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ASSESSING CAUSATIVE CHARACTERISTICS OF ABANDONED COMPLETED URBAN

MARKET PROJECTS IN GHANA

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ABSTRACT

This paper assesses the causative characteristics of abandoned completed urban market projects in the Bono Region, Ghana, and its associated effect. The study used the mixed methodology research approach. Eight abandoned completed urban market projects were visited within the region. A total of sixteen consultant and contractor teams were selected using the purposive sampling technique. Thirty-two (32) questionnaires were administered and received from would-be users, consultants, and contractors of the eight selected projects. Bad location, non-provision of auxiliary facilities, high rent charges, long distance from the communities, small size of sheds and stalls and non-user consultation were the highest causative characteristics. The effects of abandon markets were resource wastage, unemployment, and decrease in revenue accruable to the state. Markets are a source of product delivery that promotes sustainable economic development, jobs, communication and enhances the identity of the communities. Wastage of resources occurs if an urban market project is abandoned. Improvement of would-be user's satisfaction is imperative to reduce non-usage leading to the abandonment of market project. Therefore, auxiliary utilities such as electricity, water, sanitation, and access roads must be included in the project at the planning phases. The paper affirms the relevance of usersatisfaction of urban market projects to avoid wastage of public resources.

Keywords: Abandonment, Building Projects, Causative Characteristics, Urban Markets.

1.0 INTRODUCTION

Infrastructure development is one of the major agenda items of every nation, including Ghana, for the betterment of both individuals and society at large (Atamewan, 2020). It involves a huge capital investment, materials, human and technical resources to realize infrastructural development. These developments are funded by the government, donors, and taxpayers (Panayides et al, 2015). Infrastructure development such as roads, railways, electricity, gas, water, sanitation, schools, hospitals, and markets advance national economic growth and development. Markets are built for economic growth, reduction of poverty and unemployment rate, which are major problems for developing countries. According to Ghana Statistical Service, unemployment and poverty rate is especially high among women and youth, coupled with a housing deficit of 1.7 million (Daily Graphic, August, 2018). It is, therefore, imperative to consider market projects as part of the means to fight reduction of poverty and unemployment rate.

Surprisingly some of the completed urban market projects are being abandoned without attending to or being utilized by the would-be users I across the regions of Ghana. These include:

- Kyirenkwanta, Esuehyia, and Ankamu market in the Central Region (Ghana Graphic, 3 Feb. 2018).
- Dome Market in Ga East Assembly, Great Accra Region (Happy FM, 2 November 2017. News).
- Gomoa market (Andoh, 7 May 2014. Daily Graphic).
- Abaase market in the Eastern Region (Kelly and Jakupa, 2015) and
- Nalerigu market in East Mamprusi District –Northern Region (Peace FM.com, 20 October 2014).

Therefore, the need to identify the abandoned completed urban market projects and examine the causative characteristics and their effect cannot be overemphasized. This study aims to identify lasting solutions to help the fight against poverty and reduce the unemployment rate in Ghana as part of the effort to achieve the sustainable development goals of the world.

Various studies have covered abandonment of public building projects (Uket, 2013; Amade, 2014; Doraisamy et al., 2015; Amoa-Abban, 2017; Ariffin et al., 2017; Mac-Barango, 2017; Okereke, 2017; Damoah and Kumi, 2018). However, little is done on abandoned urban market projects. This paper however, aimed at assessing the root causative factors and effects of abandoned completed market projects in Ghana and suggest appropriate measures to mitigate future occurrence.

2.0 REVIEW OF RELATED LITERATURE

2.1 Definition of Building Projects Abandonment and White Elephant

There is a theoretical difference between projects that are entirely abandoned and the one suspended or delayed due to the fault by the stakeholders or natural occurrences. Mac-Barango (2017) describes an "abandoned project" as a project which has been totally abandoned or indefinitely delayed compared to the project timelines. According to Mayor (2009), abandonment is to stop doing something because there are too many problems, and it is impossible to continue. Abdul-Rahman and Wang (2013) opined that a building project is considered to be abandoned when the construction and development of the project are not completed and ready for inhabiting by the owner as scheduled. Similarly, Mac-Barango (2017), added that abandoned building projects in the United Kingdom (UK) and the United States (US) refer to unoccupied buildings showing visible signs of distress. Also, in Malaysia, a building project is declared abandoned when construction of the housing units is not completed or ready for occupation (Abdul-Rahman et al., 2015). Further, Mac-Barango (2017), added that the Ministry of Housing and Local Government (MHLG), has four conditions set to declare projects abandoned, including:

- If construction activities stopped for six months or more on the site,
- If the developer or the contractor wounds up without completing the work,
- If the developer or the contractor is declared unable to complete the work,
- If the project is declared abandoned according to the Housing Development Act (118) by the MHLG.

The Ghanaian Ministry of Water Resources, Works, and Housing (2002) and Mac-Barango (2017) stated that, the criterion for the abandoned project is "if the project is not completed within or later than the delivery date stated in the contract agreement and no significant activity is noticed at the construction site for six (6) continuous months". Ariffin et al. (2018) also defined abandoned building as "construction work that has been held up continuously for six months (6) or more, during the project completion period or delayed the scheduled date of completion". There is no widely accepted definition for completed but not used building projects in literature.

However, Atamewan (2020), defined abandoned building projects as uncompleted, uninhabitable, unusable, or nonfunctional buildings. Therefore, abandonment of a completed project is uncompleted, not prematurely terminated, not delayed, or unoccupied because of visible signs of physical distress. The project is successfully completed but the would-be users, who are the direct beneficiaries of the project, or the end users have declined to take occupancy of the facilities due to a number of factors that this paper seeks to determine.

The working definition of this paper is the abandonment of completed projects is considered as completed building projects without occupied or indefinitely delayed occupancy continuously after six (6) months of handing over. This definition cannot fit into definitions of 'white elephant' projects, because white

elephant projects are extremely expensive projects with little or no output or unwanted and burdensome projects that turn out to be of limited value and are expensive to maintain or retire. A white elephant can be defined as a burdensome possession creating more trouble than it is worth (Martin, 2013). It is used usually to refer to valuable but burdensome possession of which its owner cannot dispose of and whose cost (particularly cost of upkeep) is out of proportion to its usefulness or worth. The American Heritage Dictionary of the English Language (2000) defines a white elephant as "a rare, expensive possession that is a financial burden to maintain". Consequently, Doraisamy et al. (2015) concluded, after reviewing several studies on project abandonment, that for a long period building project abandonment has not been given adequate attention.

2.2 The Causes of Completed Project Abandonment

Building project abandonment in developing countries are influenced by several factors (Olalusi and Otunola, 2012; Twumasi-Ampofo et al. 2014; Uket, 2017; Mac-Barango, 2017; Atamewan, 2020). These studies found that the causes of project abandonment include poor and faulty designs, non-user engagement, change of priority, and lack of adequate planning for the project at the inception phase. Also, changes in government and inconsistencies in government policies contribute to lots of project abandonment (Aluko, 2008; Efenudu, 2010; Marks et al., 2014; Damoah and Kumi, 2018; Atamewan, 2020). For example, in most developing countries like Ghana, the successive government usually embarks on

new projects without completing outstanding projects left by the previous government. Moreover, community interference and interruptions in demanding for compensation and re-settlement influence project abandonment (Efenudu, 2010; Ayodela and Alabi, 2011; Ihuah and Eaton, 2013). Besides, studies have opined that factors that influence project abandonment include poor risk management, communication gap among stakeholders, poor quality control, lack of adequate and efficient utility service such as the provision of electricity, water, access road and security, and misunderstanding of work requirements (Uket, 2013; Twumasi-Ampofo et al. 2014; Doraisamy et al., 2015; Mac-Barango, 2017; Alao et al., 2018). Further, Uket (2013) added that the causes of project abandonment in Nigeria include lack of proper vision/objective for the projects, inadequate planning, lack of municipal service, poor coordination between the project stakeholders. Moreover, Ayodela and Alabi (2011), in their quantitative approach affirmed that the causes of the project abandonment include inadequate planning, death of the client, change of priority, unresolved disputes, faulty designs, and variation of the project scope. Mac-Barango (2017) observed poor detailed and comprehensive design, unclear mission, and objectives of the project, poor stakeholders' management, and a communication gap among stakeholders as common reasons for project abandonment. According to Twumasi-Ampofo et al. (2014), Uket (2017) and Mac-Barango (2017), the classic reasons for building project abandonment are lack of adequate design and

planning for the project at the inception phase, non-user's engagement, and non-provision of auxiliary utilities.

2.3 The Effects of Completed Project Abandonment

Effects are inevitable when a project is abandoned (Doraisamy et al., 2015). Irrespective of the causes that contributed to the abandonment, there are often consequences on the construction industry, environment, society, and economy of the state (Atamewan, 2020). Moreover, these effects can be categorized into economic, social, and environmental-related factors (Mac-Barango, 2017). The "economic recession" of some developing countries is "believed to be one of the main reasons" for building project abandonment (Abdul-Rahman et al., 2015; Mac-Barango, 2017). Also, Rahman and Wang (2013), observed that abandoned building projects have environmental and socio-economic effects. The socioeconomic impacts incorporate unemployment, relocation of the populace, lost jobs, and value of the area (Rahman and Wang, 2015; Alao et al., 2018). The environmental effect comprises pollution and visual impact, erosion, and landscape modification (Alao et al., 2018). The impacts of abandoned projects are categorized as implications for stakeholders and end-users, construction industry, national economy, and the environment (Mac-Barango, 2017; Atamewan, 2020). Abdul-Rahman et al., (2015) opined that "environmental impact" is "one of the risks" that requires consideration by all parties in the building industry.

Besides, Ayodela and Alabi (2011) noted seven major effects of project abandonment in Nigeria as follows: 1) disappointment to the project users; 2) lowering living standards; 3) resource wastage; 4) unemployment; 5) decline in economic activities; 6) reduction in the state accruable revenue; 7) resulting in difficult to obtain foreign grants and loans. Earlier, Aluko (2008) outlined six impacts of project abandonment as "1) unemployment; 2) reduction in government revenue; 3) reduction in economic activities; 4) lowering the standard of living; 5) wastage of equipment on site; 6) an increase in the final cost of the project".

The above effects are not different from what the developed states have experienced due to project abandonment. However, Abdul Aziz et al. (2011) explained that the end-users in Malaysia suffered because they were "unable to reside in the houses on time as stated in the Sales and Purchase Agreement" yet were indebted to pay "monthly installments with interests to the banks".

Further, wastage of resources including material, equipment, and capital resources is a clear effect of project abandonment and a huge amount of money and resources is lost on the part of the client who has invested in the project (Olalusi and Otunola, 2012; Doraisamy et al., 2015; Mac-Barango, 2017). Also, an abandoned completed project becomes an eyesore, damaging the aesthetic vision and polluting the environment and structure (Doraisamy et al., 2015). Moreover, it is common to find "vandalism of project sites" (Alao et al., 2018;

Atamewan, 2020), carrying illegal activities at these places which affect the "safety and wellbeing of a community" (Twumasi-Ampofo et al. 2014; Uket, 2017; Mac-Barango, 2017).

3.0 METHODOLOGY

This study adopts the Qualitative Comparative Analysis (QCA) technique. A combination of project site observations, interviews, and closed-ended scale questionnaires was used for data collection (Rahman and Wang, 2015; Atamewan et al., 2020). QCA combines the strength of "qualitative and quantitative methods", and the "principles of logical comparison across a limited number of cases" usually, between 8 -25 (Kunz et al., 2015; Gerrits and Verweij, 2018). The cases represent a combination of causal conditions which are "possible to identify one or more pathways" to explain a "particular outcome" (Rihoux, 2013). This strategy is an in-depth study, aimed at exploring "specific cause and effect relationships" within specific "geographic or socio-culture" context. QCA, as a research method, has been employed in a variety of fields of studies which include; construction engineering and political economy (Marks et al., 2014; Gerrits and Verweij, 2018), economic, and sociology (Jordan et al., 2011). Moreover, QCA is increasingly applied in infrastructure project studies (Kaminsky and Javerrick, 2014; Kunz et al., 2015; Pattyn et al., 2017; Gerrits and Verweij, 2018).

The QCA method was adopted in this study due to the exploratory nature of the paper, and also because little or no studies have identified and compared the

factors that contribute to the abandonment of completed urban markets. However, the previous researchers employed analytical strategies in their investigation into the causes and impacts of infrastructure abandonment (Efenudu, 2010; Ayodele and Alabi, 2011; Ihuah and Eaton, 2013; Uket, 2017). These studies used multivariate statistical modeling, in which the contribution of a hypothesized causal factor or interaction terms on the outcome is estimated and holding all else constant. This variable-driven approach relies on large sample sizes and prioritizes quantities (Pattyn et al., 2015). However, this study adopts a case-based method to explore the causes and effects of completed building abandonment.

Both qualitative and quantitative data was obtained using purpose sampling in three stages. First, site observations of eight completed abandoned urban market projects were identified and conducted. Secondly, two members each from the consultant and contractor teams of the identified completed abandoned urban market projects were selected and interviewed using semi-structured questions. This was to limit the number of the interviews to an acceptable number of 8-20 (Catallo et al., 2013). Finally, closed ended questionnaires were administered to four respondents (would-be users, consultants, and contractors) from each of the eight market projects selected within the region. The purposive sampling was adopted due to the uniqueness of every market project, different project stakeholders and different project objectives.

The analysis of data employed qualitative and quantitative methods. The responses to the interviews on the causes and effects of abandonment of completed urban market projects adopted a qualitative approach, with the aid of the QCA (that is transcribed, coding, comparing, and categories emerging themes). The five-point Likert scale formed the basis for the quantitative analysis. This involved the adoption of the statistical technique of central tendencies (the mean score values) of the causative factors and effects of abandonment.

DECISION RULE - The criteria for interpretations of the outcome of the research question was adopted as follows: (i) Responses to statements which established mean score values of 3.0 and above were considered significant. (ii) Responses to statements which established mean score values below 3.0 were considered insignificant. The mean value score value is statistically expressed as:

 $x = \sum \frac{x}{N}$, Where x = is the mean value, \sum = is summation sign, X = is observation scores,

N = is the number of respondents.

4.0 PRESENTATION OF THE RESULTS

4.1 Respondents' Characteristics

Eight (8) completed abandoned projects within the region were identified, visited, and observed. Some of the observed projects are presented in Figure 1. A total of sixteen (16) consultants and contractors were interviewed, and thirty-two (32) questionnaires were administered to the would-be users, consultants, and contractors of the eight urban market projects identified within the region, as indicated in Table 1.



Kobedi Market Sheds



New Dormaa Market Sheds



Tanoso Market Stalls



Susuanso Market Stalls

Figure 1. Photographs of some of the observed abandoned completed urban market projects

Table 1 Response rate

Projects	Assembly	Location	Interview Respondents	Questionnaire Respondents
Tainso Market shed	Sunyani West Municipal	Taino	2	4
Susuanso Market sheds and stalls	Tano North Municipal	Susuanso	2	4

New Dormaa Market sheds and stalls	Sunyani Municipal	New Dormaa	2	4
Kobedi market shed	Sunyani West Municipal	Kobadi	2	4
Techire Market sheds	Tano North Municipal	Teachire	2	4
Tanoso Market sheds and stalls	Tano North Municipal	Tanoso	2	4
Kwabenakrom Market sheds	Sunyani West Municipal	Kwabeakrom	2	4
Asen Market sheds and stalls	Tano North Municipal	Asen	2	4
		Total	16	32

Field Observation, 2020

4.2 Presentation of the Interview Results

4.2.1 Causative Characteristics of Abandoned Completed Urban Projects

Thematic and descriptive approach was used after transcribing and coding for comparing the results of the data. The following codes, categories and emerging themes were identified as causes of abandoned completed urban market projects in the Bono Region as shown in Table 2.

 Table 2: Identified causes and emerging themes from the interviews

Projects	Identified Causes	Emerging Themes
Tainso, Susuanso, New Dormaa,	The small size of the sheds and	Design and
Kobedi, Tanoso, Teachire,	stalls, poor location of the sheds	planning factors
Kwabenakrum, and Asen	and stalls, poor landscape, poor	
	planning, non – commission of the	
	project after completion, and long	
	distance to the market.	

Tainso, Susuanso, New Dormaa,	Non-provision of access roads,	Auxiliary utility
Kobedi, Tanoso, Teachire,	water, electricity, security, and	factors
Kwabenakrum, and Asen	sanitation.	
Tainso, Susuanso, New Dormaa,	Communication gap among	User- engagement
Kobedi, Tanoso, Teachire,	stakeholders, the high price of	factors
Kwabenakrum, and Asen	sheds or stalls, high rental charges,	
	lack of users' consultations	

Field Survey, 2020

4.2.2 Effects of Completed Abandoned Urban Market Projects

Data from the interviews was transcribed, coded, and themed and the descriptive approach was used to compare the data. The following categories and emerging themes were identified as effects of abandoned completed urban markets in the Bono Region as shown in Table 3.

Projects	Identified Effects	Emerging Themes
Tainso, Susuanso, New	Project site taking over by weed,	Environmental Effect
Dormaa, Kobedi, Tanoso,	retiles and wide animals,	
Teachire, Kwabenakrum, and	Environmental pollution	
Asen		
Tainso, Susuanso, New	Reduction in employment	Economic Effect
Dormaa, Kobedi, Tanoso,	opportunities, waste of resources,	
Teachire, Kwabenakrum, and	and decrease in revenue	
Asen	accruable to the state	

Tainso, Susuanso, NewThe relocation of the populace, lossSocial EffectDormaa, Kobedi, Tanoso,of identity, and value of the areaTeachire, Kwabenakrum, andAsen

Field Survey, 2020

From the findings, bad location of the projects, non-provision of utilities, nonaccess to the projects site, high rent charges, improper security, long distance from the communities to the markets, small size of sheds and stalls, non-user consultation or engagement, non-provision of sanitation, non-provision of water and non-provision of electricity were identified as the causative characteristics of abandonment of completed urban market projects. These findings were further classified as Design and Planning Factors, Auxiliary Utility Factors, and End-users Engagement Factors. Also, resource wastage, unemployment, and decrease in revenue accruable to the state were revealed as the effects of completed abandoned urban markets and were classified as Environmental, Social and Economic factors. These findings were used in a questionnaire for quantitative data and the respondents were asked to rate their agreement or otherwise for further analysis using a five-point Likert scale as follows; strongly disagree =1, disagree =2, moderate =3, agree = 4, and strongly agree =5.

4.3 Presentation of the Questionnaire Results

Tables 4 to 6 present the results of the analysis of the identified causative characteristics of abandoned completed urban market projects.

4.3.1 Causes of Completed Abandoned Urban Market Projects

4.3.1.1 Lack of proper design and planning

In table 4, findings indicated an average mean of 3.78. Therefore, by the decision rule, the "lack of proper design and planning" contributes significantly, to completed abandoned urban market project. The detailed results in descending order of mean values were: lack of ventilation and inadequate space (4.00), poorly developed client brief and working drawings (3.75) and bad location and poor landscape (3.59). This confirmed the interview findings that size, location, landscape, planning, and distance to the market were factors that influence the completed abandoned urban market projects. Moreover, studies conducted by Ayodela and Alabi (2011) and Mac-Barango (2017) iterated that poor design of a project contributes to abandonment in Nigeria. Besides, Ayodela and Alabi (2013) opined in their various studies that inadequate planning contributes to project abandonment. Therefore, the causative characteristics of completed abandoned urban market align with the literature.

Table 4. Design and Planning Factors

Design and Planning Eactors	Total	Mean	Remarks
	(∑X)	(x)	Remarks
Poorly developed clients brief and working			
drawings contribute to project abandonment after	120	3.75	Significant
completion			
Bad location and poor landscaping influence project	110	3.59	Significant
abandonment after completion.			
Lack of ventilation, inadequate space, faulty design,			
and inadequate planning contribute to project	128	4.00	Significant
abandonment after completion.			
Average mean		3.78	Significant

Field Survey, 2020

4.3.1.2 Non-Provision of Auxiliary Utilities

The results of the analysis presented in Table 5 shows average mean value of 3.58, which established that Non-Provision of Auxiliary Utilities was a significant causative factor which reduces the level of satisfaction of the intended users of the markers. The detailed results shown in descending order were: access to lighting and security (4.00), non-provision of auxiliary utilities such as road, water, and electricity. Non- provision (3.44) and non-provision of sanitation and wastage disposal (3.31). The analysis from the interview shows that a lack of access roads to the project, water, electricity, security, and sanitation were the major factors

for the abandonment of completed urban market projects. These findings align with Olalusi and Otunola (2012) who asserted that lack of adequate and efficient utility services such as the provision of electricity, water, access road, and security contribute greatly to project abandonment. Uket (2013) supported that the causes of abandoned in Nigeria include lack of municipal service. According to Twumasi-Ampofo et al. (2014), Uket (2017) and Mac-Barango (2017), the classic reasons for building project abandonment are due to non-provision of auxiliary utilities.

Non-Provision of Auxiliary Utilities Factors		Mean	Remarks
	(∑X)	(x)	Remarks
Non-provision of auxiliary utilities such as access roads,			
water, and electricity influence project abandonment	110	3 44	Significant
after completion		0.11	
Non- provision and access to lighting and security	128	4 00	Significant
Contribute to project abandonment after completion	120	4.00	olgrinicarii
Non – provision of sanitation and wastage disposal	104	3 31	Significant
influence project abandonment after completion	100	5.51	Significant
Average mean		3.58	Significant

 Table 5 Non-Provision of Auxiliary Utilities Factors

Field Survey, 2020

4.3.1.3 Non End-Users Engagement

Findings indicated, on Table 6, that Non-End-Users Engagement at the planning stage of a project can lead to abandonment of completed market project. The

result shows an average mean of 3.41, which shows a significant outcome on this. Factors under this category established mean score as follows: lack of stakeholder engagement (3.50), high rent charges, and improper end-users' consultation (3.41), and contractor's inability to adhere to specifications, architects' instructions, and user requirements (3.31). The findings from the interview affirmed that communication gap among stakeholders contributes to the abandonment of completed urban markets. Mac-Barango, (2017) confirmed that poor quality control, communication gap among stakeholders, and misunderstanding of the work requirements contribute significantly to completed abandoned urban market project. Moreover, Uket, (2013) added that the causes of abandonment in Nigeria include poor coordination between the project stakeholders.

	Total	Mean	
Non-End- Users Engagement	(∑X)	(x)	Remarks
Non-stakeholder's engagement contributes to project	110	2 50	Significant
abandonment after completion	112	5.50	Significant
High rent charges and improper end-users consultation	109	3 11	Significant
influence project abandonment.	107	0.41	Significant
The contractor's inability to adhere to specifications,			
architects' instructions and user requirements contribute	106	3.31	Significant
to project abandonment after completion			
Average mean		3.41	Significant

Table 6 Non-End- Users Engagement

Field Survey, 2020

4.3.2 Effects of Completed Abandoned Building Projects

Tables 7 to 8 present the results of the analysis on the effects of completed urban market project abandonment.

4.3.2.1 Environmental Effects

Table 7 results show a mean average value of 3.67, which indicates that completed project abandonment affects the immediate environment is significant. The individual statements under this category obtained a mean score value above 3.0. For instance, an abandoned project providing accommodation and hide-out for hoodlums, armed robbers' gangs, and street boys (3.69), lack maintenance since they are not put into use and as such are always unpleasant in appearance, thus they constitute general eye-sore to the environment (4.00). Promoting the spread of fire from one building to another in case of fire outbreak, and can also house rats, scorpions, snakes, and other harmful creative thereby endangering the lives of the inhabitants of the environment (3.31).

These results confirmed the interview reports that completed projects abandonment have effects on the environment including the site being taken over by weed, reptiles, and wide animals, resulting in pollution of the physical environment.

Mac-Barango (2017) and Alao et al. (2018) supported that the effects of completed project abandonment can be classified as Economic, Social, and

Environmental-related factors. Also, Rahman and Wang's (2013) observations that abandoned building projects have environmental effects such as "visual effect, landscape modification, erosion, and pollution", damaging the aesthetic vision of the environment and building itself are consistent with this study's findings.

Environmental effects	Total	Mean	Remarks
	(∑X)	(x)	
Abandoned projects provide accommodation and			
hide-out for hoodlums, armed robbers' gangs, and	118	3.69	Significant
street boys.			
Abandoned project lack maintenance, unpleasant in			
appearance, and constitute a general eye-score to	128	4.00	Significant
the environment			
Abandoned projects promote the spread of fire in			
case of fire outbreak, house rats, scorpions, snakes,	106	3 31	Significant
and other harmful creative thereby endangering the	100	0.01	Signinean
lives of the inhabitants of the environment			
Average mean		3.67	Significant

Table 7 Environmental effects

Field Survey, 2020

4.4 Socio-Economic Effects

Table 8 shows an average mean value of 3.69, which shows that project abandonment has a significant effect on the national economy. All the mean

score values of the three variables were significant, with established mean values that were above 3.0 - Abandoned government-owned construction projects usually result in a loss for the national economy because such projects usually involve a huge sum of money. The construction industry contributes a lot to the national economy, receiving about 40% of the National budget therefore abandonment of construction projects results in huge losses including misuse of the funds. Moreover, the effects of abandoned completed market sheds and stalls obtained (3.56) mean value. This includes unemployment, waste of resources, reduction in revenue accruable to the state, relocation of the population, loss identity, and value of the area.

Moreover, the interview findings show a reduction in employment opportunities, waste of resources, decrease in revenue accruable to the state as effects of abandonment. Including relocation of the populace, loss of value, and identity of the area. It is in agreement that the effects of building project abandonment can be classified as Economic and Social related factors (Marks et al., 2014; Mac-Barango, 2017). Also, Rahman and Wang (2013) observed that abandoned building projects have "socio-economic effects". These include unemployment, relocation of the populace, and loss of identity of the area.

Table 8 Socio-Economic Effects

Field Survey, 2020

	Total	Mean	Description
	(∑X)	(x)	Kemarks
Abandonment of Government-owned construction			
projects usually results in a loss of the national	123	3.84	Significant
economy.			
The construction industry contributes a lot to the			
national economy. It receives about 40% of the			
The national budget therefore abandonment of	117	3.66	Significant
construction projects result in misuse of the	117	0.00	e.ge e
funds which could have been used for other more			
the profitable aspect of the economy,			
Abandonment of completed market sheds and stalls			
results in a reduction of employment opportunities,			
waste of resources, reduction in revenue to the state,	114	3.56	Significant
relocation of the populace, loss of identity and value			
of the area			
Average mean		3.69	Significant

5.0 CONCLUSION

The study concluded that the major causative characteristics of abandonment of completed urban market projects, including Design and Planning related factors, End- Users Engagement related factors as well as Provision of Auxiliary Utilities related factors. The effects of completed urban market project abandonment were environmental and socio-economic. The infrastructure market is a high priority for the government, citizens, and donors, on account of its crucial role in achieving social and economic development and growth in terms of resources, employment opportunities, and revenue accruable to the state. Finally, markets are a source of product delivery, providing jobs, and promoting communication and identity of the communities. It is therefore frustrating and puzzling to see much-needed infrastructure development projects abandoned after completion and hand-over, which in turn leads to high cost of repairs, damages, and national resource wastage.

6.0 RECOMMENDATIONS

It is therefore recommended that strategic and effective consultation with endusers, suitable design, and planning in the conception phase of the projects, and provision of auxiliary utilities such as security, electricity, water, sanitation, and access road to the facilities be undertaken before handing over. The researchers recommend that: (1) in order to avoid the abandonment of projects by wouldbe users, all salient auxiliary utilities such as electricity, water, sanitation, and access road be provided before the project handing over and (2) the auxiliary utilities that come with the project should be included in the planning and design phases of the main projects.

REFERENCES

Abdul Aziz, H. and Omran, A., 2011. Implication of Non-Completion Projects in Mslaysia.. Act of Technical Corviniesis - Bulletin of Engineering Tone, pp. (5), 29-38.

Abdul-Rahman, H., Wang, C. and Ariffin, H. N., 2013. Identification of Risk Per taining ton Abandoned Housing Projects in Nigeria. *Journal of Construction Engineering*.

Abdul-Rahman, H., Alashwal, A. M. & Abdullah, A. A., 2016. ABANDONED HOUSING PROJECTS IN MALAYSIA: RISK MANAGEMENT CAPABILITIES DURING REHABILITATION. *ArchNet-IJAR*, 10(2).

Abdul-Rahman, H., Wang, C. & Ariffin, H. N., 2013. Identification of Risk Pertaining to ton Abandoned Housing Projects in Nigeria.. *Journal of Construction Engineering*..

Abdul-Rahman, H., Wang, C. & Ariffin, N.H., 2015, N. H., 2015. Identification of risks pertaining to abandoned housing projects in Malaysia.. *Journal of Construction Engineering, 2015,* pp. 1 - 12.

Akimdoyeni, J. A., 2005. Housing in Nigeria National Development. Econmic and Social Journal, pp. 14(3), 315.

Akindoyeni, J., 1989. The Management of Adandoned Project.. Journal of Nigeria Institute of Building, pp. 1(1552), 27.

Akindoyeni, J., 2005. Housing in Nigeria National Development.. Economic and Social Journal, pp. 14(3), 315.

Alao, O. O. and Jagboro, G. O., 2017. Assessment of causative factors for project abandonment in Nigerian public tertiary educational institutions. International Journal of Building Pathology and Adaptation.

Aluko, O., 2008. Construction Project Abandonment in Nigeria, A Threat to National Economy.. *Knowledge Review*, pp. 16(3), 18-23.

Amade, B., 2014. Containing Failure and Abandonment of Public Sector Construction Projects in Nigeria. Department of Project Management Technology. Owerri, Nigeria, pp. 1-35.

Amoa-Abban, K., 2017. The Impact of Abandoned Government Housing Projects in Ghana.. International Journal of Advanced Engineering Research and Technology, pp. 5(6),439-453.

Andoh, C., 2014. Two Gomoa Markets Abandoned. Dailly Graphic.

Ariffin,, N. F., Jaafar, M. F. M., Ali, M. I. & Ramli, N., 2018. nvestigation on factors that contribute to the abandonment of building in construction industry in Malaysia.. E3S Web of Conferences (Vol. 34, p. 01025). EDP, 34(1), p. 01025.

Atamenwan, E. E., 2020. Abandonment of Housing Projects in Nigeria: Appraisal of the Environmental and Socio-Economic Implications. *European Journal of Environment and Earth Sciences*, 1(4).

Ayodela, E.O. and Alabi, O.M., 2011. Abandonment of Construction Projects in Nigeria : Causes and Effects.. Journal of Emerging Trends in Economics and Mamagement Science., pp. 2(2), 142-145. Ayodele, E. O. and Alabi, O. M., 2011. Abandonment of construction projects in Nigeria: causes and effects.. Journal of Emerging Trends in Economics and Management Sciences, 2(2), pp. 142 - 145.

Catallo, C., Jack, S.M., Ciliska, D. and MacMillan, H.L., 2013. Mixing a grounded theory approach with a randomized controlled trial related to intimate partner violence: what challenges arise for mixed methods research? *Nursing research and practice*, 2013.

Daily Graphic, (August, 2018).. Ghana Faces Housing Glut - Despite Deficit., Accra - Ghana: s.n.

Damoah, I.S. and Akwei, C., 2017. Government Project Failure in Ghana : A Multi dimensional Approah. International Journal of Managing Projects in Business, pp. 10 (1), 32-59.

Damoah, S.D. and Kumi, K. D., 2018. Causes of Government Construction Projects Failure in an Emerging Economy : Evidence from Ghana.. International Journal of Managing Project in Business., pp. 11(3), 558-582.

Damoah, I. S. and Akwei, C., 2017. Government Project Failure in Ghana : A Multidimensional Approach. International Journal of Managing Projects in Business, 10(1), pp. 32 - 59.

Damoah, I. S. & Kumi, D. K., 2018. Causes of government construction projects failure in an emerging economy.. International Journal of Managing Projects in Business., 1(1), pp. 304-325.

Dictionary, L., 2005. Longman Dictionary of Contemporary English.. Pearson Education Limited, England.

Doraisamy, S. V., Akasah,Z. A. and Yunus, R., 2014. A Review on Abandoned Construction Projects, Causes and Effects. International Integrated Engineering Summit., pp. IIES(14), 1-4.

Doraisamy, S.V., Akasah, Z. A. and Yunus, R., 2015. A Review on Abandoned Constructure Projects :Causes and Effects.. Applied Mechanics and Materials -International Integrated Engineering Summit.

Efenudu, F. O., 2010. Causes and effect of abandonment of project on property value; a case of Port Harcourt.. Unpublished First Degree Dissertation, Department of Estate Management, , Faculty of Environmental Sciences, Rivers State University of Science and Technology, Nigeria.

Gerrits, I. and Verweij, S., 2018. The Evaluation of Complex Infrastructure Projects :A Guide to Qualitative Comparative Analysis. *Transport Economics Management and Policy*.

GHA, 2 November, 2017. Dome Market Women cry for Sheds. Happy FM.

GHA, 20 October, 2014. Residents Abandoned New Market to Rot. Peace FM.

GHA, 28 September, 2016. Twifo Praso Traders Abandoned Market Sheds. TV 3 Network.

GHA, 3 Febuary, 2018. Three Markets Abandoned in Central Region. *Graphic on line*, p. Article 623134.

GHA, 3 Febuary, 2019. Three Markets Abandoned in Central Region. Graphc on line,, p. Article 623134.

Graphic, D., 2018. Ghana Faces Housing Glut - Despite Deficit., s.l.: s.n.

Ihuah, P.W. and Eaton, D., 2013. A framework for the sustainable management of social (public) housing estates in Nigeria: A pilot study. *RICS COBRA*.

Jordan, E., Gross, M. E., Javernick, A. N. and Garvin, M. J., 2011. Use and Misuse of Qualitative Comparative Analysis.. *Construction Management and Economics,* pp. 29(11), 1159-1173.

Kaminsky, J. A. and Javernick, A. N., 2014. The Internal Sustainability of Sanitation Infrastructure.. Environmental Science and Technology, 48(17), pp. 10028 - 10035. Kelly, M. and Jakupa, v., 2016. Assessing the Impact of Foreign Aid : Value for Money and Aid for Trade. Academic Press Imprint. Elsevier. USA.

Kunz, N. C., Fischer, M., Ingold, K. & Hering, J., 2015. Why do some water utilities recycle more than others? A qualitative comparative analysis in New South Wales, Australia. *Environmental science & technology, 4*9(14), pp. 8287 - 8296.

Mac-Barango, D., 2017. Construction Project Abandonment : An Appraisal of Causes, Effects and Remedies.. World Journal of Innovation and Modern Technology, pp. 1(1), ISSN 2504-4766.

Marks, S. J., Komives, K. & Davis, J., 2014. Community participation and water supply sustainability: evidence from hand pump projects in rural Ghana. *Journal of Planning Education and Research*, 34(3), pp. 276 - 286.

Martin,G. (2013); "The meaning and origin of the expression: A white elephant" The Phrase Finder. Retrieved from www.phrases.org.uk/meanings

Mayor, M. e., 2009. Longman dictionary of contemporary English. India: Pearson Education.

Okereke, C., 2017. Causes of Failure and Abandonment of Projects and Deliverable in Africa.. Journal of World Project Management, p. 6(1).

Olalusi and Otunola, 2012. Abandonment of Building Projects in Nigeria : A Review of Causes and Solutions.. International Conference on Chemical, Civil and Environmental Engineering, Dubai, pp. (ICCEE), 253-255.

Panayides, P.M., Parola, F. and Lam, J. S. L., 2015. The Effect of Institutional Factors on Public- Private Partnership Success in Ports.. *Transportation Research part A* : *Policy and Practice*, pp. (7) 110-127.

Pattyn, v. Molenveld, A. and Befani, B., 2017. Qualitative Comparative Analysis as a n Evaluation Tool : Lessons from an Application in Development Cooperation.. America Journal of Evaluation.

Pattyn, V., Gerrits, L. M. and Verweij, S., 2015. Qualitative Comparative Analysis.. Meer Behorend bij Dekwalitative dan de Kwantitative Benadering, Kwalon, pp. 20(3), 26-33.

Rahman, H. A., Alashwal, A. M., Ayub, M. & Abdulla, 2013. Abandoned housing projects in Malaysia: Pressing issues during the rehabilitation process. ArchNet-IJAR:. International Journal of Architectural Research, 1(1), p. 65.

Rihoux, B., 2013. Qualitative Comparative Analysis (QCA), Anno 2013 : Reframing the Comparative Method's Seminal Statement.. Swiss Political Science Review, pp. 19(2), 233-245.

Twumasi-Ampofo, K., Osei- Tutu, E., Decardi-Nelson, I. and Ofori, P. A., 2014. A Model for Reactivating Abandoned Public Housing Projects in Ghana.. *Civil and Environmental Research*, pp. 6(3), 2014. Uket, E., 2013. Root Causes of Project Abandonment in Tertiary Institution in Nigeria.. International Business Research., pp. 6(11), 149-159.

Web, G., 18 October, 2018. Statistical Service's Seventh Living Standards Survey. Graphic online.

Web, G., 18 October, 2019. Ghana makes Progress in Poverty Reduction : But Inequality between Rich and Poor Widens. *Graphic online*.