

Causes of government construction projects failure in an emerging economy: evidence from Ghana

Abstract

Purpose

This study investigates the factors that cause government construction projects failure in a developing.

Methodology

The study used sequential data collection approach through an in-depth semi-structured interview (16 participants) and questionnaire survey (230 participants) to solicit their perceptions from project management practitioners, contractors and client (government officials) about the factors that lead to Ghanaian government construction projects. The Relative Importance Index (RII) was used to determine the relative importance of the factors identified. This was followed by Spearman rank correlation coefficient and Kendall's coefficient of concordance to measure the degree of agreement among the participants on their perceptions.

Findings

Thirty-four (34) factors were identified as the main factors that lead into Ghanaian government construction projects failure. The top ten (10) most important factors that cause Ghanaian government construction projects failure are: political interferences, delays in payment, partisan politics, bureaucracy, corruption, poor supervision, lack of commitment by project leaders, poor planning, starting more projects than the government can fund, and change in government. The failure factors were grouped into four main themes and found that

the most important failure factors are leadership. This is followed by management and administrative practices, resources, and external forces respectively.

Research limitations/implications

This study is limited to only the public sector and therefore finding may not be applicable in the private sector.

Practical implications

Policy makers and construction project management practitioners would be able to use findings as a guide during the implementation of government projects in order to reduce and/or avoid government construction projects failure.

Originality/value

Construction projects failure in developing countries is high. Accordingly, extant literature has been devoted to identifying the factors that lead to failure; however, they have mainly been discussed from generic point of view or individual case studies. Researches that focus exclusively on government construction projects in developing countries are rare despite the dynamics in which these projects are implemented. This research extends the construction project management literature by focusing on government construction projects in a developing economy; where there are weak public institutional systems coupled with partisanship politics and bad cultural orientation towards government sector work inherited from colonial rule.

1. Introduction

This study investigates the causes of government construction projects failure in Ghana. Government policies are often translated into programmes and projects (Goodman and Love, 1980); and one of the sectors in which these projects are implemented is within the construction sector. The contribution of the government construction projects cannot be overestimated as it serves as the foundation for the rest of the economy to flourish (Amoatey et al., 2015). In fact, studies indicate that developed economies achieved their growth and development through the implementation of government projects (Eichengreen, 1994; Eichengreen, 1996; Eichengreen and Vazquez, 1999; Alic, 2008; Horta et al. 2012). The construction industry of every country drives economic growth (Sambasivan and Soon, 2007; Sweis et al., 2008; Shehu et al., 2014; Pero et al. 2015). Therefore, the importance of project management within the industry cannot be overemphasised. However, research indicates that some of these projects fail through delay, cost overrun, poor requirement standards, and total abandonment (Frimpong et al., 2003; Sambasivan and Soon, 2007; Sweis et al., 2008; Shehu et al., 2014). Consequently, extant literature has been devoted to assessing the factors (causes) that account for these failures. However, these studies have mainly looked at these factors from an industry-wide perspective or private sector (Sambasivan and Soon, 2007; Sweis et al., 2008; Shehu et al., 2014). This study moves away from this generic position to focus on only government construction projects.

We focus on the government construction projects due to the important role that these projects play in national growth and development; especially in emerging economies; and the numerous stakeholders associated with these projects coupled with varying power and interest attached to these projects. Unlike the private sector construction projects, government construction projects have direct and indirect impact on the general populace. It provides an avenue for socio-economic growth and development for the citizens through the provision of jobs, social amenities and other related development (Ofori, 2012; Amoatey et al., 2015).

Therefore, failure would have significant impact on the citizens and the national development as a whole, hence, the need to investigate failure factors in order to reduce and/or avoid failure, so that maximum satisfaction can be enjoyed by the populace.

Further, government construction projects have numerous stakeholders with varying degree of interest and power to influence the projects' performance. Some of these stakeholders might be opposing each other and therefore, factors that may lead to failure might not necessarily be similar to those in the private sector, whose primary aim is to make profit.

In addition, we focus on government construction projects in an emerging economy due to the political nature of the administration of the public sector (Damoah and Akwei, 2017). Hence, we assume that the factors that may influence construction projects might not be the same as those within the private sector or the generic factors that are often associated with the performing organisations (Sambasivan and Soon, 2007; Sweis et al., 2008; Shehu et al., 2014; Pero et al. 2015).

Moreover, we focus on Ghana because; the country typifies an emerging economy where infrastructural development projects have become the pinnacle of development, hence, numerous government constructions projects (Ofori, 2012; Amoatey et al., 2015; Damoah, 2015; Damoah et al., 2015; Damoah and Akwei, 2017). In an attempt by developing countries to develop, they often embark on projects within the construction industry (Sambasivan and Soon 2007; Sweis et al., 2008; Ofori, 2012; Shehu et al., 2014; Pero et al. 2015; Amoatey et al., 2015); hence, failure might have devastation effects on the citizens and the direction of development.

Further, the Ghanaian context is important due to the recent economic developments in the country. The prospect of the oil revenue expected from Ghanaian oil reserves has made the country reached an important development in the country's history (Ahadzie, 2009). Due

to this, the country was the number one in the world in 2010 in economic growth ranking, with growth rate of 20% (Economy Watch, 2011). This development has necessitated the need to embark on infrastructural development projects, hence, construction projects (Republic Ghana Budget, 2012, 2015). However, literature indicates that this is not the first time that the country has been enthused about construction projects by the government. For instance, the post-colonial era saw many state policies turned into programmes and projects through the ideology of industrialisation but some of these programmes and projects failed (Jeffries, 1982; Aryeetey and Jane, 2000; Klutse, 2009; Damoah and Akwei, 2017). Therefore, the need to assess the factors that lead to failure cannot be overemphasised.

Using an in-depth semi-structured interview (exploratory) and questionnaire survey from project management practitioners, contractors and client (government officials), thirty-four (34) factors were identified as the causes of Ghanaian government construction projects failure. The participants generally agreed that the top ten (10) most important factors are: political interferences, delays in payment, partisanship politics, bureaucracy, corruption, poor supervision, lack of commitment by project leaders, poor planning, starting more projects than the government can fund, and change in government. The failure factors were grouped into four main themes and found that the most important failure factors are leadership. This is followed by management and administrative practices, resources, and external forces respectively.

The study makes contributes to both theory and practice in a number of ways. First, in the area of politics, partisanship politics has not been discussed by previous research despite the pervasiveness of the practice in developing countries – that may impact on the implementation of government policies.

Second, political leadership has been espoused as a major factor that lead to construction projects failure in a developing country. Extensive literature (Al-Kharashi and

Skimore, 2009) has been devoted to projects leadership as a major factor in construction projects failure; however, these were discussed in relation to the performing organisation perspective rather than political leadership. This study adds a political lens to the subject matter.

Third, this research has highlighted factors such as culture and belief systems. Prior studies have espoused culture as a major factor for project failure in developing countries; however, these are in relation to management practices, frameworks and models for project implementation (Heeks, 2002, 2006; Saad et al., 2002; Muriithi and Crawford, 2003; Alsakini et al., 2004; Maube et al., 2008; Amid et al., 2012). This study extends the project and construction management literature by discussing cultural from traditional belief systems that affect construction projects performance. Further, cultural has been discussed from the perspective of the cultural-orientation towards public sector work; as a result of colonial rule rather than design-actually gap.

In addition, this study contributes to the project management literature by espousing bureaucracy as a major factor that contributes to construction project failure in an emerging economy. This is a country-specific contribution; but it can be applied in many countries with similar systems. Even though these prior studies have espoused bureaucracy as a major problem in the country (Killick, 2008; Amoako and Lyon, 2014), it has not be discussed in the context of project management.

Further, this research has identified corruption as a major factor that cause public sector construction projects failure. Despite the pervasiveness of corrupt practices in developing countries as espoused by Transparency International, and extant literature devoted to the study of corruption and other variables, studies devoted to the relationship between construction projects failure and corruption are rare. In all, policy makers and practitioners would be able to use findings as a guide during government projects implementation in

Ghana and other developing countries with similar dynamics in order to reduce and/or avoid failure.

The remainder of this research is presented as follows: section two presents the context to the study. Section three reviews related literature whilst section four discusses the research method for the study. Section five presents the results and section six presents the discussion and implications of the findings. Section seven concludes the study by highlighting on the main findings, limitations of the study and recommendation for future research.

2. Research context

2.1 Ghanaian Government Construction Projects

The construction sector in Ghana contributes immensely to socio-economic development for the citizenry (Ahadzie, 2009; Amoatey et al., 2015). The industry is multi-faceted and its spread across all sectors of the economy (Ofori, 2012). It contributes \$3.8bn to the gross domestic product (GDP); representing 12.7% of GDP (Ghana Statistical Service, 2015). There is no doubt that the Ghanaian Construction Industry (GCI) as in many other developing economies such as Malaysia (Sambasivan and Soon 2007; Shehu et al., 2014), Jordan (Sweis et al., 2008) and Saudi Arabia (Assaf and Al-Hejji, 2006; Al-Kharashi and Skimore, 2009) plays major role in the nation's development. The industry is enormous and considered as one of the key drivers of the economy (Amoatey et al., 2015). It provides significant employment opportunities through direct and indirect job creation (Ahadzie, 2009; Amoatey et al., 2015). The industry also provides the infrastructure and other facilities that are needed for other sectors of the Ghanaian economy to flourish (Amponsah, 2010; Amoatey et al., 2015) and therefore the backbone for growth and development. Even though the industry consist of the private and the public sectors, literature suggest that the public sector is more

dominant in the country (Ahadzie, 2009; Amponsah, 2010; Ofori, 2012; Amoatey et al., 2015; Bawumia, 2016).

Over the years, the Ghanaian government solicited significant amount of funds from the African Development Bank (AfDB), World Bank, IMF and taxpayers to pursue infrastructural projects such as roads, schools, hospitals, dams, among others (Republic Ghana Budget, 2012, 2015; Bawumia, 2016; Damoah and Akwei, 2017). Past budgets of the country have laid much emphasis on infrastructural projects that are mainly in the construction sector (Republic Ghana Budget, 2012, 2015). For instance, the main focus of the 2012 and 2015 budgets were to provide key infrastructure to the various sectors of the economy – by stimulating public sector growth and making private sector support a priority, so that jobs could be created for the Ghanaian workforce (Republic Ghana Budget, 2012, 2015). Further, the 2016 general election was campaigned on the issue of infrastructural projects – mainly in the construction sector (General News, 2016; Bawumia, 2016). Despite the conscious efforts made by various governments over the years, the country continuous to witness projects failure in this industry (see Amoatey et al., 2015; Damoah and Akwei, 2017 for examples). The key question is: *what are the factors that account for these failures?*

2.2 Factors that may Affect Public Sector Construction Projects Failure in Ghana

The Ghanaian government construction projects failure may be influenced by a number of factors. First, the cultural factors; the role of culture in explaining public sector construction project failure in the country could be traced to the cultural dimensions espoused by Hofstede (1983). Hofstede categorised national culture into six main dimensions – Power Distance; Individualism; Masculinity; Uncertainty Avoidance; Long-Term Orientation and Indulgence.¹ On the basis of the dimensions, the Ghanaian cultural attributes have been espoused as

¹ For further reading please refer to Hofstede, G., 1983. Cultural dimensions for project management, International Journal of Project Management. 1, (1), 41-48, for additional understanding of each dimension.

presented in the Appendix B. There is also evidence that Ghanaians approach to government work is poor due to cultural orientation inherited from the colonial era; when public sector work was perceived as belonging to the 'Whiteman', hence, could be handled haphazardly (Amponsah, 2010; Damoah, 2015; Damoah et al., 2015; Damoah and Akwei, 2017). The cultural set-up may have a significant influence on Ghanaian government construction projects performance.

Second, partisanship politics could influence Ghanaian government construction projects failure. The practice of multi-party democracy since 1992 has led to partisanship politics and this could have significant implications for government construction projects implementation. Standardised political agency models indicate that when citizens are closely attached to political parties, they tend not to hold political leaders accountable for their actions; hence, political party officials are able to manipulate the system for their personal gains (Besley, 2007). This is also evidenced in empirical studies that assess the relationship between partisan politics and accountability of political party officials (Anderson, 2000; Hellwig and Samuels, 2008; Kayser and Wlezien, 2011). In agreement with these studies, Asunka (2016) found that the Ghanaian compliance with formal rules and procedure by public and/or government officials is significantly lower in districts where voters demonstrate strong commitments to partisan politics and vice-versa. Adherence to formal rules and procedures during programmes and project implementation within the public sector may be very weak (Asunka, 2016). It can be argued that this partisanship attitude may have a significant role in government projects implementation and performance.

Third, the public administration system within the country could influence Ghanaian government construction projects failure. In the assessment of the Ghanaian political-economic system, Killick (2008) found that the public administration system is weak and it's full of institutional bottlenecks. Similarly, Amoako and Lyon (2014) found that there are

institutional bottlenecks within the public sector system, which affects SMEs operations. This may be traced to the political system and culture within the country. For instance, the constitution of Ghana entrusts enormous powers to the president, hence, s/he is responsible for the appointment of public institutional heads (The 1992 Constitution of the Republic of Ghana). Due to this, appointment into public service is often made on political patronage rather than merits. Similarly, government projects management leadership are appointed on partisanship basis rather than on merit (Damoah and Akwei, 2017); hence, ethical issues in awarding and management of projects may not be perceived to be as important as portrayed by Heldman, Jensen, and Baca (2005) within the country.

Fourth, project management knowledge in Ghana is low (Amponsah, 2010; Damoah and Akwei, 2017). This could be traced to lack of project management as a discipline in the country's curriculum in educational institutions. Until 2006, Ghana had no single tertiary institution offering project management as a course of study. This may affect government projects implementation and performance.

Fifth, lack of resources may lead to government projects failure. The Ghanaian government relies heavily on external resources such as funding in carrying out its projects. Past budgets indicate that the Ghanaian government relies on external sources to fund its projects (Ghana Budget, 2012, 2015) and this may have implications for the success/failure of construction projects.

Lastly, corruption within the country could affect the success of government construction projects. Reports indicate that corruption in the country is very high and pervasive (Gyamah-Boadi, 2002; Transparency International (TI), 2008, 2015). Despite all the necessary efforts made by the various government agencies and civil societies to expose corruption (Short, 2010), recent reports indicate that the phenomenon is on the increase (Bawumia, 2014, 2015; TI, 2015; Addo, 2016). Gyimah-Boadi (2002) attributes corruption

trend in Ghana to the weak public administration systems and accountability that has been espoused by Amoako and Lyon (2014) and Asunka (2016). Accordingly, government officials undertaking projects may be able to manipulate the systems for their personal gains, hence, influence construction projects performance.

3. Literature Review

3.1 Previous Research on Causes of Construction Projects Failure

Despite the contribution of construction projects in the development of many countries, the literature indicates that most of them fail to achieve their anticipated objectives; and in some cases, they are totally abandoned. Accordingly, researches have been devoted to identify and evaluate factors that account for failure. For instance, Shehu et al. (2014) explored the construction cost performance in Malaysian construction industry and found that there are cost overruns of 55%. However, the cost overrun in the private sector was more than those in the public sector. They also found that the various sectors of the countries perform differently in terms of the negative cost variance. They attribute this cost overrun to procurement method – traditional, design and build and project management; and projects size – large scale and medium size projects perform poorly than small size projects. They further link it to the nature of the project – new or refurbishment. Frimpong et al. (2003) investigated the significant factors that cause delay and cost overruns in the construction of underground water projects in Ghana using consultants, owners, and contractors as participants. They identified twenty-six factors and categorised them into four. The participants agreed that project financing, economic, natural conditions, and material supply are the four main categories of causes of delay and cost overrun factors. Similarly, Fugar and Agyakwah-Baah (2010) assessed factors causing construction projects delays in Ghana, and identified thirty-two important factors and categorised them into the material, manpower, equipment,

financing, environmental changes, government action, contractual relations, contractual relations and scheduling and controlling techniques. Using interview and questionnaire survey, Toor and Ogunlana (2008) explored the causes of construction projects delay in Thailand and found that lack of resources, poor contractor management, shortage of labour, design delays, planning and scheduling deficiencies, changed orders and contractors' financial difficulties as the top most important factors that lead to delay.

Assaf and Al-Hejji (2006) assessed the causes of delay in large construction projects in Saudi Arabia from contractors, consultant, and owners. They identified seventy-three causes and also found that time overrun is between 10% and 30% of the projected duration. Odeh and Battaineh (2002) identified twenty-eight most important causes of construction projects delays in the traditional type of contracts from the viewpoint of construction contractors and consultants in Jordan. The contractors and consultants agreed that the top ten most important causes of delays are: owner interference, inadequate contractor experience, financing and payments, labour productivity, slow decision making, improper planning, contractor management shortage in materials, unrealistic imposed contract duration and subcontractors. They categorised them into eight and ranked them – in descending order, they found that clients related issues were the most important factors, followed by contractors, consultant, material, labour and equipment, contract, contractual relations and external forces related factors respectively. Using a questionnaire survey and interviews data collection methods from projects consultant engineers, contractors and owners, Sweis et al. (2008) identified the most important causes of Jordan construction projects delays as: financial difficulties by contractors, too many change orders by the owners, poor planning and scheduling of the projects by the contractor and shortage of manpower. A study conducted in Saudi Arabia on causes of delay in the construction industry showed that lack of qualified and experienced personnel account for the main reasons for delays (Al-Kharashi and Skimore, 2009). Using a

questionnaire survey comprising of 93 construction professionals from the United Arab Emirate (UAE) construction industry, Faridi and El-Sayegh (2005) identified the top ten causes of construction delays as preparation and approval of drawings, slowness of the owner's decision-making process and inadequate early planning of the project, shortage, skill and the productivity of manpower, conflict between contractors and the consultants, lack of communication and coordination between the parties involved in construction (contractor–subcontractor–consultant–owner).

Sambasivan and Soon (2007) identified twenty-eight main causes of delays in construction projects in Malaysia and categorised them into eight (8) – client related, contractor related, consultants related, material related labour and equipment related, contract related, contract relationship related and external forces. Similarly, Efenudu (2010) identified delays between project identification and start-up, delays during project implementation and inappropriate time phasing of project activities. Amoatey et al. (2015) identified project delays in Ghanaian state housing construction projects as delay in payment to contractor/supplier, inflation/price fluctuation, price increases in materials, inadequate funds from sponsors/clients, variation orders and poor financial/capital market.

From the Ghanaian government construction projects failure perspective, we also propose that: *these factors could further be traced to national culture, partisanship politics, political leadership, political culture and belief systems.*

4. Methodology

Data used for this study was collated from project management practitioners (PMP), contractors and Clients (government officials) (GO). The PMP and Contractors were selected from Ghana Business Directory (Ghana Business Directory, 2015) (project management services and contractors list) who are members of professional associations and institutions

such as the Ghana Institute of Engineers, Ghana Association of Managers, Association of Building and Civil Engineering Contractors of Ghana and Chartered Institute of Project Management – Ghana. The target audience was the individuals who worked for these companies. To ensure that the data is reliable and valid, only active companies' members were targeted. This was done by going to their website to check the activities of such organisations and also check the profiles of the targeted individuals. We also used LinkedIn to track some of them whilst others were identified through their published work. The government officials were targeted from the Ministries, Departments and Agencies (MDAs) that are involved in constructions projects – Ministry of Roads and Highways; Ministry of Water Resource and Housing; Department of Feeder Roads; and Department of Urban Roads. We also targeted other government representatives on various projects at the Assemblies level.

The data collection process followed three-staged sequential approach – literature review, an in-depth semi-structured interview and questionnaire survey respectively. An initial literature review was carried out to identify causes of construction projects failure. This was followed by an in-depth semi-structured interview. The purpose of the interview was to identify causes of construction projects within the Ghanaian local context – thus an exploratory. This step was taken based on the fact that projects are unique (Soderlund, 2004; Mir and Pinnington, 2014) and the factors that account for failure may depend on the geographical location (Ahsan and Gunawan, 2010), and socio-cultural settings (Mukabeta et al., 2008), who is assessing the project (Agarwal and Rathod, 2006; Procaccino and Verner, 2006; Ika, 2009; Carvalho, 2014) and the criteria being used for the assessing (Amir and Pinnington, 2014). We, therefore, assumed that the factors that may lead to construction projects failure within Ghanaian government construction projects may differ.

Sixteen (16) participants (PMP =7; Contractors = 4; GO=5) were purposely selected for the interview. The number was not pre-determined at the start of the research – it was arrived at when the data reached saturation point: the point at which the data has been thoroughly optimised such that no new information emerges from participants (Morse, 1995, 2000; Hill et al., 2005; Guest, 2006; Silverman, 2013). Further, we did not do more interviews because; this was just an initial exploratory data collection. We also used purposive sampling technique because it provides researchers with rich information about the subject under research (Saunders et al., 2012).

All interviews were carried out in English – the official language of Ghana. However, interviewees were allowed to speak in the local language if they wished but none did. Each interview lasted between thirty and forty-five minutes and was held at participants' homes, worksites, offices and on Skype. All the contractors and PMP allowed for audio recording but none of the Government Officials (Clients) did. After the interviews, the data was transcribed and subject to analysis with the help of Word document and NVivo 10 software. The transcribed data were uploaded into the NVivo10. The data were reduced by selecting, focusing and condensing the information. After the line by line coding process, content and cross-case analysis was conducted, and sentences were coded to the themes to explain the themes. Axial coding was also conducted to identify the causes of Ghanaian government construction projects failure. The data was displayed using patterns and connections, and conclusions were drawn by visiting the data many times to verify and confirm the themes identified (Miles and Huberman, 1994). This also helped us to develop themes that were later used to group the findings from the questionnaire survey.

The findings from the interviews were compared with the literature reviewed to ensure that there are no repetitions of the factors that were used for the questionnaire survey. To determine the sample size, two approaches were followed. One; an adapted Yamane' formula

was used to determine the sample size (Israel, 1992) for the PMP and Contractors. After auditing of the company list, as stated above, 722 companies were left and the following steps were followed:

Number of Active Registered Company = 722 (N = 722). At an acceptable 95% level of confidence, statistical z value of 2 (z = 2), and with an error limit of 10%.

Adapting the formula:

$$n = \frac{N}{1 + Ne^2} = \frac{722}{1 + 722(0.01)^2} = \frac{722}{8.22}$$

$$n = \frac{722}{8.22} = 87$$

Where,

n = required response

e² = limit of error

N = sample size

In order to strengthen the validity, the researchers distributed 300 questionnaires through simple random sampling technique. The researchers, as part of the administered survey, received 173 responses which are above Yamane's required response threshold.

As a result of the sample size exceeding Yamane's estimate, the researchers adopted the formula to determine the confidence level and limit of error for the actual responses received.

$$e^2 \frac{z^2 p(1-p)}{n1} - \frac{z^2 p(1-p)}{N} = \frac{2^2 0.24(0.76)}{173} - \frac{2^2 0.24(0.76)}{722}$$

$$e^2 = \frac{0.7296}{173} - \frac{7296}{722}$$

$$e^2 = 0.004217341 - 0.001015263$$

$$e = \sqrt{0.003202078}$$

$$e = 0.0565$$

$$e = 0.0565 * 100 = 5.65$$

p = actual responses as a percentage of population

N = population surveyed

e = error limit

n1 = actual responses received

The results showed that a 24% response rate of the total population of 722 at a 95% confidence level has an approximately 5.65% error limit. In social science research, a 95% confidence level with an error limit of 10% is acceptable (Yin, 2009). Therefore, having a lower error margin of 5.65% increases the validity of the data.

For the client, it was difficult to know the exact number of workers and therefore we adopted a snowballing data collection approach. We, therefore, targeted all GOs working in these MDAs. The reason for targeting all of them is that the researchers are locals who have rich knowledge about the willingness of government officials (who are mainly politicians) to disclose information and therefore, we assumed that the response rate might be low, so targeting few would affect the response rate greatly. We managed to distribute 200 questionnaires to GOs.

In total, 500 questionnaires were distributed and 230 usable were returned and used for the analysis. The full background information and distribution of respondents is provided in section 5. Statistical analyses performed included Relative Importance Index, Spearman Rank Correlation Coefficients, and Kendall's Coefficient of Concordance and the Chi-square test of significance. The main purpose of the choice of statistical analysis was to evaluate the most significant causes of Ghanaian government construction project failure with the view to making appropriate recommendations to relevant stakeholders.

5. Results

5.1 Background Information

Table 1: Background Information on Respondents

Variables	Frequency	Percent
Gender		
Male	194	84.3
Female	36	15.7
Age group		
Below 20	3	1.3
20-30	121	52.6
31-40	91	39.6
41-50	12	5.2
Above 50	3	1.3
Total		
Region		
Greater Accra	141	61.3
Ashanti	21	9.1
Brong –Ahafo	7	3
Eastern	5	2.2
Central	8	3.5
Volta	16	7
Western	10	4.3
Upper –East	11	4.8
Upper West	3	1.3
Northern	8	3.5
Highest Level of Education		
High school	52	22.6
HND	63	27.4
Bachelor	41	17.8
Master’s degree	63	27.4
Professional qualification	10	4.3
PhD	1	0.4
Position at Work		
Corporate management	9	3.9
Senior management	58	25.2
Junior management	88	38.3
Supervisory	47	20.4
Subordinate	28	12.2

Category of Respondent

Contractor	69	30
Project management practitioner	104	45.2
Government official (Client)	57	24.8

Years of Experience at Current Position

less than 1 year	25	10.9
1-5 years	137	59.6
6-10 years	48	20.9
11-15 years	13	5.7
16-20 years	4	1.7
21-25 years	3	1.3

Years of Experience in General

less than 1 year	10	4.3
1-5yrs	107	46.5
6-10yrs	79	34.3
11-15yrs	25	10.9
16-20yrs	7	3.0
21-25yrs	2	0.9

Sector

Public	150	65.2
Private	72	31.3
Both	8	3.5

Industry

Retail/Wholesale	5	2.2
Manufacturing	4	1.7
Construction	138	60.0
Service	74	32.2
Agriculture	9	3.9

Total	230	100.0
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5.2 Causes of Ghanaian government Construction projects failure**5.2.1 Ranking the causes of government projects failure**

This section assesses the rankings provided by respondents on the causes of Ghana Government construction projects failure. The respondents provided the rankings for each of

the thirty-four possible causes of Ghana Government construction project failure outline in the questionnaire using a five point Likert Scale, where 1= Strongly Disagree, 2= Disagree, 3= Neutral, 4= Agree and 5= Strongly Agree. The procedure used is aimed at establishing the relative importance of the various factors identified as being responsible for Ghanaian government construction project failure. The Relative Importance Index (RII) was calculated using equation 1 (as outlined in Fagbenle et al., 2004):

$$RII = \frac{\sum_{i=1}^5 P_i U_i}{N(n)} \dots\dots\dots 1$$

Where,

RII = relative importance index

P_i = respondent's rating of cause of construction projects failure

U_i = frequency of respondents placing identical ranking on the cause of construction projects failure

N = sample size, which in this case (contractors=69, PMP=104 and govt. official (client)=57)

n = the highest attainable score on the cause of construction projects failure, which in this case is 5

i= 1,2,3,4, 5

The indexes calculated were ranked for contractors, PMP and government officials (clients).

The results of the rankings, as well as the overall rankings, are presented in table 2.

Table 2: Relative Importance Index and Ranks of Causes of Ghana government construction project failure

Factors	Contractor		PMP		Govt. Official (Client)		Overall Rank
	RII	Rank	RII	Rank	RII	Rank	
Poor planning	0.823	2	0.704	10	0.709	10	8
Lack of monitoring	0.733	11	0.65	16	0.723	9	11
Change in project leadership	0.554	33	0.587	32	0.596	32	33
Lack of materials and equipment	0.681	17	0.633	23	0.667	18	17
Project team formation	0.652	24	0.669	13	0.604	31	26
Wrong project scope	0.669	20	0.642	20	0.653	22	20
User involvement	0.586	30	0.606	29	0.635	25	30
Project management technique/framework/models	0.67	19	0.617	27	0.674	16	25
Commitment to project	0.545	34	0.585	33	0.579	34	34
Project not needed anymore	0.577	31	0.603	30	0.663	19	29
Wrong specification	0.669	20	0.64	22	0.656	21	19
scope change	0.681	17	0.692	11	0.668	17	13
Procurement processes	0.562	32	0.59	31	0.628	27	31
Feasibility studies	0.658	23	0.623	25	0.702	12	21
Release of funds	0.635	27	0.656	15	0.628	27	27
Project funding	0.649	25	0.66	14	0.68	15	15
Lack of commitment by project leaders	0.757	10	0.748	5	0.74	5	7
Communication	0.643	26	0.644	19	0.694	13	16
Management practices	0.719	13	0.681	12	0.659	20	12
Poor supervision	0.791	7	0.737	7	0.74	5	6
Bureaucracy	0.817	4	0.756	3	0.747	3	4
Partisan politics	0.823	2	0.752	4	0.751	2	3
Political interference	0.841	1	0.788	1	0.744	4	1
Corruption	0.814	6	0.746	6	0.737	7	5
Sanction by regulators	0.722	12	0.612	28	0.642	24	21
Pressure groups (media, NGOs, political activities etc.)	0.693	16	0.623	25	0.649	23	23
Change in government	0.786	8	0.717	8	0.705	11	10
Natural disaster	0.667	22	0.648	18	0.631	26	24
Belief system	0.602	29	0.577	34	0.593	33	32
Refusal of consultants to certify work for next phase of project	0.62	28	0.627	24	0.614	30	28
Lack of human capacity	0.704	14	0.65	16	0.691	14	14
Delays in payments	0.817	4	0.773	2	0.789	1	2
Starting more projects than government can fund	0.774	9	0.713	9	0.73	8	9
Resistance from local community	0.704	14	0.642	20	0.625	29	18

The contractors ranked political interference as the biggest cause of Ghana government construction projects failure; this is followed by partisan politics and poor planning (tied at

number 2), delays in payment and bureaucracy (tied at number 3) respectively. PMP also ranked political interference as the biggest cause of Ghana government construction project failure; this is followed by delays in payment, bureaucracy, partisan politics and lack of commitment by project leaders respectively. The government officials ranked delays in payment as the biggest cause of Ghana government construction project failure; this is followed by partisan politics, bureaucracy, political interference and poor supervision respectively. The top ten overall rankings for the causes in the order of importance are as follows:

1. Political interferences
2. Delays in payment
3. Partisan politics
4. Bureaucracy
5. Corruption
6. Poor supervision
7. Lack of commitment by project leaders
8. Poor planning
9. Starting more projects than government can fund
10. Change in government

Agreement Analysis

It is important to establish that the rankings provided by the contractors, PMP and the clients (government officials) were not due to chance or some form of bias but represent the true causes of Ghana government construction project failure. To do so, two methods were used- Spearman rank correlation coefficient and Kendall's coefficient of concordance. Both tests are a non-parametric test which means the distribution does not necessarily need to be normal

before they can be applied. In other words, the computation uses medians and not means, hence, they are not affected by outliers.

The Spearman rank correlation coefficients (ρ) calculated using equation 2 (as outlined in Fugar and Agyakwah-Baah, 2010):

$$\rho = 1 - \frac{6 \sum_{i=1}^n d_i^2}{n(n^2 - 1)} \dots\dots\dots 2$$

Where,

d = the difference between the ranks given by any two categories of respondents for an individual cause, in this case, the categories are a contractor, PMP and government official

n = the number of causes/factors, which in this case is 34 causes/factors

i= 1, 2, 3, 4,...n

The results of the computation showed a Spearman rank correlation coefficient of 0.791, 0.766 and 0.750 for contractors and PMP, contractors and government official and PMP and government official respectively. All three coefficients are strong and positive which shows a high agreement between the rankings of the three categories. The pair with the highest agreement was contractors and PMP.

It is important to establish using a single coefficient the level of agreement between the three categories. This is where Kendall's Coefficient of Concordance (W) becomes useful. Kendall's W is directly related to the Spearman rank correlation coefficient (Legendre, 2005). Kendall's W is calculated from the mean (ρ) of the pairwise Spearman correlations (ρ_s) using equation 3 (As outlined in Siegel and Castellan 1988, p. 262; Zar 1999, p. 448):

$$W = \frac{(m-1)\bar{\rho} + 1}{m} \dots\dots\dots 3$$

Where,

m = the number of categories of respondents, which in this case is 3

$\bar{\rho}$ = the mean of the pairwise spearman correlations, which in this case is 0.769

The computed Kendall's W is 0.846 which shows that there exists a high degree of agreement across the categories (contractor, PMP, government official) on the causes of Ghanaian government construction project failure.

Test of Significance (Causes)

It is important to establish if the extent of agreement/disagreement across the categories is statistically significant. To do so the Chi-Square test is used. First, we form a hypothesis:

Null Hypothesis = H_0 = There is disagreement in rankings among the three categories

Alternate Hypothesis = H_1 = There is an agreement in rankings among the three categories.

The Chi-Square test is also a non-parametric test used to determine if a significant difference exists among the category rankings. There is a relationship between the Chi-Square value and Kendall's W shown in equation 4 (As outlined in Frimpong et al, 2003)

$$x^2 = m(n-1)W \dots\dots\dots 4$$

Where,

m = the number of categories of respondents, which in this case is 3

n = the number of causes/factors, which in this case is 34 causes/factors

W = Kendall's coefficient which in this case is 0.846

The result of the computation is $\chi^2 = 83.7$ and using the critical table for $n=34$ and $\alpha = 0.05$ (That is 95% confidence interval), the Chi-square critical ratio $= \chi_{\alpha}^{2(n-1)} = \chi_{0.05}^{33} = 47.4$

Decision Rule

Since the computed Chi-Square value ($\chi^2 = 83.7$) is higher than the Chi-Square critical ratio ($\chi_{0.05}^{2(33)} = 47.4$), we reject the null hypothesis (H_0) and conclude that there is a high degree of agreement among the three categories on the causes of Ghanaian government construction project failure.

5.2.2 Ranking of Groupings of the Causes of Ghanaian Government construction

Projects Failure

In agreement with previous studies (Al-Khalil and Al-Ghafly, 1999; Frimpong et al., 2003; Sambasivan and Soon, 2007; Al-Kharashi and Skimore, 2009; Fugar and Agyakwah-Baah, 2010), the 34 factors identified as possible causes of Ghanaian government construction project failure were classified into four groups – namely; leadership, management and administration practices, resources and external forces. The index of each of the four groups was calculated as the average of relative importance index of the individual causes within the group. The results of the rankings, as well as the overall rankings, are shown in table 3.

Table 3: Relative Importance Index and Ranks of Causes of Group of Factors

Factors	Contractor		PMP		Govt. Official (Client)		Overall Rank
	RII	Rank	RII	Rank	RII	Rank	
LEADERSHIP	0.701	2	0.679	1	0.690	1	1
Change in project leadership	0.554		0.587		0.596		
Project not needed anymore	0.577		0.603		0.663		
Wrong specification	0.669		0.64		0.656		
scope change	0.681		0.692		0.668		
Feasibility studies	0.658		0.623		0.702		

Lack of commitment by project leaders	0.757		0.748		0.74		
Partisan politics	0.823		0.752		0.751		
Political interference	0.841		0.788		0.744		
Change in government	0.786		0.717		0.705		
Starting more projects than government can fund	0.774		0.713		0.73		
User involvement	0.586		0.606		0.635		
MANAGEMENT AND ADMINISTRATION PRACTICES	0.705	1	0.673	2	0.682	2	2
Poor planning	0.823		0.704		0.709		
Lack of monitoring	0.733		0.65		0.723		
Project team formation	0.652		0.669		0.604		
Wrong project scope	0.669		0.642		0.653		
Commitment to project (by management)	0.545		0.585		0.579		
Refusal of consultants to certify work for next phase of project	0.62		0.627		0.614		
Project management technic/framework/models	0.67		0.617		0.674		
Procurement processes	0.562		0.59		0.628		
Communication	0.643		0.644		0.694		
Management practices	0.719		0.681		0.659		
Poor supervision	0.791		0.737		0.74		
Bureaucracy	0.817		0.756		0.747		
Corruption	0.814		0.746		0.737		
Delays in payments	0.817		0.773		0.789		
RESOURCES	0.678	3	0.648	3	0.679	3	3
Project funding	0.649		0.66		0.68		
Lack of materials and equipment	0.681		0.633		0.667		
Lack of human capacity	0.704		0.65		0.691		
EXTERNAL FORCES	0.671	4	0.626	4	0.628	4	4
Release of funds (by donors & foreign partners)	0.635		0.656		0.628		
Sanction by regulators	0.722		0.612		0.642		
Pressure groups(media, NGOs ,political activities etc)	0.693		0.623		0.649		
Natural disaster	0.667		0.648		0.631		
Belief system	0.602		0.577		0.593		
Resistance from local community	0.704		0.642		0.625		

In the grouping analyses, contractors blamed management and administrative practice as the most important factors of government construction project failure, followed by leadership, resources and external forces respectively. Both PMP and government officials (clients) on the other hand identified leadership as the most important factors of government construction

project failure, followed by management and administrative practices, resources and external forces respectively. Overall (across three participants) leadership was found to be the most important cause of Ghanaian government construction projects failure, followed by management and administrative practices, resources and external forces respectively.

6. Discussions and Implications

6.1 Causes of Construction Projects Failure

6.1.1 Leadership

The study identified leadership factors as major factors that hinder Ghanaian government construction projects failure. They include: change in project leadership, project not needed anymore, wrong specification, scope change, feasibility studies, lack of commitment by project leaders, partisan politics, political interference, change in government, starting more projects than the government can fund and user involvement. The findings indicate that the leadership problem emanates from both technical and political perspectives. However, the technical leadership factors could be traced to the political leadership. In the words of R10, for instance, *“the main reason for construction project failure is lack of continuity: when another government comes into power, it decides to abandon the whole project because they want to achieve their own manifesto promise on projects”*. R8 also added that *“In Ghana, most of these failures, abandonment and delays are because of politics. If a new government comes to power, they don’t want to know anything about the former government’s projects”*.

Government officials leading government construction projects are often appointed on partisanship lines instead of on merits and therefore may pursue the interest of their political party. Further, these officials may not have the technical know-how in construction project management (Ghana Budget, 2012, Bawumia, 2015). In the words of one contractor, *“everything in Ghana is now politics ... and when you wake up and listen to the radio stations, it’s all politics. You can talk of political interference, political will, even awarding of contract is based on political patronage instead of merit. Everybody knows this; even a school boy knows this but the politicians would not accept it in public”* (R7). Many

government projects are abandoned, come to halt or are delayed due to political reasons (R1, R2, R3, R4, R5, R6, R7, R8, R9, R10). Due to the political nature and the cultural orientation of Ghanaians, the technical men executing the projects may not be able to implement good leadership practices that may not inure to the benefits and agenda of these government officials and their party in government. The Ghanaian culture is hierarchical in nature, practicing master-servant relationships (Hofstede, 2016); and therefore, political leaders are more powerful than technocrats. Accordingly, any attempt by technical men to stop the activities of the politician may result in their company losing their contract and a possible loose of their jobs. In Ghana, the constitution gives too much power to politicians, more especially the executives. One classical example is where the president has the power to appoint over a quarter of public sector workers including all local government heads and directors (Ghana Constitution, 1992).

Even though earlier researchers have identified leadership as a major factor that leads to projects failure, they were discussed in relation to technocrats executing the project but this study adds a political lens to the discussion by identifying political leadership as a source of construction projects failure. For instance, Hwang and Ng (2013) stated that project leadership is crucial in the successful implementation of project management; nevertheless, this discussion was done in relation to performing organisation's management.

The implication is that performing organisations executing government construction projects need to garner the skills needed to manage political leaders of government projects in order to be successful.

6.1.2 Management and administration practices

The study revealed a number of management and administrative issues that cause Ghanaian government construction projects to fail. They include: poor planning, lack of monitoring,

project team formation, wrong project scope, commitment to project (by management), refusal of consultants to certify work for next phase of project, project management technic/framework/models, procurement processes, communication, management practices, poor supervision, bureaucracy, corruption and delays in payments.

These findings show that projects management techniques, skills, and competence are poor in the country. Respondents who argued about the knowledge part said that most government project leaders lack the knowledge or the requisite skills to carry out such projects (R1, R2, R3, R4, R7, R9 & R10). This happens mainly because of politics (R2, R10) or by virtue of unqualified people occupying certain management positions (R6). One of the most experienced project management practitioners interviewed (R2) opined that, apart from the political issues in appointment of project leaders in Ghanaian government projects, “there is also lack of project management professionals in the country and that, most often, they put people with different a subject area in project leadership positions”.

Similarly, stakeholders of Ghanaian government projects have raised many concerns about the level of project management skills and competence level within the country. For instance, the moderator of Ghana Institute of Public Administration (GIMPA) has questioned the project management knowledge in the country and has argued that project management knowledge is very low even among tertiary institutional lecturers (Amponsah, 2010; Damoah, 2015, Damoah et al., 2015; Damoah and Akwei, 2017). Perhaps, this may account for the reasons why management and administrative practices factors are more dominant in the findings. Further, these findings are supported by earlier studies that identified these factors (Toor and Ogunlana, 2008; Raymond and Bergeron, 2008; Al-Kharashi and Skimore, 2009; Weijermars, 2009; Wong et al., 2009; Ahonen and Savolainen, 2010; Wi and Jung, 2010; Pourrastam and Ismail, 2011; Pinto, 2013).

The implication is that performing organisations executing government construction projects may need to rely on external sources of skilled labour if they are to successfully execute projects. This may also come with its own challenges – thus, the possibility of creating a design-actuality gap with the use of project management models, frameworks and practices as espoused by Heeks (2002, 2006).

6.1.3 Resources

Resources identified as factors that lead to Ghanaian government construction projects failure include project funding, lack of materials and equipment and lack of human capacity. These may be classified into two main forms – human resources and material resources. Respondent R7 opined that some local contractors who are awarded government contracts do not have the requisite equipment to execute such projects and have to borrow it from colleagues. This hinders the progress of the projects as sometimes they have to wait for a very long time to get access to such machines and/or equipment. They explained that sometimes they struggle to get the required materials such as gravel, granite and sand for carrying out projects. The reason cited for this is the traditional belief system. Contractors (R7 & R8) argued that, in some cases, they could identify land in the bush where they could obtain these materials but landowners, who are mostly traditional rulers, might not allow them to use such land because “the land belongs to their ancestors and is not meant to be used for anything”. In the words of one contractor (R7), *“sometimes you go to a community and the people there will tell you that ... our custom says we don’t want any equipment to touch the ground. Traditional belief you know, we don’t want equipment to touch the ground, we don’t work on Tuesdays, we don’t work on Fridays, and we don’t work on Wednesday. All throughout the week, three days nobody should go out”*.

Like Sambasian and Soon (2007) research findings, accessing projects funds is very difficult in the country. Ghana is a typical developing country that relies heavily on external donors and loans for its developmental projects (World Bank, 2012; Ghana Budget, 2015; Bawumia, 2016); and therefore, if these partners fail to provide these funds, then construction projects would have to suffer several setbacks such as delays, and total abandonment. Ghana is an import dependent country which does not have some materials and heavy-duty equipment that are often used in the construction sector. What it implies is that management may have to wait until these machines are readily available from foreign donors before projects commence. This may lead to delays, hence, cost escalation.

Here, the Resources Dependency Theory (RDT) by Pfeffer and Salackcik (1978) as cited in Hillman et al., (2009) is evidence. RDT states that external resources to organisation affect the behaviour of organisations and as such the activities of an organisation are influenced by external environmental forces. This indicates that for Ghana to rely on external funding (resources) implies that the performance of its projects is dependent upon external sources.

As discussed in the preceding section, project management skills, knowledge and competence are low in the country and sometimes have to rely on foreigners to execute construction projects. Similarly, a study conducted in Saudi Arabia on causes of delay in the construction industry showed that lack of qualified and experienced personnel account for the main reasons for delays (Al-Kharashi and Skimore, 2009). This is evidenced in many government projects being executed by foreign companies and expatriates (Ghana Budget, 2012; 2015; Bawumia, 2016).

In agreement with the previous literature (Krigsman, 2006; Perkins, 2006; Ruuska and Teigland, 2009; Fabian and Amir, 2011), the implication is that resources are very crucial in the implementation of Ghanaian government construction projects, hence, lack of it would

cause failure. This result is echoed in various media and government report on the level of borrowing in the execution of government projects (Addo, 2015; Bawumia, 2015). Impliedly, it is virtually impossible for the Ghanaian government to execute projects solely on taxpayers' money. Therefore, the need for governments and government agencies to develop skills necessary to win support from external donors and financial institutions is very crucial for the implementation of Ghanaian government construction projects.

6.1.4 External forces

External forces are factors outside of the project that may influence the construction project implementation. Though these factors came last in the rankings, attention needs to be paid to them in the executing of Ghanaian government construction projects and other emerging economies with similar characteristics. A number of factors were identified and they include: the release of funds (by donors & foreign partners), sanction by regulators, pressure groups (media, NGOs, political activities etc), natural disaster, belief system and resistance from the local community.

Closely related to the project funding is the release of the funds by foreign donors and financial institutions such as IMF and World Bank. Some donors fail to release projects funds due to projects not progressing as expected or the government not meeting certain conditionalities. Sanctions and pressure group could also cause construction projects to be abandoned.

Traditional customs and belief system, which is a cultural orientation, was also perceived as being able to cause Ghanaian government construction projects failure, especially total abandonment in the country. In Ghanaian traditional culture, some lands are not supposed to be touched on certain days and in some circumstances rituals and prayers would have to be offered to 'gods' before projects can be commenced (Amponsah, 2010). R3 stated that there have been some instances where "*witches and wizards halt projects... and this is all over in the newspapers and radio stations*".

The implications are that, if the gods fail to accept the prayers and/or sacrifice, the projects would have to be abandoned. Though, previous literature have identified culture as a factor that may lead to projects failure in developing countries (Heeks, 2002; Saad et al., 2002; Muriithi and Crawford, 2003; Alsakini et al., 2004; Maube et al., 2008; Amid et al., 2012), they were discussed from the viewpoint of management practices, models and frameworks perspective that create design-actuality gap but this study has identified different angle to the debate by looking at it from customs and belief system.

Further, a natural disaster was revealed as a factor that causes Ghanaian government projects to fail. According to the respondents, these natural events or disasters are sometimes associated with the traditional belief system. (R7) said that, in some areas, these events happen because the local people believe there are some *“gods who are angry with the projects being carried out and that such projects need to be stopped.”* However, this is not a major factor as natural disaster rarely occurs in Ghana. Lastly, resistance from local community may lead to construction projects abandonment. However, this is rare, in that government construction projects often have direct and indirect benefits to the local community and rarely do local community resist them.

6. Conclusions and Recommendations

6.1 Conclusions

Using an in-depth semi-structured interview and questionnaire survey in a sequential research approach, this study has identified thirty-four (34) factors of Ghanaian government construction projects failure. Project management practitioners, contractors, and clients agreed that the most important top ten (10) factors in descending order are: political interferences, delays in payment, partisan politics, bureaucracy, corruption, poor supervision,

lack of commitment by project leaders, poor planning, starting more projects than the government can fund and change in government.

In line with previous research (Odeh and Battaineh, 2002; Frimpong et al., 2003; Assaf and Al-Hjji, 2006; Sambasivan and Soon, 2007; Sweis et al., 2008), the thirty-four factors were grouped into four and the rankings showed that the most important factors in descending order are: leadership, management and administration practices, resources and external forces. However, within the leadership, there are management leadership and political leadership. The political leadership comes from the fact that government construction projects are led by politicians who do not allow the performing organisations the full control of the execution of such projects. Nevertheless, there were other management practices within the performing organisations that impede the success of such projects.

There were other management and administrative practices such as corruption and bureaucracy that may lead to failure of Ghanaian government construction projects failure. Despite the pervasiveness of corruption in developing countries (TI Reports, 1999-2016)², and their potential impact on causing public sector projects failure, researchers have not paid attention to this phenomenon.

Resources in the form of tangible and intangible are deemed important reasons why construction projects fail in Ghana – over-reliance on foreign donors and international financial institutions lead to failure if these funding agencies fail to fund to the country.

The last group of factors is the external forces such as the release of funds (by donors & foreign partners), sanction by regulators, pressure groups (media, NGOs, political activities etc), natural disaster, belief system and resistance from the local community. Even though these factors were not considered by the respondents as very important, attention to them is very essential as they may cause failure through the total abandonment of construction

² For full details, see Transparency International Corruption perception Index. Available at: <http://www.transparency.org/research/cpi/overview>

projects in some extreme circumstances. In developing countries such as Ghana, public administrative system, politics – particularly partisanship politics, corruption and culture play an influencing role in the implementation of public sector projects and its performance.

6.2 Practical Recommendations

Given that most of the factors causing government projects failure comes from political leadership, it is recommended that parliament should make laws that would give independence to technocrats executing government projects, in order to avoid and/or reduce political interference. To ensure that funds are paid on time, the government needs to ensure that projects funds are available and released from donor agencies before the commencement of projects. Similarly, to reduce payment delays, the government should reduce the bureaucratic processes involved in the procurement of Ghanaian government construction projects. The use of hard copies of projects documents should be replaced with electronic ones; this will help reduce corruption and delays in accessing projects documents. This can also help easy access of projects documents by the media and the general public – this will help monitoring and transparency.

6.3 Further Research

Given that corruption is a major factor that was identified as a factor of government construction projects and the lack of research in this area, further research can empirically test the relationship between the various corrupt practices and government construction projects failure. Further, another key are found to be a cause of construction projects failure is within the political leadership and partisanship politics and therefore a research needed to specifically assess the relationship between government construction projects failure and partisanship politics.

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APPENDIX

(A) PROFILE OF INTERVIEWEES

Table 4 In-depth Semi-structured Interview Profile

Respondents	Age	Education	Years of Experience in Current position	Work Experience In Project Management /Implementation	Overall Work Experience	Industry	Sector
PROJECT MANAGEMENT PRACTITIONERS							
P1(Project Manager)	61	Masters	7	15	37	General	Private & Public
P2 (Project and Programmes Consultant)	57	PhD/ Professional	12	15	32	General	Public & Private
P3 (Architect)	37	BA/ Professional	4	10	10	Construction	Public
P4 (Structural Engineer)	40	BA/ Professional	4	14	14	Construction	Public
P5 (Administrator)	45	BSc	15	15	21	Construction	Public & Private
P6 (Civil Engineer)	57	BSc/Professional	1	20	20	Construction	Public and Private
P7 (Quantity Surveyor)	52	Masters	6	27	27	Construction	Public
CONTRACTORS							
P8 (Director)	39	Professional	15	15	15	Construction	Private & Public
P9 (CEO & Administrator)	55	Masters/ Professional	1	32	32	Construction	Private & Public
P10(Administrative Director)	45	BA	7	15	19	Construction	Private & Public
P11 (Real Estate Developer)	62	A-Level	35	35	40	Construction	Private & Public

GOVERNMENT OFFICIALS							
P12 (Project Coordinator)	50	BA	2	11	27	Construction	Public
P13 (Consultant)	45	BA/PgD/Professional	10	17	20	Construction	Public
P14 (Consultant)	60	BA/Professional	5	15	40	Construction	Public
P15 (Physical Works director)	45	Diploma	7	12	25	Construction	Public & private
P16 (Project Coordinator)	42	Diploma	19	10	19	Construction	Public & Private

(B) GHANAIAN CULTURAL DIMENSION

Table 5 Hofstede 6-D Model

Cultural dimensions	Scores (%)	Ghanaian cultural attributes
Power Distance	80	Acceptance of hierarchical order in society and organisations
Individualism	15	Collectivist society
Masculinity	40	Relatively feminine society
Uncertainty Avoidance	65	Prefer to avoid uncertainty
Long Term Orientation	4	Great respect for traditions, a relatively small propensity to save for the future, and a focus on achieving quick results
Indulgence	72	Willingness to realise their impulses Desire to enjoy life and having fun Places a higher degree of importance on leisure time, act as they please and spend money as they wish

Source: The Hofstede Centre (2016)