Organisational Commitment and Job Satisfaction) did not demonstrate sufficient discriminant validity, meaning that they could not be included as discrete entities within one model. Secondly, the effect of work values on employee work attitudes (Model 4) would have been overlooked had the Work Values construct not been modelled separately from the Employee Empowerment construct.

Model 1 tested the effect of motivational leadership (the ML construct) on self-reported job performance (the Job Performance construct, JP) and peer-assessed job performance (the Discretionary Service Behaviour construct, DSB). This model established that these three constructs did resolve as valid statistical artefacts and are related at a statistically significant level. Modifications in the form of removal of some indicator variables were made to each construct in order to produce a model that fitted well to the data.

For the modifications in Model 1, and throughout the model development process, indicator variable removal was undertaken with close regard to the substantive implications for construct identities. For example, the item JP4 (Job Performance construct) was retained for substantive reasons (its service-focused content) in the face of its moderate factor loading (details in Section 7.2.8). Accordingly, following these modifications, the identity of each construct remained essentially unchanged (post-modification construct identities are described in detail in Section 7.13).

Aside from confirming hypotheses 1 and 2, Model 1 is important in demonstrating the validity of the combined approach of measuring job performance using (i) self-assessment (the JP construct) and (ii) peer-assessment (the DSB construct). Specifically, the similarity between the two parameter estimates (β = 0.415 for ML→JP and β = 0.396 for JP→DSB) provides some assurance that the self-assessed Job Performance scores are not unrealistically inflated (see Van Dyne and LePine, 1998 and Simons and Roberson, 2003).

Because the JP construct (the individual's performance) measures motivational leadership outcomes at the individual level, and DSB (colleagues' performance) at the group level, an indication of motivational leadership's positive outcomes at multiple levels is provided.

Model 2 introduced the Work Meaning construct as a direct outcome of Motivational Leadership and a partial mediator of Motivational Leadership's effect on Job Performance.

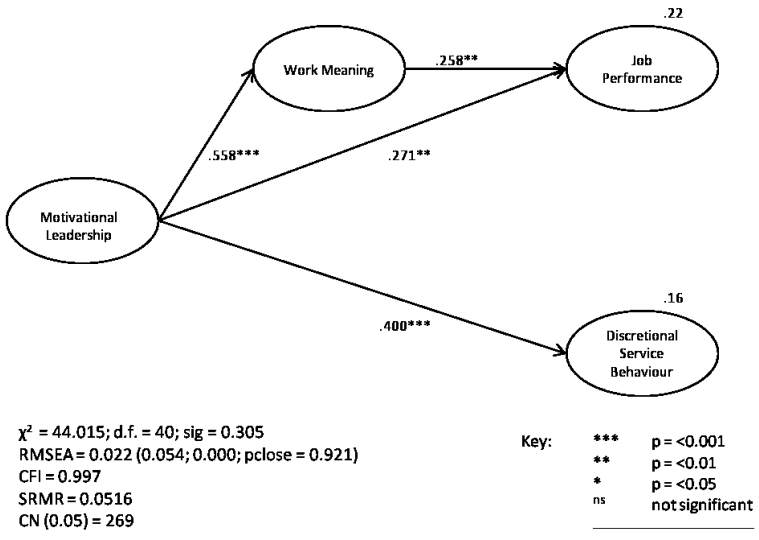


Figure 8-2 Model 2

Model 2 is illustrated in Figure 8-2. All paths are statistically significant and the total (direct plus indirect paths) standardised effects are as follows:

- ML→ME $\beta = 0.558$
- ML→JP $\beta = 0.415$
- ML→DSB $\beta = 0.400$
- ME→JP $\beta = 0.258$

Model 2 confirms that motivational leadership positively influences employees' work meaning. This effect is postulated in Bass's transformational leadership theory (Avolio and Bass 2004a: 96; Bass and Riggio 2006: 6) although the exact nature of 'work meaning' is not made explicit. This research developed an exploratory Work Meaning construct for testing (based on earlier work by Wollack *et al.* 1971) and the post-modification construct identity for Work Meaning is interpreted as "employees' satisfaction, enjoyment and social status from work".

Model 2 is important firstly because it confirms work meaning as an attitudinal outcome of motivational leadership – no other work identified during the course of this research has measured work meaning in a leadership context. Accordingly, this finding is relevant not only for leadership in hospitality but also for the wider field of generic leadership studies. Secondly, Model 2 confirms work meaning as a partial mediator of motivational leadership's effect on job performance, as illustrated in Figure 8-2.

Model 3 introduced the remaining two hypothesised attitudinal outcomes of transformational leadership (job satisfaction and affective organisational commitment) into the model. Like work meaning, these attitudinal constructs are hypothesised as direct outcomes of motivational leadership and partial mediators between motivational leadership and job performance.

It was found that the three attitudinal constructs were not sufficiently distinct from one another based on Fornell and Larcker's criteria for discriminant validity (1981: 47). That the three constructs all measure employee attitudes make this finding entirely plausible.

The model was re-specified (as Model 3b) with all of the indicator variables loading on one Employee Attitude variable. The model was developed following the process described in Section 7.6. The re-specified model established a new construct, labelled Employee Positive Attitudes (EPA) illustrated in Figure 8-3.

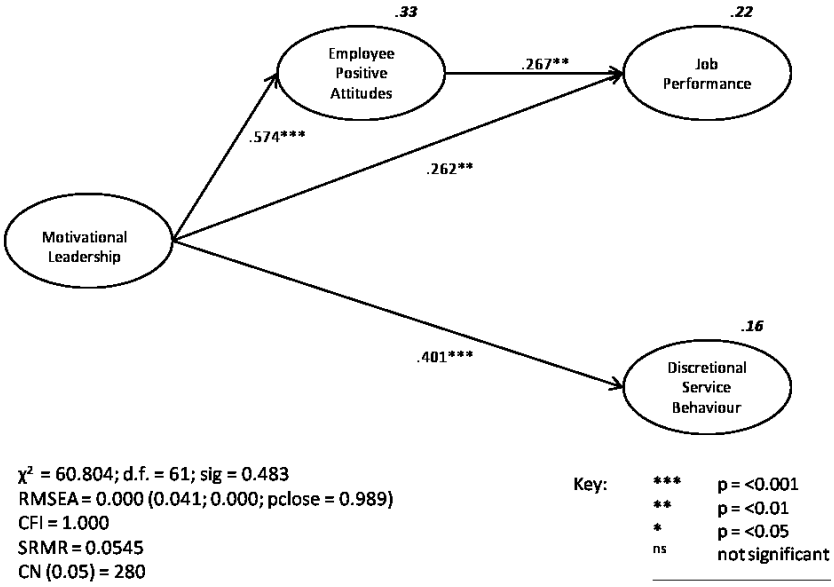


Figure 8-3 Model 3b

The process of interpreting the new EPA construct is discussed in some detail in Section 7.6 above. The EPA construct consists of the indicators:

- I am generally satisfied with my job (ME1)
- I enjoy going to work (ME3)
- My job provides me with positive social status (ME6)
- I am emotionally attached to the company (AOC2)
- I am satisfied with the daily work tasks (JS1)

The dominant presence in the EPA construct is the three Work Meaning indicators (ME1, ME3 and ME6), so it could be argued that EPA is a work meaning construct with (i) an additional job satisfaction component (JS1 'daily task satisfaction' in addition to ME 'general work satisfaction') and (ii) an affective commitment component (AOC2). However, the affective commitment component does not relate in any way to Wollack *et al.'s* (1971) conceptualisation of work meaning from which the Work Meaning construct in this research is drawn (see Section 5.1).

The most straightforward common factor linking these indicators was their common relation to the broader theme of Employee Attitudes, the domain of the organising framework to which the original JS, ME and AOC constructs belong (see Figure 8-1) and, accordingly, the new construct was identified as Employee Positive Attitudes (EPA).

The re-specification of the original three employee attitude constructs into one means that hypotheses 3 (ML→ME), 5 (ML→JS) and 7 (ML→AOC) are replaced by a new hypothesis, H_{21} (ML→EPA). Similarly, hypotheses H_4 (ME→JP), H_6 (JS→JP) and H_8 (AOC→JP) are replaced by H_{22} (EPA→JP).

The important finding from Model 3b is to confirm that motivational leadership positively influences both employee attitudes and job performance and that employee attitudes partially mediates the effect of motivational leadership on job performance.

At this stage in the model development process, the research aim to explore and evaluate the contribution of motivational leadership to employee work motivation in hospitality services has been achieved. Motivational leadership is found to exert a positive influence:

- on self-rated job performance (β = 0.415);
- on peer-rated job performance (β = 0.400); and
- on employees' work meaning (β = 0.558).

Job performance is also influenced by:

- employees' work meaning (β = 0.258).

Building upon these findings, the analysis moved on to satisfy the research aim to explore and evaluate the contribution of relevant non-leadership variables (Work Values, Employee Empowerment and Social Support) to employee work motivation in hospitality services.

Model 4 introduced the Work Values (WV) construct to the model and found that WV exerted a medium-sized effect (β = 0.334) on Employee Positive Attitudes. This magnitude of this effect, however, was reduced to a non-statistically significant level (β = 0.094; p = 0.255) following the subsequent introduction of the Employee Empowerment construct in **Model 5** (see Section 7.8).

Examining the model for the cause of this large change in the WV→EPA parameter estimate between Models 4 and 5 identified collinearity between the Employee Empowerment and Work Values exogenous (independent) variables as the likely culprit. Following the guidelines in Cohen *et al.* (2003: 425-430) and Kline (2005: 57) the Work Values construct was removed from the analysis. As

reported in Section 7.8, this removal is also supported by guidelines in the SEM literature regarding parsimony in model building (Kline 2005: 145-147; Raykov and Marcolides 2006: 41-43; Byrne 2010: 185). Model 5b - containing the EM construct but not WV - was specified and estimated as illustrated in Figure 8-4.

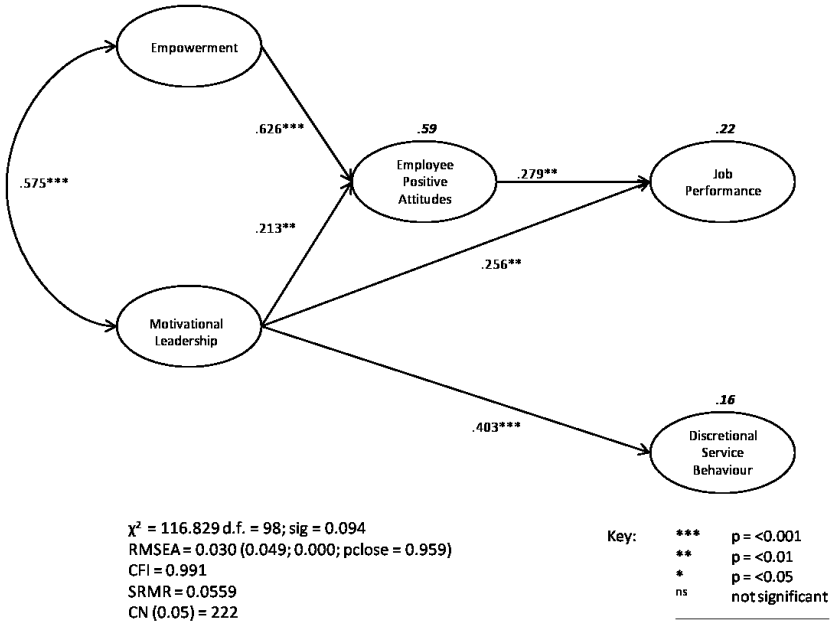


Figure 8-4 Model 5b

The removal of the Work Values construct allowed for the development of Model 5b, which is preferable to Model 5 insofar as it satisfies the principle of parsimony (containing no non-significant parameters) and has a lower ECVI value indicating that it is slightly more likely to be replicated in an independent sample than Model 5 (see Table 7-31).

The identification of collinearity between Employee Empowerment and Work Values constructs and the subsequent removal of WV from the model does not, however, mean that WV has no effect on EPA. It simply means that its effect is not clear when set alongside the EM construct (in Model 5) because the conditions of collinearity make the WV→EPA structural coefficient estimate unreliable.

As described in Section 7.8, when collinearity between independent variables is present, large standard errors can lead to paths being measured as non-significant and individual regression coefficients can change in magnitude, making them difficult to interpret. How, then, should the WV→EPA estimate be interpreted? The most straightforward interpretation is to accept the finding from Model 4 where the WV→EPA relationship was estimated in the absence of any

confounding collinearity. Accordingly, the parameter estimate is accepted as β = 0.334 (p <0.001).

Regarding Model 5b, it is also necessary to examine what, if any, effects multicollinearity has on the parameter estimates in this model. Of particular interest is the ML→EPA estimate that is reduced in Model 5b (ML→EPA β = 0.213, p <0.01) compared with Model 4 (ML→EPA β = 0.446, p <0.001). This is a considerable reduction and it is likely to have been caused by the moderately high correlation (collinearity) between the independent variables EM and ML (r = 0.575, p = <0.001).

To further investigate any likely effect of multicollinearity in Model 5b, following the same procedure described in Section 7.8 for Model 5, a multiple regression model was specified using summated scales created from the observed variables for the independents EM, ML and the dependent EPA. The regression model was estimated using SPSS and the overall model fit was satisfactory (F = 68.436, d.f. = 2, p < 0.001) with the two independent variables (ML and EM) accounting for almost half of the variance in Employee Positive Attitudes (EPA) (R^2 = 0.476). The standardised regression coefficient (β) for Employee Empowerment → EPA was 0.496 (p <0.001) and the Motivational Leadership → EPA β was 0.291 (p <0.001). The collinearity diagnostics did not indicate any major issues with the VIF values not exceeding 1.3 and the largest condition index estimated at 12.2.

As noted in Section 7.8, there are no specific statistical criteria for thresholds for the VIF and condition index multicollinearity diagnostics (Cohen *et al.* 2003: 424-425). Hair *et al.* (2006: 230) advise individual researchers to determine acceptable degrees of collinearity for their models on the basis that "most defaults or recommended thresholds still allow for substantial collinearity". In this case, it appears that the ML→EPA structural coefficient is being affected (reduced) by the collinearity between ML and EM, albeit the magnitude of the collinearity (as evidenced by the summated scale regression model collinearity diagnostics) being moderate. The assessment here, therefore, is that the likelihood is that a more accurate estimate for the ML→EPA coefficient lies somewhere between 0.213 (the Model 5b finding) and 0.446 (the Model 4 finding), i.e. somewhere closer to the ML→EPA coefficient that was estimated in the absence of collinearity between the Motivational Leadership and Employee Empowerment constructs.
Relating this matter to the wider theory that is being scrutinised, the ML→EPA path measures the effect that motivational leadership has on employee attitudes,

i.e. an attitudinal outcome of motivational leadership. The research also measures the Job Performance (JP) construct as a behavioural outcome of motivational leadership on employees' behaviour. The total effect of motivational leadership on job performance is calculated as:

- the direct effect, ML→JP, plus
- the indirect, ML→EPA * EPA→JB.

The importance of the variation in the ML→EPA between Models 4 and 5b is diminished when considering the total effects on motivational leadership on job performance ($ML \rightarrow JP_{TOT}$). In Model 4 $ML \rightarrow JP_{TOT} = 0.380$ and in Model 5b $ML \rightarrow JP_{TOT} = 0.315$; this is a far smaller reduction than that seen in the direct ML→EPA parameter estimate. Accounting for the effect of multicollinearity in Model 5b on the magnitude of $ML \rightarrow JP_{TOT}$, we might expect that a more accurate estimate for $ML \rightarrow JP_{TOT}$ will lie somewhere between 0.315 and 0.380. Regardless of whether the adjusted estimate lies towards the bottom or the top of the range, it will be interpreted (according to Cohen's 1988 categorisations) as a medium-strength effect.

Model 5b represents the culmination of the model building exercise. Following the development and estimation of Model 5b, the Social Support construct was introduced in **Model 6** and the Service Quality construct in **Model 7**. However, neither Model 6 nor 7 could be developed into a structural model. In the case of Model 6, the Social Support construct did not covary at a statistically significant level with the Job Performance construct ($p = 0.227$) and therefore the model was not suitable for further development as a structural model. In the case of Model 7, the Service Quality construct did not covary at a statistically significant level with any other construct.

For Model 6, the substantive implications of this outcome is the finding that Social Support (peer support) is not likely to be a significant predictor of job performance.

For Model 7, it appears that the exploratory method (see Section 5.4) for measuring service quality based on employee perceptions of frequency of maintaining customer satisfaction during service failure events simply did not work. Indeed, feedback from one hotel manager in a participating hotel indicated that some respondents did not fully understand the wording for the Service Quality set of indicator variables (although, unfortunately, no such feedback was

received from participants in the pilot study). The important finding from Model 7 is that researchers wishing to assess service quality from the employee's perspective should not approach the task in the manner described in this research!

Attempting to measure service quality in this way was intended to circumvent the requirement to collect customer data and design a method that ensured that a causal relationship could be established in the analysis (i.e., the customers who respond have experienced service from subordinates of the same leader whose behaviour is being measured). Successfully executing such a method for assessing service quality is hereby devolved to future researchers and 'chalked up' as 'an area for future research'. One potential avenue for future researchers to follow has been identified subsequent to the completion of the data collection and analysis in this research. Babakus *et al.* (2003) drew upon the earlier work of Ruyter and Wetzels (2000) to create a used a construct measuring service recovery performance. Babakus *et al.*'s construct is operationalised with five indicator variables that measure employees' perceptions and experiences related to service failure and their research found that (i) management commitment to service quality positively influenced employees' affective organisational commitment (AOC) and job satisfaction (JS) and (ii) that employees' AOC and JS in turn positively influenced service recovery performance.

8.2.1 Additional analyses

Following the development of the multi-construct structural equation models, two smaller models were specified and estimated to measure the contributions of (i) motivational leadership and empowerment to mission clarity and (ii) employees' job satisfaction to job performance.

Mission clarity

Section 7.16 describes Model 8 where it was found that both motivational leadership (β = 0.194) and employee empowerment (β = 0.482) had significant positive effects on employees' mission clarity (MC). The motivational leadership → mission clarity finding can be compared with Hinkin and Tracey (1994) who

found transformational leadership predicting mission clarity (β = 0.370) and Tracey and Hinkin (1996) estimating the same relationship at β = 0.310. Although mission clarity is not measured as a specific leadership outcome in the Full-Range Leadership Model (FRLM) of transformational leadership, the notion that transformational leaders can enhance employees' understanding of organisational goals is discussed within the transformational leadership theory literature, in particular, in the context of the Inspirational Motivational (IM) dimension (e.g. Hinkin and Tracey 1994: 51). In this current research, the Motivational Leadership (ML) construct is based on the IM dimension of transformational leadership, the positive ML→MC link therefore provides an indication of the face validity of the ML construct, i.e. that the construct does indeed measure leaders' motivational / inspirational behaviour.

In their discussion of transformational leadership's contribution to mission clarity, Tracey and Hinkin (1996: 167-168) describe how transformational leaders ensure that employees understand their work objectives. This approach is contrasted with that of more transactional leaders who tend to clarify objectives and work responsibilities for employees' by focusing on how employees should meet role requirements in exchange for rewards (the work→pay transaction). For hospitality organisations, one benefit that may arise from the transformational approach of ensuring that employees understand, rather than simply accept, their goals is that for low-paid (perhaps also part-time) service staff, the transactional emphasis on reward may be less effective than for higher-paid staff elsewhere in the organisation. Put another way, low-pay may not offer the kind of positive reward that successful transactional leadership approaches depend on.

In one respect, it is perhaps not surprising that this study confirms the motivational leadership → mission clarity (ML→MC) link. Specifically, this is because motivational leadership has been measured (based on the Inspirational Motivational (IM) dimension of transformational leadership theory) as the degree to which leaders articulate organisational/departmental/team vision and goals and encourage employees towards achieving these goals. This observation serves as a reminder that the IM dimension of transformational leadership theory draws heavily on House's (1971) Path-Goal leadership theory that focused on how leaders could enhance organisational effectiveness by clarifying the paths that would lead to followers successfully achieving work goals. Future hospitality leadership researchers may wish to examine ways in which the path-goal model - and the expectancy theories of motivation that path-goal theory drew upon – can

provide insights into leadership and motivation in hospitality contexts. This avenue may prove fruitful since the review of hospitality leadership studies in Chapter 3 above did not identify any studies adopting a path-goal theoretical approach.

In summary, regarding the motivational leadership → mission clarity relationship, this finding:

(i) builds upon the hospitality leadership work of Hinkin and Tracey (1994) and Tracey and Hinkin (1996) by confirming the ML→MC relationship in an independent sample; and

(ii) contributes to transformational leadership theory by successfully measuring the effect of motivational leadership on employees' mission clarity.

Model 8 also found that employee empowerment also had a significant positive effect (β = 0.482) on employees' mission clarity (MC). Mission clarity has been conceptually related to empowerment processes in Section 7.16 above, which reports how, for example, Lashley (1995, 1996) has discussed a shared sense of purpose between managers and employees as an outcome of empowerment. The discussion of the empowerment→mission clarity relationship will be addressed in Section 8.3.5 below where the issue of integrating empowerment within future hospitality leadership research is considered in greater detail.

The 'holy grail' of organisational psychology: Job Satisfaction → Job Performance

The consolidation (during the development of Model 3/3b) of the three employee attitude constructs (Job Satisfaction, Work Meaning and Affective Organisational Commitment) means that Hypothesis 6, Job Satisfaction → Job Performance (JS→JP), cannot be measured as part of the larger model.

The successful (and consistent) measurement of this relationship has been called the 'holy grail' of organisational studies (Landy 1985: 410; Weiss 2002: 184). Of the seventeen hospitality studies identified for this research that included job satisfaction in their analyses (see Section 5.3) however, none measured the JS→JP relationship. To address this knowledge gap, a model was specified with the Job Satisfaction construct as a predictor of Job Performance.

The model fit was not quite satisfactory with χ^2 just below the 0.05 threshold and RMSEA just above the desired threshold of < 0.06 (χ^2 = 16.170; d.f. = 8; sig = 0.040; RMSEA = 0.069 (0.118; 0.014; pclose = 0.221); CFI = 0.984; SRMR = 0.0319; CN (0.05) = 204). Nevertheless, the other fit measures are satisfactory and the RMSEA value 0.069 falls within the <0.08 threshold that is deemed 'reasonable' by Browne and Cudeck (1989, 1993).

An investigation of the standardised residual covariance matrix did not reveal any issues – accordingly, the model is cautiously accepted. The Job Satisfaction → Job Performance standardised effect size is 0.368 which can be classified as 'medium strength' according to Cohen's (1988) guidelines on interpreting effect sizes. The model is illustrated in Figure 8-5.

χ^2 = 16.170; d.f. = 8; sig = 0.040
RMSEA = 0.069 (0.118; 0.014; pclose = 0.221)
CFI = 0.984
SRMR = 0.0319
CN (0.05) = 204

Key:
*** p = <0.001
** p = <0.01
* p = <0.05
ns not significant

Figure 8-5 Job Satisfaction predicting Job Performance

Job satisfaction is the focus of much attention in the organisational psychology and organisational behaviour fields (Huelsman 2007) and this research has identified a number of hospitality studies that have included job satisfaction as a variable (see Section 5.3).

An early hospitality study to include both leadership and job satisfaction was undertaken by Borchgrevink and Boster (1994) who examined the correlations between job satisfaction and a number of hospitality organisational and employee characteristics, including leader-member relations. Borchgrevink and Boster noted (1994: 90) that leadership is one of many potential determinants of job satisfaction and suggested that researchers with an interest in job satisfaction might examine the (general-context) works of Herzberg (1959), Ivancevich (1976) and Lawler (1967) for additional correlated variables.

In a practical hospitality management context, enhancing job satisfaction can militate against counterproductive organisational outcomes such as employee turnover (e.g. Carbery *et al.* 2003; Kim *et al.* 2005; Tutuncu and Kozak 2007; Kuruüzüm *et al.* 2009; Yang 2010) and absenteeism (Kuruüzüm *et al.* 2009; Yang 2010). Beyond these examples there is a wide range of antecedents, consequences and correlates of job satisfaction for hospitality researchers to focus on. Deery's (2008) recent review, for example, found a number of organisational attributes and strategies and individuals' characteristics that can influence job satisfaction in hospitality contexts.

Recent empirical hospitality studies that have included a focus on job satisfaction have found that:

- role conflict (e.g. having to bend organisational rules to achieve work goals) and burnout can contribute to reduced job satisfaction (Yang 2010);
- good co-worker relationships and employee autonomy can act as positive determinants of job satisfaction (Yang 2010);
- self-determination (autonomy) can positively influence job satisfaction (Chiang and Jang 2008);
- the nature of an organisation's environment/culture can influence employees' job satisfaction (Øgaard *et al.* 2008; Yiing and Ahmad 2009); and
- job involvement (an employee's degree of active participation in their job) positively influences job satisfaction (Carbery *et al.* 2003).

This research has tested and (cautiously) found that the 'holy grail' of organisational studies, the job satisfaction → job performance relationship appears to be manifest in the hospitality service employees sampled for this research. Given the theoretical significance of this finding, a priority for future research should be to test this relationship in an independent sample. As described above, there is a significant range of organisational and individual variables that are related to job satisfaction for future research to address as appropriate. Considering, however, the way in which the job satisfaction construct was not found to be empirically distinct from the other two employee attitude constructs (work meaning and affective organisational commitment), for any future research that seeks to improve our understanding of the relationships between leadership and employee attitudes – and the inter-relationships between different types of employee attitudes - a further priority should be to build upon the findings of this research to investigate further the composition of employee attitudinal constructs and how they inter-relate.

Moderator effects

A number of multi-group models were specified to examine how construct relationships might be affected according to respondent group membership (i.e. older/younger, full-time/part-time, moderate/high work values). Not all of the multi-group models demonstrated sufficiently good model fit to produce conclusive findings. Conclusive findings from the moderator analyses are that:

- the construct relationships in Model 2 are not moderated by:
    - age
    - full- /part-time work status
    - respondent origin
    - length of service
    - degree of supervisor contact or
    - employee work values.

For Model 5b, the only conclusive finding is that the construct relationships are not moderated by respondent age.

The only grouping variable that was indicated as moderating construct relationships (in both Model 2 and Model 5b) was 'respondent perception of adequacy of information provision'. However, less than satisfactory model fit means that this finding cannot be regarded as conclusive.

In terms of implications for practice, these findings suggest that organisations do not have to tailor interventions (empowerment strategies or leader training) to accommodate different workplace groups. Further research is, however, required to strengthen the current findings with regard to how relationships might be moderated by adequacy of information provision. Uptake of information and/or perceptions of adequacy of information provision could be influenced by a number of organisational (e.g. communication strategy), leadership (e.g. leader effectiveness as communicator) and individual (e.g. organisational commitment) factors.

Efforts to relate 'adequacy of information provision' (and 'job knowledge', the phrase that was identified in Table 2-6 and gave rise to the inclusion of this variable in the research) to the wider hospitality management literature revealed that little research has been carried out into adequacy of information provision related to how employees should carry out their work duties.

Harsha (1998: 133-134) noted that job knowledge is essential for guest service employees in hotels to perform their roles adequately and went on to link guest service employees' job knowledge with effective empowerment processes that enable hospitality service employees to make their own decisions (and thus improve customer service through speedy resolution of issues). Elsewhere in the hospitality research literature dealing with employee empowerment, information provision has been referred to by Lashley (1995, 1996) and Lashley and McGoldrick (1994) in the context of empowerment through employee involvement in organisational processes.

The topic has not, however, received a great deal of attention in these articles. A targeted review of the hospitality literature may reveal further research that has addressed the issues of information provision for employees. Indications from this research are that while adequacy of information provision may be a significant variable moderating the relationships between the constructs in Models 2 and 5b, there is little existing knowledge of this issue in the published hospitality research literature.

This apparent paucity of research knowledge in this area suggests that exploratory research may be required to identify and frame relevant research questions regarding the nature of information required and how different types of information and different channels of communication can affect employee job performance and the inter-relationships between organisations and employees in hospitality organisations.

8.3 Contributions, new conceptualisations and areas for further research

The research aim, to explore and evaluate the contribution of motivational leadership to employee work motivation in hospitality services, has been satisfied. Work motivation was measured using both employee attitudes and job performance and the findings demonstrate that:

- motivational leadership does contribute (positively) to enhanced employee:
    - positive work attitudes; and
    - job performance.
- positive employee work orientations (Work Values) contribute to enhanced employee work attitudes;

- employee empowerment (perceptions of influence) contributes to enhanced employee work attitudes; and
- positive employee work attitudes contribute to enhanced employee job performance.

The research also:

- operationalised the work meaning concept (from the transformational leadership literature) and evaluated the hitherto unmeasured (positive) effect of motivational leadership on employees' work meaning;
- evaluated the hitherto (in hospitality studies) unmeasured (positive) effect of job satisfaction on job performance; and
- built upon the work of Hinkin and Tracey (1996) and Tracey and Hinkin (1994) by measuring a positive effect of motivational leadership on employees' levels of mission clarity (understanding of organisational objectives).

Additionally, the research undertook a detailed review of the existing leadership-related hospitality research literature and found that after almost 40 years of research effort, the field remains at an early stage of evolutionary development. This finding was reached based on the assessment that the field is characterised by a lack of volume and depth and also a general absence of iterative and augmentative research progress where critiques of concepts, approaches and findings are addressed by subsequent research studies. Furthermore, the research recommends that to progress hospitality leadership research in an iterative and augmentative way, researchers should build upon the approaches and findings of prior research.

In contrast to Pittaway *et al.'s* (1998) earlier review of hospitality leadership research (in which the authors' recommendations for future research questions were based on an analysis of ontological approaches to generic leadership research) the recommendation for the way forward generated by the current research focus not on outlining specific questions for future research, but on addressing the previous lack of augmentative, iterative development (i.e. by critically building upon previous approaches and findings) to help evolve the field.

Table 8-1 below describes the effect size for each of the relationships confirmed by the research. Following Table 8-1 is a discussion of the implications of the findings for theory and practice. During this discussion, the contributions of the

research are highlighted and recommendations are made for how the new conceptualisations can be progressed in future research.

Hypothesis	Causal relationship	Effect size (total effects)	Interpretation of effect size
H_1[(a)]	ML→JP	0.315**[(e)]	medium
H_2[(a)]	ML→DSB	0.403***	medium to large
H_{21}[(a)]	ML→EPA	0.213** [(e)]	small to medium
H_{22}[(a)]	EPA→JP	0.279**	medium
H_{23}[(d)]	WV→EPA	0.334***	medium
H_{24}[(a)]	EM→EPA	0.626***	large
Unhypothesised fully mediated indirect effect[(a)]	EM→EPA→JP	0.174**	small to medium
Unhypothesised fully mediated indirect effect[(d)]	WV→EPA→JP	0.091**	small
H_3[(b)]	ML→ME	0.558***	large
H_4[(b)]	ME→JP	0.258**	medium
H_6[(c)]	JS→JP	0.368***	medium
Mission Clarity [(f)]	EM→MC ML→MC	0.482*** 0.194*	large small-to-medium

[(a)] From Model 5b
[(b)] From Model 2
[(c)] Measured in a separate model containing only JS and JP
[(d)] From Model 4
[(e)] May be under-estimated owing to multicollinearity in Model 5b
[(f)] Measured in a separate model containing only WM, ML and MC (Mission Clarity)

Table 8-1 Summary of hypotheses tested and effect sizes

The contributions of the research are significant in the context of both hospitality leadership and generic leadership studies. Aside from the motivational leadership → mission clarity relationship, which is very similar to the transformational leadership → mission clarity relationship previously measured by Hinkin and Tracey (1994) and Tracey and Hinkin (1996), none of the relationships measured in this research have been previously measured in hospitality contexts. Furthermore, no research whatsoever has been identified (in any sectoral context) measuring the leadership → work meaning relationship.

Following the state-of-the-art review of hospitality leadership studies (Section 3.12), the recommendation was made for hospitality leadership researchers to, in future, build upon previous approaches and findings to assist the augmentative development of knowledge in the field. In the current study, undertaking research addressing so many new research questions may seem to contradict this

recommendation. In response to this point, the research has built upon the most-frequently utilised approach (transformational leadership) focusing in particular on the Inspirational Motivation (IM) dimension that encapsulates leaders' goal-focused motivational behaviour. The research has used this approach to evaluate the hitherto unexamined but key research question for hospitality organisations, 'to what extent do motivational leaders effect an increase in employee motivation / job performance'?

That so many of the measured relationships are new reflects:

(i) the early evolutionary stage of the field of studies (see Section 3.10), meaning that there are a great many unanswered and unaddressed research questions; and
(ii) the inclusion of the newly-developed (and therefore hitherto unmeasured) Work Meaning (ME) and Employee Positive Attitude (EPA) constructs.

The discussion below considers the implications of the study findings for theory and practice (which are often closely-linked because of the applied focus of both the current research and of organisational behaviour theories). Several areas for further research arise from the findings of the study; some are suggested by new findings and new conceptualisations while others arise as a result of limitations to the current research.

8.3.1 Work motivation: behavioural measures

For this research, work motivation has been measured using both attitudinal and behavioural measures.

Turning firstly to the two behavioural measures, Job Performance (JP) and Discretionary Service Behaviour (DSB). The Job Performance (JP) measure is a respondent self-rated measure of extra effort drawn from the Extra Effort component of Bass's Full-Range Leadership Model (FRLM) (Avolio and Bass 2004a) (see also Section 5.4). For this research, one of the indicator variables (JP4 – How often you go out of your way to deal with a guests' special request?) specifically focused on service behaviour. This service focus was intended to make the construct more relevant to hospitality service settings and also to complement the service–focused nature of the second behavioural measure of work motivation, Discretionary Service Behaviour (DSB).

DSB is a peer-rated measure of work-focused extra effort specifically developed (by Blancero and Johnson 1997, 2001) for application in service industry settings. By using both self- and peer-rated measures of service-focused extra effort, the research sought to provide insights into any self-rater bias that might be manifest in the survey data and also to examine the outcomes of Motivational Leadership at both individual and team levels (DSB was measured using respondents' assessments of colleagues' guest-focused performance).

The research found that motivational leadership positively influences both of these job performance measures. Because no prior studies have examined the link between leadership and employee job performance, these findings represent unique contributions to hospitality leadership studies.

The implications for practice of this finding are that hospitality organisations should seek to maximise, either through selection or training, goal-centred motivation behaviour in supervisors/managers/leaders of hospitality service employees.

Selecting leaders: Several research articles focusing on leadership competencies have been identified during the course of this research. Brownell (2005) discussed the assessment centre method for evaluating key leadership competencies in individuals by using a series of exercises or activities to assess these individuals' knowledge and skills in relation to a range of pre-identified competencies for a particular work role. Brownell found that the assessment centre approach worked well for predicting leadership competencies in hospitality contexts. Other studies examining leadership competencies in hospitality contexts are Chung-Herrera *et al.*(2003), Brownell (2008) and Asree *et al.* (2010) who each focus on a different aspect of hospitality leadership. Building upon the current research will require researchers to develop competencies schedules that focus on goal-centred leadership behaviour. Indeed, any such future research that seeks to address leadership competencies in the context of hospitality services and goal-centred behaviour should consider the recently published work of Testa and Sipe (2012). Testa and Sipe interviewed leaders working in a range of restaurant, hotel and tourism organisations to identify a suite of leader competencies that are germane for enhancing service performance. An examination of the 100 competencies and desired (prototypical) behaviours that were drawn from their interviews reveals 13 that can be related to goal-focused leader behaviour (2012: 653).

Leadership training: A number of hospitality studies have examined issues related to leadership training (Hill and Vanhoof 1997; Scheule and Sneed 2001; Marnburg 2007; Arendt and Gregoire 2008; Scott-Halsell *et al.* 2008; Naipaul and Wang 2009), all of which focus on hospitality students and hospitality curricula at the further/higher education level. No studies were identified, however, that focus on workplace training for leadership skills. To efficatiously identify relevant articles, it is recommeneded that researchers interested in pursuing this avenue of research should examine the literature using a range of keywords that go beyond solely leadership and also encompass a broader range of management-related themes.

Issues for theory and future research relate to (i) questions that are raised about the factor structure for the DSB construct and (ii) refining the method of measuring employee job performance.

Factor structure: Both measures (JP and DSB) resolved into usable factors following the model development process. The JP construct retained three of its four indicators (JP1, JP2 and JP4) although two of the original four DSB indicators were dropped (DSB1 and DSB2 were retained).

The original four DSB items were used for the research because these had been previously – and successfully - used by Simons and Roberson (2003). In the current study, DSB3 and DSB4 loaded moderately well on the DSB construct, but both had high standardised residual covariances indicating a large amount of unexplained variance associated with these indicators. Removing DSB3 and DSB4 was possible owing to the considerable item content overlap between the DSB indicators (which all focus on slightly different examples of guest-focused extra effort, see Appendix VIII).

The factor loadings for the DSB construct as measured by Simons and Roberson (2003) are illustrated in Table 8-2 and are contrasted with the DSB factor loadings from the current study. Simons and Roberson's respondents were employed in a variety of positions in hotels in North America and 14 per cent were managers. Simons and Roberson report using a method involving 'aggregated residuals' to control for respondents' differing degrees of customer contact, although it not clear exactly what this method entails.

Indicator	Simons and Roberson (2003)	Current study[a]
DSB1	0.76	0.80
DSB2	0.75	0.78
DSB3	0.82	0.67
DSB4	0.69	0.70

[a] Loadings are derived from the unmodified measurement model for Model 5b prior to the removal of DSB3 and DSB4.

Table 8-2 Comparison of DSB factor loadings with Simons and Roberson (2003)

Excepting DSB3, the factor loadings are reasonably close between studies. Nevertheless, further research using the DSB construct would be useful to generate additional insights into the DSB construct's factor structure.

Methods for measuring employee job performance: In organisational studies, peer-rated measures are regarded as less likely than self-rated measures to be biased upward (Van Dyne and LePine 1998: 111) and the dual use of DSB (peer-rated) and JP (self-rated) provided insights into the effect of any potential self-rater bias in this research.

Based on the comparison of the ML→JP and ML→DSB structural coefficients, it appears that self-rater bias is not a cause for concern in this study. In Model 1, these estimates were ML→JP $\beta = 0.414$ and ML→DSB $\beta = 0.396$. This comparability was retained through Models 2 and 3/3b. Models 4 and 5b saw a slight drop in total effect of ML→JP ($\beta = 0.380$ in Model 4 and $\beta = 0.315$ in Model 5b). The estimate for the ML→DSB path remained fairly constant throughout the models, $\beta = 0.396$ in Model 1 and $\beta = 0.403$ in Model 5b. Unlike the JP construct, DSB had no other predictor variables meaning the size of the ML→DSB estimate was not influenced by the effects of any other independent variable/s.

It has, however, been pointed out by Grandey (2003: 90) (who used peer-ratings to investigate emotional labour in service delivery among university administrative employees) that peer-ratings are not immune from bias insofar as good relationships between subject and rater '...may produce a lenient rating'. For researchers wishing to build upon this work and to further refine the methods for measuring job performance in hospitality contexts, a number of psychometric methods are available that have been developed specifically to address the inherent limitations of using only one rater source or method of rating. Useful

and relevant resources for future studies include, in general organisational studies:

- Lawler (1967) who built upon Campbell and Fiske's (1959) multi-trait multi-method to develop a multi-trait multi-rater method for assessing managers' job performance;
- Borman (1974) who refined Lawler's (1967) method to account for raters' knowledge of the job area they are rating; and
- Podsakoff *et al.* (2003) who report on methods for multi-trait multi-method research designs using structural equation modelling.

And in leadership and hospitality- / service-specific contexts, relevant resources for future studies include:

- Fleenor *et al.* (2010) who review self–other rating agreement in leadership research;
- Yee *et al.* (in press) who utilised multi-rater techniques to measure relationships among leadership, goal orientation, and service quality in high-contact service industries;
- Patiar and Mia (2008) who examined the effect of gender on differences between self and superiors' ratings of employee performance in hotels.

8.3.2 Work motivation: attitudinal measures

In addition to the JP construct providing a behavioural measurement of work motivation, three attitudinal measures of work motivation were hypothesised as outcomes of motivational leadership (and as predictors of individual job performance). *Work Meaning* was included as a discrete construct in Model 2 and in Model 3/3b *Work Meaning*, *Job Satisfaction* and *Affective Organisational Commitment* were combined (owing to a lack of discriminant validity) to create the new *Employee Positive Attitudes* (EPA) construct.

Work meaning

The Work Meaning construct is a new operationalisation to evaluate a transformational leadership (TL) outcome that is discussed in the TL literature (e.g. Bass and Riggio 2006: 6, 28) but has not been operationalised or measured in the TL context.

The method for measuring the Work Meaning construct utilised in this research drew upon a related conceptualisation developed by Wollack *et al.* (1971). Following modifications during the development of Model 2, the Work Meaning construct (measured with ME1, ME3 and ME6) was interpreted as "employees' satisfaction, enjoyment and social status from work" and was confirmed as an outcome of motivational leadership (ML) and a predictor of individual job performance (JP).

This finding:

(i) confirms the much-written about, but hitherto unmeasured, status of work meaning as an outcome of motivational/transformational leadership; and
(ii) establishes work meaning as a mediating variable in the motivational leadership → job performance relationship.

Because no research measuring either of these relationships has been identified, either in the hospitality-specific or the more general organisational studies literatures, this finding represents a contribution to the fields of both hospitality and generic leadership studies.

In addition to measuring the motivational leadership → job performance relationship, this study has also addressed the nebulous nature of the 'meaning of meaning'. Section 5.3 provides a critical appraisal of the transformational leadership literature, wherein the interpretation of 'meaning' and 'meaningful ' is not always made explicit. Accordingly, the research examined the broader organisational studies literature to develop a more concrete conceptualisation of work meaning and a set of measures to operationalise the concept for empirical measurement.

The resultant Work Meaning construct was defined as 'The meaning that an individual attaches to their role at work' and, following the model development process and the removal of two of the five indicator variables (ME5 and ME7), the construct was interpreted as "employees' satisfaction, enjoyment and social status from work".

In the light of some of the more negative commentaries regarding the quality of hospitality service jobs reported in Chapter 1 (e.g. Hesselink *et al.* 2004: 11; Wildes 2007: 5-6; Wong and Ko 2009: 195), in particular Wood's (1997: 198)

description of hospitality work as '...largely exploitative, degrading, poorly paid, unpleasant, insecure and taken as a last resort', it is encouraging that (at least some) hospitality employees do find some satisfaction, enjoyment and social status from their work.

What are the practical implications flowing from this finding? As above, that hospitality organisations should seek to maximise (through selection or training) goal-centred motivational behaviour in supervisors/managers/leaders of hospitality service employees.

To briefly explore if there may be a way of selecting service employees to maximise their levels of work meaning, an *ad hoc* structural equation model was specified to examine if the Work Values construct[22] exerted a positive influence on Work Meaning. The resulting model used the Work Meaning (ME) factor structure established in Model 2 and the Work Values (WV) factor structure established in Model 4. The WV→ME structural regression coefficient was statistically significant ($p \leq 0.001$) with a standardised beta weight of 0.483 and the global model fit was satisfactory ($\chi^2 = 13.194$, d.f. = 8, sig = 0.105; RMSEA = 0.055; CFI = 0.992; and SRMR = 0.0342).

This finding suggests that because employees' work orientations (measured using the Work Values construct) tend to positively influence (and quite strongly with $\beta = 0.483$) work meaning, service employees might be selected on the basis of high levels of positive work orientation. Future research can build upon the relevant findings from this work to develop methods for effecting such a selection process.

As usual, it is recommended that future research undertake an independent sample validation of the relevant work meaning-related relationships. Additionally, future research might also address the question of how increased employee work meaning may contribute to reducing counterproductive organisational outcomes such as turnover and absenteeism (in contrast to the productive organisational outcomes based on job performance measured in this research).

[22] The more general findings relating to the Work Values are discussed in the following sub-section

Employee positive attitudes

During the development of Models 3 and 3b, the three attitudinal outcome variables, Work Meaning (ME), Job Satisfaction (JS) and Affective Organisational Commitment (AOC) were combined to overcome a lack of sufficient discriminant validity between them (i.e. these three constructs were found not to be conclusively measuring discrete phenomena).

This exploratory process resulted in the establishment of a construct measured by respondents' overall job satisfaction, satisfaction with job tasks, enjoyment, prestige and emotional attachment. This was interpreted as Employee Positive Attitudes (EPA).

Considering that three of the five indicators are drawn from the Work Meaning construct, and in the light of the discussion presented in Section 5.3 of work meaning as 'an individual's attitude to their current job', it can be argued that this new construct represents a broader manifestation of 'work meaning' rather than an entirely different construct. This interpretation was discussed during the summary of model development in Section 8.2, although the lack of a conceptual connection between the indicator variable AOC2 (I am emotionally attached to the company) and Wollack *et al.'s* (1971) work meaning theory led to the acceptance of the more general Employee Positive Attitude interpretation. However, the dominant presence in the EPA construct is the three Work Meaning indicators (ME1, ME3 and ME6). Accordingly, it could be argued that EPA is a work meaning construct with (i) an additional job satisfaction component (JS1 'daily task satisfaction' in addition to ME1 'general work satisfaction') and (ii) an affective commitment component (AOC2).

In many respects, the implications for practice related to the EPA construct are similar to those described for work meaning above:

- organisations should take steps to maximise motivational leadership (because motivational leadership enhances EPA); and
- future research should investigate the possibility of selecting for service employees who score high on work values and are therefore likely to demonstrate higher levels of positive work attitudes.

Factor structure: Additional research related to the EPA construct should include a deeper investigation of its factor structure. In particular focusing on its content

validity - or face validity (Hair *et al.* 2006: 136) - which is the extent to which the content of the items (the questions/statements) is consistent with the with the construct definition i.e. do the items measure the concept they are intended to?. In this case, that question is reversed and we should ask 'does the definition/interpretation adequately reflect the substantive content of the construct?'.

Another closely-related issue is that because the Employee Positive Attitudes construct shares much in common with the Work Meaning construct (three out five indicator variables), future research should examine the conceptual content of both of these constructs:

(i) towards developing an improved operationalisation of both; or
(ii) to investigate the extent to which the Work Values and Employee Positive Attitudes constructs are measuring similar attitudinal phenomena.

Additional predictors of employee attitudes: Like the Work Meaning construct, Employee Positive Attitudes was found to be both an outcome of motivational leadership and a predictor of individual job performance. Considering its central role as a mediator of the motivational leadership → job performance relationship (i.e., given that it has been found to be a contributor to employee job performance), future research might also develop and test hypotheses regarding additional predictors[23] of employee attitudes in the context of hospitality services.

The hospitality leadership and organisational studies literature is replete with predictors (organisational- and individual-focused) of both positive and negative employee attitudes and the choice of predictor variables to study in any future research study will be guided by the nature of the specific context and research questions. In a similar vein to the recommendation made in this research for hospitality leadership scholars to build upon previous approaches and findings where possible, future research into predictors of EPA or related attitudinal concepts should be designed to build upon existing knowledge and explicitly related to organisational psychology / organisational behaviour theory.

[23] This research also found Employee Empowerment as a predictor of EPA and this is discussed in greater detail in Section 8.3.5 below.

8.3.3 Work Values

While Work Meaning has measured employees' attitude to their current job, the Work Values construct was designed to measure employees' work orientations or disposition to work in general.

The relevance of work values (work orientations or employees' attitudes to work in general) for this research was highlighted during the review of leadership studies (Section 2.3.2), which identified McGregor's Theory X / Theory Y (1966) research that addressed the issue of managers' expectations regarding employees' work-orientations. Employees' work orientations were investigated in a hospitality context by Stamper and Van Dyne (2003) who found that hospitality organisations can employ a large number of employees (in particular part-time and temporary workers) who may not have strong positive work-orientations.

It has not been possible to draw concrete conclusions about the relative influence of work values alongside both motivational leadership and employee empowerment on employee work attitudes. This difficulty is due to multicollinearity between the Employee Empowerment construct and the Motivational Leadership and Work Values constructs.

In the absence of the confounding influence of the Employee Empowerment construct, Work Values was found to have medium-sized ($\beta = 0.334$) effect on Positive Employee Attitudes (the discussion of effect size interpretations can be found in Section 7.14).

Employee work orientation (Work Values) is measured as a significant predictor of work attitudes (Employee Positive Attitudes) (WV→EPA $\beta = 0.334$) and an indirect predictor of job performance (JP) (WV→EPA→JP $\beta = 0.091$). In a practical context, it is not straightforward to modify individuals' values (see e.g. Paarlberg and Perry 2007), and therefore a management solution to enhancing work values amongst employees may lie in the area of recruitment. Previous research related to recruitment in a leadership context has been covered above in Section 8.3.1 where leadership competencies approaches and the assessment centre method for assessing job applicants is discussed.

While the assessment centre approach may not be practical for selecting and hiring (often part-time and/or seasonal) waiting staff for many organisations, it is

not beyond reason that organisations who are committed to quality service could adopt assessment methods based on prescribed competencies that include factors related to an individual's work orientations / work values. Indeed, previous hospitality researchers have recommended screening for applicant suitability. Although not specifically referring to the same type of work orientation that the Work Values construct has measured, Mill (1986: 41) recommends that hospitality organisations hire "...service employees who have a 'customer-interaction orientation'.", noting that such employees will demonstrate behavioural flexibility, empathy and strong interpersonal skills. Elsewhere, King (1984: 98) has recommended that applicants for hotel and restaurant work be screened for their suitability for customer-contact positions.

With regard to part-time and temporary workers, Stamper and Van Dyne (2003) found that this constituency are more likely to have less positive work orientations. By contrast, this study found no significant differences in work values scores using an ANOVA test on the work values summated scale described in Section 7.15.3 with part-/full-time and temporary/permanent groupings. Nevertheless, this may be an issue for work orientations in other samples. Reducing dependence on part-time and temporary workers may be one solution, however hospitality organisations have traditionally made much use of part-time (e.g. for busy lunch and/or evening service) and temporary employees (e.g. owing to seasonality of custom).

Bass's transformational leadership theory (Bass and Riggio 2006) proposes Individualised Consideration (IC) as one of the components that transformational leaders make use of to promote extra effort in employees. Tailored leader behaviour towards different constituencies of employees (full-time / part-time and temporary / permanent) could address differences in work orientations between these groups. Individualised Consideration has not been measured during this research but may provide a model for hospitality leaders to address issues related to employee work orientations. Employee work orientations may be considered as a situational factor and future research might investigate appropriate management responses by examining situational and contingency leadership approaches to dealing with issues such as this.

Any future research in this area would be aided by interpretivistic approaches to gaining a more nuanced understanding of work orientations among different groups of employees.

8.3.4 Motivational leadership

The Motivational Leadership (ML) construct drew upon theory relating to the Inspirational Motivational (IM) dimension of Bass's (Bass and Riggio 2006) transformational leadership theory (see also Bass and Avolio 2004a: 96). The three indicator variables that loaded well onto the ML construct related to leaders' articulation of vision, goals and encouragement (to achieve these goals).

Section 5.2 describes how indicator variables ML4 and ML5 were drawn from other areas of transformational leadership theory (ML4 relates to positive reinforcement / positive feedback from leaders and ML5 relates to leaders' 'positive role model' attributes). These two indicators did not load strongly onto the construct and were removed from the analysis. That these two indicators (drawn from beyond the IM concept) did not load well confirms the relevance of the existing IM / ML construct for the hospitality service context.

The role of the Motivational Leadership in future hospitality leadership research will be returned to in the following section (Section 8.3.5).

8.3.5 Employee Empowerment

Respondent perceptions of Employee Empowerment (EM) were found to be an important predictor of employee motivation (measured as Employee Positive Attitudes, EPA). The strength of this relationship was estimated at EM→EPA β = 0.626 ($p<0.001$). Employee perceptions of empowerment also exerted an indirect effect (through the path EM→EPA→JP) on individual job performance with an effect size of $\beta = 0.174$ ($p<0.01$).

A number of hospitality studies[24] have included empowerment as a variable of interest and these studies utilised a variety of ways of conceptualising and measuring empowerment (see the discussion of the Employee Empowerment construct in Section 5.2).

[24] Sparrowe 1994; Lashley 1995; Hartline and Ferrell 1996; Lashley 1996; Hancer and George 2003; Kim and George 2005; Hau-Siu Chow *et al.* 2006; Chiang and Jang 2008; Clark *et al.* 2009; Brownell 2010; Gill *et al.* 2010

In this research, the final Employee Empowerment construct (following modifications during model development) consisted of three indicator variables (EM1, EM3, and EM4) and these measure the *Influence* dimension of Hancer and George's (2003) empowerment conceptualisation. The content of the three indicators is as follows:

- EM1I can choose the best way of doing my job
- EM3I have influence over what happens in my work group
- EM4I have a great deal of control over my job

This research did not address the question "from where do these feelings of influence come?" – that is, the research did not extend to hypothesising antecedents of employee empowerment. Nevertheless, it has been possible to explore differences in perceptions of empowerment based on respondent membership of demographic and job characteristic groups.

A series of ANOVA tests were performed on a summated scale created from the EM1, EM3 and EM4 indicators and using demographic and job characteristic variables to create respondent groups. The range of the new summated employee empowerment variable was 3 to 15 and the mean for all respondents is 11.2. The ANOVA analyses found that:

- UK respondents feel less empowered than their non-UK counterparts (UK_{mean}= 10.2; non-UK_{mean} = 11.8; p = 0.000)

For the analyses using supervisor contact and adequacy of training and information provision as grouping variables, the modified dichotomous (Less/More) variables described in Section 7.15.2 were used. The analyses found that:

- perceptions of empowerment are significantly lower for respondents with less:
    - supervisor contact ($LESS_{mean}$= 10.9; $MORE_{mean}$ = 12; p = 0.001)
    - adequacy of training provision ($LESS_{mean}$= 11.1; $MORE_{mean}$ = 12.3; p = 0.001); and
    - adequacy of information provision ($LESS_{mean}$= 11.1; $MORE_{mean}$ = 12.4; p < 0.001).

Organisations can implement practical measures to address supervisor contact and provision of information and training. The finding that non-UK employees typically experience greater levels of empowerment needs to be addressed by

further research. The potential leader-member cross-cultural dimension brings to mind the work of Testa (2004, 2007, 2009) who found differences in leader-member relations when comparing culturally-congruent and non-congruent dyads. If leadership contributes in any way to perceptions of empowerment, then cultural congruity of leader-member relationship may be a significant factor.

These findings suggests some interesting implications for theory. The Full-Range Leadership Model (FRLM) of transformational leadership theory does not contain an empowerment component. This research has drawn upon one specific dimension of transformational leadership – the Inspirational Motivational dimension – to measure motivational leadership. Empowerment has been measured as having an effect that complements that of motivational leadership on employee work attitudes. Future research might seek to evaluate how the wider range of transformational leadership dimensions contribute to employee motivation (both behavioural and attitudinal) and the empowerment construct could be integrated into such an analysis.

An emerging leadership theory is servant leadership, a central tenet of which is (leaders) putting subordinates first and emphasising that satisfying subordinates' work needs is a priority; supervisors who practice this principle will often break from their own work to assist subordinates. Servant leadership theory also posits that:

> ... to bring out the best in their followers, leaders rely on one-on-one communication to understand the abilities, needs, desires, goals, and potential of those individuals. With knowledge of each follower's unique characteristics and interests, leaders then assist followers in achieving their potential
>
> (Liden *et al.* 2008: 162)

Liden *et al.* go on to describe how:

> This encouragement is done through building self-confidence (Lord, Brown, & Freiberg, 1999), serving as a role model, inspiring trust, and providing information, feedback, and resources
>
> (Liden *et al.* 2008: 162)

Liden *et al.*'s description of 'providing information, feedback, and resources' are examples of enabling behaviour that managers wishing to empower employees

can engage in (Go *et al.* 1996: 60). Indeed, servant leadership theory embodies the principles of empowerment, as described by points 3 and 4 in Table 8-3.

Components of Servant Leadership	Corollary in Transformational Leadership
1. Emotional healing—the act of showing sensitivity to others' personal concerns	Individualised consideration
2. Creating value for the community—a conscious, genuine concern for helping the community	N/a
3. Conceptual skills—possessing knowledge of the organisation and tasks at hand to effectively support and assist others, especially immediate followers	N/a
4. Empowering—encouraging and facilitating others, especially immediate followers, in identifying and solving problems, as well as determining when and how to complete work tasks	N/a
5. Helping subordinates grow and succeed—demonstrating genuine concern for others' career growth and development by providing support and mentoring	Individualised consideration
6. Putting subordinates first—using actions and words to make it clear to others (especially immediate followers) that satisfying their work needs is a priority. Supervisors who practice this principle will often break from their own work to assist subordinates with problems they are facing with their assigned duties.	N/a (NB - this is a central tenet of Servant Leadership)
7. Behaving ethically—interacting openly, fairly, and honestly with others	N/a
8. Relationships—the act of making a genuine effort to know, understand, and support others in the organization, with an emphasis on building long-term relationships with immediate followers	Individualised consideration
9. Servanthood—a way of being marked by one's self-categorization and desire to be characterized by others as someone who serves others first, even when self-sacrifice is required	N/a (NB - this is a central tenet of Servant Leadership)

Source: after (Liden *et al.* 2008)

Table 8-3 Servant and transformational leadership compared

Table 8-3 describes the components of servant leadership from Liden *et al.* (2008: 162) and identifies (where applicable) the transformational leadership corollary for each of these components. This comparison reveals that there is some commonality between these approaches to understanding and describing leader behaviour.

Table 8-3 also highlights the linkages between servant leadership and the Individualised Consideration (IC) component of transformational leadership, although Liden *et al.* (2008: 163) suggest that linkages also exist between

servant leadership and the transformational leadership's Idealised Influence and Intellectual Stimulation components.

Future hospitality leadership research might usefully draw together strands from both transformational and servant leadership to explain the complementary actions of motivating and empowering leader behaviour. There are clear linkages between the two approaches and servant leadership – with its existing recognition of the importance of leaders' empowering behaviour - may provide a useful theoretical perspective to assist in the theoretical integration of empowerment and motivational leadership as drivers of improved employee work attitudes and job performance.

Considering the focus of this research on leadership *in* organisations – that is, leadership at the departmental, group or team level, rather than executive-level leadership *of* organisations, an apposite theme for future hospitality leadership research to explore is the influence of employee empowerment on team leaders. Middle-level leaders can also benefit from empowerment initiatives but the scope of this research has not encompassed empowerment of these leaders. Indeed, the relevance of the empowerment theme for service-based leadership is underlined in Testa and Sipe's (2012: 653) recent research where leaders' ability to "drive decision authority to the lowest appropriate level" was identified through interviews with hospitality and tourism sector leaders as a key competency for managing in service settings.

8.3.6 Limitations of the current study

Aside from further research arising from the findings of the study, there are several areas where further research can usefully address the limitations of the current research.

Validation in an independent sample.

Section 7.12 describes how the most effective method of validating an SEM model is to test the model in a strictly confirmatory mode using data from an independent sample drawn from the same population; the population being non-supervisory waiting staff working table service restaurants in 3 and 4 star hotels.

In this research all of the participating hotels were located in the UK and therefore an independent sample from the same population should be from UK hotels – future research might, however, attempt to validate the study in similar populations in other countries. A second round of data collection was not included in the research design – securing the participation of enough hotels to generate one sample of sufficient size was anticipated to be (and was indeed) a significant challenge.

Models 2 and 5b were cross-validated using a random split-sample method to confirm (or refute) group invariance (Hair *et al.* 2006: 819) and these analyses concluded that the models are likely to cross-validate in independent samples.

Related to the desirability of cross-validation in an independent sample is Kline's (2005: 324) note on causality where he writes:

> ...it would be almost beyond belief that all of the conditions required for the inference of causality from covariances have been met in a single study. In general, it is better the view structural models as being "as if" models of causality that may or may not correspond to causal sequences in the real world

Kline's 'as if' is interpreted here as meaning that the research findings should presented in such way that researchers position their findings in terms of "...it looks <u>as if</u> phenomenon A affects phenomenon B".

Representativeness of the sample

Section 6.5.2 discusses the representativeness of the sample noting that the sample cannot be considered a true probability sample since there is no sampling frame that is representative of the population of waiting staff in hotel restaurants in the UK.

One solution to improve the generalisability of the findings from a piece of similar research would be to secure the participation of a large hotel group and use their entire service staff as a population from which to draw a sample. The findings from such a study would (strictly speaking) be generalisable only to that hotel group. However, such a study could be repeated in other hotel groups. If enough

such studies are undertaken using similar research designs, a meta analysis might then be performed to broaden the generalisability further.

Size of the sample

The sample size is adequate for SEM analysis according to the guidelines described in Section 6.5.2. A larger sample size would, however, have improved the ability to identify and assess any moderating effects from the demographic and job characteristic variables (see Section 7.15). Satisfactorily confirming or refuting the existence of such moderating effects can contribute to our understanding of how the research findings may be affected by survey non-response bias.

Unequal group sizes (such as in the case of the 'tenure' variable where only 31 cases fell in the seasonal/temporary category) made it impossible to undertake multi-group analyses owing to the number of cases in specific group dropping far below the recommended numbers for SEM analysis (100 is generally regarded as a minimum number of cases, see Section 6.5.2).

Even where group sizes were well-balanced, the complexity of Model 5b (more observed variables and more parameters to be estimated) in comparison with Model 2 led to an inability to draw conclusive findings from the majority of multi-group moderator analyses of Model 5b.

Scope of the study

By collecting data only from waiting staff in 3 and 4 star hotels with table service restaurants, the scope of the current research is limited to that context. This narrow focus was deliberately sought to enhance the homogeneity of the sample. The design of the survey and the data analysis are, however, suitable for application in a wider hospitality context. That is, the service-focused components of the two behavioural measures (Job Performance and Discretionary Service Behaviour) of work motivation are not specific to catering service.

Therefore, while the findings of the current study are limited in scope, there is potential to use the same design to test the findings in populations drawn from other hospitality jobs.

Common method variance

In behavioural research, spurious correlation effects (common methods variance bias, or common methods bias) between constructs can be manifest owing to the ways in which respondents complete survey forms, rather than solely owing to correlations between the constructs of interest.

Common method variance bias can be identified and controlled for using approaches such as the multitrait–multimethod (MTMM) study design where respondents are measured on a range of constructs using different methods or survey instruments (see e.g. Podsakoff *et al.* 2003). Approaches such as the MTMM were not feasible during this research owing to limitations in accessing respondents, but future studies using similar analytical approaches might seek to assess and/or minimise the effects of common method variance.

8.3.7 Implications of the data collection outcomes for the research findings

Section 6.5.2 described the data collection and appraised the data in detail. Following the development of the models and the derivation of the research findings, it is worthwhile returning to the data collection outcomes to consider the relevant implications that these have with regard to the research findings.

Table 8-4 enumerates the various data collection outcomes and describes the corresponding influence of each outcome on the research findings. In summary, the data collection outcomes have no specific implications for the model parameter estimates. Owing to the lack of a comprehensive sampling frame for the population of interest, the generalisability of the findings is limited according to the strict principles of probability sampling where every (or almost every) member of the population of interest should have an equal chance of receiving a survey form.

Data collection outcome	Effect on findings
Sample size	No effect on model parameter estimates • Prevents efficacious multi-group moderator analysis and assessment of (most) non-response bias for Model 5b
Response rate	No effect on model parameter estimates • The response rate of 37.9 per cent is close to the mean response rate (40 per cent) that was found to be typical for postal surveys within organisations in this area of social science (see Section 6.5.2) and significantly better than mean response rate of 21 per cent for surveys of businesses reported by Dillman (2006: 323)
Survey non-response (business unit level)	No effect on model parameter estimates • Neither star rating nor number of employees affected the propensity of hotels to participate in the survey
Survey non-response (individual respondent level)	No *confirmed* effect on parameter estimates • for Model 2, survey non-response is not affecting any of the relationships between constructs (excepting the 'respondent perception of adequacy of information provision' grouping variable; see this table, below) • for Model 5b, construct relationships are not moderated by respondent age • for Model 5b, definitive assessment of the influence of non-response bias for the remaining grouping variables (full- /part-time work status; respondent origin; length of service; degree of supervisor contact; and employee work values) is not possible owing to less than satisfactory model fit. However, the indications are that none of the construct relationships are influenced (with one exception, see next point) • for Models 2 and 5b, the grouping variable 'respondent perception of adequacy of information provision' was indicated as moderating construct relationships. However, less than satisfactory model fit means that this finding cannot be regarded as conclusive • Section 8.2.1 details the implications for practice of these findings
Generalisability of findings	The context for the research findings is table service restaurants in 3 and 4 star hotels and further research is required to validate the research findings in other commercial catering service contexts The sample is not a true probability sample (in turn owing to the lack of a comprehensive sampling frame for the population of interest; more details in Section 6.5.2) and this limits the generalisability of the survey findings

Table 8-4 Effects of data collection outcomes on the research findings

8.3.8 Other areas for further research

This research has looked at group-level leadership arguing that, in the context of the hospitality service encounter, group-level leadership (leadership *in* organisations) may be more germane in terms of influencing positive organisational outcomes than is executive-level leadership (leadership *of* organisations). Arguments such as this are, however, highly contingent on the nature and characteristics of the organisations in question.

Gore and Szivaz (2003) have discussed the application of the principles of transformational leadership for small- and medium-sized (SME) hospitality businesses. Aside from Gore and Szivaz, however, this research has identified no published material addressing the interaction between leadership and size of hospitality businesses.

Hospitality organisations are far from homogenous and alongside the global-scale hotel groups there is a high proportion of micro- (<10 employees), small- (<50 employees) and medium-sized (51-250 employees)[25] hospitality businesses (Garay and Font in press). There is significant scope, therefore, to investigate the linkages between motivational leadership and individual and organisational outcomes at different levels within different types of hospitality organisations.

8.4 Conclusions

The field of hospitality leadership is at an early stage of development and knowledge within the field is somewhat fragmented owing to the broad range of research questions that have been addressed and the diversity of research approaches that have been adopted.

The focus of this work has been on the contribution of motivational leadership to hospitality employee work motivation based on a sample of catering service employees (waiting staff) in UK hotels with table service restaurants.

The research has found that motivational leadership, employee empowerment and employee work orientations have significant and positive effects on employee work attitudes and job performance.

[25] Categories according to (European Commission 2003)

These findings make a significant contribution to the field of hospitality leadership studies by providing the first empirical evidence for motivational leadership's contribution to job performance.

Furthermore, the research makes a contribution to the wider field of leadership studies by operationalising the 'work meaning' outcome of transformational leadership and demonstrating that motivational leaders in hospitality catering can enhance employees' work meaning.

Following the hospitality leadership work of Hinkin and Tracey (1994) and Tracey and Hinkin (1996) this research confirms the positive influence of motivational leadership on employees' mission clarity. This finding validates Hinkin and Tracey's findings in an independent sample and confirms the theory that motivational leaders enhance followers' understanding of organisational goals (see e.g. Avolio and Bass 2004a: 96).

Mission clarity has also been discussed as an outcome of employee empowerment in hospitality contexts by Lashley (1995, 1996). This connection further strengthens the linkages between motivational leadership and empowerment as drivers of productive organisational outcomes in hospitality service contexts and suggests that mission clarity could usefully be included in a model of hospitality employee work motivation that links empowerment and leadership processes as determinants of employee attitudes and performance.

Practical implications for hospitality organisations flowing from this research are that employee attitudes and performance can be enhanced through:

- the selection of, and training for, leaders based on the types of goal-orientated motivational behaviour that constitutes the motivational leadership construct used in this research;
- the implementation of employee empowerment programmes drawing upon published principles for empowerment in hospitality organisations; and
- the selection of service employees based on work orientations (work values).

The research design explicitly placed motivational leadership within a broader organisational framework and it is recommended that hospitality organisations also consider the wider organisational environment and the characteristics and capacities of individuals when planning and implementing interventions to enhance the work motivation of employees.

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10 APPENDICES

10.1 Appendix I: Complete list of hypotheses following model developments

Emboldened and underlined hypotheses are those that were ultimately tested. The remaining hypotheses were untested owing to modifications to the models. Additional measured relationships appear in the bottom section of the table.

Hypo-thesis	Description (→ indicates a causal effect)
1	**Motivational Leadership → Job Performance**
2	**Motivational Leadership → Discretionary Service Behaviour**
3	**Motivational Leadership → Work Meaning**
4	**Work Meaning → Job Performance**
5	Motivational Leadership → Job Satisfaction
6	**Job Satisfaction → Job Performance**
7	Motivational Leadership → Affective Organisational Commitment
8	Affective Organisational Commitment → Job Performance
9	Work Values → Organisational Commitment
10	Work Values → Job Satisfaction
11	Work Values → Work Meaning
12	Empowerment → Affective Organisational Commitment
13	Empowerment → Job Satisfaction
14	Empowerment → Work Meaning
15	Social Support → Job Performance
SQ is modelled separately	
16	Social Support → Service Quality
17	Affective Organisational Commitment → Service Quality
18	Job Satisfaction → Service Quality
19	Work Meaning → Service Quality
20	Motivational Leadership → Service Quality
H_{21} to H_{23} are generated from the restructuring of ME, JS and AOC	
21	**Motivational Leadership → Employee Attitudes**
22	**Employee Attitudes → Job Performance**
23	**Work Values → Employee Attitudes**
24	**Empowerment → Employee Attitudes**

Hypothesis	Causal relationship	Effect size (total effects)	Interpretation of effect size
Unhypothesised fully mediated indirect effect[a]	EM→EPA→JP	0.174**	small to medium
Unhypothesised fully mediated indirect effect[d]	WV→EPA→JP	0.091**	small
Mission Clarity [f]	EM→MC ML→MC	0.482*** 0.194*	large small-to-medium

[a] From Model 5b
[b] From Model 2
[c] Measured in a separate model containing only JS and JP
[d] From Model 4
[e] May be under-estimated owing to multicollinearity in Model 5b
[f] Measured in a separate model containing only WM, ML and MC (Mission Clarity)

10.2 Appendix II: Univariate normality for all item scale variables

Variable	N			
	Valid	Missing	Skewness	Kurtosis
ML1 Talks enthusiastically about his/her 'vision' of how the company will improve over time	213	0	-.228	-.846
ML2 Talks enthusiastically about how to achieve this 'vision'	212	1	-.307	-.915
ML3 Encourages me to work towards achieving the 'vision'	211	2	-.524	-.799
ML4 Gives me positive feedback when I perform well	212	1	-.459	-.801
ML5 Puts the good of the group before his/her own interests	213	0	-.579	-.668
MO1 Try to work harder	213	0	-.971	.704
MO2 Want to do your job better	213	0	-1.260	.877
MO3 Find that you have done more than you expected to do	212	1	-.365	-.473
MO4 Go out of your way to deal with a guest's special request	213	0	-1.018	.445
SQ1 A customer's meal doesn't arrive with those of the rest of their group	173	40	.393	-1.144
SQ2 Service is slow	190	23	.532	-.620
SQ3 A customer's meal is cold or not properly cooked	186	27	.432	-.957
SQ4 A customer has special needs (e.g. diet, language, physical)	193	20	-.057	-.932
SQ5 A customer makes a large number of special requests	192	21	.255	-.930
SQ6 A customer mistake (e.g. missed reservation, incorrect order) creates a difficult service atmosphere/climate/mood	179	34	.416	-.787
SQ7 A customer or customers become disruptive (being loud / drunk / abusive)	174	39	.767	-.211
JS1 The work itself (i.e. the actual daily tasks that you do)	212	1	-.823	1.371
JS2 The pay (your wages / salary)	211	2	-.298	-.934
JS3 The people I work with	212	1	-.785	.923
JS4 My immediate supervisor(s)	212	1	-.909	.760
JS5 The opportunities for promotion	207	6	-.531	-.414
JS6 All things considered, how satisfied are you with your job?	212	1	-1.033	1.389
AC1 I feel "part of the family" at my work / company	212	1	-1.258	2.765
AC2 I feel "emotionally attached" to this company	212	1	-.637	-.029
AC4 I feel a strong sense of belonging to my company	212	1	-.832	.755
EM1 I can choose the best way of doing my job	213	0	-1.062	1.940
EM3 I have influence over what happens in my work group	210	3	-.533	-.252
EM4 I have a great deal of control over my job	213	0	-.774	.245
EM5 I am given responsibility at work	213	0	-1.329	3.138
EM6 I am confident about my ability to do my job	211	2	-1.275	4.125
EM7 I have mastered the skills to do my job	210	3	-.726	1.451
EM8 I have the knowledge that I need to make my own decisions at work	213	0	-1.258	3.675
SS1 It is easy to talk with my co-workers	211	2	-.995	1.956
SS2 My co-workers are willing to listen to my personal problems	213	0	-.839	1.214
SS3 My co-workers go out of their way to make life easier for me	212	1	-.686	.247
SS4 My co-workers can be relied on when things get tough for me at work	209	4	-1.013	1.396

Appendix II (Cont.): Univariate normality for all item scale variables

Variable	N		Skewness	Kurtosis
	Valid	Missing		
ME1 My job provides me with satisfaction	209	4	-.996	.947
ME3 I enjoy going to work	213	0	-1.133	1.730
ME5 I like to contribute as much as I can to my team (e.g. volunteering for tasks, organising special events)	213	0	-.821	1.101
ME6 My job provides me with a feeling of being worthwhile among my friends and family	210	3	-1.012	1.019
ME7 Job promotion (opportunity for advancement) is very important to me	211	2	-1.032	.514
EM9 I am comfortable/happy to tell my supervisor and co-workers about my ideas, thoughts and suggestions about our work	212	1	-1.180	1.976
GF1 I clearly understand what my company's goals/targets are	212	1	-1.233	1.997
WV1 Gives me status and prestige (gives me a feeling of being worthwhile)	212	1	-1.052	1.989
WV2 Provides me with an income that is needed	213	0	-1.292	1.678
WV3 Helps keep me busy/occupied	213	0	-1.455	3.801
WV4 Lets me meet interesting people	212	1	-1.464	4.014
WV5 Is a useful way for me to contribute to society	211	2	-.814	.742
WV6 Is interesting and satisfying to me	212	1	-1.061	1.921
WV7 Is one of the most important things in my life	212	1	-.854	.204
DSB1 My co-workers show they take guests' concerns very seriously	213	0	-.816	.217
DSB2 If one of my co-workers does not know the answer to a guest's question, he or she makes an effort to find out	213	0	-1.017	.376
DSB3 My co-workers go out of their way to deliver a guest's special request	213	0	-1.027	.755
DSB4 If a guest approaches when one of my co-workers is busy, he or she stops whatever they are doing and talks with the guest	212	1	-.951	.437

10.3 Appendix III: SEM estimates and matrices

To ensure that researchers can replicate the models generated during this research, and following the advice of Kline (2005: 324), Appendix II reproduces the model parameter estimates, covariance and correlation matrices and sample means. Standard deviations can be calculated as the square root of the variances that appear on the diagonal of the covariance matrices.

NB – 'fac' or ''f' suffixed to a an acronym (e.g. JPfac or EPAf) indicates the latent factor rather than an indicator variable (indicators are suffixed with numbers).

Model 1 (SEM 1:1)

Parameter estimates

Parameter			Unstn. Est.	S.E.	C.R.	P	Std Est.
JPfac	<---	MLfac	.168	.038	4.404	***	.414
DSBfac	<---	MLfac	.315	.059	5.316	***	.396
ML3	<---	MLfac	1.054	.055	19.020	***	.873
ML2	<---	MLfac	1.102	.048	22.936	***	.958
ML1	<---	MLfac	1.000				.903
DSB2	<---	DSBfac	.753	.144	5.210	***	.721
DSB1	<---	DSBfac	1.000				.900
JP2	<---	JPfac	1.648	.254	6.479	***	.850
JP1	<---	JPfac	1.721	.280	6.144	***	.876
JP4	<---	JPfac	1.000				.456

Sample Means

JP1	JP2	JP4	DSB1	DSB2	ML1	ML2	ML3
4.202	4.380	4.178	4.005	4.211	3.239	3.269	3.503

Sample Covariances (variances are on the diagonal)

	JP1	JP2	JP4	DSB1	DSB2	ML1	ML2	ML3
JP1	***.706***							
JP2	.519	***.686***						
JP4	.297	.312	***.879***					
DSB1	.201	.209	.149	***.869***				
DSB2	.103	.112	.113	.530	***.768***			
ML1	.271	.238	.258	.342	.250	***1.365***		
ML2	.380	.311	.288	.380	.297	1.228	***1.473***	
ML3	.392	.326	.282	.378	.270	1.177	1.287	***1.621***

Sample correlation matrix

	JP1	JP2	JP4	DSB1	DSB2	ML1	ML2	ML3
JP1	1.000							
JP2	.746	1.000						
JP4	.377	.402	1.000					
DSB1	.257	.271	.171	1.000				
DSB2	.140	.155	.137	.649	1.000			
ML1	.276	.245	.235	.314	.244	1.000		
ML2	.373	.309	.253	.336	.279	.866	1.000	
ML3	.367	.309	.236	.319	.242	.791	.833	1.000

Model 2 (SEM2:1)

Parameter estimates

Parameter	Unstn. Est.	S.E.	C.R.	P	Std Est.
MLfac→MEfac	.442	.055	8.059	***	.558
JPfac→JPfac	.109	.039	2.826	.005	.271
MEfac→JPfac	.132	.049	2.675	.007	.258
MLfac→DSBfac	.318	.059	5.379	***	.400
ML→ML3	1.060	.055	19.241	***	.879
ML→ML2	1.095	.047	23.181	***	.953
ML→ML1	1.000				.903
DSB→DSB2	.750	.143	5.253	***	.719
DSB→DSB1	1.000				.902
JP→JP2	1.648	.254	6.485	***	.848
JP→JP1	1.728	.280	6.175	***	.878
JP→JP4	1.000				.455
ME→ME6	.899	.067	13.382	***	.777
ME→ME3	.931	.059	15.900	***	.872
ME→ME1	1.000				.891

Sample Means

ME1	ME3	ME6	JP1	JP2	JP4	DSB1	DSB2	ML1	ML2	ML3
3.899	4.009	3.753	4.202	4.380	4.178	4.005	4.211	3.239	3.269	3.503

Sample Covariances (variances are on the diagonal)

	ME1	ME3	ME6	JP1	JP2	JP4	DSB1	DSB2	ML1	ML2	ML3
ME1	**.882**										
ME3	.655	**.798**									
ME6	.619	.589	**.936**								
JP1	.250	.233	.270	**.706**							
JP2	.235	.194	.229	.519	**.686**						
JP4	.163	.134	.206	.297	.312	**.879**					
DSB1	.270	.207	.252	.201	.209	.149	**.869**				
DSB2	.168	.148	.205	.103	.112	.113	.530	**.768**			
ML1	.485	.397	.431	.271	.238	.258	.342	.250	**1.365**		
ML2	.531	.453	.509	.380	.311	.288	.380	.297	1.228	**1.473**	
ML3	.605	.541	.572	.392	.326	.282	.378	.270	1.176	1.287	**1.621**

Sample correlation matrix

	ME1	ME3	ME6	JP1	JP2	JP4	DSB1	DSB2	ML1	ML2	ML3
ME1	1.000										
ME3	.781	1.000									
ME6	.681	.682	1.000								
JP1	.317	.310	.332	1.000							
JP2	.302	.262	.286	.746	1.000						
JP4	.185	.161	.227	.377	.402	1.000					
DSB1	.309	.248	.280	.257	.271	.171	1.000				
DSB2	.205	.189	.241	.140	.155	.137	.649	1.000			
ML1	.442	.380	.382	.276	.245	.235	.314	.244	1.000		
ML2	.466	.418	.433	.373	.309	.253	.336	.279	.866	1.000	
ML3	.506	.476	.464	.367	.309	.236	.319	.242	.791	.833	1.000

Model 3b (SEM 3b)

Parameter estimates

Parameter			Unstn. Est.	S.E.	C.R.	P	Std Est.
EPAf	<---	MLf	.298	.039	7.668	***	.574
JPf	<---	MLf	.106	.039	2.727	.006	.262
DSBf	<---	MLf	.319	.059	5.398	***	.401
JPf	<---	EPAf	.208	.076	2.729	.006	.267
ML3	<---	MLf	1.060	.055	19.241	***	.879
ML2	<---	MLf	1.095	.047	23.195	***	.953
ML1	<---	MLf	1.000				.903
DSB2	<---	DSBf	.750	.142	5.269	***	.719
DSB1	<---	DSBf	1.000				.902
JP2	<---	JPf	1.646	.254	6.484	***	.847
JP1	<---	JPf	1.733	.281	6.163	***	.879
JP4	<---	JPf	1.000				.455
AC2	<---	EPAf	1.371	.124	11.049	***	.761
ME1	<---	EPAf	1.508	.117	12.850	***	.881
ME3	<---	EPAf	1.403	.112	12.505	***	.861
ME6	<---	EPAf	1.398	.121	11.534	***	.792
JS1	<---	EPAf	1.000				.739

Sample Means

ME6	ME3	ME1	AC2	JS1	JP1	JP2	JP4	DSB1	DSB2	ML1	ML2	ML3
3.753	4.009	3.901	3.630	3.910	4.202	4.380	4.178	4.005	4.211	3.239	3.269	3.503

Sample Covariances (variances are on the diagonal)

	ME6	ME3	ME1	AC2	JS1	JP1	JP2	JP4	DSB1	DSB2	ML1	ML2	ML3
ME6	**.935**												
ME3	.588	**.798**											
ME1	.617	.653	**.881**										
AC2	.602	.573	.608	**.976**									
JS1	.425	.409	.452	.419	**.551**								
JP1	.269	.233	.251	.254	.178	**.706**							
JP2	.226	.194	.235	.212	.152	.519	**.686**						
JP4	.204	.134	.164	.175	.101	.297	.312	**.879**					
DSB1	.251	.207	.270	.299	.226	.201	.209	.149	**.869**				
DSB2	.204	.148	.168	.192	.169	.103	.112	.113	.530	**.768**			
ML1	.432	.397	.486	.427	.360	.271	.238	.258	.342	.250	**1.365**		
ML2	.508	.453	.529	.504	.390	.380	.311	.288	.380	.297	1.228	**1.473**	
ML3	.571	.541	.604	.513	.454	.392	.326	.282	.378	.270	1.176	1.287	**1.620**

Sample correlation matrix

	ME6	ME3	ME1	AC2	JS1	JP1	JP2	JP4	DSB1	DSB2	ML1	ML2	ML3
ME6	1.00												
ME3	.681	1.00											
ME1	.680	.779	1.00										
AC2	.630	.649	.655	1.00									
JS1	.592	.617	.649	.572	1.00								
JP1	.331	.310	.318	.306	.285	1.00							
JP2	.282	.262	.303	.259	.247	.746	1.00						
JP4	.225	.161	.186	.189	.145	.377	.402	1.00					
DSB1	.279	.248	.309	.324	.326	.257	.271	.171	1.00				
DSB2	.241	.189	.204	.222	.260	.140	.155	.137	.649	1.00			
ML1	.382	.380	.443	.370	.415	.276	.245	.235	.314	.244	1.00		
ML2	.433	.418	.465	.421	.433	.373	.309	.253	.336	.279	.866	1.00	
ML3	.464	.476	.505	.408	.480	.367	.309	.236	.319	.242	.791	.833	1.00

Model 4 (SEM 4:2)

Parameter estimates

Parameter			Unstn. Est.	S.E.	C.R.	P	Std Est.
EPAfac	<---	WVfac	0.307	0.071	4.313	***	0.334
EPAfac	<---	MLfac	0.232	0.038	6.088	***	0.446
MOfac	<---	EPAfac	0.212	0.076	2.782	0.005	0.273
MOfac	<---	MLfac	0.104	0.039	2.7	0.007	0.259
DSBfac	<---	MLfac	0.321	0.059	5.421	***	0.403
ML3	<---	MLfac	1.06	0.055	19.261	***	0.879
ML2	<---	MLfac	1.094	0.047	23.199	***	0.952
ML1	<---	MLfac	1				0.903
DSB2	<---	DSBfac	0.75	0.142	5.292	***	0.719
DSB1	<---	DSBfac	1				0.902
MO2	<---	MOfac	1.646	0.254	6.479	***	0.846
MO1	<---	MOfac	1.737	0.283	6.149	***	0.88
MO4	<---	MOfac	1				0.454
JS1	<---	EPAfac	1				0.74
AC2	<---	EPAfac	1.376	0.124	11.119	***	0.765
ME1	<---	EPAfac	1.498	0.117	12.818	***	0.876
ME3	<---	EPAfac	1.398	0.112	12.501	***	0.859
ME6	<---	EPAfac	1.406	0.121	11.631	***	0.798
WV1	<---	WVfac	1				0.741
WV4	<---	WVfac	1.026	0.102	10.108	***	0.81
WV5	<---	WVfac	1.081	0.107	10.125	***	0.791

Sample Means

WV5	WV4	WV1	ME6	ME3	ME1	AC2	JS1
4.018	4.234	3.978	3.753	4.009	3.901	3.63	3.91
MO1	MO2	MO4	DSB1	DSB2	ML1	ML2	ML3
4.202	4.38	4.178	4.005	4.211	3.239	3.269	3.503

Sample Covariances (variances are on the diagonal)

	WV5	WV4	WV1	ME6	ME3	ME1	AC2	JS1	MO1	MO2	MO4	DSB1	DSB2	ML1	ML2	ML3
WV5	**.667**															
WV4	.400	**.573**														
WV1	.385	.361	**.650**													
ME6	.296	.286	.276	**.935**												
ME3	.201	.246	.216	.588	**.798**											
ME1	.242	.227	.216	.617	.653	**.881**										
AC2	.295	.265	.227	.602	.573	.608	**.976**									
JS1	.167	.184	.176	.425	.409	.452	.419	**.551**								
MO1	.183	.144	.204	.268	.233	.251	.254	.178	**.706**							
MO2	.138	.103	.140	.226	.194	.235	.212	.152	.519	**.686**						
MO4	.057	.018	.065	.204	.134	.164	.175	.101	.297	.312	**.879**					
DSB1	.205	.200	.169	.251	.207	.270	.299	.226	.201	.209	.149	**.869**				
DSB2	.145	.156	.146	.204	.148	.168	.192	.169	.103	.112	.113	.530	**.768**			
ML1	.223	.191	.334	.432	.397	.486	.427	.360	.271	.238	.258	.342	.250	**1.365**		
ML2	.231	.236	.339	.508	.453	.529	.504	.390	.380	.311	.288	.380	.297	1.228	**1.473**	
ML3	.276	.261	.406	.570	.541	.604	.513	.454	.392	.326	.282	.378	.270	1.176	1.287	**1.620**

Sample correlation matrix

	WV5	WV4	WV1	ME6	ME3	ME1	AC2	JS1	MO1	MO2	MO4	DSB1	DSB2	ML1	ML2	ML3
WV5	1															
WV4	0.64	1														
WV1	0.58	0.59	1													
ME6	0.37	0.39	0.35	1												
ME3	0.27	0.36	0.3	0.68	1											
ME1	0.31	0.32	0.28	0.68	0.77	1										
AC2	0.36	0.35	0.28	0.63	0.64	0.65	1									
JS1	0.27	0.32	0.29	0.59	0.61	0.64	0.57	1								
MO1	0.26	0.22	0.30	0.33	0.31	0.31	0.30	0.28	1							
MO2	0.20	0.16	0.20	0.28	0.26	0.30	0.25	0.24	0.74	1						
MO4	0.07	0.02	0.08	0.22	0.16	0.18	0.18	0.14	0.37	0.40	1					
DSB1	0.27	0.28	0.22	0.27	0.24	0.30	0.32	0.32	0.25	0.27	0.17	1				
DSB2	0.20	0.23	0.20	0.24	0.18	0.20	0.22	0.26	0.14	0.15	0.13	0.64	1			
ML1	0.23	0.21	0.35	0.38	0.38	0.44	0.37	0.41	0.27	0.24	0.23	0.31	0.24	1		
ML2	0.23	0.25	0.34	0.43	0.41	0.46	0.42	0.43	0.37	0.30	0.25	0.33	0.27	0.86	1	
ML3	0.26	0.27	0.39	0.46	0.47	0.50	0.40	0.48	0.36	0.30	0.23	0.31	0.24	0.79	0.83	1

Model 5 (SEM 5:2)

Parameter Estimates

Parameter			Unstn. Est.	S.E.	C.R.	P	Std Est.
EPAfac	<---	MLfac	0.096	0.038	2.538	0.011	0.189
EPAfac	<---	EMfac	0.478	0.09	5.305	***	0.587
EPAfac	<---	WVfac	0.086	0.076	1.138	0.255	0.092
MOfac	<---	EPAfac	0.202	0.074	2.734	0.006	0.261
MOfac	<---	MLfac	0.112	0.038	2.944	0.003	0.284
DSBfac	<---	MLfac	0.31	0.059	5.281	***	0.405
ML3	<---	MLfac	1.05	0.055	19.024	***	0.876
ML2	<---	MLfac	1.087	0.047	23.189	***	0.952
ML1	<---	MLfac	1				0.906
DSB2	<---	DSBfac	0.771	0.149	5.163	***	0.72
DSB1	<---	DSBfac	1				0.883
MO2	<---	MOfac	1.657	0.261	6.358	***	0.843
MO1	<---	MOfac	1.83	0.3	6.091	***	0.899
MO4	<---	MOfac	1				0.447
ME6	<---	EPAfac	1.43	0.121	11.797	***	0.812
ME3	<---	EPAfac	1.426	0.112	12.78	***	0.882
ME1	<---	EPAfac	1.544	0.119	12.99	***	0.9
AC2	<---	EPAfac	1.409	0.126	11.168	***	0.772
JS1	<---	EPAfac	1				0.734
WV5	<---	WVfac	1.102	0.112	9.834	***	0.797
WV4	<---	WVfac	0.991	0.102	9.679	***	0.79
WV1	<---	WVfac	1				0.732
EM5	<---	EMfac	0.743	0.082	9.055	***	0.659
EM3	<---	EMfac	1.053	0.107	9.88	***	0.722
EM1	<---	EMfac	1				0.799

Sample means

EM1	EM3	EM5	WV1	WV4	WV5	JS1	AC2	ME1
3.943	3.589	4.177	3.992	4.253	4.032	3.923	3.642	3.913

ME3	ME6	MO1	MO2	MO4	DSB1	DSB2	ML1	ML2	ML3
4.033	3.772	4.201	4.388	4.196	4.029	4.23	3.249	3.293	3.522

Model 5 (SEM 5:2)

Sample Covariances (variances are on the diagonal)

	EM1	EM3	EM5	WV1	WV4	WV5	JS1	AC2	ME1	ME3	ME6	MO1	MO2	MO4	DSB1	DSB2	ML1	ML2	ML3
EM1	**0.686**																		
EM3	0.467	**0.932**																	
EM5	0.331	0.323	**0.557**																
WV1	0.229	0.286	0.187	**0.620**															
WV4	0.186	0.25	0.155	0.322	**0.523**														
WV5	0.233	0.245	0.184	0.364	0.37	**0.636**													
JS1	0.263	0.285	0.219	0.181	0.196	0.171	**0.540**												
AC2	0.453	0.45	0.274	0.208	0.244	0.267	0.424	**0.968**											
ME1	0.412	0.413	0.318	0.236	0.254	0.248	0.434	0.616	**0.857**										
ME3	0.351	0.325	0.257	0.205	0.22	0.199	0.409	0.582	0.663	**0.760**									
ME6	0.409	0.423	0.337	0.242	0.247	0.256	0.428	0.577	0.63	0.59	**0.901**								
MO1	0.232	0.22	0.156	0.205	0.14	0.179	0.188	0.255	0.262	0.237	0.268	**0.716**							
MO2	0.209	0.239	0.185	0.152	0.107	0.12	0.15	0.202	0.221	0.198	0.218	0.525	**0.668**						
MO4	0.126	0.079	0.104	0.064	0.017	0.04	0.082	0.162	0.137	0.127	0.188	0.305	0.297	**0.866**					
DSB1	0.227	0.182	0.158	0.144	0.174	0.175	0.213	0.274	0.258	0.195	0.214	0.205	0.199	0.124	**0.841**				
DSB2	0.2	0.15	0.151	0.131	0.137	0.116	0.161	0.169	0.155	0.141	0.173	0.102	0.093	0.089	0.505	**0.751**			
ML1	0.344	0.478	0.267	0.337	0.199	0.243	0.349	0.443	0.483	0.389	0.447	0.285	0.258	0.257	0.342	0.259	**1.364**		
ML2	0.391	0.511	0.323	0.328	0.221	0.231	0.377	0.508	0.523	0.426	0.502	0.393	0.322	0.275	0.361	0.288	1.225	**1.460**	
ML3	0.422	0.511	0.353	0.392	0.249	0.283	0.442	0.52	0.605	0.524	0.569	0.408	0.349	0.276	0.363	0.268	1.167	1.272	**1.608**

Sample correlation matrix

	EM1	EM3	EM5	WV1	WV4	WV5	JS1	AC2	ME1	ME3	ME6	MO1	MO2	MO4	DSB1	DSB2	ML1	ML2	ML3
EM1	1																		
EM3	0.583	1																	
EM5	0.535	0.448	1																
WV1	0.352	0.377	0.318	1															
WV4	0.31	0.358	0.288	0.563	1														
WV5	0.353	0.318	0.31	0.58	0.641	1													
JS1	0.483	0.402	0.4	0.312	0.368	0.292	1												
AC2	0.556	0.474	0.373	0.268	0.343	0.341	0.587	1											
ME1	0.538	0.462	0.46	0.323	0.379	0.335	0.638	0.677	1										
ME3	0.487	0.386	0.395	0.3	0.35	0.286	0.638	0.679	0.821	1									
ME6	0.52	0.462	0.476	0.324	0.36	0.339	0.615	0.618	0.717	0.714	1								
MO1	0.331	0.27	0.247	0.307	0.228	0.265	0.302	0.306	0.334	0.322	0.334	1							
MO2	0.309	0.302	0.303	0.235	0.181	0.184	0.248	0.251	0.292	0.277	0.281	0.759	1						
MO4	0.164	0.087	0.15	0.087	0.025	0.054	0.12	0.177	0.159	0.157	0.213	0.388	0.391	1					
DSB1	0.298	0.205	0.23	0.199	0.262	0.239	0.316	0.304	0.304	0.244	0.245	0.264	0.266	0.143	1				
DSB2	0.278	0.179	0.233	0.192	0.219	0.168	0.253	0.199	0.194	0.186	0.211	0.139	0.131	0.11	0.636	1			
ML1	0.556	0.424	0.306	0.367	0.235	0.261	0.407	0.386	0.447	0.382	0.403	0.288	0.27	0.237	0.319	0.256	1		
ML2	0.591	0.438	0.358	0.345	0.253	0.24	0.424	0.427	0.468	0.404	0.438	0.385	0.326	0.244	0.326	0.275	0.868	1	
ML3	0.602	0.417	0.373	0.393	0.272	0.28	0.425	0.417	0.515	0.474	0.473	0.38	0.336	0.234	0.312	0.244	0.788	0.83	1

Model 5b (SEM 5b:2)

Parameter estimates

Parameter			Unstn. Est.	S.E.	C.R.	P	Std Est.
EPAfac	<---	MLfac	0.11	0.039	2.829	0.005	0.213
EPAfac	<---	EMfac	0.473	0.075	6.319	***	0.626
MOfac	<---	MLfac	0.103	0.039	2.676	0.007	0.256
MOfac	<---	EPAfac	0.217	0.077	2.825	0.005	0.279
DSBfac	<---	MLfac	0.32	0.059	5.415	***	0.403
ML3	<---	MLfac	1.059	0.055	19.239	***	0.878
ML2	<---	MLfac	1.095	0.047	23.246	***	0.953
ML1	<---	MLfac	1				0.903
DSB2	<---	DSBfac	0.752	0.142	5.298	***	0.72
DSB1	<---	DSBfac	1				0.9
MO2	<---	MOfac	1.648	0.254	6.486	***	0.849
MO1	<---	MOfac	1.727	0.279	6.189	***	0.877
MO4	<---	MOfac	1				0.455
JS1	<---	EPAfac	1				0.737
AC2	<---	EPAfac	1.396	0.125	11.205	***	0.773
ME1	<---	EPAfac	1.503	0.118	12.789	***	0.876
ME3	<---	EPAfac	1.388	0.112	12.357	***	0.85
ME6	<---	EPAfac	1.42	0.122	11.669	***	0.803
EM4	<---	EMfac	1				0.748
EM3	<---	EMfac	1.02	0.101	10.056	***	0.748
EM1	<---	EMfac	0.876	0.088	9.902	***	0.762

Sample Means

EM1	EM3	EM4	ME6	ME3	ME1	AC2	JS1
3.934	3.564	3.723	3.752	4.009	3.901	3.63	3.91

MO1	MO2	MO4	DSB1	DSB2	ML1	ML2	ML3
4.202	4.38	4.178	4.005	4.211	3.239	3.269	3.503

Sample Covariances (variances are on the diagonal)

	WV5	WV4	WV1	ME6	ME3	ME1	AC2	JS1	MO1	MO2	MO4	DSB1	DSB2	ML1	ML2	ML3
WV5	**0.691**															
WV4	0.453	**0.969**														
WV1	0.451	0.558	**0.933**													
ME6	0.417	0.441	0.494	**0.935**												
ME3	0.343	0.360	0.336	0.588	**0.798**											
ME1	0.421	0.401	0.417	0.617	0.653	**0.881**										
AC2	0.459	0.453	0.447	0.602	0.572	0.608	**0.976**									
JS1	0.266	0.290	0.266	0.425	0.409	0.452	0.419	**0.551**								
MO1	0.229	0.214	0.178	0.268	0.233	0.250	0.254	0.178	**0.706**							
MO2	0.227	0.220	0.232	0.226	0.194	0.235	0.212	0.152	0.519	**0.686**						
MO4	0.143	0.085	0.162	0.204	0.134	0.163	0.175	0.101	0.297	0.312	**0.879**					
DSB1	0.240	0.207	0.203	0.251	0.207	0.270	0.298	0.226	0.201	0.209	0.149	**0.869**				
DSB2	0.216	0.161	0.157	0.204	0.148	0.168	0.192	0.169	0.103	0.112	0.113	0.530	**0.768**			
ML1	0.330	0.493	0.428	0.432	0.397	0.486	0.427	0.360	0.271	0.238	0.258	0.342	0.250	**1.365**		
ML2	0.385	0.543	0.451	0.508	0.453	0.529	0.505	0.390	0.380	0.311	0.287	0.380	0.297	1.228	**1.473**	
ML3	0.409	0.543	0.481	0.571	0.541	0.603	0.513	0.454	0.392	0.326	0.282	0.378	0.270	1.176	1.286	**1.620**

Sample correlation matrix

	WV5	WV4	WV1	ME6	ME3	ME1	AC2	JS1	MO1	MO2	MO4	DSB1	DSB2	ML1	ML2	ML3
WV5	1.000															
WV4	0.553	1.000														
WV1	0.562	0.586	1.000													
ME6	0.519	0.463	0.529	1.000												
ME3	0.463	0.410	0.389	0.681	1.000											
ME1	0.541	0.434	0.460	0.680	0.779	1.000										
AC2	0.559	0.465	0.468	0.630	0.649	0.656	1.000									
JS1	0.432	0.397	0.371	0.592	0.617	0.649	0.572	1.000								
MO1	0.328	0.258	0.219	0.330	0.310	0.318	0.306	0.285	1.000							
MO2	0.330	0.270	0.290	0.282	0.262	0.302	0.259	0.247	0.746	1.000						
MO4	0.184	0.092	0.179	0.225	0.161	0.186	0.189	0.145	0.377	0.402	1.000					
DSB1	0.310	0.225	0.226	0.279	0.248	0.309	0.324	0.326	0.257	0.271	0.171	1.000				
DSB2	0.296	0.186	0.186	0.241	0.189	0.205	0.222	0.260	0.140	0.155	0.137	0.649	1.000			
ML1	0.340	0.428	0.379	0.383	0.380	0.443	0.370	0.415	0.276	0.245	0.235	0.314	0.244	1.000		
ML2	0.382	0.454	0.385	0.433	0.418	0.464	0.421	0.433	0.373	0.309	0.253	0.336	0.279	0.866	1.000	
ML3	0.386	0.433	0.391	0.464	0.475	0.505	0.408	0.480	0.367	0.309	0.236	0.319	0.242	0.791	0.833	1.000

10.4 Appendix IV: Bootstrap estimates and distributional normality

The bias-corrected percentile method is used following the guidelines described by Byrne (2010: 351). Using this method, bias-corrected confidence intervals are examined and where the range between upper and lower limits does not include zero, it is possible to reject the hypothesis that the parameter in question is equal to zero (Byrne 2010: 351).

Model 1

Assessment of normality (Models CFA 1:3 and SEM 1:1)						
Variable	min	max	skew	c.r.	kurtosis	c.r.
MO1	1.000	5.000	-.964	-5.746	.660	1.965
MO2	2.000	5.000	-1.251	-7.453	.828	2.467
MO4	1.000	5.000	-1.011	-6.022	.407	1.212
DSB1	1.000	5.000	-.810	-4.825	.184	.548
DSB2	2.000	5.000	-1.010	-6.016	.339	1.010
ML1	1.000	5.000	-.226	-1.347	-.854	-2.545
ML2	1.000	5.000	-.305	-1.817	-.912	-2.716
ML3	1.000	5.000	-.517	-3.082	-.813	-2.423
Multivariate					18.976	**10.947**

Model CFA 1:3 Inter-factor correlation estimates						
Parameter			Estimate	Lower	Upper	P
MLfac	<-->	DSBfac	.377	.268	.507	.007
DSBfac	<-->	MOfac	.320	.201	.491	.004
MLfac	<-->	MOfac	.409	.319	.536	.004

Model CFA 1:3 Standarised factor loading estimates						
Parameter			Estimate	Lower	Upper	P
ML3	<---	MLfac	.873	.822	.905	.028
ML2	<---	MLfac	.958	.927	.980	.012
ML1	<---	MLfac	.903	.869	.938	.006
DSB2	<---	DSBfac	.686	.528	.795	.025
DSB1	<---	DSBfac	.946	.818	1.137	.005
MO2	<---	MOfac	.858	.803	.914	.014
MO1	<---	MOfac	.868	.780	.941	.010
MO4	<---	MOfac	.458	.355	.585	.010

Model SEM 1:1 Standarised parameter estimates						
Parameter			Estimate	Lower	Upper	P
MOfac	<---	MLfac	.414	.321	.540	.004
DSBfac	<---	MLfac	.396	.285	.507	.009
ML3	<---	MLfac	.873	.822	.906	.028
ML2	<---	MLfac	.958	.927	.981	.010
ML1	<---	MLfac	.903	.869	.939	.006
DSB2	<---	DSBfac	.721	.570	.832	.020
DSB1	<---	DSBfac	.900	.781	1.064	.007
MO2	<---	MOfac	.850	.803	.936	.007
MO1	<---	MOfac	.876	.781	.950	.012
MO4	<---	MOfac	.456	.355	.584	.009

Model 2

Assessment of normality (Models CFA 2:3 and SEM 2:1)						
Variable	min	max	skew	c.r.	kurtosis	c.r.
ME1	1.000	5.024	-.988	-5.884	.908	2.704
ME3	1.000	5.000	-1.125	-6.701	1.661	4.950
ME6	1.000	5.000	-1.014	-6.043	1.022	3.044
MO1	1.000	5.000	-.964	-5.746	.660	1.965
MO2	2.000	5.000	-1.251	-7.453	.828	2.467
MO4	1.000	5.000	-1.011	-6.022	.407	1.212
DSB1	1.000	5.000	-.810	-4.825	.184	.548
DSB2	2.000	5.000	-1.010	-6.016	.339	1.010
ML1	1.000	5.000	-.226	-1.347	-.854	-2.545
ML2	1.000	5.000	-.305	-1.817	-.912	-2.716
ML3	1.000	5.000	-.518	-3.085	-.812	-2.418
Multivariate					33.685	**14.535**

Model CFA 2:3 Inter-factor correlation estimates					
Parameter		Estimate	Lower	Upper	P
ML <--> DSB		.377	.268	.509	.005
ML <--> MO		.410	.322	.539	.004
ML <--> ME		.554	.445	.653	.009
DSB <--> MO		.319	.198	.491	.004
DSB <--> ME		.345	.203	.498	.009
MO <--> ME		.409	.317	.512	.006

Model CFA 2:3 Standarised factor loading estimates						
Parameter			Estimate	Lower	Upper	P
ML3	<---	ML	.878	.829	.912	.028
ML2	<---	ML	.953	.923	.977	.009
ML1	<---	ML	.904	.867	.935	.009
DSB2	<---	DSB	.685	.545	.811	.014
DSB1	<---	DSB	.947	.793	1.125	.011
MO2	<---	MO	.855	.788	.906	.019
MO1	<---	MO	.871	.795	.949	.009
MO4	<---	MO	.457	.347	.589	.009
ME6	<---	ME	.778	.692	.847	.019
ME3	<---	ME	.870	.787	.914	.020
ME1	<---	ME	.892	.822	.940	.013

Model SEM 2:1 Standarised parameter estimates						
Parameter			Estimate	Lower	Upper	P
ME	<---	ML	.558	.451	.659	.009
MO	<---	ML	.271	.106	.397	.011
MO	<---	ME	.258	.149	.416	.004
DSB	<---	ML	.400	.289	.510	.010
ML3	<---	ML	.879	.828	.913	.026
ML2	<---	ML	.953	.919	.976	.012
ML1	<---	ML	.903	.867	.935	.008
DSB2	<---	DSB	.719	.579	.833	.019
DSB1	<---	DSB	.902	.783	1.060	.007

Model SEM 2:1 Standarised parameter estimates					
Parameter			Estimate	Lower	Upper	P
MO2	<---	MO	.848	.797	.920	.009
MO1	<---	MO	.878	.799	.960	.007
MO4	<---	MO	.455	.342	.588	.010
ME6	<---	ME	.777	.693	.847	.020
ME3	<---	ME	.872	.788	.915	.023
ME1	<---	ME	.891	.818	.937	.014

Model 3b

Assessment of normality (Models CFA 3:8 and SEM 3b)						
Variable	min	max	skew	c.r.	kurtosis	c.r.
ME6	1.000	5.000	-1.013	-6.037	1.024	3.051
ME3	1.000	5.000	-1.125	-6.701	1.661	4.950
ME1	1.000	5.176	-.991	-5.908	.932	2.777
AC2	1.000	5.000	-.640	-3.815	-.044	-.132
JS1	1.000	5.000	-.818	-4.873	1.329	3.961
MO1	1.000	5.000	-.964	-5.746	.660	1.965
MO2	2.000	5.000	-1.251	-7.453	.828	2.467
MO4	1.000	5.000	-1.011	-6.022	.407	1.212
DSB1	1.000	5.000	-.810	-4.825	.184	.548
DSB2	2.000	5.000	-1.010	-6.016	.339	1.010
ML1	1.000	5.000	-.226	-1.347	-.854	-2.545
ML2	1.000	5.000	-.305	-1.817	-.912	-2.716
ML3	1.000	5.000	-.518	-3.086	-.811	-2.416
Multivariate					40.411	**14.932**

Model CFA 3:8 Inter-factor correlation estimates						
Parameter			Estimate	Lower	Upper	P
MLfac	<-->	DSBfac	.377	.264	.506	.006
MLfac	<-->	MOfac	.410	.324	.542	.003
DSBfac	<-->	MOfac	.319	.206	.494	.004
MLfac	<-->	EMPATfac	.570	.467	.659	.010
DSBfac	<-->	EMPATfac	.376	.239	.537	.007
MOfac	<-->	EMPATfac	.417	.325	.522	.007

Model CFA 3:8 Standarised factor loading estimates						
Parameter			Estimate	Lower	Upper	P
ML3	<---	MLfac	.878	.828	.912	.028
ML2	<---	MLfac	.953	.924	.977	.009
ML1	<---	MLfac	.904	.869	.935	.008
DSB2	<---	DSBfac	.686	.529	.799	.021
DSB1	<---	DSBfac	.946	.793	1.109	.012
MO2	<---	MOfac	.853	.788	.907	.016
MO1	<---	MOfac	.873	.803	.953	.007
MO4	<---	MOfac	.457	.345	.584	.011
JS1	<---	EMPATfac	.740	.661	.801	.009
AC2	<---	EMPATfac	.763	.706	.834	.007

Model CFA 3:8 Standarised factor loading estimates						
Parameter			Estimate	Lower	Upper	P
ME1	<---	EMPATfac	.881	.821	.922	.013
ME3	<---	EMPATfac	.859	.770	.903	.023
ME6	<---	EMPATfac	.793	.716	.839	.036

Model SEM 3b Standarised parameter estimates						
Parameter			Estimate	Lower	Upper	P
EPAf	<---	MLf	.574	.472	.669	.009
MOf	<---	MLf	.262	.110	.389	.008
DSBf	<---	MLf	.401	.290	.512	.010
MOf	<---	EPAf	.267	.159	.434	.006
ML3	<---	MLf	.879	.828	.913	.025
ML2	<---	MLf	.953	.922	.976	.010
ML1	<---	MLf	.903	.869	.936	.007
DSB2	<---	DSBf	.719	.579	.829	.020
DSB1	<---	DSBf	.902	.782	1.053	.008
MO2	<---	MOf	.847	.794	.916	.009
MO1	<---	MOf	.879	.804	.960	.007
MO4	<---	MOf	.455	.343	.585	.010
AC2	<---	EPAf	.761	.703	.834	.006
ME1	<---	EPAf	.881	.821	.921	.014
ME3	<---	EPAf	.861	.768	.902	.025
ME6	<---	EPAf	.792	.716	.838	.036
JS1	<---	EPAf	.739	.658	.801	.010

Model 4

Assessment of normality (Models CFA 4:8 and SEM 4:2)						
Variable	min	max	skew	c.r.	kurtosis	c.r.
WV5	1.000	5.000	-.806	-4.804	.722	2.150
WV4	1.000	5.000	-1.460	-8.697	3.909	11.646
WV1	1.000	5.000	-1.032	-6.150	1.888	5.625
ME6	1.000	5.000	-1.013	-6.036	1.024	3.051
ME3	1.000	5.000	-1.125	-6.701	1.661	4.950
ME1	1.000	5.167	-.992	-5.911	.933	2.779
AC2	1.000	5.000	-.640	-3.815	-.045	-.133
JS1	1.000	5.000	-.817	-4.871	1.329	3.959
MO1	1.000	5.000	-.964	-5.746	.660	1.965
MO2	2.000	5.000	-1.251	-7.453	.828	2.467
MO4	1.000	5.000	-1.011	-6.022	.407	1.212
DSB1	1.000	5.000	-.810	-4.825	.184	.548
DSB2	2.000	5.000	-1.010	-6.016	.339	1.010
ML1	1.000	5.000	-.226	-1.347	-.854	-2.545
ML2	1.000	5.000	-.305	-1.817	-.912	-2.716
ML3	1.000	5.000	-.518	-3.086	-.811	-2.416
Multivariate					54.741	**16.644**

Model CFA 4:8 Inter-factor correlation estimates					
Parameter			Estimate	Lower	Upper	P
MLfac	<-->	DSBfac	.384	.277	.509	.006
MLfac	<-->	MOfac	.411	.323	.543	.003
DSBfac	<-->	MOfac	.320	.178	.477	.006
MLfac	<-->	EPAfac	.570	.467	.660	.009
DSBfac	<-->	EPAfac	.381	.238	.543	.008
MOfac	<-->	EPAfac	.418	.325	.522	.006
MLfac	<-->	WVfac	.378	.269	.491	.011
DSBfac	<-->	WVfac	.366	.192	.492	.019
MOfac	<-->	WVfac	.332	.203	.424	.028
EPAfac	<-->	WVfac	.503	.331	.627	.019

Model CFA 4:8 Standarised factor loading estimates						
Parameter			Estimate	Lower	Upper	P
ML3	<---	MLfac	.878	.829	.911	.030
ML2	<---	MLfac	.953	.924	.977	.008
ML1	<---	MLfac	.904	.870	.937	.007
DSB2	<---	DSBfac	.698	.581	.821	.014
DSB1	<---	DSBfac	.929	.806	1.089	.007
MO2	<---	MOfac	.845	.780	.902	.015
MO1	<---	MOfac	.882	.805	.965	.008
MO4	<---	MOfac	.453	.344	.585	.009
JS1	<---	EPAfac	.741	.677	.806	.006
AC2	<---	EPAfac	.765	.711	.841	.005
ME1	<---	EPAfac	.877	.810	.918	.015
ME3	<---	EPAfac	.858	.772	.903	.020
ME6	<---	EPAfac	.797	.721	.844	.036
WV1	<---	WVfac	.738	.622	.823	.011
WV4	<---	WVfac	.810	.697	.890	.012
WV5	<---	WVfac	.793	.722	.857	.011

Model SEM 4:2 Standarised parameter estimates						
Parameter			Estimate	Lower	Upper	P
EPAfac	<---	WVfac	.334	.145	.502	.012
EPAfac	<---	MLfac	.446	.323	.604	.005
MOfac	<---	EPAfac	.273	.167	.444	.005
MOfac	<---	MLfac	.259	.106	.390	.014
DSBfac	<---	MLfac	.403	.291	.514	.010
ML3	<---	MLfac	.879	.829	.914	.026
ML2	<---	MLfac	.952	.920	.976	.009
ML1	<---	MLfac	.903	.867	.935	.009
DSB2	<---	DSBfac	.719	.583	.829	.020
DSB1	<---	DSBfac	.902	.784	1.060	.007
MO2	<---	MOfac	.846	.792	.915	.009
MO1	<---	MOfac	.880	.803	.961	.008
MO4	<---	MOfac	.454	.341	.584	.011
JS1	<---	EPAfac	.740	.673	.805	.007
AC2	<---	EPAfac	.765	.708	.840	.006
ME1	<---	EPAfac	.876	.810	.917	.016
ME3	<---	EPAfac	.859	.772	.903	.020

Model SEM 4:2 Standarised parameter estimates						
Parameter			Estimate	Lower	Upper	P
ME6	<---	EPAfac	.798	.722	.843	.036
WV1	<---	WVfac	.741	.623	.826	.011
WV4	<---	WVfac	.810	.696	.891	.011
WV5	<---	WVfac	.791	.722	.856	.009

Model 5

CFA 5:7 Observations farthest from the centroid (Mahalanobis distance)

For brevity, only the first 30 cases are shown. The top four cases with P< 0.001 were removed for the subsequent analyses (see Section 7.8).

Observation number	Mahalanobis d-squared	p
193	64.585	0.000
68	56.89	0.000
158	49.423	0.000
58	48.912	0.000
209	47.342	0.001
80	46.354	0.001
76	45.325	0.001
59	44.269	0.001
28	43.73	0.002
82	43.511	0.002
38	42.54	0.002
11	41.015	0.004
96	40.108	0.005
91	38.663	0.007
5	38.331	0.008
211	38.031	0.009
156	37.886	0.009
23	36.548	0.013
141	35.674	0.017
110	35.153	0.019
2	35.059	0.02
99	34.807	0.021
95	33.756	0.028
143	33.361	0.031
176	32.874	0.035
1	32.868	0.035
60	32.626	0.037
163	32.19	0.041
201	31.806	0.045
17	31.48	0.049

Model 5b

Assessment of normality (Models CFA 5b:9 and SEM 5b:2)						
Variable	min	max	skew	c.r.	kurtosis	c.r.
EM1	1.000	5.000	-1.055	-6.286	1.867	5.562
EM3	1.000	5.000	-.523	-3.117	-.287	-.856
EM4	1.000	5.000	-.768	-4.577	.211	.629
ME6	1.000	5.000	-1.012	-6.031	1.023	3.048
ME3	1.000	5.000	-1.125	-6.701	1.661	4.950
ME1	1.000	5.163	-.992	-5.908	.933	2.780
AC2	1.000	5.000	-.640	-3.814	-.044	-.132
JS1	1.000	5.000	-.818	-4.873	1.329	3.960
MO1	1.000	5.000	-.964	-5.746	.660	1.965
MO2	2.000	5.000	-1.251	-7.453	.828	2.467
MO4	1.000	5.000	-1.011	-6.022	.407	1.212
DSB1	1.000	5.000	-.810	-4.825	.184	.548
DSB2	2.000	5.000	-1.010	-6.016	.339	1.010
ML1	1.000	5.000	-.226	-1.347	-.854	-2.545
ML2	1.000	5.000	-.305	-1.818	-.911	-2.715
ML3	1.000	5.000	-.518	-3.086	-.811	-2.417
Multivariate					58.215	**17.701**

Model CFA 5b:9 Inter-factor correlation estimates					
Parameter		Estimate	Lower	Upper	P
MLfac <--> DSBfac		.383	.273	.508	.006
MLfac <--> MOfac		.408	.322	.548	.003
DSBfac <--> MOfac		.322	.190	.493	.005
MLfac <--> EPAfac		.571	.469	.660	.009
DSBfac <--> EPAfac		.382	.245	.545	.007
MOfac <--> EPAfac		.416	.323	.519	.007
MLfac <--> EMfac		.572	.437	.685	.008
DSBfac <--> EMfac		.373	.207	.544	.009
MOfac <--> EMfac		.438	.301	.546	.021
EPAfac <--> EMfac		.748	.651	.828	.011

Model CFA 4:8 Standarised factor loading estimates					
Parameter		Estimate	Lower	Upper	P
ML3 <--- MLfac		.878	.828	.912	.026
ML2 <--- MLfac		.953	.924	.976	.009
ML1 <--- MLfac		.904	.871	.937	.007
DSB2 <--- DSBfac		.696	.557	.827	.016
DSB1 <--- DSBfac		.932	.788	1.121	.009
MO2 <--- MOfac		.864	.797	.916	.023
MO1 <--- MOfac		.862	.796	.940	.005
MO4 <--- MOfac		.457	.362	.596	.007
JS1 <--- EPAfac		.738	.658	.802	.009
AC2 <--- EPAfac		.774	.719	.845	.005
ME1 <--- EPAfac		.876	.817	.920	.012
ME3 <--- EPAfac		.849	.751	.890	.026

Model CFA 4:8 Standarised factor loading estimates						
Parameter			Estimate	Lower	Upper	P
ME6	<---	EPAfac	.802	.728	.852	.032
EM4	<---	EMfac	.744	.644	.819	.013
EM3	<---	EMfac	.743	.630	.827	.016
EM1	<---	EMfac	.770	.664	.857	.013

Model SEM 5b:2 Standarised parameter estimates						
Parameter			Estimate	Lower	Upper	P
EPAfac	<---	MLfac	.213	.100	.376	.006
EPAfac	<---	EMfac	.626	.451	.753	.012
MOfac	<---	MLfac	.256	.100	.385	.020
MOfac	<---	EPAfac	.279	.164	.446	.007
DSBfac	<---	MLfac	.403	.287	.510	.012
ML3	<---	MLfac	.878	.828	.911	.028
ML2	<---	MLfac	.953	.922	.975	.010
ML1	<---	MLfac	.903	.871	.936	.007
DSB2	<---	DSBfac	.720	.582	.833	.019
DSB1	<---	DSBfac	.900	.782	1.047	.009
MO2	<---	MOfac	.849	.797	.917	.009
MO1	<---	MOfac	.877	.801	.958	.007
MO4	<---	MOfac	.455	.344	.585	.010
JS1	<---	EPAfac	.737	.655	.801	.009
AC2	<---	EPAfac	.773	.718	.843	.005
ME1	<---	EPAfac	.876	.816	.918	.013
ME3	<---	EPAfac	.850	.752	.892	.026
ME6	<---	EPAfac	.803	.731	.854	.028
EM4	<---	EMfac	.748	.654	.819	.015
EM3	<---	EMfac	.748	.645	.833	.014
EM1	<---	EMfac	.762	.654	.845	.013

10.5 Appendix V: Hospitality leadership literature

(a) Studies utilising core leadership theory

Behavioural approaches ***(General / miscellaneous)***
White (1973); Shortt (1989); Worsfold (1989); Cichy and Schmidgall (1996); El Masry et al. (2004); Arendt and Gregoire (2005); Nicolaides (2006); Yang (2007); Arendt and Gregoire (2008); Chiang and Jang (2008); Kozak and Uca (2008); Tsai (2008); Clark et al. (2009)
Behavioural approaches (*Leadership-competencies*)
Chung-Herrera et al. (2003); Brownell (2005); Brownell (2008); Asree et al. (2010)
Behavioural approaches ***(Implicit leadership theories - ILTs)***
Marnburg (2007); Wong and Chan (2010)
Contingency approach
Nebel and Stearns (1977); Testa (2002); Testa (2004)
Leader-Member Exchange (LMX) theory
Borchgrevink and Boster (1994); Sparrowe (1994); Borchgrevink and Boster (1997); Borchgrevink and Boster (1998); Borchgrevink et al. (2001); Testa (2009); Kim, B. et al. (2010); Kim, S. et al. (2010)
Transformational leadership theory
Hinkin and Tracey (1994); Tracey and Hinkin (1994); Tracey and Hinkin (1996); Tracey and Hinkin (1998); Whitelaw and Morda (2004); Gill et al. (2006); Erkutlu (2008); Hinkin and Schriesheim (2008); Scott-Halsell et al. (2008); Patiar and Mia (2009); Gill et al. (2010); Zopiatis and Constanti (2010)
Power-influence theory
Erkutlu and Chafra (2006)
Servant leadership theory
Brownell (2010)
Theoretical paper
Pittaway et al. (1998)
Discussion paper
Keegan (1983)

(b) Studies not utilising a core leadership theory

Mintzbergian
Ley (1980); Arnaldo (1981)

Curriculum-focused
Hill and Vanhoof (1997); Scheule and Sneed (2001); Naipaul and Wang (2009)

Studies leadership without the use of a core leadership theory
Testa (2001); Tesone et al. (2003); Testa (2007); Maier (2009); Minett et al. (2009); O'Gorman and Gillespie (2010)

Industry narratives
Berger et al. (1989); Cichy et al. (1992a); Cichy et al. (1992b); Cichy et al. (1993); Bond (1998); Greger and Peterson (2000); Saunders (2004); Calloway and Awadzi (2008)

(c) Literature reviews of leadership in hospitality

Literature Reviews
Nebel (1978); Mullins (1992); Wood (1994); Go et al. (1996); Gillet and Morda (2003); Olsen (2004); Lim (2008)

10.6 Appendix VI: The pre-test survey form

In Appendix IV, V and VI illustrating the survey forms used, the Job Performance construct (JP) is labelled as MO for Work **MOtivation**.

Work motivation survey

1 What this questionnaire survey is about

Bournemouth University's School of Services Management has teamed up with the Hospitality Skills Academy and hospitality training experts Hospitality Leadership Ltd to undertake a survey to find out more about **what things help to motivate restaurant waiting staff**.

The questions in the survey ask about your perceptions of various aspects of your work and your answers will provide insights into **how catering work-places can be improved to create a better environment for hospitality workers**.

2 How to complete the questionnaire

The questionnaire is **anonymous** – it does not ask for your name.

Your answers are **completely confidential**.

The questionnaire doesn't take too long to complete - for each question, **all you need to do is circle a number or tick a box**.

Once you've answered all the questions, just put the questionnaire in the FREEPOST envelope and either:

(i) hand it in to _____as per participating organisation_____; or

(ii) put it in a post box.

Please turn over...

The questionnaire has two sections.

In Section 1 all you need to do is **circle the relevant number**.

For example:

The following questions ask about the **frequency (how often)** you feel each of the statements takes place				
Never	**Occasionally**	**Fairly often**	**Very often**	**Always**
1	2	3	4	5

Thinking about your **current job**, please indicate how often your immediate supervisor/manager...		Frequency Never ⟷ Always
Ex 2	Spends time on teaching and training	1 2 3 **(4)** 5

If your immediate supervisor/manager **'very often'** 'spends time teaching and training', then circle number 4 to indicate 'very often'.

OR

If your immediate supervisor/manager **'occasionally'** 'sets unrealistic targets', then fill in the form like this:

Thinking about your **current job**, please indicate how often your immediate supervisor/manager...		Frequency Never ⟷ Always
Ex 1	Sets unreasonable targets	1 **(2)** 3 4 5

Section 2 is very short and contains a mixture of numbers to circle and boxes to tick.

3 Thank you!

Thank you for taking the time to complete this questionnaire – surveys like this rely on the goodwill and help of the people who complete them.

Section 1 – Motivational factors

The following questions ask about the **frequency (how often)** you feel each of the statements takes place

Never	Occasionally	Fairly often	Very often	Always
1	2	3	4	5

Thinking about your **current job**, please indicate how often your immediate supervisor/manager...		Frequency Never ⟷ Always				
ML1	Talks enthusiastically about their 'vision' of how the company will improve over time	1	2	3	4	5
ML2	Talks enthusiastically about how to achieve this 'vision'	1	2	3	4	5
ML3	Encourages me to work towards achieving the 'vision'	1	2	3	4	5
ML4	Gives me positive feedback when I perform well	1	2	3	4	5
ML5	Puts the good of the group before their own interests	1	2	3	4	5

Thinking about your **current job**, please indicate how often you...		Frequency Never ⟷ Always				
MO1	Try to work harder	1	2	3	4	5
MO2	Want to do your job better	1	2	3	4	5
MO3	Find that you have done more than you expected to do	1	2	3	4	5
MO4	Go out of your way to deal with a guest's special request	1	2	3	4	5

For each of the situations described below, please indicate how often you can deal with the situation while keeping your customer/s satisfied *Leave blank (i.e. don't circle any number) any situations that never actually happen to you*		Frequency Never ⟷ Always				
SQ1	A customer's meal doesn't arrive with those of the rest of their group	1	2	3	4	5
SQ2	Service is slow	1	2	3	4	5
SQ3	A customer's meal is cold or not properly cooked	1	2	3	4	5
SQ4	A customer has special needs (e.g. diet, language, physical)	1	2	3	4	5
SQ5	A customer makes a large number of special requests	1	2	3	4	5
SQ6	A customer mistake (e.g. missed reservation, incorrect order) creates a difficult service atmosphere/climate/mood	1	2	3	4	5
SQ7	A customer or customers become disruptive (being loud / drunk / abusive)	1	2	3	4	5

This time the questions ask about your level of **agreement** with each of the statements.

Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
1	2	3	4	5

	Thinking about your **current job**, please circle a number to indicate how much you agree or disagree with each of the following statements	Your level of agreement Strongly disagree ↔ Strongly agree				
AC1	I feel "part of the family" at my work/company	1	2	3	4	5
AC2	I could easily become attached to another company	1	2	3	4	5
AC3	I feel "emotionally attached" to this company	1	2	3	4	5
AC4	I feel a strong sense of belonging to my company	1	2	3	4	5
EM1	I can choose the best way of doing my job	1	2	3	4	5
EM2	I can make my own decisions in my work	1	2	3	4	5
EM3	I have influence over what happens in my work group	1	2	3	4	5
EM4	I have a great deal of control over my job	1	2	3	4	5
EM5	I am given responsibility at work	1	2	3	4	5
EM6	I am confident about my ability to do my job	1	2	3	4	5
EM7	I have mastered the skills to do my job	1	2	3	4	5
EM8	I have the knowledge that I need to make my own decisions at work	1	2	3	4	5
SS1	It is easy to talk with my co-workers.	1	2	3	4	5
SS2	My co-workers are willing to listen to my personal problems	1	2	3	4	5
SS3	My co-workers go out of their way to make life easier for me	1	2	3	4	5
SS4	My co-workers can be relied on when things get tough for me at work	1	2	3	4	5
ME1	My job provides me with satisfaction	1	2	3	4	5
ME2	I prefer to do only the minimum required at work	1	2	3	4	5
ME3	I enjoy going to work	1	2	3	4	5
ME4	The most important thing about my job is the money I earn	1	2	3	4	5
ME5	I like to contribute as much as I can to my team (e.g. volunteering for tasks, organising special events)	1	2	3	4	5
ME6	My job provides me with positive social status among my friends and family	1	2	3	4	5
EM9	I am comfortable/happy to tell my supervisor and co-workers about my ideas, thoughts and suggestions about our work	1	2	3	4	5
GF1	I clearly understand what my company's goals/targets are	1	2	3	4	5

This question is about your level of agreement with **work in general** (not your current job)				
Strongly disagree	**Disagree**	**Neither agree nor disagree**	**Agree**	**Strongly agree**
1	2	3	4	5

Thinking about **work in general** (i.e. not just your current job) Working, **in general**...		Strongly disagree ⟷ Strongly agree				
WV1	Gives me status and prestige (gives me a feeling of being worthwhile)	1	2	3	4	5
WV2	Provides me with an income that is needed	1	2	3	4	5
WV3	Helps keep me busy/occupied	1	2	3	4	5
WV4	Lets me meet interesting people	1	2	3	4	5
WV5	Is a useful way for me to contribute to society	1	2	3	4	5
WV6	Is interesting and satisfying to me	1	2	3	4	5
WV7	Is one of the most important things in my life	1	2	3	4	5

This question is about your level of **satisfaction**				
Very unsatisfied	**Unsatisfied**	**No leaning either way**	**Satisfied**	**Very satisfied**
1	2	3	4	5

Going back to **thinking about your current job**, please indicate your level of satisfaction with each of the following aspects of your work		Your level of satisfaction Very unsatisfied ⟷ Very satisfied				
JS1	The work itself (i.e. that actual daily tasks that you do)	1	2	3	4	5
JS2	The pay (your wages / salary)	1	2	3	4	5
JS3	The people I work with	1	2	3	4	5
JS4	My immediate supervisor(s)	1	2	3	4	5
JS5	All things considered, how satisfied are you with your job?	1	2	3	4	5

Section 2 – About you and your work

This final section of the questionnaire asks for some details about you and your work

This information helps us to build up an accurate picture of how different types of people (e.g. older and younger people) may have different experiences of workplace motivation.

Your gender: Male ❑1 Female ❑0

Your age: 18-24 ❑1 25-34 ❑2 35-44 ❑3
45-54 ❑4 55-64 ❑5 65+ ❑6

Work status (please tick all that apply)

a. Full-time ❑1
b. Part-time ❑2
c. Seasonal ❑3
d. Temporary ❑4
e. Permanent ❑5

Length of time in <u>this</u> job

a. 1 to 2 months ❑1
b. 3 to 6 months ❑2
c. 6 months to 1 year ❑3
d. 1 year to 2 years ❑4
f. more than2 years ❑5

We would like to know, in general, how closely you work with your supervisor or supervisors Please circle a number to indicate roughly how much contact you typically have with your immediate supervisor/s when you are at work	Not very much contact with supervisor/s ← → Quite a lot of contact with supervisor/s 1 2 3 4 5

Thinking about the **teaching, training and information** you have had for your current job, please circle a number to indicate your level of agreement or disagreement with the two statements below		Strongly disagree ← → Strongly agree				
22J	I have received enough training for my work tasks	1	2	3	4	5
22K	I have received enough information to perform my work tasks	1	2	3	4	5

Comments

If you have any comments you would like to add to the questionnaire, please use this space.

Once again, **thank you** for taking the time to complete this questionnaire

Contact details

If you have any questions about this survey, please contact:

Steven Boyne
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Bournemouth University
Talbot Campus, Poole
BH12 5BB, United Kingdom

SBoyne@bournemouth.ac.uk

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10.7 Appendix VII: The pilot survey form

Work Motivation Survey

Complete this questionnaire and the prize draw entry slip to enter for a chance to win up to £50 worth of bonusbond* vouchers.

What this questionnaire survey is about

Bournemouth University's School of Services Management has teamed up with the National Skills Academy for Hospitality, and hospitality leadership experts Hospitality Leadership Ltd, to undertake a survey to find out more about **what things help to motivate restaurant waiting staff**.

The questions in the survey ask about your perceptions of various aspects of your work and your answers will provide insights into **how catering work-places can be improved to create a better environment for hospitality workers**.

How to complete the questionnaire

The questionnaire is **anonymous** - it does not ask for your name.

Your answers are completely **confidential.**

Fill in this questionnaire if you are a **waiter or waitress NOT in a supervisory position.**

The questionnaire doesn't take too long to complete - for each question, **all you need to do is tick a box**.

For example: *Thinking about your current job, please indicate how often your immediate supervisor/manager..*

	Never	*Occas-ionally*	*Fairly often*	*Very often*	*Always*
Spends time on teaching and training	[ ]	[ ]	[ ]	[✓]	[ ]

If your immediate supervisor/manager '**very often**' 'spends time teaching and training', then tick the '**very often**' box

Thank you!

Thank you for taking the time to complete this questionnaire - surveys like this rely on the help of the people who complete them.

Don't forget to complete the separate prize draw entry form for your chance to win **up to £50 worth of** bonusbond vouchers.

*** Bonusbond gift vouchers can be redeemed at over 25,000 places in the UK and not just in high street shops! You can spend your bonusbond gift vouchers in restaurants and theatres, on days out with the family, to treat yourself with an experience or activity day or to book holidays and hotels. Bonusbond gift vouchers have no expiry date, so you can enjoy spending them whenever you choose.**

For more details, see http://www.bonusbond.com/

The following questions ask about the <u>frequency (how often)</u> you feel each of the statements takes place

Q1 Thinking about your **current job**, please tick a box to for each statement to indicate how often your immediate supervisor/manager...

	Never	*Occas-ionally*	*Fairly often*	*Very often*	*Always*
ML1 Talks enthusiastically about his/her 'vision' of how the company will improve over time	☐	☐	☐	☐	☐
ML2 Talks enthusiastically about how to achieve this 'vision'	☐	☐	☐	☐	☐
ML3 Encourages me to work towards achieving the 'vision'	☐	☐	☐	☐	☐
ML4 Gives me positive feedback when I perform well	☐	☐	☐	☐	☐
ML5 Puts the good of the group before his/her own interests	☐	☐	☐	☐	☐

Q2 Thinking about your **current job**, please tick a box for each statement to indicate how often you..

	Never	*Occas-ionally*	*Fairly often*	*Very often*	*Always*
MO1 Try to work harder	☐	☐	☐	☐	☐
MO2 Want to do your job better	☐	☐	☐	☐	☐
MO3 Find that you have done more than you expected to do	☐	☐	☐	☐	☐
MO4 Go out of your way to deal with a guest's special request	☐	☐	☐	☐	☐

Q3 In your **current job**, how often are you able to deal with each of the following situations **<u>while keeping</u>** your customer/s satisfied?

Leave blank (i.e. don't tick any box) any situations that never actually happen to you

	Never	*Occas-ionally*	*Fairly often*	*Very often*	*Always*
SQ1 A customer's meal doesn't arrive with those of the rest of their group	☐	☐	☐	☐	☐
SQ2 Service is slow	☐	☐	☐	☐	☐
SQ3 A customer's meal is cold or not properly cooked	☐	☐	☐	☐	☐
SQ4 A customer has special needs (e.g. diet, language, physical)	☐	☐	☐	☐	☐
SQ5 A customer makes a large number of special requests	☐	☐	☐	☐	☐
SQ6 A customer mistake (e.g. missed reservation, incorrect order) creates a difficult service atmosphere/climate/mood	☐	☐	☐	☐	☐
SQ7 A customer or customers become disruptive (being loud / drunk / abusive)	☐	☐	☐	☐	☐

The next question is about your <u>level of satisfaction</u> with your current job

Q4 Continuing to think about your **current job,** please tick a box to indicate your level of satisfaction with each of the following aspects of your work

	Very un-satisfied	*Un-satisfied*	*No leaning either way*	*Satisfied*	*Very satisfied*
JS1 The work itself (i.e. that actual daily tasks that you do)	☐	☐	☐	☐	☐
JS2 The pay (your wages / salary)	☐	☐	☐	☐	☐
JS3 The people I work with	☐	☐	☐	☐	☐
JS4 My immediate supervisor(s)	☐	☐	☐	☐	☐
JS5 The opportunities for promotion	☐	☐	☐	☐	☐
JS6 All things considered, how satisfied are you with your job?	☐	☐	☐	☐	☐

This time the questions ask about your <u>level of agreement</u> with each of the statements

Q5 Thinking about your **current job**, please tick a box to indicate how much you agree or disagree with each of the following statements

	Strongly disagree	Disagree	No leaning either way	Agree	Strongly agree
AC1 I feel "part of the family" at my work / company	☐	☐	☐	☐	☐
AC2 I feel "emotionally attached" to this company	☐	☐	☐	☐	☐
AC3 I could easily become just as attached to another company	☐	☐	☐	☐	☐
AC4 I feel a strong sense of belonging to my company	☐	☐	☐	☐	☐
EM1 I can choose the best way of doing my job	☐	☐	☐	☐	☐
EM2 I can make my own decisions in my work	☐	☐	☐	☐	☐
EM3 I have influence over what happens in my work group	☐	☐	☐	☐	☐
EM4 I have a great deal of control over my job	☐	☐	☐	☐	☐
EM5 I am given responsibility at work	☐	☐	☐	☐	☐
EM6 I am confident about my ability to do my job	☐	☐	☐	☐	☐
EM7 I have mastered the skills to do my job	☐	☐	☐	☐	☐
EM8 I have the knowledge that I need to make my own decisions at work	☐	☐	☐	☐	☐
SS1 It is easy to talk with my co-workers	☐	☐	☐	☐	☐
SS2 My co-workers are willing to listen to my personal problems	☐	☐	☐	☐	☐
SS3 My co-workers go out of their way to make life easier for me	☐	☐	☐	☐	☐
SS4 My co-workers can be relied on when things get tough for me at work	☐	☐	☐	☐	☐
ME1 My job provides me with satisfaction	☐	☐	☐	☐	☐
ME2 I prefer to do only the minimum required at work	☐	☐	☐	☐	☐
ME3 I enjoy going to work	☐	☐	☐	☐	☐
ME4 The most important thing about my job is the money I earn	☐	☐	☐	☐	☐
ME5 I like to contribute as much as I can to my team (e.g. volunteering for tasks, organising special events)	☐	☐	☐	☐	☐
ME6 My job provides me with a feeling of being worthwhile among my friends and family	☐	☐	☐	☐	☐
ME7 Job promotion (opportunity for advancement) is very important to me	☐	☐	☐	☐	☐
EM9 I am comfortable/happy to tell my supervisor and co-workers about my ideas, thoughts and suggestions about our work	☐	☐	☐	☐	☐
GF1 I clearly understand what my company's goals/targets are	☐	☐	☐	☐	☐

This question is about your <u>work in general</u> (not just your current job)

Q6 Thinking about **work in general** (i.e. not just your current job)

Working, in general...

	Strongly disagree	Disagree	No leaning either way	Agree	Strongly agree
WV1 Gives me status and prestige (gives me a feeling of being worthwhile)	☐	☐	☐	☐	☐
WV2 Provides me with an income that is needed	☐	☐	☐	☐	☐
WV3 Helps keep me busy/occupied	☐	☐	☐	☐	☐
WV4 Lets me meet interesting people	☐	☐	☐	☐	☐
WV5 Is a useful way for me to contribute to society	☐	☐	☐	☐	☐
WV6 Is interesting and satisfying to me	☐	☐	☐	☐	☐
WV7 Is one of the most important things in my life	☐	☐	☐	☐	☐

This part of the survey measures the extent to which most other employees in your department make an extra effort to please guests

Q7 Looking at each of the four statements below, please tick a box to describe **how often you have seen** this behaviour **in your current workplace**.

	Never	Occas-ionally	Fairly often	Very often	Always
DSB1 My co-workers show they take guests' concerns very seriously	☐	☐	☐	☐	☐
DSB2 If one of my co-workers does not know the answer to a guest's question, he or she makes an effort to find out	☐	☐	☐	☐	☐
DSB3 My co-workers go out of their way to deliver a guest's special request	☐	☐	☐	☐	☐
DSB4 If a guest approaches when one of my co-workers is busy, he or she stops whatever they are doing and talks with the guest	☐	☐	☐	☐	☐

This final section of the questionnaire asks for some details about you and your work

Q8 Your gender — *Male* ☐ *Female* ☐

Q9 Your age — *18-24* ☐ *25-34* ☐ *35-44* ☐ *45-54* ☐ *55-64* ☐ *65+* ☐

Q10 Work Status (**please tick all that apply**) — *Full-time* ☐ *Part-time* ☐ *Seasonal* ☐ *Temporary* ☐ *Permanent* ☐

Q11 Length of time in **this** job — *1 to 2 months* ☐ *3 to 6 months* ☐ *6 months to 1 year* ☐ *1 year to 2 years* ☐ *more than 2 years* ☐

Q12 Your place of origin — *UK* ☐ *EU* ☐ *Non-EU* ☐

Q13 In general, **how closely you work with your supervisor or supervisors**

	Not much contact	Some contact	A reasonable amount of contact	Quite a lot of contact	Very frequent contact
How much contact do you usually have with **your immediate supervisor/s** when you are at work	☐	☐	☐	☐	☐

Q14 Thinking about the **teaching, training and information** you have had for your current job, please tick a box to indicate your level of agreement or disagreement with each the two statements below

	Strongly disagree	Disagree	No leaning either way	Agree	Strongly agree
22J I have received enough training for my work tasks	☐	☐	☐	☐	☐
22K I have received enough information to perform my work tasks	☐	☐	☐	☐	☐

Thank you!

Now that you've answered all the questions, just put the questionnaire in the **FREEPOST** envelope and either:

(i) hand it back to the person who gave you the questionnaire; or

(ii) put it in a post box.

Don't forget to complete and enclose your prize draw entry slip - although the questionnaire is anonymous, we need your name so that we can sent you your prize, should be be lucky enough to win in the prize draw.

Good luck!

10.8 Appendix VIII: The full survey form

Although not printed on the actual survey form, the item codes are included here for clarity of reference

Work Motivation Survey

Complete this questionnaire and the prize draw entry slip to enter for a chance to win up to £50 worth of bonusbond* vouchers.

What this questionnaire survey is about

Bournemouth University's School of Services Management has teamed up with the National Skills Academy for Hospitality, and hospitality leadership experts Hospitality Leadership Ltd, to undertake a survey to find out more about **what things help to motivate restaurant waiting staff**.

The questions in the survey ask about your perceptions of various aspects of your work and your answers will provide insights into **how catering work-places can be improved to create a better environment for hospitality workers**.

How to complete the questionnaire

The questionnaire is **anonymous** - it does not ask for your name.

Your answers are completely **confidential.**

Fill in this questionnaire if you are a **waiter or waitress NOT in a supervisory position.**

The questionnaire doesn't take too long to complete - for each question, **all you need to do is tick a box**.

For example: *Thinking about your current job, please indicate how often your immediate supervisor/manager..*

	Never	*Occas-ionally*	*Fairly often*	*Very often*	*Always*
Spends time on teaching and training	[ ]	[ ]	[ ]	[✓]	[ ]

If your immediate supervisor/manager '**very often**' 'spends time teaching and training', then tick the '**very often**' box

Thank you!

Thank you for taking the time to complete this questionnaire - surveys like this rely on the help of the people who complete them.

Don't forget to complete the separate prize draw entry form for your chance to win **up to £50 worth of** bonusbond vouchers.

*** Bonusbond gift vouchers can be redeemed at over 25,000 places in the UK and not just in high street shops! You can spend your bonusbond gift vouchers in restaurants and theatres, on days out with the family, to treat yourself with an experience or activity day or to book holidays and hotels. Bonusbond gift vouchers have no expiry date, so you can enjoy spending them whenever you choose.**

For more details, see http://www.bonusbond.com/

The following questions ask about the <u>frequency (how often)</u> you feel each of the statements takes place

Q1 Thinking about your **current job**, please tick a box to for each statement to indicate how often your immediate supervisor/manager...

	Never	*Occas-ionally*	*Fairly often*	*Very often*	*Always*
ML1 Talks enthusiastically about his/her 'vision' of how the company will improve over time	☐	☐	☐	☐	☐
ML2 Talks enthusiastically about how to achieve this 'vision'	☐	☐	☐	☐	☐
ML3 Encourages me to work towards achieving the 'vision'	☐	☐	☐	☐	☐
ML4 Gives me positive feedback when I perform well	☐	☐	☐	☐	☐
ML5 Puts the good of the group before his/her own interests	☐	☐	☐	☐	☐

Q2 Thinking about your **current job**, please tick a box for each statement to indicate how often you..

	Never	*Occas-ionally*	*Fairly often*	*Very often*	*Always*
MO1 Try to work harder	☐	☐	☐	☐	☐
MO2 Want to do your job better	☐	☐	☐	☐	☐
MO3 Find that you have done more than you expected to do	☐	☐	☐	☐	☐
MO4 Go out of your way to deal with a guest's special request	☐	☐	☐	☐	☐

Q3 In your **current job**, how often are you able to deal with each of the following situations **<u>while keeping</u>** your customer/s satisfied?

Leave blank (i.e. don't tick any box) any situations that never actually happen to you

	Never	*Occas-ionally*	*Fairly often*	*Very often*	*Always*
SQ1 A customer's meal doesn't arrive with those of the rest of their group	☐	☐	☐	☐	☐
SQ2 Service is slow	☐	☐	☐	☐	☐
SQ3 A customer's meal is cold or not properly cooked	☐	☐	☐	☐	☐
SQ4 A customer has special needs (e.g. diet, language, physical)	☐	☐	☐	☐	☐
SQ5 A customer makes a large number of special requests	☐	☐	☐	☐	☐
SQ6 A customer mistake (e.g. missed reservation, incorrect order) creates a difficult service atmosphere/climate/mood	☐	☐	☐	☐	☐
SQ7 A customer or customers become disruptive (being loud / drunk / abusive)	☐	☐	☐	☐	☐

The next question is about your <u>level of satisfaction</u> with your current job

Q4 Continuing to think about your **current job,** please tick a box to indicate your level of satisfaction with each of the following aspects of your work

	Very un-satisfied	*Un-satisfied*	*No leaning either way*	*Satisfied*	*Very satisfied*
JS1 The work itself (i.e. that actual daily tasks that you do)	☐	☐	☐	☐	☐
JS2 The pay (your wages / salary)	☐	☐	☐	☐	☐
JS3 The people I work with	☐	☐	☐	☐	☐
JS4 My immediate supervisor(s)	☐	☐	☐	☐	☐
JS5 The opportunities for promotion	☐	☐	☐	☐	☐
JS6 All things considered, how satisfied are you with your job?	☐	☐	☐	☐	☐

This time the questions ask about your level of agreement with each of the statements

Q5 Thinking about your **current job**, please tick a box to indicate how much you agree or disagree with each of the following statements

	Strongly disagree	Disagree	No leaning either way	Agree	Strongly agree
AC1 I feel "part of the family" at my work / company	☐	☐	☐	☐	☐
AC2 I feel "emotionally attached" to this company	☐	☐	☐	☐	☐
AC4 I feel a strong sense of belonging to my company	☐	☐	☐	☐	☐
EM1 I can choose the best way of doing my job	☐	☐	☐	☐	☐
EM3 I have influence over what happens in my work group	☐	☐	☐	☐	☐
EM4 I have a great deal of control over my job	☐	☐	☐	☐	☐
EM5 I am given responsibility at work	☐	☐	☐	☐	☐
EM6 I am confident about my ability to do my job	☐	☐	☐	☐	☐
EM7 I have mastered the skills to do my job	☐	☐	☐	☐	☐
EM8 I have the knowledge that I need to make my own decisions at work	☐	☐	☐	☐	☐
SS1 It is easy to talk with my co-workers	☐	☐	☐	☐	☐
SS2 My co-workers are willing to listen to my personal problems	☐	☐	☐	☐	☐
SS3 My co-workers go out of their way to make life easier for me	☐	☐	☐	☐	☐
SS4 My co-workers can be relied on when things get tough for me at work	☐	☐	☐	☐	☐
ME1 My job provides me with satisfaction	☐	☐	☐	☐	☐
ME3 I enjoy going to work	☐	☐	☐	☐	☐
ME5 I like to contribute as much as I can to my team (e.g. volunteering for tasks, organising special events)	☐	☐	☐	☐	☐
ME6 My job provides me with a feeling of being worthwhile among my friends and family	☐	☐	☐	☐	☐
ME7 Job promotion (opportunity for advancement) is very important to me	☐	☐	☐	☐	☐
EM9 I am comfortable/happy to tell my supervisor and co-workers about my ideas, thoughts and suggestions about our work	☐	☐	☐	☐	☐
MC1 I clearly understand what my company's goals/targets are	☐	☐	☐	☐	☐

This question is about your work in general (not just your current job)

Q6 Thinking about **work in general** (i.e. not just your current job)

Working, in general...

	Strongly disagree	Disagree	No leaning either way	Agree	Strongly agree
WV1 Gives me status and prestige (gives me a feeling of being worthwhile)	☐	☐	☐	☐	☐
WV2 Provides me with an income that is needed	☐	☐	☐	☐	☐
WV3 Helps keep me busy/occupied	☐	☐	☐	☐	☐
WV4 Lets me meet interesting people	☐	☐	☐	☐	☐
WV5 Is a useful way for me to contribute to society	☐	☐	☐	☐	☐
WV6 Is interesting and satisfying to me	☐	☐	☐	☐	☐
WV7 Is one of the most important things in my life	☐	☐	☐	☐	☐

This part of the survey measures the extent to which most other employees in your department make an extra effort to please guests

Q7 Looking at each of the four statements below, please tick a box to describe **how often you have seen** this behaviour **in your current workplace**.

	Never	Occas-ionally	Fairly often	Very often	Always
DSB1 My co-workers show they take guests' concerns very seriously	☐	☐	☐	☐	☐
DSB2 If one of my co-workers does not know the answer to a guest's question, he or she makes an effort to find out	☐	☐	☐	☐	☐
DSB3 My co-workers go out of their way to deliver a guest's special request	☐	☐	☐	☐	☐
DSB4 If a guest approaches when one of my co-workers is busy, he or she stops whatever they are doing and talks with the guest	☐	☐	☐	☐	☐

This final section of the questionnaire asks for some details about you and your work

Q8 Your gender — *Male* ☐ *Female* ☐

Q9 Your age — *18-24* ☐ *25-34* ☐ *35-44* ☐ *45-54* ☐ *55-64* ☐ *65+* ☐

Q10 Work Status 1 — *Full-time* ☐ *Part-time* ☐

Q11 Work status 2 — *Permanent* ☐ *Temporary* ☐ *Seasonal* ☐

Q12 Length of time in **this** job — *1 to 2 months* ☐ *3 to 6 months* ☐ *6 months to 1 year* ☐ *1 year to 2 years* ☐ *more than 2 years* ☐

Q13 Your place of origin — *UK* ☐ *EU* ☐ *Non-EU* ☐

Q14 In general, **how closely you work with your supervisor or supervisors**

	Not much contact	Some contact	A reasonable amount of contact	Quite a lot of contact	Very frequent contact
How much contact do you usually have with **your immediate supervisor/s** when you are at work	☐	☐	☐	☐	☐

Q15 Thinking about the **teaching, training and information** you have had for your current job, please tick a box to indicate your level of agreement or disagreement with each the two statements below

	Strongly disagree	Disagree	No leaning either way	Agree	Strongly agree
22J I have received enough training for my work tasks	☐	☐	☐	☐	☐
22K I have received enough information to perform my work tasks	☐	☐	☐	☐	☐

Thank you!

Now that you've answered all the questions, just put the questionnaire in the **FREEPOST** envelope and either:

(i) hand it back to the person who gave you the questionnaire; or

(ii) put it in a post box.

Don't forget to complete and enclose your prize draw entry slip - although the questionnaire is anonymous, we need your name so that we can sent you your prize, should be be lucky enough to win in the prize draw.

Good luck!