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FACTORS AFFECTING THE DELIVERY OF BUILDING CONSTRUCTION PROJECTS FUNDED BY DISTRICT ASSEMBLIES COMMON FUND (DACF): THE CASE OF SELECTED REGIONS IN GHANA

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Work delivery has been one of the effective avenues for appreciating value for money in this current economic situation, especially in the construction industry. Metropolitan, Municipal and District Assemblies (MMDA's) are mandated by legislative and executive functions to also develop local infrastructure. This, thus prompted for the introduction of District Assemblies Common Fund (DACF) as one of the major funding sources for infrastructure project delivery at the various MMDA's. However, the recognition of DACF by the MMDA's in this respect on construction project delivery over the years seems to have been stifled as priority has been given to other sectors other than how these projects should be delivered. The study sought to investigate the factors affecting the delivery of building construction projects funded by DACF. This was achieved by employing a cross-sectional survey in the design from participants in Ashanti, Greater Accra, and Bono East regions in Ghana. The outcome of the study revealed that contractor, project funding, supply chain, site, and client related factors are the 5 main factors affecting the delivery of building construction projects. The findings again identified 7 major effects of these factors; which were cost and time overrun, poor quality standard work, unexploited completed project, contractor bankruptcy or liquidation, accident/disaster, loss of workers, and profit and loss of stakeholders 'trust and confidence. It was concluded that MMDA's building construction project delivery funded by DACF efficiency stands a chance to be improved. It is therefore recommended for the Ministry of Local Government and Rural Development (MLGRD) to review DACF guidelines for utilisation and introduce a project charter in MMDA's building construction project delivery.

Keywords: building construction industry, District Assemblies Common Fund (DACF), Metropolitan Municipal and District Assemblies (MMDA's), project delivery

INTRODUCTION

Work delivery has been one of the effective avenues of realizing value for money in all spheres of life especially in the manufacturing and service provision industry;

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and for that matter the work delivered must be of good quality (Tausef, 2012). As a contributor to national socio-economic development and a source of foreign direct investment, the construction industry stands better as such realization and impact from its emerging outcomes are greatly felt especially when the entire process is well delivered (Ofori, 2012). According to Basheka and Tumutegyereize (2011) in Kissi et al (2018) the construction industry accounts for a significant portion of the world's Gross Domestic Product (GDP); this, revealed in the report of the Ghana Statistical Service that, between 1st and 3rd quarter of 2020, the construction industry contributed 3.6% to GDP of Ghana. This hypothesized that the construction sector provides a substantial source of direct and indirect employment to majority of the citizens all over the country. Delivering such construction projects many a time is inhibited by a series of drawbacks which impedes its original intent eventually. To this, the study sought to identify these underlying challenges affecting the delivery of building construction projects funded by the DACF in some selected regions of Ghana.

The DACF as established under article 252 of the 1992 Constitution of Ghana confers the purpose of the promotion of local-level development. According to Robinson (2015), the DACF presently presents a major channel for government development assistance, especially to the districts. There is evidence from all over the country that the Common Fund has since its inception been the primary source of project funding in the Metropolitan, Municipal, and District Assemblies (MMDA's) over the last 20 years others (District Assembly Common Fund home page, 2008). In this light, the Common Fund has been the pillar of a vast range of projects including physical infrastructure and human resource development at the district level. Also, the Common Fund has assisted in the implementation of various projects in the MMDA's, focusing on priority areas such as education, health care delivery, portable water supply, market infrastructure, sanitation, roads and drains construction among others (District Assembly Common Fund home page, 2008).

Despite the recognition of DACF needs and appreciation; and the national agenda towards the improvement of the nation's development through DACF, infrastructure project funded from DACF faces serious challenges (Nii - Amoah, 2014). Expanding further, he outlined the following challenges as prime from the lot suffered: delays in disbursement of the fund, over deduction at source, abuse of power by parliament in the approval and disbursement of the fund, the inaccurate formula for the disbursement of the fund to the various MMDA's, mechanism for determination of the total revenue accrued and percentage allocated for the fund. According to Hamzah et al. (2009), delay in construction projects is costly and is related to four main factors such as; late payment, poor cash flow management, insufficient financial resources, and financial market instability. Centred on their findings, it was revealed that poor cash flow management is the most significant factor that leads to poor project delivery, followed by late payment, insufficient financial resources, and financial market instability respectively. According to Ali and Rahmat (2010) in Kissi et al. (2018), they concluded that, despite the immense contributions of the construction industry with regards to resources and services, there have been relentless criticisms of the poor performance in terms of quality project delivery of the major players; and these criticisms have in the recent past occasioned an interest in

several studies that focused on assessing the factors affecting project delivery in the construction industry.

Empirical evidence, however, has proved little as several studies conducted focused on the contribution of DACF to the development of MMDA's which is more concentrated on socio-economic activities but not on specifics such as building construction project delivery. This thus opens up a knowledge deficit. This study, therefore, sought to assess the factors affecting the delivery of building construction projects funded by DACF within some selected MMDA's in Ghana. This outcome will assist in examining how well the DACF concept on building construction project delivery has been adopted, operationalized, and developed in the country.

To this effect, this critical review of the of DACF utilization and the parties involved are presented.

A synthesis of studies on DACF regarding project delivery in Ghana is first presented. Also presented is the methodology employed in establishing the underlying factors affecting the delivery of building construction projects funded by DACF in the country since the post-independence era. Presentation and analysis of the factors affecting the delivery of building construction projects funded by DACF and how they can successfully aid in achieving project delivery goals were similarly presented.

LITERATURE REVIEW

Building Construction Project Delivery (BCPD) is the process and procedures for the design and construction of buildings and grounds (Bill Dikis, 2015). Project delivery consists of planning, design, construction and other services necessary for organizing, executing, and completing a building facility (GKK Works, 2013). Project delivery systems are critical for achieving project success as they entail an essential aspect of an organisation's strategic planning and management processes that seek to minimise risks and uncertainties (Gisela, 2013). Frimpong et al. (2003) as cited by Kissi et al. (2018), assumed that the success of a project is cramped to the project's goals and set objectives within the explicit project scope. Similarly, the success of a project invariably depends on the level of supervision of the project or the managerial skills of the project manager or the site supervisor (Zwikael, 2009). Kissi et al. (2018) further proposed that a project is administrated by many characteristics; however, a completed project which meets its technical requirements required quality and intended duration clearly defines the success of a project. These assertions were further assented by Tengal et al. (2019) that value for money, successful project closure, end-user satisfaction, timely completion of projects and fitness for purpose were the top five monitoring and evaluation outcome features in construction project delivery. Similarly. It has been argued that one major factor that often derails project success is poor management of the delivery system, such that in many occasions underperforming delivery systems tend to undermine the inevitable uncertainties that need to be overcome to avoid project failures (Smith, 1999 in Gisela, 2013). Kissi et al. (2018) postulated that, although every project, whether construction or other non-infrastructural projects comes with their peculiar challenges, those in the construction industry are quite

similar and repetitive. They expanded further that, one would think that construction projects ought to be easier with experience, however, these flaws continue to occur over and over again especially at the local government level. In their assertion, Kissi et al. (2018) argued that inadequacies in government's work generally cause delays; as agreed by Hackman et al. (2021) who postulated that, enhanced democratic governance; improved internally generated funds; utilization of local materials improves faster infrastructure delivery. They continued that these inadequacies tend to affect project delivery, as any delay will influence the cost, time, and quality. Adding, they suggested that effective logistics management is one of the major factors for productivity increase, as such they need for efficient project delivery. It was further revealed that unrealistic timelines for the project were a huge challenge in project delivery amongst Public Work Departments (PWDs) in Ghana. This they attributed to other challenges such as inadequate designs, poor estimates, and others alike. Gisela (2013) also asserted that work delivery has been one of the effective means of realizing value for money in all spheres of life especially in the manufacturing and service provision industry, and for that matter the work delivered must be of good quality. Osei-Tutu and Adinyira (2020) also concluded in their study that, the inclusion of traditional authorities in beneficiary communities helped in an accurate identification of community needs, minimization of cost incurred and high-quality workmanship as well as strengthened ownership.

RESEARCH METHODOLOGY

The study areas included Ashanti, Bono East and Greater Accra Regions of Ghana. These areas selected were due to their geographical location in Ghana and their cultural diverse ethnicity which can have an effect on Building Construction delivery as proposed by H. Danso and R.O. Kwadwo (2020); where Bono East can fairly represent the Northern-belt, the Ashanti representing the Middle-belt and the Greater Accra representing the Southern-belt of Ghana. These will make it authentic to generalise the findings obtained to fairly represent Ghana as a whole. Cross-sectional survey was employed as the design of the study. This decision was informed given the fact that the study will take a snapshot of the participants or better still be studied once and thus not necessitating the researcher to make follow-ups (Shuttleworth, 2010). The population of the study constituted officials who were knowledgeable in the construction industry constituting district coordinating directors, finance officers, head of works, planning officers, budget officers, procurement officers, internal auditors, administrators, general secretaries and programs coordinators within the various MMDA's, Ministry of local Government and rural Development (MLGRD), National Association of Local Authorities of Ghana (NALAG) and DACF secretariats. Simple random and purposive sampling techniques were used to select the sample for obtaining data for the study. Both techniques were used in choosing the institutions from the respective selected study areas. The former was used to select the MMDA's as the latter helped in selecting the DACF secretariat, National Association of Local Authorities of Ghana (NALAG) and Ministry of Local Government and Rural Development (MLGRD) from these areas. Simple random sampling is where each member of population is equally likely to be chosen as part of the sample. It has been stated that "the logic behind simple random sampling is that it removes bias

from the selection procedure and should result in representative samples (Research Methodology.net, 2019). Purposive sampling again was used to select the participants from the institutions mentioned earlier. This was possible as a list of professionals from the respective institutions were obtained from the appropriate quarters and a thorough background check run on them to lay bare those that possessed the needed knowledge relative to the study. They were contacted and used for the study eventually. The technique was used for this class since each participant was an expert with much experience and exposed in their respective fields (Saunders et al, 2012). Purposive sampling is a sampling technique in which the researcher relies on his or her own judgment when choosing members of population to participate in a study (Black, 2010). In effect, the total sample size for the study was 334 drawn from 6 agencies, namely MMDA's, Ministry of Local Government and Rural Development (MLGRD), DACF secretariat, NALAG, Consultants and Contractors were considered for the study. Questionnaire was used to collect data from respondents on the factors affecting the delivery of DACF building construction projects, and the effects of these factors on the delivery of DACF building construction projects on the factors affecting the delivery of DACF building construction projects in Ghana. This instrument was preferred on the merit that the research objectives were quantitative in nature and thus, recommended the use of this instrument coupled with the cost and the number of respondents (Kothari, 2004). A 5-Point Likert scale responses was used. A Likert scale is a set of statements (items) offered for a real or hypothetical situation under study (Joshi et al., 2015). Respondents were asked to rate the variables whether they are strongly affected (5), affected (4), neutral (3), unaffected (2) and strongly unaffected (1). Also, on measures to improve the factors affecting the delivery of DACF building construction projects and the adverse effects of these factors on the delivery of DACF building construction projects in Ghana, the variables for both objectives were rated as strongly agree (5), agree (4), neutral (3), disagree (2) and strongly disagree (1). The questionnaire also captured the demographic characteristics of the respondents. The validity of the questionnaire was determined through pilot testing, attaining a Cronbach's coefficient alpha value of 0.941 attested to the fact the items met the recommended reliability threshold. According to Hair et al. (2010), the acceptable lower limit for the Cronbach's alpha is usually considered to be 0.7, when reached will make the questionnaire reliable for data collection. 173 questionnaires representing 52% of the response rate was appropriately collected from 334 questionnaires self-administered. According to Mugenda and Mugenda (2003) in Nii and Danso (2018) and affirmed in Yehuda and Holtom (2008), this rate is acceptable as a response rate of 50% is adequate for a study. With respect to the interview, fifteen (15) of the professionals were engaged. The process took place in the office of each interviewee with a time span of between 30 minutes to 1 hour. In ensuring as well as increasing the reliability of the responses, all the interviews were recorded.

Factor analysis was performed to identify the factors affecting the delivery of DACF building construction projects in Ghana. Descriptive statistics was used to analyse data on identifying the effects of the factors affecting the delivery of DACF building construction projects in Ghana and ranked subsequently with the appropriate justifications achieved. Kendall's Coefficient of Concordance was correspondently used to establish a degree of agreement among respondents on the variables. The

quantitative data collected from the field through the use of structured closed ended items was presented in tables and analysed on Statistical Package for Social Sciences (SPSS) software version 21.

RESULTS AND DISCUSSION

This section presents and discusses the results of the study. The focused areas included the demographic characteristics of respondents, factors affecting the delivery of DACF building construction projects, and effects of the factors affecting the delivery of DACF building construction projects delivery in Ghana.

Demographic characteristics of respondents

Table 1 Respondents' demographic characteristics

Characteristics	Category/Option	Frequency	Percentage
Academic Qualification	BSc. Honours	79	45.7
	P.G. Diploma	10	5.8
	HND	33	19.1
	MSc. /MEng.	28	16.2
	MPhil.	7	4.0
	PhD.	16	9.2
	Total	173	100
Agency	MMDA	129	74.6
	Ministry of Local Government and Rural Development (MLGRD)	18	10.4
	District Assemblies Common Fund (DACF) Secretariat	4	2.3
	NALAG	4	2.3
	Contractor	12	6.9
	Consultant	6	3.5
	Total	173	100
Status in Agency	District Coordinating Director	26	15.0
	Finance officer	26	15.0
	Head of Works	24	13.9
	Planning Officer	22	12.7
	Budget Officer	26	15.0
	Procurement officer	22	12.7
	internal Auditor	3	1.7
	Administrator	14	8.1
	General Secretary	1	0.7
	Programs Coordinator	5	2.9
	Researcher	4	2.3
	Total	173	100
Work Experience	5 years or less	29	16.8
	6 - 10 years	102	59.0
	11 - 15 years	29	16.8
	Above 15 years	13	7.5
	Total	173	100
Professional Body	Yes	93	53.8
	No	80	46.2
	Total	173	100

The outline of respondents 'demographics expressed descriptively is presented in Table 1. Featuring on the table includes respondents 'academic qualification, agency, status in agency, work experience and professional body.

Factors affecting the delivery of DACF building construction projects in Ghana.

Factors analysis was used to categorize the components into desired dimensions as represented in Table 2. Five main factors were identified in the entire process. Various options were explored in arriving at the factors. First, although the eigenvalue with its thumb rule of 1 or greater made out seven factors, the scree plot shown in Figure 1, upon close examination and review pointed out to five factors. Again, basing on the 5% of variation explained, five factors clearly were able to make this cut cumulating to about 57%. Moreover, the five factors had theoretical considerations thus making them interpretable. Two factors less of these requirements were discarded. Regarding the variance explained, the respective individual percentages of 29.77%, 9.27%, 6.34%, 5.82% and 5.39% accordingly were assigned to component 1, component 2, component 3, component 4 and component 5.

Table 2 Total Variance explained

Component	Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	10.367	29.767	29.767	5.553	15.944	15.944
2	3.229	9.271	39.039	3.145	9.030	24.974
3	2.209	6.343	45.382	3.490	10.021	34.995
4	2.027	5.819	51.201	2.763	7.934	42.929
5	1.879	5.394	56.595	2.929	8.409	51.337

Extraction Method: Principal Component Analysis

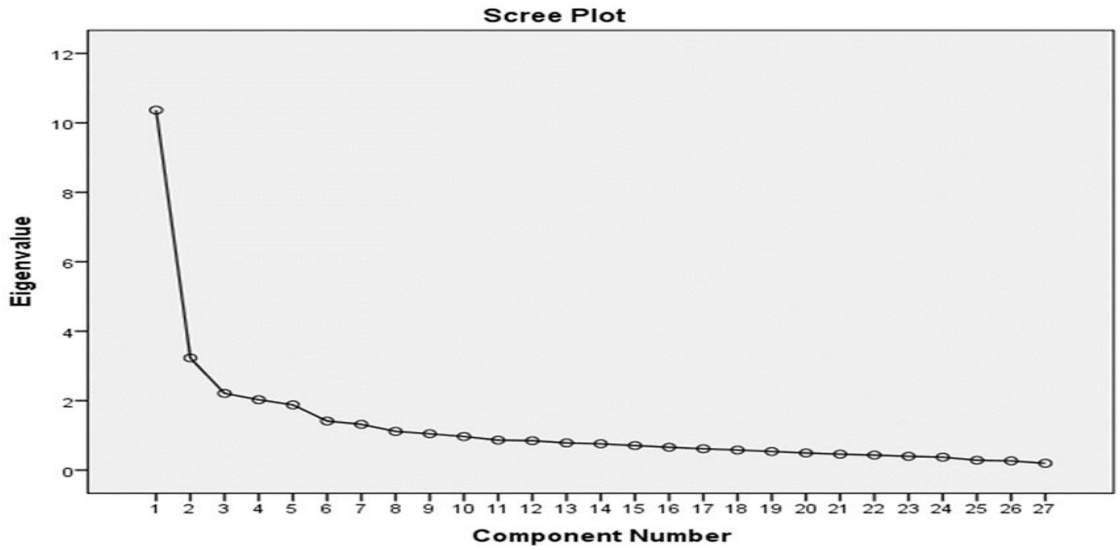


Figure 1: Scree Plot

Table 3 Factors affecting the delivery of DACF building construction projects in Ghana. (n = 173)

Causes	Component				
	1	2	3	4	5
Contractor's Financial Difficulties	**0.747**				
Poor site management	**0.731**				
Inefficient contractor's selection method and procedure	**0.699**				
Poor Communication	**0.620**				
Skill labour Shortage	**0.578**				
Inapplicable Guidance for the Utilization of DACF		**0.787**			
Inadequate DACF Allocation for MMDA's projects		**0.629**			
Delay in disbursement of DACF Fund		**0.621**			
Excessive Bureaucratic Conditions		**0.610**			
Poor project planning		**0.537**			
Equipment and tool Shortage			**0.634**		
Inadequate logistics			**0.618**		
Material Shortage			**0.638**		
Construction Slipups and Defective Works				**0.528**	
Weather and other Environmental Challenges				**0.594**	
Design Changes and Variation				**0.430**	
Inadequate human resource to carry out supervision					**0.594**
Unrealistic time line for project delivery					**0.548**
Lack of coordination and cooperation of stakeholders					**0.537**

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.
Rotation Method: Varimax with Kaiser Normalization.

In arriving at identifying the factors affecting the delivery of DACF building construction projects in Ghana, Table 3 presents details of the factors loaded under the various components. Five factors were loaded onto component one and two with the remaining components each having three. Loading onto component one was the factors; contractor's financial difficulties (0.747), poor site management (0.731), inefficient contractor's selection method and procedure (0.699), poor communication (0.620) and skill labour shortage (0.578). This was labelled Contractor Related factors and explained 15.944% of the variance. Next was component two also with five factors of factor loadings consisting; inapplicable guidance for the utilization of DACF (0.787), inadequate DACF allocation for MMDA's projects (0.629), delay in disbursement of DACF fund (0.621), excessive bureaucratic conditions (0.610), poor project planning (0.537). This component was tagged Project Funding Related factors also explaining 9.030% of the variance. Component three came following with three factors constituting; equipment and tool shortage (0.634), inadequate logistics (0.618) and material shortage (0.638). This was labelled Supply Chain Related factors equally explaining 10.021% of the variance. Similarly, component four had three factors which included; construction slipups and defective works (0.528), weather and other environmental challenges (0.594) and design changes and variation (0.430) as it was named Site Related factors and explained 7.934% of the variance. Loaded under the fifth component were the factors; inadequate human resource to carry out supervision (0.594), unrealistic time line for project delivery (0.548) and lack of coordination and

cooperation of stakeholders (0.537) and was subsequently marked as Client Related factors and explained 8.409% of the variance.

Table 4 KMO and Bartlett's test

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.856
Bartlett's Test of Sphericity	Approx. Chi-Square	1917.019
	Df	351
	Sig.	.000

A Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO) and a Bartlett's Test of Sphericity (Table 4) were carried out on the data to warrant the use of factor analysis. Recording a KMO value of 0.856, the Bartlett's test in turn gave high relationships among the variables (Chi-square = 1917.019, df = 351, $p < 0.000$) thus signifying the adequacy and suitability of applying this tool.

Component one: contractor related factors

Contractor related factors under this principal component explained 29.767% of the total variance with five factors. Yaser et al., (2017) posits that poor communication among construction parties is considered one of the leading factors to cause an impact on the main project components such as cost, time and quality of construction projects. Buttressing this assertion, Nii and Danso (2018) identified excessive cost and time overrun, poor quality standard work, imprecise assessments due to lack of information, criteria being very complex and difficult to apply in practice among others as the challenges to the contractor selection criteria in Ghanaian construction industry. Many now believe that the public sector system of bid evaluation, which concentrate much on bid price, is one of the major challenges of project delivery problems (Holt et al., 1994; Ellis & Herbsman 1991; Bower 1989) as cited in Kissi et al., (2018). Affirming this claim, they explain that contractors, when faced with shortage of work are more likely to submit low bids simply to stay in business in the short term and with the hope of somehow raising additional income through 'claims' or cutting costs to compensate for their low bids. This is imperious for the managers of the economy to put the DACF high on the precedence and provide the requisite measures for the effective delivery of construction projects in the country.

Component two: project funding related factors

The principal component accounted for 9.271 % of the total variance with five factors loading onto it. According to Amponsah (2018), and Modern Ghana (2018) delay in disbursement as well as untimely release of funds nested from inapplicable guidance for the utilization of DACF tend to pose a major challenge to the operations of the fund at the local level. Khalid and Farah (2019), in consonance with this submission also argue that poor planning and management of the construction projects may lead to several negative effects on the duration and completion of projects. This claim is linked to Igwe et al. (2018), Ahadzie and Amoah-Mensah (2010) who equally advocate that poor project management practices have in the recent past contributed to the abandonment of mass house building project as well as poor project planning and implementation culture which indicates an anti-thesis to development. In spite of these, Ahadzie and Amoa-Mensah (2010) proposed that contractors should prepare and adhere to realistic

programme schedule. The findings of the study in consistent with the observed affirmation by Igwe et al. (2018) and Ahadzie and Amoah-Mensah (2010) postulate that DACF building construction project planning and funding procedures is not serving the purpose expected at the local level, which in effect hindering the effective delivery of building construction projects required. This agitation ponders the need to review those procedures to satisfy the local needs at the MMDA's in Ghana.

Component three: supply chain related factors

Principal component three had three factors loading onto it and defined 6.343% of the total variance. Another crippling effect on the efficacy in delivery of DACF on building construction projects extent from the availability to the adequacy of materials for the intended projects. Kissi et al. (2018) established that inadequate logistics in the construction processes in various MMDAs have brought most construction projects to a standstill. They reiterated further that when materials ordered is not supplied to the right quantity, there is a clear case of material shortage and hence it effects on a successful project delivery. Danso (2014) affirms this assertion that, plant and equipment shortage as result of its high cost leads to poor work delivery in the Ghanaian construction industry. In the plight of these, it has become necessary for the managers of the economy to make it easy to access materials, equipment and logistics needed for the construction activities since the findings of the study concords with the reverted assertions.

Component four: site related factors

The principal component described 5.819 % of the total variance with three factors loading onto it. In this regard, Kissi et al. (2018) indicated that lack of precision in measurement from plans and specifications lead to mistakes in construction and extension of the project duration. They advanced their position further by adding that the weather and its attendant environmental challenges act as a great deal of a challenge to project delivery. However, in consonant with the study, it is essential for Works Department of the various MMDA's to intensify their work supervision as materials, equipment and logistics becomes available, since notwithstanding the satisfaction all aspect of building construction project delivery indicators, poor site management will render it ineffective.

Component five: client related factors

Then principal component clearly explained 5.394 % of the total variance with three factors loading onto it. Danso (2014) reinforced this assertion indicating that poor workmanship of construction project in the construction industry is as a result of poor supervision. In their suggestion, Oseghale et al. (2015) were emphatic that construction firms pay extra money for labour, so as delay in schedule in their construction programmes as a result of skilled labour shortage. Consolidating this idea were Kissi et al. (2018) who accentuated that unrealistic timelines for project is a huge challenge in project delivery amongst PWDs in Ghana. Moreover, they argued further that lack of stakeholder's involvement in a project affect project delivery. This was consistent with Gavizon (2013) asserting that, it is easier to get to the objective of the project when all of the participants of the team are rowing in the same direction. Relatively, Modern Ghana (2018) suggested that projects that were planned in consultation with assembly members were more successful in

contrast with those that were done in consultation with government's medium-term development plans (MTDPs).

Effects of the factors affecting the delivery of DACF building construction projects in Ghana

Descriptive statistics was used to rank the effects of the factors affecting the delivery of DACF building construction projects in Ghana. The outcome is presented in Table 5. The criteria employed in the ranking process projected mean values of three or greater (≥ 3.0) as the degree of measure for the main key effects of the factors affecting the delivery of DACF building construction projects in Ghana. Therefore, any mean value below 3.0 was not considered a key factor.

Table 5 Effects of factors affecting the delivery of DACF building construction projects in Ghana.

Effects	Mean	Std. Deviation	Rank
Cost and time overrun	3.88	1.109	1
Poor quality Standard work	3.74	1.384	2
Unexploited completed project	3.70	1.202	3
Contractor bankruptcy or liquidation	3.64	1.248	4
Causes accident/disaster	3.52	1.184	5
Loss of workers and profit	3.47	1.301	6
Loss of stakeholders' trust and confidence	3.40	1.104	7
Wastage of materials and resources	2.88	1.202	8
Dispute among Contractors and clients	2.81	1.178	9
Generate waste/scrap to harm the Environment	2.80	1.141	10
Project team isolation and conflict	2.77	1.084	11
Resource Shortages	2.77	1.090	12
Project overall failure	2.47	1.255	13

The key factors therefore included; cost and time overrun, poor quality standard work, unexploited completed project, contractor bankruptcy or liquidation, causes accident/disaster, loss of workers and profit and loss of stakeholder's trust and confidence.

Cost and time overrun

Cost and time overrun effect pulled a mean value of 3.88; and was ranked first as the extreme effect of the factors affecting the delivery of DACF building construction projects in Ghana by respondents. Cost and time overrun effect act as a great deal of a challenge to delivery of DACF building construction projects in Ghana. Nii and Danso (2018) indicated that construction projects are subjected to excessive cost and time overrun as a result of the challenges to the contractor selection criteria in Ghanaian construction industry. With the same view point, Yaser et al., (2017); Porreca (2017) attributed this deficiency to poor communication which incurs not only cost overruns but also time overruns and consequently project failure. In-line with these deliberations, respondent indicated that cost and time overrun has been a dilemma in the MMDA's DACF construction projects, where dozens of projects exceeds the time and budget line as result of poor cash flow syndrome of DACF.

Poor quality standard work

This variable had a mean value of 3.74 and was ranked second as one of the major effects that affects DACF building construction project at MMDA's. It has been noted that building construction projects with poor quality standard work waste resources and create discomfort to end users. Danso (2014) corroborates this claim emphasizing that poor supervision of work and use of inferior or adulterated materials were identified as the major causes of poor workmanship in the construction industry. More so, MMDAs 'inability to supervise construction projects effectively has resulted in a lot of conflicts, variations and poor site co-ordination (Kissi et al. 2018). Again, Nii and Danso (2018) argue that selecting a contractor for construction project is a difficult decision to be taken by a client because it may lead to construction delivery problems or successful delivery of the project.

Unexploited completed project

Standing imperious and affecting the delivery of DACF building construction projects in Ghana is unexploited completed projects which had a mean value of 3.70, indicating a major effect to DCAF building construction project. Ansah (2011) hinted that delay payment leads to abandonment of projects resulting in possible delay which virtually renders the project not available at the time required. In harmony to this affirmation, Ankukumah (2016) noted that projects are rejected by end-users/community as a result of poor inclusion of stakeholders in project delivery. In spite of these occurrences, stakeholder's involvement in the MMDA's project delivery is a challenge.

Contractor bankruptcy or liquidation

Emanating under this umbrella of factors affecting the delivery of DACF building construction projects in Ghana is contractor bankruptcy or liquidation with a men value of 3.64. According to Ansah (2011), financial hardship for the construction companies and its impacts are sometimes so harsh that some companies have to close down. In consonance with this perspective, Ramachandra and Rotimi (2011) adds that delay and loss of payment is a serious problem in the construction industry of many countries. These affect the cash flow of contractors which is critical to meeting their financial obligations.

Causes accident/disaster

Another key component with a mean value of 3.52 underlying the factors affecting the delivery of DACF building construction projects in Ghana, is it cause to accident/disaster. Ajasa (2012) indicated that, accidents emanate from short comings of management and site managers due to non-implementation of safety policies and lack of adequate supervision. Moreover, Kavya and Pradeep (2018) relates to this call stating that accidents are bound to happen when there are lacking organization arrangements, risky practices, and weak frames of mind of development workforce, poor administration responsibility, and deficient wellbeing information and preparing of laborers. Design errors, poor quality of materials and workmanship in similar manner equally contribute to building collapse (Oke, 2011). Putting these instances into perspective to the findings shows the seriousness of MMDA's building collapse, evidence form newsghana.com, 2019 where collapse school building at Dzorwulu a suburb of Accra killed 2 and injured 6. Collapse of DACF building construction is happening and it is causing disaster and waste of resources which can be used for other relevant issue in the economy.

Loss of workers and profit

Loss of workers and profit is another canker which claimed a mean value of 3.47, situates itself as another key threat affecting the delivery of DACF building construction projects in Ghana. No wonder Abdul Raman and Berani (2006) in Ansah (2011), lays the claim that delayed payment causes the contractor's loss of workers and profit. He continuous by suggesting that contractors may not have sufficient funds to tide him over until such time as conflict is resolved, consequently lose workers. In compliance with this affirmation, Oseghale et al (2015) indicated that construction firms were paying extra money for labour, and Schedule delay in their construction programmes as a result of skilled labour shortage. This assertion confirms together with the results demonstrate the seriousness of how DACF project is abandoned due to lack of financial liquidity.

Loss of stakeholder s trust and confidence

Involved as one of the significant effects affecting the delivery of DACF building construction projects in Ghana is loss of stakeholders 'trust and confidence, attaining a mean value of 3.40. Windsor (2018) explains explicitly that it is estimated that 1 in 3 projects fail due to poor stakeholder engagement. Stakeholders are critical to project success; failure to communicate regularly with stakeholders can undermine internal support for your project. Consequently, Gamila and Rahman (2017) suggests that low Level of satisfaction among construction parties affect poor delivery of construction project. In point of view from the discussion however affirms to the findings of the need for the inclusion of stakeholders in project delivery processes.

CONCLUSION

The study was set out to identify the factors affecting the delivery of building construction projects funded by District Assemblies Common Fund (DACF) in Ghana. Five main principal components came up as the factors affecting the delivery of DACF building construction projects in Ghana. These were; contractor related factors, project funding related factors, supply chain related factors, site related factors and client related factors. In identifying the effects of the factors affecting the delivery of DACF building construction projects in Ghana, the results pointed out to seven main effects. These constituted; cost and time overrun, poor quality standard work, unexploited completed project, contractor bankruptcy or liquidation, causes accident/disaster, loss of workers and profit and loss of stakeholders 'trust and confidence.

The study thus concludes that, notwithstanding the factor affecting the delivery of building construction projects funded by DCAF in the various MMDA's, its efficiency can be improved while taking a keen look at the measures to improve on the factors. In this regards, it is therefore recommended that the guideline for the utilisation of DACF should be reviewed to meet the local content at the various MMDA's by excluding the infrastructure section from the guideline and the introduction of project charter from the various MMDA's annually to serve as a benchmark to determine the type of construction project to be delivered at particular period for each MMDA. Again, DACF budget earmarked (in the project Charter) for a particular building construction project for MMDA's should be provided before commencement of its delivery process. Also, awareness creation

through seminars and training programmes must be intensified by Ministry of Local Government and rural Development on the factors affecting the delivery of DACF building construction project delivery at various MMDA's to enlightening and give them the opportunity to accept, its effect and participate actively in its recommended measures.

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