
**Assessment of the Causes of Abandonment of Construction Projects in Plateau State
Nigeria**

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Abstract. The importance of the assessment of the causes of abandonment of projects in Plateau State cannot be over-emphasized considering the amount of resources that are employed. The research was aimed at the assessment of the causes of abandonment of construction projects in Plateau State. Quantitative method of data collection was employed in the study using close-ended questionnaire. The data analysis tool that was employed for this study is the relative importance index (R.I.I). The RII was used to analyze data obtained for the causes of abandonment of projects; the highest value of RII was ranked 1 and so on. Also descriptive statistics was employed to analyze the background of the respondents. The research has demonstrated that there are at least (26) factors causing project abandonment in Plateau State amongst which are change in power which was ranked first with 89.00%, others are; corruption, inappropriate planning, change in power, location of project, capital mismanagement, lack of adequate feasibility study, disbursement delays, lack of adequate cost analysis, poor project management, inefficient cost control processes, poor procurement processes, community interference, incompetent contractor and security instability. Cost overrun is a very significant effect of project abandonment; when projects are abandoned, it leads to increase in the initial cost of the project, the final cost of the project exceeds the initial cost of the project as a result of non-completion of projects within the agreed contract period.

Keywords: Assessment, Causes, Abandonment, Construction, Projects, Plateau State

Background to the Study

Nigeria has witnessed successive governments several years ago since the attainment of independence, the government always come up with new projects for the betterment of the people, these projects usually come into reality through the efforts of the construction industry. The construction industry plays an important role in the economic development of the nation. Over the years, Nigeria has experienced an unprecedented level of project abandonment harmful in effects to the economic growth and development of the country. Many of the laudable projects are either uncompleted or out rightly abandoned, the landscape is littered with abandoned buildings, ports, roads, rails and many other infrastructural projects (Ade-Ojo & Babalola, 2013).

Project is a sequence of tasks, bounded by time, resources and requires results to achieve a particular aim (Akindele, 2013). The management of such project requires the application of knowledge, skill and techniques to execute the project effectively and efficiently. According to Adul-Rahma (2015) project is generally defined as abandoned when

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the construction project is not completed and ready for occupation on schedule. Abandonment of projects is the act of discontinuing any activities or an act of unplanned suspension of the work progress during execution stage such as refusal or failure to complete a project at the stipulated time. The causes and effects of these projects abandonments are not just peculiar to a particular reason rather cut across several reasons and as well creating a total decrease on the value of the properties located close and within the vicinity and also affecting the economy (Akanni, Oke & Akpomiemie, 2014). The expected prominence of any development projects is to be completed, while at the same time, adding values to the built environment aesthetics. Abandonment of construction projects has devastating effects on both the projects and its stakeholders. Project abandonment leads to the disappointment of the populace, low standard of living, wastage of resources, reduction in employment opportunities, decrease in economic activities, decrease in revenue accruing to government, difficulties in attracting foreign loans and increase in final cost of the project (Olusegun & Michael, 2011). The impacts of an abandoned project are both socio-economic and environmental (Carrero et al., 2009). Henachor (2012) opines that project abandonment has its effect on individual, community and the government. The rate of abandoned projects is alarming especially in Plateau state. Planning is the foremost thing to be done if projects are to be completely executed (Akindele, 2013). El-Rufai (2012) attributed the reasons for project abandonment to poor planning, haphazard procurement practices, incompetent project management, lack of coherence and consistency with other programs and pervasive lack of continuation in policies as occupiers of political offices change. This study centers on the effects abandoned projects have on National development.

Statement of Problem

A progressing and healthy economy usually experience an increase in construction activities, but in a depressed economy, the incidence of project abandonment tends to be more prevalent. In Nigeria, construction investments account for over 50% of the gross fixed capital formation. Some of the causes of project abandonment in Nigeria are: deaths of client, inability of client to attract fund and lack of good planning (Akindele, 2013). Elrufai (2012) states that one of the major reasons given for project abandonment is lack of funds. Then, one marvels how funding constraints can be blamed for project failures. Should one not also wonder why a project is approved when funds required for execution are not available? Section 4 (2) (b) of the Public Procurement Act 2007, states plainly that all procurement shall be based only on procurement plans supported by prior budgetary appropriations; and no procurement dealings shall be formalized until the procuring body has ensured that funds are available to meet the obligations and has obtained a “Certificate of” No Objection “to Contract Award” from the Agency”. Therefore, the public procurement act specifies explicitly that no contract should be awarded if funds are not available for it from inception (Arab, 2007). The abandonment of projects has been on the increase and has resulted to too many adverse effects which have affected economic, social and environmental condition of Plateau state, thereby posing a great threat to national development. This study is set up to ascertain rate of abandonment of different categories of projects, the causes that lead to the abandonment of the projects, and the level at which the projects are abandoned.

Methodology

The study population has been limited to professionals such as architects, builders, engineers, quantity surveyors and other related professions that are within the area where the research been conducted. Sixty questionnaires have been administered for the purpose of this study which is a sample required that is reliable, adequate, competent and impartial (Fellow & Lui, 2007). The purpose of sampling according to Fellows and Liu (2008) is to give a

practical means of allowing the data collection and processing mechanism of research to be carried out whilst ensuring that the sample provides a good illustration of the population. The two general approaches to sampling adopted in science research are probability and non-probability sampling (Hamed, 2020). Hence, Fellow and Liu (2007) further identified four types of probability sampling techniques. They are simple random sampling, systematic sampling, stratified sampling and cluster sampling technique whereas the non-probability sampling techniques consist of convenience, purposive and quota sampling (Hamed, 2020). Purposive sampling which is also identified as deliberate sampling was adopted for this study (Ibrahim, 2012). The method of collecting primary data can be divided into groups; qualitative and quantitative. The method that was used for this research is quantitative method. The quantitative method of primary data collection involves the use of close ended questionnaire (Chipeta, 2020). The data analysis tool that was employed for this study is the relative importance index (R.I.I). The RII was used to analyzed data obtained for the causes of abandoned projects; the highest value of RII was ranked 1 and so on. The responses was on likert scale of 1-5, based on their significance where the degree of importance was; 5 = strongly agree; 4 = agree; 3 = undecided; 2 = disagree; 1 = strongly disagree. Descriptive statistics such as simple percentages was used to analyze the breakdown of the questionnaire, the profile of the respondents, their organization and gender.

The Study

The study is aimed at the assessment of the causes of abandonment of projects in Plateau state. This study can educate the expertise in the construction industry and the entire public on the rate of abandonment of different categories of projects. The research can also serve as a resource base to other researchers who might be interested in carrying out further research in this area. The data collection will be restricted to only individuals within Jos metropolis. Therefore, the study has implored experienced professionals to obtain reliable responses.

Literature Review

The literature review x-rays the causes of projects abandonment in Nigeria which is vital towards the achievement of the aim and indeed the objectives of the research.

Causes of Project Abandonment

The need for clarity of project objectives and proper planning in the course of project execution is very key if such projects are not to be abandoned. Ayodele and Alabi (2011) in their quantitative approach to determining the causes of project abandonment, reasoned the causes to include: inadequate planning, inadequate funding/financing, inflation, bankruptcy of contractors, variation of project scope, political factor, death of client, incompetent project manager, wrong estimates. Many commentators adverse that most projects fail to deliver their expected benefits and eventually are abandoned because they exert no significant impact on the citizenry rather egoism comes to play. El-Rufai (2012) attributed the reasons for project abandonment to poor planning, haphazard procurement practices, incompetent project management, lack of coherence and consistency with other programs and pervasive lack of continuation in policies as occupiers of political offices change. Akuta (2011) posited that policy continuation is something lacking and contributing to project abandonment in Nigeria. He stated that once a new government takes over power, they usually abandon previous government policies or programs. Kolawole (2006) asserts that a good number of projects initiated with good intentions are abandoned at different stages of the design and construction process. The reasons for failed projects are: incorrect estimation; lack of skilled personnel; inadequate planning; poor risk management; misunderstanding of the work requirement; poor

quality control by regulatory agencies; corruption and communication gap among the personnel (Olalusi & Otunola, 2012; Makalah, 2008). Adeleke (2005) declares that conflicting government policies, lack of accountability, high level of corruption, unskilled contractors, inadequate building materials, infrastructural deficit, and wrong choice of facility location and so on has been advanced as some of the major causes of abandonment of projects. Therefore based on this research work, we shall discuss the causes of project abandonment.

Corruption

Many projects are abandoned either because the funds made available for it are embezzled or because those whose duty it is to provide funds for its completion are not interested in doing so because they cannot get their “kick-back” (Imaga, 2003). Most contractors in order to win the contract, deliberately lowers their quotation, only to apply for variation later. Some who may go on with the project will resort to the use of inferior materials or even deviate from the original project plan (Hanachor, 2012).

Unqualified/inexperienced consultants

During the second republic, there was an emergency trend in the construction industries, which has no small means aided abandonment of projects (Omonuyi, 1996J. The issue of 'Man knows man' has taken over all facets of our existence. The effect is that consultants who are not qualified end up being commissioned to handle the projects. Reference to their curriculum vatae and past projects is not made. The effect is that these consultants take wrong design decisions, which eventually lead to delay and probably cost overruns. The inflationary trend in Nigeria, as in many other developing countries defies economic prediction. This makes it difficult for projects to be adequately estimated (Imaga, 2003). Inadequate number of skilled and unskilled manpower resources was found to be an essential aspect of project execution. The shortage of which results to an increase in the rate at which projects are being abandoned. Akingbohungebe (2003) opined that inadequacy of the required number of skilled personnel will slow down the pace of construction works with the effect of increased cost of construction.

Lack of accountability

The lack of accountability makes projects managers and politicians feel that they can do whatever they like with the project. If there is the culture of accountability those who mismanage projects will be blacklisted in society, thereby improving on the efficiency of project execution (Imaga, 2003).

Choice of project site or location

The choice of the site is very important since the host community must of necessity be the custodian of the project, consensus must be reached on where the project is to be sited before embarking on it. Rifts between the host communities and project managers most times creates chaotic business atmosphere which leads to destruction of materials and eventual abandonment of the project (Hanachor, 2012).

Inadequate finance of project

This is a recurring problem in both public and private sectors. Owner's cash flow problem is a major factor responsible for abandonment of construction projects (Ade-Ojo & Babalola, 2013). Social needs and increasing effective utilization of resources at the disposal of a particular community as well as individual can help eliminates "white elephant" projects (Aluko, 2006). Designers should work closely with the various interested and potential impacted groups and facilitate a supportive environment for working together. During the participation process, designers should give users the opportunity (Aluko, 2006).

Poor feasibility report

The essence of a feasibility report is to know the viability or non-viability of a project, but in some cases feasibility reporters are influenced to give positive reports for even obvious

non-viable projects, this affects real implementation of the projects (Imaga, 2003). Most projects usually require counterpart funding but when one or more parties to the funding fails the resultant effect will be insufficient funds for the project leading to its abandonment (Hanachor, 2012).

Inflation in project cost

Inflation has often led to the increase in overhead and materials cost. Olapade & Anthony, (2012) observe that many contractors allow for high inflationary premium in their input prices, which is economically inadvisable. On several occasions, delay been experienced in the course of execution of projects having been caught-up in an inflationary circle, the cost of completion sometimes triples the original (Olapade & Anthony, 2012).

Appointment of mediocre project managers

When inexperienced project managers are appointed there is the tendency of project abandonment. When mediocre or inexperienced project managers are appointed, they hardly understand the rudiments of project management. The result is that either extra fund is needed while trying to complete the project or project is abandoned outright (Imaga, 2003). Most projects require technical inputs which must be attended to by experts. Where this aspect is not taken into consideration and the local crafts men are not able to handle it, the project would be put to a halt (Hanachor, 2012).

Inefficient delivery system

The delivery system is a means or procedure for providing a product or service to the public. Inefficient delivery system is the cause of abandoned project rather than unfavourable policies. The lack of enforcement and monitoring by the government are mentioned in few sources as the cause of abandoned projects. Ibrahim (2006) states, among others, there should be stricter licensing for developers, better system to detect abandonment of projects, harsher punishment for errant developers, and less bureaucracy in the approval process of housing plans. The effort made, there are still developers that are rouged. The developers may use proxy to protect themselves in case of abandonment of projects (Yap & Tan, 2009).

Political factors

This is concerned with government policy and the significance of political decisions upon building projects. The roles played by the government in the building industry are generally clients, regulators of the national financial system, and regulators of the construction environment such as laws that conduct ethics and building practices and several others. This means that governments can considerably enhance or reduce the demand for construction services through budgetary procedures and economic policies. In its capability as regulators of the construction environment, governments control the development and building permission processes and impose conformity with Acts and Regulations (Akanni et al., 2014). Most projects are political projects that were not originally meant to be completed. They were initiated merely to score some political points. Because of the reason for selecting such projects, proper feasibility studies of the project are not carried out (Imaga, 2003). For reasons of tribal political patronage, sensitive projects are mostly awarded to unqualified contractors or to political zones where the project would never survive in order to compensate for political support given from those areas. This automatically breeds inefficiency of such projects and eventually abandoned (Hanachor, 2012). Abandonments associated with political factor also include, successive government inability or refusal to continue with its predecessor initiated projects. Projects are also abandoned as a result of religious and ethnic declination.

Economic condition

This factor also can affect the development of constructions and leads to abandonment of projects as noted in few literatures. Economic conditions such as the rise of price for raw materials such as cement also contribute to the unfavourable economic condition. The

financial system also can be put to blame in this factor when the system ‘betray’ the user of the system. For example, the system that only covers the use of the system when the economic conditions are in better conditions, but refuse to help when the condition go bad (Yap & Tan, 2009). High interest charge is also one of the poor economic conditions as potential buyers are discouraged from buying residential properties and thus decrease the profit for the projects.

Unfavourable policies

There are policies made by the government of Nigeria that is unfavourable and causing the projects to be abandoned. One of the policies is selling and then build. The sell then build system is a system to build more houses faster at a lower price (Yap & Tan, 2009). The houses are sold first before it will be built. This will enable more cash flow at the start of the project and less requirement of capital for the developer.

Analysis and Discussion

Table 1. Breakdown of administered questionnaires

Number of questionnaire distributed	60.00
Number questionnaire returned	50.00
Percentage response	83.33%

Table 1 shows the number of questionnaire administered to the respondents, sixty were administered and fifty were returned constituting 83.33%. This is important as the response rate is high; constituting high validity and reliability.

Table 2. Type of organization of the respondents

Type of Organization	Frequency	Percentage Response
Federal Government	8.00	18.00%
State Government	25.00	50.00%
Private	17.00	34.00%
Total	50.00	100.00%

Majority of the respondents work with the state government, the data collected indicated that 18.00% of the respondents are federal government workers, 50.00% are state government workers while 34.00 % work with private organization.

Table 3. Gender of the respondents

Gender	Frequency	Percentage Response
Male	37.00	74.00%
Female	13.00	26.00%
Total	50.00	100.00%

Table 3 shows the gender of the respondents. 74.00% of the respondents are male while 26.00% are female.

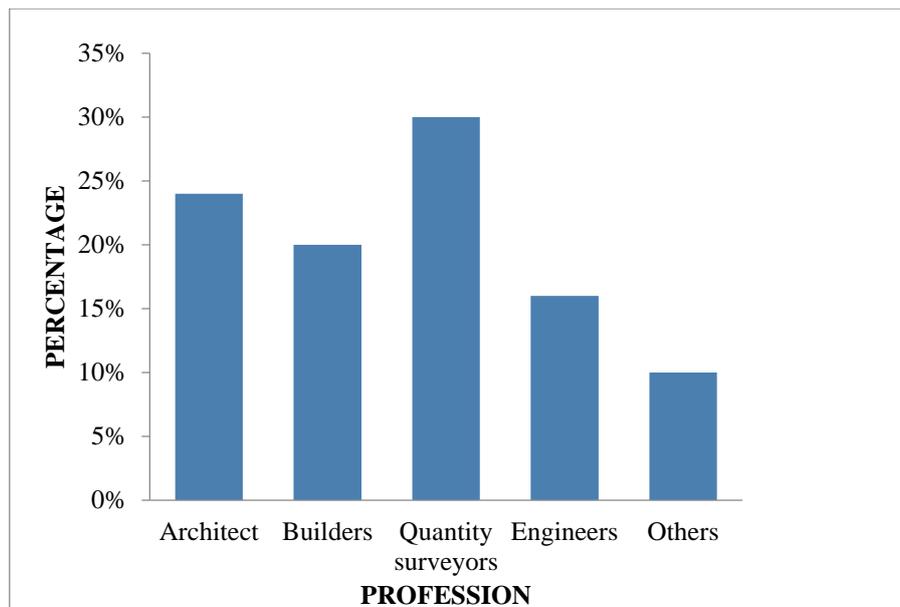


Figure 1. Profession of the respondents

Figure 1 shows the professions of the respondents; Quantity Surveyors have the highest number of respondents which is 30%, followed by Architects 24%, then Builders 20%, Engineers 16% respectively, other professions aside the ones mentioned have the lowest percentage response of 10%. Therefore, it can be inferred that most of the respondents are Quantity Surveyors, Architects and Builders thereby allowing adequate, sincere and unbiased data collection.

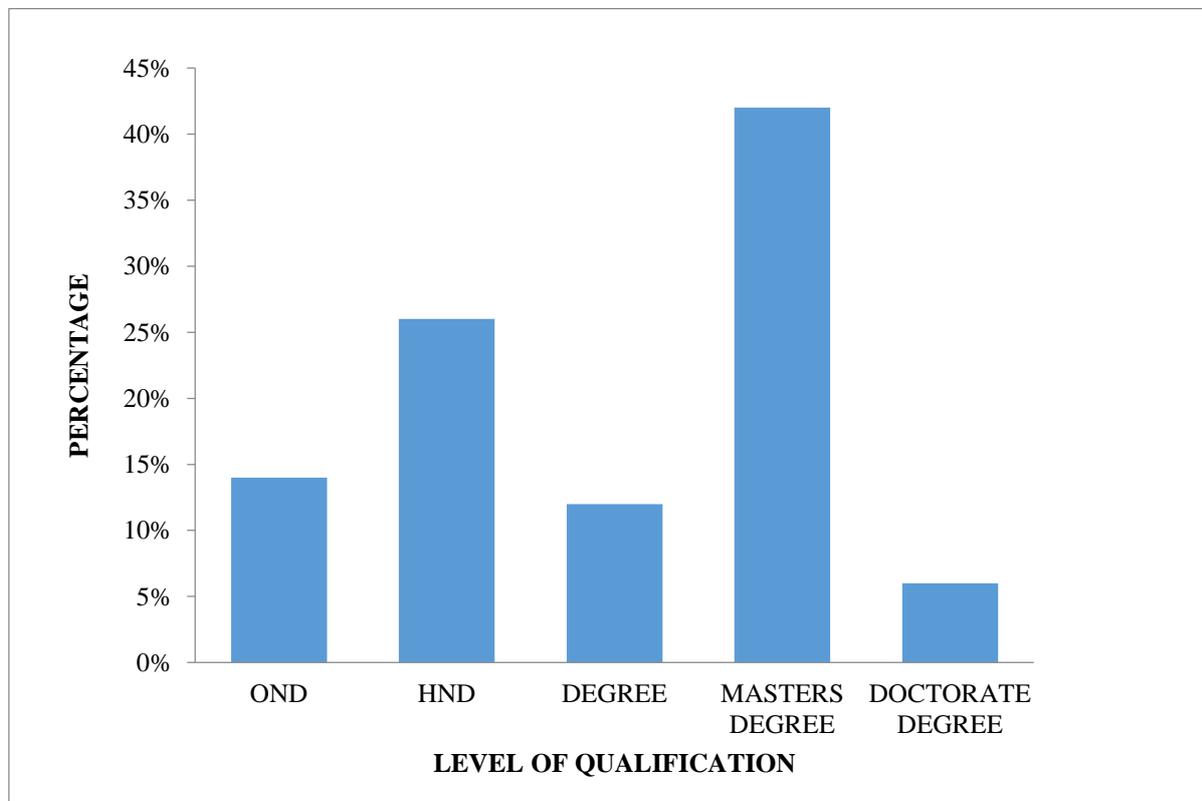


Figure 2. Level of educational qualification of the respondents

The academic qualifications of the respondents is indicated in Figure 2, the highest percentage of the respondents are Master's degree holders with 42%, 26% of the respondents have Higher National Diploma (HND), the remaining categories are; 14% Ordinary National Diploma (OND), 12% degree holders, 6% are Doctorate Degree holders (PhD). From the information obtained it can be deduced that the respondents are well read and are capable of providing intelligent and judgmental opinion which will assist in achieving the aim of this research.

Table 4. Ranking causes of project abandonment using relative importance index

S/N	Factors	1	2	3	4	5	RII	Percentage	Rank position
1	Inefficient cost control processes	0	6	4	29	11	0.78	78.00	12th
2	Lack of adequate cost analysis	0	2	6	31	11	0.80	80.00	10th
3	Stakeholders interference	0	6	6	33	5	0.74	74.00	18th
4	Poor procurement processes	0	3	2	26	13	0.78	78.00	12th
5	Inappropriate planning	0	3	2	26	19	0.84	84.00	3rd
6	Insufficient materials and equipment	2	8	9	22	9	0.71	71.00	21st
7	Lack of fund	1	2	3	29	15	0.82	82.00	5th
8	Change in power	0	6	4	14	26	0.89	89.00	1st
9	Incompetence contractor	2	4	6	30	8	0.75	75.00	15th
10	Change in project objectives	2	4	11	29	4	0.72	72.00	20th
11	Location of project	0	9	6	7	28	0.82	82.00	5th
12	Capital mismanagement	0	3	3	32	12	0.81	81.00	8th
13	Community interference	0	4	9	29	8	0.76	76.00	13th
14	Change in design	1	10	6	24	9	0.72	72.00	20th
15	Poor project management	0	1	6	35	8	0.80	80.00	10th
16	Security instability	1	5	8	27	9	0.75	75.00	15th
17	Middle men interference	6	22	14	22	6	0.70	70.00	23th
18	Lack of adequate feasibility study	0	4	5	25	16	0.81	81.00	8th
19	Election	1	17	14	14	4	0.61	61.00	26th
20	Legislation	2	10	4	28	6	0.70	70.00	23th
21	Unfavourable ground condition	1	13	12	17	7	0.66	66.00	24th
22	Climatic condition	1	13	12	17	3	0.62	62.00	25th
23	Change in scope of the project	1	7	7	26	9	0.74	74.00	18th
24	Inflation	0	8	8	23	11	0.74	74.00	18th
25	Corruption	0	3	2	21	24	0.86	86.00	2nd
26	Disbursement delays	0	5	3	26	16	0.81	81.00	8th

Table 4 shows the ranking of the causes of project abandonment, which contains twenty-six (26) variables. Change in power ranked first in the variables with RII value of (0.89), which is a very significant variable. Corruption ranked second with RII value of (0.86), it is also a very significant variable. Inappropriate planning ranked third with RII value of (0.84) which indicates a very significant variable causing project abandonment. Change in power is a very significant factor causing projects abandonment because it has the highest RII value. Other very significant variables with their RII values includes; lack of fund (0.82), location of project (0.82), capital mismanagement (0.81), lack of adequate feasibility study (0.81), disbursement delays (0.81), lack of adequate cost analysis (0.80), poor project management (0.80), lack of adequate costanalysis (0.8), inefficient cost control processes (0.78), poor procurement processes (0.78), community interference (0.76). Other significant variables with their RII values include; incompetent contractor (0.75), security instability (0.75), stakeholders interference (0.74), change in scope of the project (0.74), inflation (0.74),

change in project objectives (0.72), change in design (0.72), insufficient materials and equipment (0.71), middle men interference (0.70), legislation (0.70), unfavorable ground condition ranked 24th with RII value of (0.66), climatic condition ranked 25th with RII value of (0.62) and finally the 26th variable is election with RII value of (0.61). It can be inferred that instability in governance as a result of change in power contributed greatly among the factors causing abandonment of projects whenever there is a change in government in most developing countries, therefore for abandonment of projects to be reduce to the minimum, new government should finish the old projects undertaken by their predecessors before embarking on new projects. From the above analysis also it indicated that, climatic condition, ground condition and election have fair significant in the factors causing project abandonment.

Conclusion

Based on the findings obtained from this study, the research demonstrated that there are at least (26) factors causing project abandonment in Plateau State amongst which change in power, corruption, inappropriate planning are the highest factors causing project abandonment. Furthermore, it has been discovered from the research that, project abandonment has far-reaching effects on national development. Cost overrun is a very significant effect of project abandonment, when projects are abandoned it leads to increase in the initial cost of the project, the final cost of the project exceeds the initial cost of the project as a result of non-completion of projects within the agreed contract period. Abandoned projects from the findings can discourage investment and also leads to wastage of expended resources thereby affecting economic growth.

References

- Abdul-Rahman, H., Wang, C., & Ariffin, N. H. (2015). Identification of risks pertaining to abandoned housing projects in Malaysia. *Journal of Construction Engineering*, 2015, 524717.
- Adeleke S.A (2005). Abandonment of Federal Government low-cost housing estate. An Unpublished HND project submitted to Department of Building Technology, Federal Polytechnic, Offa.
- Ade-Ojo, C. O., & Babalola, A. A. (2013). Cost and time performance of construction projects under the due process reform in Nigeria. *International Journal of Engineering and Science*, 3(6), 1-6.
- Akanni, P. O., Oke, A. E., & Akpomiemie, O. A. (2015). Impact of environmental factors on building project performance in Delta State, Nigeria. *HBRC Journal*, 11(1), 91-97. doi: 10.1016/j.hbrej.2014.02.010.
- Akindele, O. A. (2013). Environmental Effects of abandoned properties in ogbomosho and Osogbo Nigeria. *Ethiopian Journal of Environmental Studies and Management*, 6(2), 707-716. <http://dx.doi.org/10.4314/S>
- Akuta, C. V. (2011). Inconsistent Policies and High Rate of abandoned government projects. *Nigeria News*. Retrieved from <http://www.ngex.com/news/public/article.php?ArticleID3>
- Aluko, O. (2012). Impact of poverty on housing condition in Nigeria: A case study of Mushin Local Government Area of Lagos State. *Journal of African Studies and Development*, 4(3), 81-89.
- Arab, N.I. (2007). Public procurement Act of Nigeria, 2007. Retrieved from <https://gopr.unodc>.

- Ayodele, E.O. & Alabi, O. M. (2011). Abandonment of Construction Projects in Nigeria: Causes and Effects. *Journal of Emerging Trends in Economics and Management Sciences*, 2(2), 142-145.
- Carrero, R., Malvarez, G.G., Navas, F. & Tejada, M. (2009). Negative impacts of abandoned urbanisation projects in the Spanish coast and its regulation in the Law. *Journal of Coastal Research, Special Issue No. 56*. Proceedings of the 10th International Coastal Symposium ICS 2009, Vol. II (2009), 1120-1124.
- Chipeta, C. (2020). *Best Data Collection Methods for Quantitative Research*. Retrieved from <https://conjointly.com/blog/data-collection-quantitative-research/>
- El-Rufai, N. A. (2012). The tragedy of abandoned projects. *Nigeria Intel*. Retrieved from <http://www.nigeriaintel.com>
- Essenwa, F.O. Junior (2004). *Project procurement method in Due Process or How to Execute Capital Projects Efficiently*. Department of Physical Planning and development. National Universities Commission Abuja, Nigeria.
- Fellows, R. R., & Liu, A. (2008). *Research methods for construction* (3rd ed.). London: Wiley-Blackwell Science.
- Griffith, A., & Watson, P. (2004). *Construction Management: Principle and Practice*. London: Palgrave MacMillan.
- Hamed, T. (2020). Sampling Methods in Research Methodology; How to Choose a Sampling Technique for Research. *International Journal of Academic Research in Management*, 5, 17-28. Retrieved from <https://hal.archives-ouvertes.fr/hal-02546796/document>
- Hanachor, M. E. (2012). Community Development Project Abandonment in Nigeria: causes and effects. *Journal of Education and Practice*, 3(6), 33-36.
- Ibrahim, F. (2006). *Faktor-faktor Kritikal Bagi Pemulihan Projek Perumahan Terbengkalai*. Universiti Teknologi Malaysia, Malaysia.
- Imaga, E. U. L. (2003). *Project management: Project abandonment, proposal and feasibility studies*. Enugu: Rhyce Kerex Publishers.
- Kolawole, O. J. (2006). *A Review of abandoned projects cases in Nigeria*. A publication of National Association of Building Students – Federal Polytechnic, Offa chapter. Offa: Metro-print Concept.
- Makalah, C. (2008). *Abandoned Construction project*. A paper presented at International Conference on Social Sciences and Humanities. Retrieved from <https://www.researchgate.net/publication/281876330>
- Olalusi, O. & Otunola, A. (2012). Abandonment of Building Projects in Nigeria- A Review of Causes and solutions. *International Conference on Chemical, Civil and Environment Engineering*, 24-25. Retrieved from <https://studylib.net/doc/8225799/abandonment-of-building-projects-in-nigeria>
- Olapade, O. & Anthony, O. (2012). Abandonment of Building Projects in Nigeria- A Review of Causes and Solutions. *International Conference on Chemical, Civil and Engineering*, 253-255.
- Olusegun, A. E. & Michael, A. O. (2011). Abandoned of Construction Project in Nigeria: Causes and Effects. *Journal of Emerging Trends in Economics and Management Sciences*, 2(2), 142-145.
- Yap, E. H., & Tan, H. C. (2009). Abandoned Projects in Malaysia: A Preliminary Study of the Causes. *2nd Construction Industry Research Achievement International Conference (CIRAIC 2009)*, Kuala Lumpur, Malaysia.