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REIMAGINING WORK: THE IMPACT OF AI ON NIGERIA'S EMPLOYMENT STRUCTURES AND GIG ECONOMY

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Abstract: Abandoned construction projects present significant challenges to clients, contractors, and the broader Nigerian economy. This study investigates the root causes and impacts of project abandonment using a combination of primary and secondary data sources. Data were collected from selected abandoned projects across three major Nigerian cities. The study utilized statistical tools, particularly measures of central tendency (mean score), to evaluate and analyze the primary causative factors and the associated consequences of construction project abandonment.

Findings indicate that key factors contributing to project abandonment include inadequate planning, insufficient funding, inflation, contractor bankruptcy, project scope variation, faulty designs, delayed payments, and the prevalence of unqualified professionals (quackery). Among these, fund-related issues—such as unanticipated inflation, inaccurate cost estimations, and financial insolvency—were identified as having a particularly high propensity to result in abandonment.

The consequences of such abandonment are far-reaching, encompassing resource wastage, reduced employment opportunities, a slowdown in construction sector activities, and diminished government revenue. The study emphasizes that strategic financial planning during the conceptual phase of construction projects is crucial to mitigating these risks.

It recommends that stakeholders prioritize robust capital budgeting and realistic cost estimation early in the project lifecycle. Doing so would significantly reduce the occurrence of abandonment, enhance construction sector performance, and contribute to sustainable economic development in Nigeria.

Keywords: The concept of abandonment; causes of abandonment; effects; remedies.

INTODUCTION

There exist a conceptual difference between projects that are out rightly abandoned and those that are suspended due to one reason or the other. According to Jacobson (2007), abandoned housing projects in the UK and USA refer to building that are unoccupied and show visible signs of physical distress (i.e. boarded up, burned, exposed to the elements or have deteriorated). See also Rahman's et-al assertion (2013), that a housing project in Malaysia is regarded as abandoned if construction project is not completed or the housing units are not ready for occupation. The ministry of housing and local government (MHLG) of Malaysia has also set four conditions, if one or more are met, then the project will be declared abandoned: (1) No construction activities on site for six months or more

Original Article

(2) the developer wounds up (3) the developer declares an inability to complete the project and (4) the MHLG declares the project abandoned pursuit to the housing development Act (118). According to Abdul-Rahman (2015), a housing project is generally defined as abandoned when the construction project is not completed and ready for occupation on schedule.

Previous Study on Abandonment

There is generally a Paucity of statistical data and research on abandoned projects both globally and in Nigeria. The research however draws from the works of Rahman et-al (2013) which reveals that from January 2003 to 30 June 2012, there are 177 abandoned housing projects in Peninsular Malaysia. The figure represents 2.7% only of the total housing projects completed. The works of Khalid (2010) as cited in Rahman et-al (2013), also revealed that abandonment of housing projects during construction appeared during the mid 1980s, during the first economic recession that hit Malaysia. By the end of 1986, 126 housing projects were reported to have been not completed as scheduled and left completely abandoned.

The number of housing units abandoned at that time was 14,568 affecting 6,834 buyers. In 1990, Bank Negara had set up the abandoned housing project fund. (AHPF) to provide special assistance to abandoned housing projects. The fund approved at the end of the 1993 was RM 382 million, which targeted to revive 23,287 housing unit. (Hussin 1994 cited in Rahman et-at 2013). The construction industry in Malaysia has a poor reputation for managing risks, with many major projects that have failed to be completed within the specified time frames of the project.

Abandoned housing projects are not unique to Malaysia as it is considered as a major problem in the construction industry in many other countries including US, Spain, Russia, Dubai and Kuwait. (Hoe cited in Abdul Rahman et-al 2015). Reports from studies undertaken by Abdullah and Abdul-Rahman (2012) cited in Abdul-Rahman et-al (2015) also established that between 1990 and 2005, there were a total of 261 abandoned housing projects in Malaysia involving 88,410 houses. Even though the number has been gradually decreased, it was reported that in 2010, there were houses which would require RM3 to RM5 for the projects to be completed. There is seemingly a paucity of statistical data research and reviews on works on abandoned housing projects. This notwithstanding, it is becoming obvious that such issues occupy a centre stage of the calculus of the built environment. Abandoned projects inadvertently affect the government; colossal sums of money are usually tied down. Contractors, consultants, development firms, merchants/suppliers of building materials and indeed all stakeholders are impacted by the occurrence of abandonment. This research contributes towards bridging the existing gaps, it explains the conceptual/contextual meaning of abandoned projects. The structure of the paper also draws from previous works on abandoned projects both at global and at national level. Second it undertakes a literature review on the causes, effects and remedies for abandoned housing projects. It also explored and provided answers to how the following can lead to abandonment: (i) lack of proper development and planning at the design or inception of a project can lead to abandonment. (ii) improper management and poor administration during the construction stage (iii) funds related problems such as unanticipated inflation, wrong estimation and bankruptcy. Third, it embarks on research methodology, which uses statistical techniques to examine the occurrence of abandonment in some projects cutting across three states of Nigeria. Conclusions are drawn from the research findings and the review of related literature.

REVIEW OF RELATED LITERATURE

The Causes of Abandonment:

The causes of abandoned housing projects in Malaysia can be categorized into the following: Economic, financial, legal, mansard, selling system-related factors, developed-rated factors and unforeseen risk factors. (Addul-Rahman et-al 2013). The influence of the economy on the construction industry and abandoned housing, Projects are intervened. The economic recession that struck Asian countries in the mid-1980s is believed to be one of the main reasons for the abandonment of numerous housing projects. (Hussin 1994). Carrero et-al (2009) cited in

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Abdul- Rahman and Wang (2015), have equally observed that abandoned housing projects can bring both environmental and socio-economic impacts. Those of socio economic nature include loss of jobs, loss of value of the area, marginalization of population and transfer of cost between private and public sector and those of environmental nature include visual impact, Landscape modification, erosion, loss of biodiversity and pollution. The causes of housing project abandonment in other developing countries seem to be different.

For example, in Nigeria, the following are the causes of abandonment of projects in correct estimation, lack of available skilled personnel; inadequate planning, poor risk management, misunderstanding work requirements, poor quality control by regulatory agencies, corruption and communication gap among personnel (Olalusi and Otunola 2012). Causes of abandoned housing projects seem to vary in different countries, however, one common reason, is that abandonment is mainly due to the unforeseen factors resulting from the initial misestimating of project costs by developing of the housing project during the planning. (Abdul-Rahman and Co 2013, Yunus A, 2014, Odeyinka and Yusuf 1997).

One classic reason for housing projects abandonment is predominantly the unforeseen factors resulting from the initial estimation of developers of the housing project development cost during the planning stage. The discrepancies between the estimated and actual construction costs make the housing project unfeasible during the implementation stage, such that developer has to abandon the housing project. (A. Tan 2004).

The Effects of Projects Abandonment

The effects of abandoned housing projects can be categorizes into the following:

Implications on the housing buyers and other stakeholders involved, implication on the construction industry as the national economy and implications on the environment. AboulRahman et-al (2015) have further revealed that environmental impact is one of the risk that need to be taken into consideration by parities' involved in housing industry. Although this risk might not occur in every project, if it happens, it will have severe negative effects on the housing project.

The Risk Factors *Cost Overrun:*

The occurrence of cost overrun can have devastating impacts on the construction projects. Nega (2008) as cited in Mukuka et-al (2014) provides an array of factors: To the client an added cost over and above those initially agreed upon at the onset, resulting in less return on investment. To the ender user; the added costs are passed on as higher or less costs or prices. To the professionals; cost overrun implies inability to deliver value for money and could well tarnish their reputation and result in loss of confidence response in them by clients. To the contractor, it implies loss of profit for non-completion and defamation that could jeopardize his or her chances of winning further jobs, if at fault. To the industry as a whole, cost overruns could bring about project abandonment and a drop in building activities, bad reputation and inability to secure project finance or securing it at higher cost due to added risks.

Schedule Overrun

The study of Pourrostam and Ismai (2012), cited in Mukuka et-al (2014) identified and ranks the effects of construction delays as follows: time overrun, cost overrun, dispute arbitration, litigation and total abandonment of projects. The findings are in tandem with the outcome of researches undertaken by Aibinu and Jagboro (2012) and Motaleb and Kish (2010) cited in Mukuka et-al (2014).

Various risk are associated with the problems that lead to abandoned housing projects. Failure to be completed within the allotted time, contractor's failure (due to lack of good plan, unqualified workers, shortage or excess of materials supply to site, financial failure by contractor), political instability, economic recessions of countries are some of the common problems. Al-Najjar (2002), cited in Mukuka et-al (2014), have identified a total of 42 factors that cause cost overruns and ranked the top ten causes as follows: Technical incompetence, poor organizational structure and failure of enterprises, lack of cost report during construction stage, inadequate project preparation, planning and implementation, delays in issuing information to the contractor during construction

sage, lack of co-ordination at design phase, change in the scope of the phase, change in the scope of the project or government policies. Some tendering maneuvers by contractors, such as front-loading of rates, incomplete design at the time of tender, bad allocation of labour inside the site and delays indecisions making by government. Mukuka et-al (2014), citing Eshferrie (2008), revealed 40 causes of cost overrun with the top ten being the following: cost of materials incorrect planning, wrong method of estimation, contract management, fluctuation of prices of materials, previous experience of contractor, absence of construction cost data additional cost and project financing. The causes of schedule overrun as obstructed by Ade-ojo and Babalola (2013), cited in Mukuka et- al (2014) can be categorized, into 6 major causes which were ranked as follows: design error, poor site condition, delay in payment, financial in capability of contractor and non-availability of sub-contractor and supplier.

The Strategies and Remedies To Prevent Abandonment Of Project

Abdul (2013), using finding from review of related literature and the case studies analysis of the Malaysian housing has industry advanced the following as strategies and remedies to prevent the problem of housing project abandonment: legal actions and amendments, public-private partnership, scrutiny of current selling system. The remedies after the problem has occurred include: The rehabilitation of the abandoned projects, actions taken to rescue the rights of purchasers as the creation of a special task force and a special purpose vehicle.

Adequate Project Approach both at the conceptual, implementation and through the lifecycle of projects have high propensity to minimize project abandonment. **Project Appraisal** is the process of assessing, in a structures war, the case for proceeding with a project or proposal, or the **Project Viability.** It often involves comparing various options, using economic appraisal or some other decisions.

The process involves:

- Initial assessment
- Define Problem, establishing a long-list
- Consult and short list
- Evaluate alternatives
- Compare and select project appraisal.

The appraisal Technical, project, commercial and marketing, financial/economic organizational or management appraised cost benefit analysis, cost-effectiveness analysis and scoring and weighting. (**Wik: pedia 2016)**

Mc Connell (2011), has observed that when organization wants to find a solution to a particular business problem and identify the best way for implementing that solution, it needs to plan and develop a project that might provide an effective action plan addressing the problem through implementing the solution. This organization will need to give an appraisal of the potential project to make sure the project is really affective because it supports the right and solves the required problem. Project appraisal management serves as the major process of analyzing and appraising the project. Appraising a project means evaluating the proposed solution against its ability to solve the identified problem or need. He further reiterated that project appraisal is a consistent process of reviewing a given project and a valuating its content to approve or reject the project, generating solution options (alternatives) for solving the problem, selecting the most feasible option, conducting a feasibility analysis of that option, creating the solution statement, and identifying all people and organizations and concerned with or affected by the project and its expected out comes. It is an attempt to justify the project through analysis, which is a way to determine project feasibility and cost effectiveness.

Developing/Adopting a Template For Project Appraisal

Appraising a project means evaluating the proposed solution against its ability to solve the identified problem or need. **(Mc Connel 2011).** In the context of the above statement, project appraisal by default adopts a template: Mc Connell (2011) provides a typical template which consist of an array of steps: and the necessary actions that are required:

Original Article

STEP 1: ***Concept Analysis:*** Involves conducting a range of analyses in order to determine the concept of the future project and provide the decision package for the senior management (Project Sponsors) for approval. The project appraiser or analyst needs to carry out the problem – solution analysis that determines the problem / need to be addressed and the solution to be used to handle the problem. The solution should be analyzed by cost effectiveness and feasibility. Also the appraiser is to developing or adopting a template for project appraisals. Identify stockholders and analyzed their needs (how they relate to the problem and / or solution). Next, is to develops a decision package that includes:

(1) The problem statement,
(2) The solution proposal,
(3) The stakeholder list and the
(4) The funding request

This package will then be submitted to the sponsor for approval (or rejection). If the sponsor approves the project concept, then you can proceed to the next step.

STEP 2: ***Concept Brief:*** At this step the project appraiser must develop a summary of the project concept to define the goals, objectives, broad scope, time duration and project costs. All these data will be used to develop the concept brief. Develop a project statement document that specifies the project mission, Goals, objectives and vision. The you create a broad scope statement that specifies the boundaries, deliverables of the endeavour. Finally, you make a preliminary schedule template that determines an estimated duration of the project and develop a cost projection document based on cost estimates and calculations.

STEP 3: ***Project Organization:*** Use the concept brief to determine an organizational structure of your project. This structure should be developed and explained in the project organizational chart. The document covers such issues as governance structure (roles and responsibilities), team requirements and composition, implementation approach, performance measures and other information. The idea behind the project organizational chart is to create a visual representation of the roles, responsibilities and their relationships and what people/organizations are assigned to what roles and duties within the project.

STEP 4: The final stage requires you to review all the previous steps and gather them into a single document called the project Appraisal. This document summaries all the estimations and evaluations made to justify the project concept and verify that the proposed solution addresses the identified problem. The financial, the cost – effectiveness at the feasibility study analysis will serve as the methods of project appraisal to approve the project. The document is to be submitted to the stakeholders, the customer, the sponsor for review and approval. If the appraisal is approved then the project steps to the next phase, the planning.

RESEARCH METHODOLOGY

The methodology adopted for this research involved a combination of literature review, questionnaire survey and interviews on information about abandoned housing projects were obtained from three state capital cities in Nigeria. (Port- Harcourt, Owerri and Enugu). The sources of data for this research includes both primary and secondary sources. Using the data obtained from the (reviews on related literature, questionnaire survey, interviews) as well as visitation of abandoned projects sites and analysis on the various identified factors that caused abandonment were undertaken. The literature review provided a broad based perspective for the various causes and the associated risks that lead to the problem of abandoned housing projects. The information on the variables/ factors formed the basis for the questionnaire design as well as its administration. Random Sampling technique was employed for the collection of data, through the use of questionnaire. Data was collected from building clients, consultants, contractors and the work-force within the Port-Harcourt, Owerri and Enugu all cities in Nigeria. The feedback from the questionnaires that were distributed formed the basis for analysis. The questionnaire forms were designed carefully to ensure that all the questions that are related to the objectives are reflected. The questionnaire was structured into two parts: Section A focuses on obtaining background

Original Article

information on professionals,-(Architects, Quantity surveyors, engineers) as well as the organization where they work, the contractors and the clients. Section B focuses on and identifies the causative factors as well as the impacts of variables that lead abandonment of housing projects of the selected projects. The respondents were required to circle or tick on the appropriate blank spaces, whether or not they agree or disagree to the question asked as they relate to the causative and impacts of abandoned projects in the research areas.

Analysis of Data: The analysis of data involved both qualitative as well as quantitative method. The responses to the outlined questions on the causative and the impacts of abandonment adopted a qualitative approach. The respondents, using the questionnaire adopted four points scale instrument as follows:

Strong Agree 4 points Agree 3 points

Disagree 2 points Strong Disagree 1 points

The four point scale instrument 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 as well as the impacts of abandonment, which were categorized under the following 5 (five) groups of research questions.

(1) Lack of proper development and planning at the design or inception of a project can lead to abandonment. (2) Improper management and poor administration during the construction stage can lead to abandonment. (3) Funds related problems such as unanticipated inflation, wrong estimation and bankrupted can led to abandonment. (4) Project Abandonment has a negative impact on the immediate environment directly or indirectly. (5) Project abandonment has a negative impact on the National economic, directly or indirectly.

Critical to the interpretations of the outcome of the research questions is the adoption of the DECISION RULE, which states as follows:

(i) Responses to questions which established mean score values of 3.0 and above were considered significant. (ii) Responses to questions which established mean score values below 3.0 were considered insignificant.

The mean value score value is statistically expressed as:

$$\bar{X} = \frac{\sum x}{N}$$

Where $\bar{X}$ is mean

$\sum$ is sum of (summation sign)

X = is observation scores

N = is sample size (number of respondents)

PRESENTATION OF RESEARCH ANALYSIS AND DISCUSSION OF RESULTS

Presentation of Results:

Tables 4.1 to 4.5 present the result of analysis of the research questions.

Table 4.1: Presents the results on research question 1: Lack of proper development and planning at the design or inception of a project can lead to abandonment.

S/N	FACTOR	TOTAL (EX)	MEAN (X)	RMKS
1.	Poorly developed clients brief and working drawings can result in project abandonment	60	3.00	SN
2.	Unrealistic cost planning and control at the design stage can lead to project abandonment	69	3.45	SN

3.	Lack of organized work program planning can truncate construction activities and consequently result in project abandonment	57	2.85	Is
	Grand mean		**3.10**	

Table 4.2: Presents the results of the analysis on research question 2: Improper management and poor administration during the construction stage can lead to abandonment.

S/N	FACTOR	TOTAL (EX)	MEAN (X)	RMKS
4.	Incompetence and poor professional expertise on the part of project manager can result in project abandonment.	60	3.00	SN
5.	Contractors' inability to adhere to specifications, architects instructions, user requirement and standard building codes could lead to project abandonment.	69	3.30	SN
6.	Failure of the members of the construction/development team such as the civil engineer, quantity surveyor and other consultants to effectively believer the project as required by the term of agreement of the contract could result to project abandonment.			
	Grand mean		**3.03**	

Table 4.3: Present the results of the analysis on research question 3: Funds related problems such as unanticipated inflation, wrong estimation and bankrupted can led to abandonment.

S/N	FACTOR	TOTAL (EX)	MEAN (X)	RMKS
7.	Bankruptcy, which is a terminal stage of insolvency on the part of either the client or the contractor, can cripple site activities and thus result in project abandonment.	70	3.5	SN
8.	Unpredicted inflation that has a significant increase in the cost of construction materials could blow up the client contractors budget and could drain their purse and result in abandonment.	71	3.55	SN
9	Incompetence or professional negligence on the part of the clients Quantity Surveyor or contractor Quantity Surveyor resulting in wrong estimation can result in gross loss or bankruptcy any or both of which can cause project abandonment.	63	3.15	SN
	Grand mean		**3.40**	

Table 4.4: Present the results of the analysis on research question 4: Project Abandonment has a negative impact on the immediate environment directly or indirectly.

Original Article

S/N	FACTOR	TOTAL (EX)	MEAN (X)	RMKS
10.	Abandoned projects, especially those abandonment after the roofing stage can provide accommodation and hide-out for hoodlums, armed robbers gangs and street boys.	72	3.60	SN
11.	Abandoned project lack maintenance since they are not put into use and as such are always unpleasant in appearance, thus they constitute general eye-score to the environment.	72	3.60	SN
12.	Abandoned projects can promote the spread of fire from one building to another incase of fire outbreak, and can also house rats, scorpions, snakes, and other. Harmful creative thereby endangering the lives of the inhabitants of the environment	61	3.05	SN
	Grand mean		**3.42**	

Table 4.5: Present the results of the analysis on research question 5: Project abandonment has a negative impact on the National economic, directly or indirectly.

S/N	FACTOR	TOTAL (EX)	MEAN (X)	RMKS
13.	Abandonment of Government owned construction projects usually results in a loss of the national economy because such projects usually involve large sum of money	69	3.45	SN
14.	The construction industry contributes a lot to the national economy. It receives about 40% of the National budget therefore abandonment of construction projects results in misuse of the funds which could have been used for other more profitable aspect of the economy.	66	3.30	SN
15.	Project abandonment lowers the standard of living of the people by creating scarcity of accommodation due to inability to complete new buildings and this scarcity makes the people to begin to live anywhere a house is available and yet pay unreasonably high for such substandard areas.	57	2.85	IS
	Grand Mean		**3.20**	

DISCUSSION OF THE RESULTS

Original Article

This segment of the paper discusses the results of the analysis on the research questions 1 to 5. Findings from the analysis of data in table 4.1 establishes a grand mean value of 3.10. This by the decision rule shows that the respondents agreed to the fact that lack of proper development and planning at the design or planning stage of a project can lead to project abandonment. Statement No. 3, under table 4.1 however established a non significant mean score value of 2.85. Table 4.2, establishes a grand mean value of 3.03, which shows that the respondents agreement that improper management and poor administration during the construction stage of the project can lead to project abandonment. Statement No. 6, under table 4.2 (Failure of the members of the construction/development consulting team to effectively deliver the project leading to abandonment was insignificant; this shows that the respondents did not agree to statement No. 6.

Table 4.3, establishes a mean grand value of 3.40, which shows a significant outcome on the research question 3 (page 10) Funds-related problems such as unanticipated inflation, wrong estimation and bankruptcy are also factors that can cause project abandonment. All the individual statements under this category of the research question also established mean score values above 3.0. Table 4.4, establishes a mean grand value of 3.42, which shows that research question 4, (i.e. abandoned project has a negative impact on the immediate environment directly or indirectly). The individual statements under this category of the research also established mean score values above 3.0. Table 4.5, establishes a mean grand value of 3.20, which shows that research question 5. (i.e. project abandonment has a negative impact on the national economy, directly or indirectly). Statement No. 15 under this category of the research question as an individual item however establishes a mean score value less than 3.0.

SUMMARY OF RESEARCH FINDINGS

The following constitute the summary of findings on the analyzed data from the field work. A total of five (5) research questions were as analyzed. There were a total of fifteen (15) sub statements (individual) statements that were analyzed. Three (3) sub statements out of fifteen established mean score values that were less than a Grand mean score value of 3.0. All the Grand mean score values of the five research questions 1-5 (see pages 10-11) were significant, established values that were 3.0 and above. This is however not the case with some of the sub statements under the major categories of the research questions. Sub statements No. 3, No. 6 and No. 15 i.e. (lack of organized work program planning can truncate construction activities) failure of members of the construction team to effectively deliver the project and incompetence or professional negligence on the part of clients Quantity Surveyors or contractor's resulting in wrong estimation resulting in gross loss or bankruptcy or both) respectively, individually scored mean values that were less than 3.0. These sub statements were therefore considered insignificant. All the mean score values of sub statements under the research questions (3 and 4) recorded mean score values above 3.0 just like the grand mean values of the research questions

i.e. fund related problems which border on unanticipated inflation, wrong estimation and bankruptcy and environmental impacts, which border on issues such as hide outs for hoodlums, armed robbers, gang and street boys and other environmental hazards.

CONCLUSION

The research offers an overview of projects abandonment in three cities of Nigeria. (Port Harcourt, Owerri and Enugu) by identifying the causes, effects, and current initiatives to the problem. Based on the review of related literature, the factors which influence projects abandonment can be categorized as follows: Economic, financial, legal, managerial, system based factors. Other variables/factors are unforeseen risks, fraud and corruption, develop misuse of deposits, oversupply, developers winding up the business, conflicts and squabbles among stakeholders and non conformance with construction specifications. Legal issues such as obtaining development approvals and licenses have been recognized as major contributors to abandoned housing projects. Bad reputation and lack of confidence on developers in the housing sector. The identified factors have socio-economic and environmental implications. The following conclusions arising from the analysis of data obtained from the field

work are drawn. The research questions under the five major categories all have the propensity to cause abandonment of project. Fund related as well as environmental problems are more crucial factors in relative terms to other causative factors of abandonment of projects; within the research area. The sub statements 3, 6 and 15 under research questions 1, 2 and 5 respectively have less propensity to cause abandonment.

RECOMMENDATION

The following recommendations are advocated based on conclusions drawn from the analyzed factors. In the management of potential sources of abandonment, due consideration should be given to all the issues raised in the research questions without prejudice to the above statement, consideration and weighting of causative factors of abandonment should be skewed more towards fund related and environmental issues. Weighting the factors of issues on lack of organized work program, failure of members of the construction/development team to delivery could be assigned less in an analytic equation of the causative consequences of abandonment of project in the research locations.

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Original Article

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