

**Assiouras, I., Skourtis, G., Giannopoulos, A., Buhalis, D., & Karaosmanoglu, E. (2022). Testing the relationship between value co-creation, perceived justice and guests' enjoyment. Current Issues in Tourism, 1-16. <https://doi.org/10.1080/13683500.2022.2030680>**

## **Testing the Relationship between Value Co-creation, Perceived Justice and Guests' Enjoyment**

This study explores the relationship between value co-creation (VCC), guests' perceived justice and guests' enjoyment. Cognitive appraisal theory and justice theory are used to explain these relationships. Different dimensions of VCC such as knowledge sharing, equity, interaction, personalization, experience and relationship are investigated in this study. PLS-SEM was used to test the hypotheses using data from 365 hotel guests recruited through Prolific. VCC has a positive relationship with guests' enjoyment through two mediators, the perceived distributive and the interactional justice. This study contributes to the literature of VCC by proposing justice theory as a cognitive process that can partially explain guests' enjoyment when they adopt an active "working" role to undertake value-creating activities.

**Keywords:** Value co-creation, Perceived justice, Guests' Enjoyment, Cognitive appraisal theory

**Article classification:** Research paper

## 1. Introduction

Service-Dominant logic (S-D logic) has shifted tourism and hospitality industry's attention away "*from creating value FOR tourists towards co-creating value with WITH tourists*" (Rihova, Buhalis, Moital and Gouthro, 2015, p. 359). Co-creation refers to situations that consumers assume an active "working" role to undertake value-creating activities, that result in the co-construction of service experiences (Zwick et al., 2008). Information communication technologies (ICTs), mobile applications and accelerated consumer knowledge have increased the expectations and ability for experience co-creation (Buhalis, 2020). In this consumer-empowered environment, attention to co-creation has been dramatically raised as an opportunity to build competitive advantage across the tourism ecosystem (Blazquez-Resino et al., 2015).

Although studies have concluded that value co-creation (VCC) has a positive impact on consumers (e.g. Prebensen and Xie 2017; Tu et al., 2018), there is no empirical investigation for the relationship between the dimensions of VCC, perceived justice and guests' enjoyment. Guests' emotions play a key-role in the VCC process (Payne et al., 2008; Magnini & Roach, 2018) and they are core building blocks in pleasure and hedonic hospitality experiences (Wu and Yang, 2018). Tourist experience leads to happiness and life satisfaction (Björk, 2018). Prentice (2020) suggests that the tourism service encounters are emotionally charged and studies in this context should consider emotions given that happy guests are more loyal and share their experiences (Wu and Gao, 2019).

Similarly, the critical role of perceived justice and fairness in tourism behaviour has been highlighted especially in the service recovery and organization behaviour literature (e.g. Su and Hsu, 2013; Nikbin et al., 2016). Perceived justice refers to the fairness of exchanges as they are evaluated by individuals when they compare their inputs and outcomes (Adams, 1965). Therefore, the theory of justice is especially relevant when hotel guests "work" together with

the hospitality organisation (Zwick et al. 2008) to co-create value by contributing their resources (e.g., knowledge, skills, time). Considering how often value co-creating social practices take place in hotel services (Neuhofner et al., 2015), it is particularly important to investigate which dimensions of VCC have a positive relationship with guests' perceived justice and guests' enjoyment.

The present study relies on the cognitive appraisal theory (Bagozzi et al., 1999) to explain the relationship between VCC and guests' enjoyment. High levels of co-production and value-in-use lead to effective use of guests' resources and consequently to the improvement of guests' wellbeing (Vargo and Lusch, 2016). This paper proposes that guests who experience successful VCC will have appraisals that will manifest as positive emotions such as enjoyment. This is a response to the call of Campos et al. (2015) and Prebensen et al. (2018c) to investigate how co-creation affects emotional processes and subjective wellbeing of customers.

Despite the relevance of the topic and the extensive adoption of justice theory in other literature streams, there is a scarcity of research investigating VCC and guests' emotions following the perspective of "working" consumers (Zwick et al. 2008). In this study, the role of guest's perceived justice is explored as one of the cognitive processes that mediate the relationship between VCC and guests' enjoyment. Grounded on equity theory, this paper suggests that guests evaluate the fairness/unfairness of inputs and outputs of the VCC process and consequently enjoyment emerges through the appraisal of guests' perceived justice.

## **2. Conceptual Framework and Hypotheses**

### *2.1. Value co-creation (VCC)*

VCC can be defined as the combination of actions of multiple actors, often unaware of each other, which contribute to each other's wellbeing (Vargo and Lusch, 2016). According to Sthapit and Björk (2018, p. 3) "*value co-creation implies that all the actors involved in the*

*process act to benefit from the interaction*". In our study we adopt the multidimensional formative construct of VCC developed by Ranjan and Read (2014) which consists of two core theoretical dimensions: co-production and value-in-use.

Chan et al. (2010) explain that co-production happens when the firm gives the opportunity to customers to provide/share information, make suggestions and become involved in decision-making. To create memorable experiences the visitor's participation and involvement in the consumption process is required (Andrades & Dimanche, 2018). Value-in-use "*is considered as a dynamic, situational, meaning-laden and phenomenological construct that emerges when customers use, experience or customise marketers' value propositions in their own experience contexts.*" (Rihova et al. 2015, p.357). In other words, value-in-use is the subjective and perceived benefit of a product or/and service that has been consumed (Prebensen et al. 2018a). The higher the degree of customer involvement, the further a hotel move from co-production to co-creation which focuses more on usage, consumption, value-in-use (Chathoth et al., 2013; Chathoth et al., 2018).

According to Ranjan and Read (2014) co-production has three dimensions, namely: knowledge sharing, equity and interaction. Sharing happens when the firm facilitates consumers' knowledge, ideas and creativity to be used during the value creation process. Indeed, in the tourism literature the role of tourist's information provided, knowledge and skills has been highlighted as an antecedents of value creation (Antón et al. 2017; Prebensen et al. 2018a). In the tourism and hospitality context, guests can suggest improvements of different aspects of the service such as the layout of rooms, check in processes, food and drink choices for breakfast. Equity is related to the decision of the firm to share control of the value creation process with guests (Hoyer et al., 2010). According to Prebensen et al. (2018a) co-creation is a function of interaction which refers to participation, dialog and engagement (Payne et al. 2008). Interaction could happen in real time because of social media and mobile applications

(Buhalis and Foerste, 2015; Buhalis and Sinarta, 2019). For instance, Qbic hotels (<https://qbichotels.com/>) use WhatsApp and invite guests to interact with the frontline employees for the positive or negative aspects of the service.

According to Ranjan and Read (2014), there are three elements that comprise value-in-use: experience, personalization and relationship. Experience is related to consumer dynamic non-deliberate, spontaneous responses and reactions (physical, cognitive and affective) to particular stimuli and their interconnections (Edvardsson et al., 2005). Consumer experiences are central to the co-creation of value (Prebensen et al. 2018a). Personalization occurs when the value is contingent on customer-specific idiosyncratic needs (Chathoth et al. 2013). The importance of personalization in value creation has already been highlighted (Buhalis and Michopoulou, 2011; Buhalis and Foerste, 2015; Volchek, et al, 2020). Smart technologies facilitate the creation of more meaningful and personalized services and experiences (Volchek et al., 2020). Relationship manifests in the form of collaboration, engagement and reciprocity (Ranjan & Read, 2014) with the hospitality organization but also with other customers on a C2C basis (Rihova et al., 2015). According to Magnini & Roach, (2018, p. 111) “*co-creation is stimulated by a sense of rapport between the frontline provider and visitor*”.

Previous literature reports that co-creation positively affects customers’ evaluations of tourism and hospitality services (Xu et al., 2018), guests’ satisfaction (Prebensen and Xie 2017; Mathis et al., 2016), guests’ loyalty (Grissmann and Stokburger-Sauer, 2012), guests’ willingness to pay (Tu et al., 2018; Grissmann and Stokburger-Sauer, 2012), guests’ citizenship behaviours (Assiouras et al., 2019), as well as their level of expenditure (e.g. Rong-Da Liang, 2017). In the tourism destination context, co-creation positively influences tourist’s happiness with the lived experience (Buonincontri et al., 2017). Co-creation influences attention and involvement and consequently memorability of the travel experience (Campos et al., 2017).

## *2.2. The relationship between value co-creation and guests' enjoyment*

In this paper cognitive appraisal theory of emotions is used to ground the relationship between VCC and guests' emotions. Cognitive appraisal theory presumes that emotions elicit from the underlying evaluation of the situation in relation to guests' well-being (Bagozzi et al., 1999). In other words, it is how guests evaluate the VCC process and outcome that generates their emotions. Fundamental in the cognitive appraisal theory are the appraisal dimensions, such as goal congruence, pleasantness, agency or control which generate positive and negative emotions (de Hooge, 2017).

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The goal congruence refers to individuals' evaluation of an interaction outcome concerning personal wellbeing (Bagozzi et al., 1999). In this context, when guests can co-produce (e.g. knowledge sharing and interaction) the value-in-use (e.g. personalization and experience), there is a better match of their expectations and goals (Wu and Gao, 2019) with regards to the specific experience. The goal congruence enhances the appraisals of outcome desirability, usefulness and pleasantness which consequently generate positive emotions. For instance, when a hotel meets effortlessly the guests' demand for gluten free bread at breakfast, the guest is highly likely to cognitively appraise the desired outcome as congruent with her goal which stimulates positive emotions such as happiness and enjoyment.

The agency dimension refers to one's appraisal of responsibility and ability to control service interactions (Watson and Spence, 2007). High level of co-production enhances guests' controllability over the service interaction and experience. In other words, guests assume some responsibility for creating their own experience. Consequently, it stimulates positive emotions, given that guest's personal resources can be integrated more effectively in the VCC process (Rihova et al. 2015). For instance, when hotel guests' specific idiosyncratic needs with regards

to housekeeping (Chathoth et al 2013) are addressed, the appraisal of controllability is generated and consequently influence the emotions related to the service interaction. A hospitality experience characterised by high levels of value-in-use and co-production raise the appraisals of goal congruence and agency which consequently evoke positive emotions such as enjoyment. Therefore, it is suggested that (see Figure 1):

H1: There is a positive relationship between VCC (comprising co-production and value-in-use) and guests' enjoyment.

### *2.3 The role of perceived justice in the relationship between value co-creation and guests' enjoyment*

According to Prebensen et al. (2018a, p.3) in the S-D Logic the “*service encounter is an exchange process of value between the customer and the service provider*”. Guests contribute in the value creation process not only by paying for the service, but also by exchanging with the hospitality organisation resources such as skills, knowledge and behaviour (Neuhofer et al., 2015). Guests expect that allocation of resources is fair to all the parties involved (Adams, 1965). For example, a guest may provide advice (e.g. knowledge) for some specific preferences that she would like for her drink and she gets a more personalised service and sensorial experience. Central to this argument is justice theory, adopted in the study. In the context of VCC, guests' perceived justice can be defined as the guests' assessment of the fairness of the way in which VCC processes are handled from three different perspectives: distributive, interactional and procedural.

Distributive justice can be defined as “*the allocation of costs and benefits in achieving equitable exchange relationships.*” (Smith et al., 1999, pp. 358–359). In the VCC context, distributive justice is related to the fairness of the outcomes received by guests comparing their co-production of the service. Procedural justice refers to the perceived fairness of procedures, processes and policies (Blodgett et al., 1997) that are used during the VCC. Tax et al. (1998,

p. 62) conceptualized interactional justice as ‘*the perceived fairness of interpersonal treatment that people receive during the enactment of procedures.*’ In the VCC context, interactional justice is related to the interpersonal treatment such as honesty, respect, and openness that an individual receives during the VCC.

Justice theory and equity theory have been used in consumer complaint handling and service recovery (e.g. Smith et al., 1999) as well as in organizational behaviour (e.g. Zoghbi-Manrique-de-Lara and Ting-Ding, 2017). In the service recovery context studies demonstrate that co-creation has a positive relationship perceived equity (e.g. Mattila and Cranage, 2005; Park and Ha, 2016), while perceived justice influence consumers’ emotions (e.g. del Río-Lanza et al., 2009). From a similar perspective, rightfulness has been proposed as one of the criteria by which customers evaluate whether service interactions fulfil their needs or make them better-off (Wu and Gao, 2019). Although these preliminary findings are important, justice theory has received less attention outside the service recovery literature. In this paper it is supported that justice theory can be helpful to better understand the active “working” role of consumers that has been described in the VCC literature.

Beyond the extent of service recovery, this study investigates the perceived justice of VCC as a cognitive process that can explain the relationship between VCC and guests’ emotional reactions such as enjoyment. Emotional responses are largely dependent on the level of fairness of the VCC process and inputs and outputs of guests and hospitality organisations. Visitors compare their inputs and outcomes with those of the hospitality organisation. The presence or absence of any inequities is largely shown in the level of perceived justice which works as an appraisal (Schoefer and Ennew, 2005) that influences the generation of positive emotions. So, the study postulates that (see Figure 2):

H2: Guests’ perceived a) distributive justice, b) procedural justice and c) interactional justice mediate the relationship between value co-creation and positive emotions.



### **3. Methodology**

#### *Research Setting and Data Collection*

Participants were recruited Prolific Academic ([www.prolific.ac](http://www.prolific.ac)), an online platform for subject recruitment which offers several potential strengths for research (Peer et al. 2017). According to Palan and Schitter (2018) Prolific explicitly informs participants that they are recruited for participation in research, it has good recruitment standards and it is reasonably priced. The sample selection criteria for this study were that participants had stay in a hotel within the past three months and they live in United States. Several studies in tourism have already used Prolific to recruit participants (Balaji et al., 2019; Bhutto et al., 2021; Filieri et al., 2020). We stopped data collection in Prolific when we reached 400 completed surveys. However, 365 questionnaires were used for data analysis since 35 participants were rejected because they filled the survey too rapidly or they failed the attention check. The sample is adequate given that for structural equation modelling it has been recommended that samples should be higher than 200 and a ratio of 5 to 10 respondents per item (Hair et al. 2010).

#### *Construct Measures*

All measures are adapted from existing scales in the relevant literature. The active role of guests in the creation and evaluation of the value is conceptualized and operationalised under the multidimensional formative construct of VCC developed by Ranjan and Read (2014). According to Diamantopoulos and Winkelhofer (2001), formative constructs are different from reflective constructs because indicators and sub-constructs (e.g. equity in VCC) cause/form the underlying latent concept (VCC in this study). Like previous studies a pre-test was conducted with industry professionals to enhance content validity (e.g. Han & Hyun, 2015). The distributive justice, procedural justice and interactional justice were measured by adopting the

reflective scales used in the study of Yi and Gong (2008). Guests' enjoyment was measured with three items: happy, joyful and delighted (Izard, 1977).

### *Study Sample Characteristics*

The sample was almost evenly distributed by gender (55.3% male and the remainder female). In terms of age groups, 11,5 percent of the respondents were between 18 and 24 years of age, 35,1 per cent fell into the category of the 25-34 age group, 26,8 per cent into the 35-44 age group, 16,7 per cent into the 45-54 age group and the rest was 55 or above. The average nights spent in the hotel was 3,46.

### *Analysis Plan*

The estimation of measurement as well as the structural parameters in our empirical model was done by using partial least squares (PLS), specifically SmartPLS version 3.2.8 PLS (Ringle et al., 2015). PLS is most appropriate when the model incorporates both formative and reflective indicators and when assumptions of multivariate normality cannot be made (Diamantopoulos and Winkelhofer 2001). The model and data of this study meet these conditions, since VCC is formative and positive emotions and perceived justice are reflective. The systematic procedure for applying PLS was followed, as has been suggested by Hair et al. (2017).

## **4. Results**

### *4.1 Measurement Model*

To test for common method bias, Harman's single-factor test is used (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). In the exploratory factor analysis, all of the items loaded onto one factor; the unique unrotated factor explained 46% of the data variance which is lower the threshold of 50% (Podsakoff & Organ, 1986).

For the reflective constructs internal consistency was established given that composite scale reliability of the constructs exceeds the recommended cut off value of .70 (Hair et al., 2017). All measures have loadings higher than .70, which suggest sufficient levels of indicator reliability (see Table I). Average variance extracted exceeds the cut off value of .50. Thus, the measurement model has adequate convergent validity. Discriminant validity was established as well. The analysis of the cross-loadings suggests that none exceeds the indicators' outer loadings. Overall, the square roots of the AVEs for the reflective constructs are all higher than the correlations of these constructs with other latent variables in the path model, thus indicating all constructs are valid measures of unique concepts (see Table I). The bootstrap confidence interval results of the HTMT interference did not include the value of 1 (Hair et al., 2017) so discriminant validity has been established.

The formative measurement models were assessed for collinearity of indicators by looking at the formative indicators' VIF values (Hair et al., 2017). VIF values are uniformly below the threshold value of 5, therefore, collinearity does not reach critical levels in any of the formative constructs and is not an issue for the estimation of the PLS path model. Looking at the significance levels, it was found that all formative indicators are significant at a 5% level (see Table II).

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The measurement model assessment substantiates that all the construct measures are reliable and valid. Based on these findings, we next evaluated the results of the structural model focusing on the hypothesized relationships between the constructs.

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#### *4.2. Structural Model*

The variance inflation factors' (VIF) values of the following sets of (predictor) constructs are assessed for collinearity: (1) knowledge (2.307), equity (2.718) and interaction (2.232) as predictors of co-production; (2) experience (2.629), personalization (2.696) and relationship (2.809) as predictors of value in use (3); value-in-use (2.493) and co-production (2.493) as predictors of value co-creation; and (4) value co-creation (3.248), distributive justice (3.704), procedural justice (2.837) and interactional justice (3.020) as predictors of guests' enjoyment. All VIF values are clearly below the threshold value of 5.00 (Hair et al., 2017). Therefore, collinearity among the predictor constructs is not a critical issue in the structural model. Moreover, we examine the  $R^2$  values of the endogenous latent variables were examined, following the suggested rules of thumb (Hair et al. 2017). The  $R^2$  values of enjoyment (0.583), distributive justice (0.653), procedural justice (0.488) and interactional justice (0.523) can be considered moderate, whereas the  $R^2$  value of co-production (0.992), value-in-use (0.997) and value co-creation (0.963) are high.

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Following Hair et al. (2017), the bootstrap procedure (5000 resamples) was used to generate standard errors and t-statistics to evaluate the significance of the parameters (see Table III). Hypothesis 1, which states that VCC increases guests' enjoyment, is supported ( $\beta=0.322$ ,  $p<0.001$ ). Distributive justice ( $\beta=0.387$ ,  $p<0.001$ ) and interactional justice ( $\beta=0.223$ ,  $p<0.001$ ) has positive relationships with guests' enjoyment. However, the relationship of procedural justice with with guests' enjoyment is not significant ( $\beta=-0.123$ ,  $p>0.05$ ). The total indirect effects of exogenous variables on guests' enjoyment are significant with the interaction has the higher one ( $\beta=0.306$ ,  $p<0.001$ ), followed by knowledge ( $\beta=0.142$ ,  $p<0.001$ , equity ( $\beta=0.137$ ,  $p<0.001$ ),), relationship ( $\beta=0.086$ ,  $p<0.001$ ), personalization ( $\beta=0.073$ ,  $p<0.001$ ), and experience ( $\beta=0.065$ ,  $p<0.001$ ).

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The blindfolding procedure was used to assess the predictive relevance of the path model. The  $Q^2$  values for all six endogenous constructs are considerably above zero. More precisely, the  $Q^2$  values were: co-production (0.497), value-in-use (0.535), VCC (0.434), distributive justice (0.474), procedural justice (0.399), interactional justice (0.404) and guests' enjoyment (0.494). These results provide clear support for the model's predictive relevance regarding the endogenous latent variables.

#### *4.3. Mediator analysis*

Following the procedure described in the literature related to PLS-SEM (Zhao et al., 2010; Hair et al., 2017) the role of distributive justice and interactional justice as the mediators is evaluated. The results (see table IV) reveal that the total effect of VCC on guests' enjoyment relationship was significant ( $\beta=0.711$ ;  $t=25.043$ ,  $p<0.001$ ). With the mediators the VCC direct impact on guests' enjoyment is still significant but drop to  $\beta=0.322$  ( $t=5.129$ ;  $p < 0.001$ ). The specific indirect effect of VCC on guests' enjoyment relationship through distributive justice is significant (0.313;  $t=5.706$ ,  $p<0.001$ ). The 95% confidence intervals do not include zero [0.211, 0.427]. Similarly, the specific indirect effect of VCC on guests' enjoyment relationship through interactional justice is significant (0.161;  $t=3.485$ ,  $p=0.001$ ). The 95% confidence intervals do not include zero [0.078, 0.259]. The specific indirect effect of VCC on guests' enjoyment relationship through procedural justice is not significant (-0.086;  $t=1.926$ ,  $p>0.05$ ). The 95% confidence intervals do include zero [-0.170, 0.006]. Therefore, the distributive justice and interactional justice are complementary partials mediator of the relationship between VCC and guests' enjoyment, since both the direct and the indirect effects are significant. Hypothesis 2a and hypothesis 2c are accepted, whereas hypothesis 2b is rejected.

## **5. Discussion**

## 5.1 Conclusions

The findings of this study support the proposed conceptual model and the majority of the hypotheses. Specifically, the findings suggest that VCC has a positive relationship with guests' enjoyment. That result confirms earlier research related to co-creation and consumer emotions (Buonincontri et al., 2017). Cognitive appraisal theory of emotions can explain this relationship. Guests who experience high VCC have higher agency and control over their experience which lead to allocation of resources according to their goals and expectations.

The findings of this study support that interaction, knowledge, equity, relationship, personalization and experience are antecedents of VCC. Previous studies conceptually and empirically have highlighted the importance of these antecedents. For instance, interaction has been investigated in value package context (Räikkönen & Honkanen, 2013). In our study, interaction has the strongest total effect on guests' enjoyment. Our study conforms previous studies that have found that consumers' knowledge has a positive relationship with perceived value of trip experience (Prebersen et al. 2014). The importance of sharing control over value creation process with the consumers has been highlighted in previous conceptual papers (Chathoth et al., 2013). Our paper empirically demonstrates the positive relationship of equity with perceived justice and guests' enjoyment. Personalization has been identified as dimension of VCC in previous studies (e.g. Minkiewicz et al. 2014; Shen et al., 2020) and it has been argued that there is greater demand for it (Yüksel & Yanik, 2018).

The findings of this study support partially our argument that perceived justice mediates the relation between VCC and guests' enjoyment. This relationship is mediated mainly by distributive justice and less by interactional justice. However, procedural justice doesn't have a significant relationship with guests' enjoyment. This finding echoes Weiss et al. (1999) who found that the emotion of happiness was mainly a function of outcome (distributive justice), with procedural fairness playing little role. Our study demonstrates that the role of justice

dimensions is context dependent and this is in line with previous studies (e.g. Hauenstein et al., 2001).

### *5.2. Theoretical Implications*

The deep understanding of potential customers' needs and expectations is essential in value co-creation (Andrades and Dimanche, 2018). This study proposes and empirically demonstrates that VCC has a positive relationship with guests' enjoyment, via the cognitive mechanism of perceived justice. Although there has been discussion about VCC, perceived justice and emotions especially in the service recovery context there is no investigation in the non-recovery situations, especially in the tourism context. This paper contributes to the literature of co-creation by adopting justice theory in non-recovery situations, as has been done extensively in the organizational behaviour literature. This seems a valid theoretical development under the research stream that considers consumers as "working" consumers in co-production situations (Zwick et al. 2008).

### *5.3. Managerial Implications*

Successful VCC leads to guests' enjoyment which is an important predictor of many important consumer related factors such loyalty and word of mouth.

First, service providers should seriously consider the role of justice throughout all the co-creation encounters between organization and guests, since distributive and interactional justices are partial mediators of the relationship between VCC and guests' enjoyment. Managers should elaborate on the most appropriate and effective service delivery processes that can increase guests' perceptions of justice (e.g. interaction). VCC is a process that highly depends on the acquisition, assimilation, transformation, and exploitation capabilities of the service provider and its partners (Berger et al., 2005). Hospitality employees and technology

should have these capabilities in order to design VCC processes that are characterized by high value-in-use and co-production (Neuhofer et al., 2015).

The interaction between frontline employees and guests is important in the co-creation of tourism and hospitality (e.g. Stamolampros et al., 2019). Service staff can initiate interaction with the guests which may increase customer participation in the service creation and consequently higher VCC and enjoyment (Prebensen et al. 2018b). Guests' emotions and mood before, during and after the VCC process influence customer participation so that mood monitoring and mood repair are necessary tasks of a successful VCC (Taheri et al., 2017). Therefore, emotional intelligence (Tsai and Lee, 2014) and empathy (Buhalis et al., 2019) are required to identify what really matters at that particular moment. Frontline employees should receive rapport-building training to facilitate VCC (Magnini & Roach, 2018). Top management support is also necessary for frontline employees to facilitate VCC (Santos-Vijande et al., 2015). Lack of leadership support, supportive organizational climate and management's commitment to VCC could lead to value codestruction (Ukeje et al., 2020).

The work of frontline employees should be empowered, facilitated, and augmented by the use of relevant technology. Managers should adopt real-time marketing that provides personalized, individualized and contextualized products and services, based on real-time dynamic interaction with customers and co-creation of experiences, to optimize value for all stakeholders involved (Buhalis and Sinatra, 2019). The role of big data, social media and human-robot interactions are becoming critical in the VCC because they are resources that can create dynamic, real-time and agile tourist firms (Zhang, 2020; Stylos et al., 2021). However, technology should be embedded in the hospitality experience with caution given that it could also lead to value co-destruction (Kirova, 2020). According to Buhalis et al. (2019, p. 1757) there is a need for *“a complete rethink of how stakeholders should leverage technologies, engage and reengineer services”*. For instance, privacy concerns require a collective rethink



from different stakeholders. These concerns can be not only an obstacle for guests to share information, but also a significant factor that decreases VCC and consequently guests' enjoyment (Vu et al., 2019).

The VCC and especially the personalization should not be limited to superficial tunings but should engage all actors' operant resources at a deeper level (Ross, 2020). However, when industry raises the level of interaction, personalization, equity this may lead to higher expectations from guests who will consider these aspects of VCC as a standard practice. Under this perspective the impact of VCC on perceived justice and guests' positive emotions will be decreased.

### *5.3 Limitations and further research*

The importance and success of VCC depends on customer-related, situational, and sociocultural contingencies. The investigation of the service ecosystem should be targeted in future research given that value creation processes interlock the three following levels: individual stakeholder-level, meso-level and macro-level (Gallarza and Saura, 2020). Future studies should investigate some key factors conditioning customer, employee and system contributions to the VCC process. For instance, at the micro level the role of tourists' motivation and involvement can be investigated given that it is an antecedent to the perceived value of a holiday experience (Prebersen et al. 2014). At the meso level, a future study should investigate how the type of hospitality firm influences the relationship between VCC and guests' enjoyment. According to Kallmuenzer et al., (2019) a perceived family firm image influences guests in co-creating value. At the macro level the role of culture should be investigated given that that tourist experience value and VCC are culturally conditioned (Björk, 2014).

Future studies should also investigate other emotions (e.g. interest, pride, fear, anxiety) given that service interactions in different contexts can trigger different emotions (Wu and Gao,

2019). Affect–expectations theory suggests that individuals expect specific experiential emotions before a consumption experience that can be positive but also negative (Aurier and Guintcheva, 2014). For instance, in the context of adventure tourism travellers could expect emotions such as joy, fear, interest, and surprise. The role of self-congruity as potential moderator of VCC and enjoyment relationship could be investigated given that tourists who perceive the destination experience as compatible with their internal self, they experience positive such as joy (Sirgy et al. 2018). Another context that VCC, justice and emotions can be investigated is the sharing economy which could have several co-destruction situations (Buhalis et al., 2020).

This paper offers a building block for many future studies that will use different methodological approaches. Future studies should also use real time methods to capture participants' feelings and behaviours after the interaction with the offering-related stimuli has taken place (Becker and Jaakkola, 2020). Experience sampling method can be used to measure the relationships of this study over time especially with the use of smartphones (Cutler et al., 2018). Future research should measure the impact of different dimensions of VCC on guests' emotions by using psychophysiological methods such as electro-dermal analysis, facial muscle activity, heart rate response, eye-tracking system and vascular measures (Li et., 2015). The combination of self-report measures with cutting edge psychophysiological techniques is also a promising avenue (Moyle et al., 2019).

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