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COST BENEFIT ANALYSIS AND QUALITY AND DURABLE PROJECTS EXECUTION IN THE
NIGERIAN PUBLIC SECTOR

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Abstract

This study carried out an investigation of the effect of cost benefit analysis on quality and durable projects in Nigeria. The primary data used was sourced from a structured questionnaire administered to some chosen respondents. The total of 545 senior public servants in Bayelsa State who were active and in strategic positions were considered for this study and 85% of the administered questionnaires were retrieved from the respondents. A pretest study was carried out using online administered copies of questionnaire which are thirty-five in number. The collected data was coded into the IBM Statistical Package for Service Solution (IBM SPSS) and Cronbach's Alpha coefficient obtained for all the variables was found to be above the acceptable limit of 0.7. The study found that cost benefit analysis also revealed a positive significant effect on quality and durable project, $AdjR^2 = 0.398$; $F\text{-Statistics}_{(4, 179)} = 31.199$; $P\text{-value} = 0.000$. The government is advised to ensure strict compliance of project execution laid procedures, and those found to contravene any of these policies be made to be prosecuted accordingly.

Keywords: Cost benefits analysis, Durability projects, Government contractors, Projects execution, Project economic value, Quality projects.

Introduction

Globally, studies have shown that there are myriad challenges in the quality and durability of executed public sector Projects, due to inadequate projects appraisals and intrinsic subjectivity inherent in social and economic welfare goods and services decisions (Volden & Andersen, 2018). There are great concerns of public investment funds limitations through budget restrictions, there are misplacements of skills and human intellectuals in

application of the government limited resource, disregards to consultations in exploring and weighing various options available with the process of project appraisal mechanisms and choice that would stand test of time (Volden & Samset, 2017). Chan (2014) documented that cost benefit analysis is favorably disposed in enhancing quality decisions, minimizing risk and maximizing gains for the public sector projects execution, most often they are ignored.

Prior studies had also revealed that the problems of public sector projects execution is rather universal and not limited to the developing nations alone. These problems include insufficient funding, lack of political will to take projects execution, nepotism and discriminating disposition of leaders, unskilled administrators in taking appropriate project evaluation appraisal methods (Samset & Christensen, 2017). Also, according Thomas and Chindarkar (2019), these problems include diversion of money meant for projects, corruption and misappropriation of government fund, professional incompetence in making quality decisions. For instance, looking at some of studies from the advanced economies, the studies of Askim, Johnsen and Christopersen (2018) from Norway; Bovaird (2018), Walker and Boyne (2006) from United Kingdom.

Quality and durability projects requires quality decision from its conceptualization stage to the projects execution in the public sector is strategically sensitive in the sense that government resources have to be committed today to achieve better gains tomorrow. Though it is easy to determine how much that will be committed, there is some difficulty in accurately forecasting the gains from the investment in future, hence going into a business involves taking risks. In this study, the cost benefit analysis as it affects public sector Projects execution is being considered, this is because cost benefit analysis had been used in literature as an analytical tool in decision-making which enables a systematic comparison to be made between the estimated cost of undertaking a project and the estimated value and benefits, which may be obtained from its execution. Cost-Benefit Analysis (CBA) is one of the popular techniques used for project evaluation in the public sector. The technique seeks, as a minimum, the point of equilibrium between costs and benefits of a proposed project, initiated by either the Government or demanded by the populace, hence considered (Newness Mileham, Cheung, Marsh, Lanham, Saravi & Bradbery, 2018).

Statement of the Problem

Public sector Projects execution and its durability in Nigeria are multifaceted in nature and faced with numerous challenges and problems. The public sector projects execution in Nigeria are faced with the problems of inefficient management, lack of capable and qualified personnel, as most of the officers in strategic decisions positions are not professionally competent, or expert in the managerial offices they occupy. The case of zoning positions in Nigeria can simply be described as putting round pegs in square holes, and in most cases leading to the problems of delayed decisions, lack of innovations and underutilization of human capacity (Omoniyi & Jiboye, 2011). While few studies have attempted proffering solution to these perennial anomalies, while the problem persists, the magnitude and level of effects remain uncertain, creating gap in literature. In addressing this gap and extending contribution to knowledge, this study investigated the effect of cost benefit analysis on quality and durable projects in Nigerian public sector.

Literature Consideration

Quality and Durability of Projects:

Quality and durability of projects is one of the many ways to ascertain the value and quality of projects. According to Agugom (2020) and that of Hjelmbrække, Klakere and Lohne (2017), since the economic value of some projects cannot be monetarily estimated with accuracy because of the nature and the welfare goal of the government, the quality and durability of such project can give a comforting economic reassurance that the public sector fund had been judiciously and wisely spent. Quality and durable project is the lasting value of projects due to its superior economic adding to the citizens. Cost benefit analysis is defined as a tool conventionally used to evaluate the potential cost and benefits of a given investment or projects such as a major rail, road or bridge investment that will guarantee the quality and durable of such projects (Klakegg, Williams and Shiferaw (2016) Quality and durability of projects is a reflection of the cost benefit analysis methodology based on early welfare economic theory (Laxminarayan, Jamison, Krupnick & Norheim, 2014).

Boyer, Slyke and Rogers (2016) posited that where the idea is to achieve efficient allocation of resources and at the same time maximize public benefits for general social welfare. In the cost benefit analysis and as a sign of efficient public sector project decision, the deliverables must reflect a quality projects and able to withstand the test of time. This is obvious as the effects of public projects in the public sector are valued in either in monetary terms and expresses as costs and benefits to represent an overall aggregated value of individual well-being or non-monetary quantifiable economic contributions. In either case, what really distinguishes is obviously the quality and durable of the project (Boyer, Slyke and Rogers, 2016). According to Buvik, Bergmo, Bugge, Smaabrekke, Wilsgaard and Olsen (2019), the quality and durable projects is an evidence of quality decisions, quality negotiations, supervisions and level of sincerity of managerial expertise put together in a particular project from the conception to project completion and delivery.

Cost Benefit Analysis:

Different studies have defined cost benefit analysis from different perspectives. Some defined it as the ability to take pre-execution analysis of the cost implication of projects and economic value derivable from projects (Khan, Muhammad & Muhammad, 2018; Khadaroo, 2014). Others defined it as the underlying economic and value for money appraisals expected to be carried in before projects are embarked upon in the public service sector (Khnan, Waris, Ismail, Sajid, Ullah & Usman, 2019; Kind, Wouter & Jeroen, 2017). Cost benefit analytical tool to be used to appraise an investment decisions in order to assess the welfare change attributable to it and, in so doing, the contribution to the community. The purpose of cost benefit analysis is to facilitate a more efficient allocation of resources, demonstrate the convenience for the society of a particular intervention rather than possibility alternatives. Cost benefit analysis is concerned with information requires, roles and responsibility for the appraisal and consistency with recent policy development about across cutting issues (Lawani & Moore, 2016).

Coat Effective Analysis:

Certain steps are pivotal to cost effective analysis: The need to clearly define objectives, purpose and significance of the project. The cost effectiveness analysis will find the best possible way for their achievement; listing of the conditions necessary for the achievement of set objectives. This means to first present the basic prerequisite for the achievement of the objective or set goals, followed by the others; development of alternatives for achieving the goals, at least two possible ways to achieve a goal must exist;

determine verification measures that are acceptable for the proposed alternatives (Kazanovski, 2014). Furthermore, a possible list of valuation criteria would be feasibility, availability, reliability, sustainability etc.; choose an approach for determining fixed success, fixed and overheads cost. (Fan, Nancy & Luo, 2019). In using fixed criteria, the most favourable alternative could be the one with minimum price of achieving separate degrees of success.

Potential Benefit Analysis: This involves detailed analysis of the possible benefits derivable from the public project when executed. Projects execution is taken after due feasibility and viability analysis of the projects have been considered, likewise the societal benefits accruable from the specific projects when completed. Projects decision-making in the public sector setting is managerial and strategic in nature; it demands experts input and the desirability of the projects by the masses. When deciding on a project, it is expected that a lot of key decision indexes are put into consideration, since projects execution in public sector can be complex and could have wide-ranging implications on the public interests and executable projects, as a result, the decision-making processes in public sector merit an evaluation and empirical analysis for an optimal benefit of the projects when completed for the citizens (Samset & Christensen, 2017).

Budget Constraints:

Budget constrains is defined as the funding constrictions that could hinder execution of project projects. In every public sector, expenditure for the government are subject to legislative appropriation bills debates before signed to laws as budgets. Funds for projects and government investments are limited through annual budget restrictions, however spending beyond the limits granted and approved by the legislature in the original approved budget can be made only by redistribution of funds within the budgets. according to Pinto (2014), in the European Union region, strategies represented by the goals of the public projects, are need for government which have the possible to implement investment projects based on the following: election programs, making a poll of the public opinion, establishing a long or short-term thinking, establishing the way forwards so that the relationship authority can make additional funds available.

Managerial Competence:

Managerial competence and skills are prerequisites for looking at results retrospectively (Ness, Volden, Odeck & Richardson, 2017). Though cost benefit analysis can be used to make projections and calculate the net profit in terms of present value, yet the human factor in terms of quality intellectual input is the most necessary requirement in this regards. This information can allow policy-makers to not only assess whether a project provides enough net benefits to warrant investing government limited resources when there is a quality managerial and qualified human capital managing the affairs, who provides a firmer basis for the choice made (Thomas & Chindarkar, 2019).

Theoretical Consideration

Transaction Cost Economic Theory:

Transaction cost theory was developed by Williamson in the year 1979 (Williamson, 1979). The theory is well known in the transactional and theoretical public sector projects, stating that every economic exchange has a cost. The theory states that economic activities are associated with cost and establishments act in any way possible to minimize theses costs. The theory of transaction economic theory has some resemblance with agency theory

as both seek to curtail the opportunism and self-interest through government mechanisms (Iossa & Martimort, 2015). Transaction cost economic theory emphasizes on individual transaction whereas the focus of agency theory is on the principal-agent relationship. Transaction cost economic theory in contextually, is applied to define the process of a forgone alternative and opportunity cost associated with the process of selecting projects, contracts and supplies (Pessali, 2006).

Some of the early supporters of transaction cost economic theory include Kochhar (1996); Winch (2001); Carter and Hodgson (2006). While Kochhar (1996) posited that every transactional involves two or more people, and exchange element must be associated with it with cost implications. The study went further and stated that the role of transaction cost is not far interrelated with agency theory as the decision in transaction cost economic theory is in the hands of the decision making public officer who has been entrusted with that responsibility by the masses, but in most cases that authority is abused and for self-interest of the officer saddled with that responsibility to the detriment of the masses. Winch (2001) stresses the importance of processes and project selection framework to be sure that the right project is selected.

However, some flaws had been found in the transaction cost economic theory by some studies. Ahola, Ruuska, Artto and Kujala (2014) submitted that transactional cost theory omitted what type of cost that is associated with exchange in transactions. The study stated that inflationary implication was not considered by Williams in the hypothesized transaction cost theory. Ahola *et al.*, (2014) stressed the importance of inflation and need to specify the costs that are been referred to in the study. The transaction cost economic theory is relevant and suitable for this study because theoretically, a choice of one project among the all contending projects has some forgone alternative cost implication and that opportunity cost is quantifiable. This theory has some resemblance with the philosophy of this study.

Empirical Consideration

Asadullah, Muhammad, Ishak, Mirza, Mehfooz and Faisal (2019) investigated deficiencies in projects governance and analysis of infrastructure development program. The study employed latent construct of project governance validation through second-order confirmatory factor analysis and quantified three dimensions of project governance of portfolio direction, sponsorship, effectiveness and efficiency, and also disclosure and reporting through the relative importance index method. The study found that deficiencies in projects had a negative effect on infrastructure development. The study concluded and found that disclosure reporting is among the least practicing dimension, project portfolio direction is relevant, and sponsorship, effectiveness and efficient had a significant effect on projects execution in Pakistan. The study also found that there are low completion of project due to multilayered bureaucratic system in the public sector. The study recommended that since most practicing project program involves the alignment of portfolio with objectives and strategy are required for project program, policy maker should explore the use of project program as an appropriate measure to enhance effectiveness of projects execution.

Bert and Sebastian (2018) studied the effect of strategic decision quality on public organization projects, using information technology as a reference case. The study sourced data for the study were tested using 55 Flemish pupil guidance centers, while information processing theory was used to investigate predictors of strategic decision quality on public organizations. The study revealed that decision makers had a positive significant effect on

public organization projects and contributed to strategic-decisions quality by exchanging information during decision taking. Those rational planning practices equally contributed to strategic decision quality by injecting information into decision making. The study also showed that rational planning practices are operationalized as strategic planning, and performance measurement and performance management, while information exchange by decisions makers during decision making is operationalized as procedural justice of the decision making process. The study recommends the importance of strategic decision quality in public sector organization projects and the importance of application of information technology in decision making. Consistent with the study of Asadullah, Muhammad, Ishak, Mirza, Mehfooz and Faisal (2019), Bert and Sebastian (2018) found that rational planning and application of project analysis techniques like cost benefit analysis is capable of enhancing durability of public project and at the same time the quality of public sector decisions.

Culyer and Chalkido (2019) studied economic evaluation for health investments effect on universal health coverage, considering cost benefit analysis and cost effectiveness analysis, with the aim of answering the question: would the use of cost benefit analysis rather than the more usual cost effectiveness analysis be an improvement, specifically in appraising health and health related investments in low and middle-income countries. The study employed a selective literature review charts the welfare economic welfarism and extra-welfarism roots of both approaches. The study adopted a principal distinguishing feature of the two was the monetary valuation of health outcomes under cost benefit analysis compared with the use of health constructs such as the quality-adjusted life year or disability-adjusted year.

The study comparatively, revealed that cost benefit analysis had a positive significant effect on universal health and also enables direct comparison of the outcome of health investments with the monetized outcomes of other investments, while the cost effectiveness analysis approach facilitates direct comparisons with other health investments. The study in seven challenges in using cost effectiveness in developing countries arise, including ethical issues in outcome valuation, practical challenges in the acquisition of data, intrinsic bias in data on values, and some of the practical issues. In conclusion, the study said that cost benefit analysis seem to be the less practical.

Holstvolden (2019) investigated the effect of cost benefit analysis on value for money as a crucial part of the business case for major public investment projects in Norway, a country that had made considerable efforts to promote quality and accountability in cost benefits analysis public projects. The study employed qualitative research design using 58 projects in Norway public sectors executed projects. The study found that the study and application of cost benefit analysis had a positive significant effect on value of money and is largely an acceptable quality and heeded by decision-makers. The study also revealed that the appraisal optimism had reduced by the introduction external quality assurance of cost benefit analysis. The study suggested that there is need for a more consistent assessment of the non-monetized benefits and distinguishing them from other decision perspective such as the achievement of political goals and further recommended for an increase in cost benefit analysis usefulness in public sector projects in Norway. While Holstvolden (2019) considered effect of cost benefit on value for money, the study of Culyer and Chalkido (2019 considered both cost benefit analysis and cost effectiveness analysis as techniques for project analysis, notwithstanding, both studies were consistent confirming

that cost benefit analysis is capable of enhancing the durability of public projects and value of projects execution

Methodology

This study adopted a cross sectional survey research design. This was because cross-section will enable the researcher examine the effect of cost benefit analysis on public sector Projects execution based on direct experts experiential information on the subject matter. The primary data used was sourced from a structured questionnaire administered to some chosen respondents. The total of 545 of senior public servants in Bayelsa State who were active and in strategic positions were considered for this study and an 85% of the administered questionnaires were retrieved from the respondents. A pretest study was carried out using online administered copies of questionnaire which are thirty-five in number. The collected data was coded into the IBM Statistical Package for Service Solution (IBM SPSS) and Cronbach's Alpha coefficient obtained for all the variables was found to be above the acceptable limit of 0.7.

The study proposed the following:

Objective Two:

To investigate the effect of cost benefit analysis on quality and durability of the projects in Nigeria

Research questions two:

To what extend does cost benefit analysis effect quality and durability of projects in Nigeria?

Hypothesis Two (H₀₂):

There is no significant effect of cost benefit analysis on quality and durability of projects in Nigeria.

Model Specifications

$$Y_i = \alpha_0 + \beta_1 X_i + \varepsilon_i \text{ ----- (1)}$$

Where

Y = Dependent Variable: Quality and Durable Projects

X = Independent Variable: Cost Benefits Analysis

β_0 = regression intercept which is constant

i = Cross sectional

ε_i = Error term of the model

Functional Relationship

$$QDP = f(CEA, PBA, BC, MC) \text{ ----- (2)}$$

Model

$$QDP_i = \alpha_0 + \beta_1 CEA_i + \beta_2 PBA_i + \beta_3 BC_i + \beta_4 MC_i + \mu_i \text{ ----- (3)}$$

Where,

β_1 - β_4 = the coefficient of the explanatory variables

QDP = Quality and Durable Projects

TDP = Time Delivery of Projects

EEC = Expected Economic Contribution

CEA = Cost Effectiveness Analysis

PBA = Potential Benefits Analysis

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BC = Budget Constraints

MC = Managerial Competence

Data Analysis, Results and Discussions

Descriptive Statistics

The respondent’s view in relation to the Quality and Durable Projects questions are analyzed and the results are presented in this subsection. As presented in Table 4.8, each of the items that focus on Quality and Durable Projects are cautiously rated on a 5 – point Likert scale.

Table 4.8: Quality and Durable Projects

Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree	Total	Percentage (%) of Total Agree	Mean (St.D)
Quality and durable projects are expected when there is right application of cost effectiveness analysis in public sector projects decisions in Nigeria.							
4 [2.2]	19 [10.3]	30 [16.3]	77 [41.8]	54 [29.3]	184 [100]	131 [71.2]	3.9 (1.0)
Quality and durability can be influenced by potential benefit analysis of projects when appropriately carried out.							
3 [1.6]	14 [7.6]	39 [21.2]	29 [15.8]	99 [53.8]	184 [100]	128 [69.6]	4.1 (1.1)
One of the effects of cost benefit analysis is quality and durable projects.							
5 [2.7]	7 [3.8]	26 [14.1]	82 [44.6]	64 [34.8]	184 [100]	146 [79.3]	4.0 (0.9)
Quality and durability of projects is important and should be considered while carrying out cost benefit analysis in Nigeria.							
2 [1.1]	6 [3.3]	23 [12.5]	35 [19]	118 [64.1]	184 [100]	153 [83.2]	4.4 (0.9)
Managerial competence of government offers is important in the quality and durability of projects in Nigeria.							
1 [0.5]	9 [4.9]	40 [21.7]	78 [42.4]	56 [30.4]	184 [100]	134 [72.8]	4 (0.9)

Source: Field Survey 2021; Note: Percentage in square bracket [], Standard deviation in parenthesis ().

In Table 4.8 it can be seen that the statement that can be ranked first is ‘Quality and durability of projects is important and should be considered while carrying out cost benefit analysis in Nigeria’ with mean score = 4.4; SD = 0.9. Also, more than three-quarter (83.2%) of the sampled respondents supported the statement while 4.4% failed to support. Another statement with high percentage of agreement (79.3%) is ‘One of the effects of cost benefit analysis is quality and durable projects’. It has a mean score value of 4.0 with a standard deviation of 0.9. Furthermore, the statement with the least total percentage of agreement (69.6%) is ‘Quality and durability can be influenced by potential benefit analysis of projects when appropriately carried out’. The statement has a mean score value of 4.1 with a standard deviation of 1.1.

Regression Analysis

Table 4.18: Cost Benefit Analysis and Quality and Durable Projects – Model 2

Regression Model					Collinearity Statistics	
	B	Std. Error	t	Sig.	Tolerance	VIF
(Constant)	0.196	0.413	0.475	0.636		

CEA	0.341**	0.091	3.739	0.000	0.643	1.556
PBA	0.292**	0.073	4.007	0.000	0.552	1.812
BC	0.106	0.060	1.771	0.078	0.617	1.622
MC	0.176*	0.073	2.410	0.017	0.955	1.047

R-squared		0.411
Adjusted R-squared		0.398
F-stat.		31.199
P>F-stat.		0.000

Source: Field Survey 2021; Note: QDP = Quality and Durable Projects, CEA = Cost Effectiveness Analysis, PBA = Potential Benefits Analysis, BC = Budget Constraints, MC = Managerial Competence.

Dependent Variable: QDP;

Predictors: (Constant), MC, BC, CEA, PBA;

** , * denote 1% and 5% alpha levels respectively

$$QPD_i = \beta_0 + \beta_1CEA_i + \beta_2PBA_i + \beta_3BC_i + \beta_4MC_i + \mu_i \quad \text{Model 2}$$

$$QPD_i = 0.0.196 + 0.341CEA_i + 0.292PBA_i + 0.106BC_i + 0.176MC_i + \mu_i \quad \text{Model 2}$$

In Model 2, cost effective analysis (CEA) negatively affects quality and durable project (QDP) of projects in Nigeria. Based on the probability of t-statistics (3.739) of (P-value of 0.000) i.e. which is higher than 5% level of the chosen level of significant of 5%, implies that CEA significantly affect quality and durable project (QDP). The coefficient of CEA (0.341) means that a Naira increase in CEA would yield 0.0.341 Naira decrease in quality and durable projects in Nigeria.

In addition, potential benefit analysis (PBA) positively affects quality and durable projects. Since the probability of t-statistics (4.007) of p-value (0.000) lower than 5% level of the chosen level of significant. It therefore means that PBA significantly affect quality and durable projects (QDP). Also, the coefficient of PBA (0.292) implies that a Naira increase in PBA would yield 0.292 Naira increase in quality and durable projects in Nigeria.

More so, budget constrains (BC) positively affects quality and durable projects (QDP) in Nigeria. The probability of t-statistics (1.771) is p-value 0.078 i.e. 7.8 which is higher than the chosen level of significant of 5%. This means that BC do not significant affect quality and durable projects (QDP). In addition, the coefficient of BC (0.106) means that a Naira increase in BC would yield 0.106 increases in quality and durable projects (QDP) in Nigeria In the last variable of the model II, managerial competence (MC) positively affects quality and durable projects (QDP). This is so because the probability of t-statistics (7.557) is (p-value 0.017), which is lower than the chosen level of significant 5%, which implies that MC significantly affects quality and durable projects. Also the coefficient of MC (0.176) means that a Naira increase in MC would yield 0.176 increases in quality and durable projects in Nigeria.

In addition, as in Table 4.18, the F-statistics value computed is 31.20 [P – value = 0.000]. What this means is that Cost Effectiveness Analysis (CEA), Potential Benefits Analysis (PBA), Budget Constraints (BC), Managerial Competence (MC) jointly and significantly

explain variants in Quality and Durable Projects (QDP). Likewise, the adjusted R-square is 0.40 (approximately) signifying that percentage of the variances in QDP explained by Cost Effectiveness Analysis (CEA), Potential Benefits Analysis (PBA), Budget Constraints (BC), Managerial Competence (MC) is about 40.0%. Again, the VIF is used to check whether the model is free from multicollinearity. From the result, it is obvious that the VIFs scores are below 3.0 indicating that the model is free from multicollinearity problem.

Also, the coefficient of Cost Effectiveness Analysis (CEA), Potential Benefits Analysis (PBA) and Managerial Competence (MC) are established to be positive and statistically significant at 1% and 5% alpha levels respectively [$\beta = 0.341$; P - value = 0.000, $\beta = 0.292$; P - value = 0.000 and $\beta = 0.176$; P - value = 0.017]. The implications of these results are that Cost Effectiveness Analysis (CEA), Potential Benefits Analysis (PBA) and Managerial Competence (MC) are positively related to Quality and Durable Projects (QDP).

Decision:

From the outcome of the regression results in Table 4.18 the computed F-statistic = 31.20 (P - value = 0.000) and Adjusted R – squared = 0.398; the study failed to accept the null hypothesis one (H_{01}): Based on the estimated parameters, at a level significance of 0.05, *F-Statistic* is 31.20, while the *P-value of the F-Statistics* is (0.000), which is less than 0.05. The study rejected the null hypothesis and accepted the alternative, which implies that cost benefit analysis had a positive significant effect on quality and durable projects in Nigeria.

Discussion of Findings

In this model, the study investigated the effect of cost benefit analysis on quality and durable projects. The result revealed that cost effective analysis and budget constraints and managerial competence exhibited positive significant effect on quality and durability of projects. These results were in tandem with the studies of Riaz & Noor, 2014; Ghassan, 2015; Culyer & Chalkido, 2019). While Riaz ad Noor (2014) studied the challenges and issues in the development of social sector mainly in education, health, energy, security and the and the environmental due to lack of policy framework, lack of government, lack of technological advancement, unstable strategies, lack of leadership, poor project management, lack of innovations and inefficient utilization of resources, the study revealed that cost benefit analysis had a positive significant effect on public health projects. The study of Culyer and Chalkido (2019) Culyer and Chalkido (2019) studied economic evaluation for health investments effect on universal health coverage, considering cost benefit analysis and cost effectiveness analysis, revealed that cost benefit analysis had a positive significant effect on universal health. However, the results were inconsistent with the results reported by the studies of (Asadullah, Mihammed, Ishak, Mirza, Mehfooz and Faisal (2019 and that of Florio, Morretta and Willlak (2018) who studied the role of cost benefit analysis in the context of European Union cohesion policy, then the study revealed that on average, the financial rate of return was slightly negative and the economic rate of return had a positive association on average with the difference across sectors.

Conclusion and Recommendations

The empirical result revealed that in each of the explanatory variables of the each model, different results were observed and reported accordingly. While cost effective analysis exhibited negative and insignificant, potential benefit analysis and managerial competence revealed positive and significant, while budget constrained showed positive

and insignificant. This could imply that the quality of the decision, and execution of public sector projects were not the case of budgets constrains or inability to know potential benefits, rather possible because of corrupt offers, and corrupt contractors conniving to steal money meant for public project, knowing well that nothing will possible happen to them. By implication, the results could mean that the quality of the decisions, and execution of public sector projects were not really the case of lack of funding, rather possibly strong willed and punitive unethical actions of the government officers, who are corrupt and work with corrupt project contractors conniving to steal public money meant for public projects, knowing well that nothing will possible happen to them. The law enforcement in Nigeria seems weak and unnecessarily delayed the government is advised to ensure strict compliance of project execution laid procedures, and those found to contravene any of these policies be made be prosecuted accordingly.

The government should ensure strict monitoring the execution of public projects from the inception, foundation laying, up to the time the project are fully delivered. The quality of each completed project should pass through quality assurance unit to ensure the projects are executive according specifications in terms of quality, timely delivery, expected economic contribution and where possible value for money audit be carried out in every public project. Government should avoid putting round holes in square perks, deployment of less-qualified personnel to sensitive position just for federal characters is unhealthy. For instance, one of the results revealed that managerial competence (BC) had a strong influence on the public sector projects execution in Nigeria, therefore government should ensure the ministry of works, ministry of roads and others who are involved project supervision are seasoned professionals who should held responsible for the actions carried out by their respective ministries

References

- Aguguom, T. A. (2020). Cash Flow Optimality and Investment Returns: Investors Expectations in listed Manufacturing Firms in Nigeria. *Asian Journal of Economics, Business and Accounting*, 16(4), 39-50.
- Ahola, T., Ruuska, I., Artto, K., & Kujala, J. (2014). What is project governance and what are its origins? *International Journal of Project Management*, 32(8), 1321–1332.
- Asadullah, K., Muhammad, W., Ishak, I., Mirza, R. S., Mehfooz, U., & Faisal, U. (2019). Deficiencies in project governance: an analysis of infrastructure development program. *Administrative Science*, 9(9), 1-15.
- Askim, J., Johnsen, A., & Christophersen, K. A. (2018). Factors behind organizational learning from benchmarking: Experiences from Norwegian municipal benchmarking networks. *Journal of Public Administration Research and Theory*, 18(1), 297-320.
- Bert, G., & Sebastian, D. (2018). Strategic-decision quality in public organizations: an information processing perspective. *Administration & Society, Journals Sage publications* 1(6), 1-26.
- Boyer, E. J., Slyke, D. M. V., & Rogers, J. D. (2016). An empirical examination of public involvement in public-private partnerships: Qualifying the benefits of public involvement in PPPs. *Journal of Public Administration Res*, 26(1), 45–61.
- Bovaird, T. (2008). Emergent strategic management and planning mechanisms in complex adaptive systems: The case of the UK best value initiative. *Public Budgets & Finance*, 13(5), 25-41.

- Buvik, A., Bergmo, T. S., Bugge, E., Smaabrekke, A., Wilsgaard, T., & Olsen, J.A. (2019). Cost-effectiveness of Telemedicine in remote orthopedic consultations: Randomize controlled trial. *Journal of Medical Internet Research*, 10(1), 319-340.
- Carter, R., & Hodgson, G. (2006). The impact of empirical tests of transaction cost economics on the debate on the nature of the firm. *Strategic Management Journal*, 2(7), 461-476.
- Chan, Y. (2014). Use of capital budgeting techniques and an analytic approach to capital investment decisions in Canadian municipal governments. *Public Budgeting & Finance*, 24(2), 40-58.
- Culyer, A. D., & Chalkido, K. (2019). Economic evaluation for health investments reroute to universal health coverage: Cost-benefit analysis or cost-effectiveness analysis? *Science Direct, Value in Health*, 2(2), 99-103.
- Fan, Y., Nancy, D., & Luo, N. (2019). Cost-utility analysis using eq-5d-5l data: does how the utilities are derived matter? *SicienDirect, Value in Health*, 2(2), 45-49.
- Florio, M., Morretta, V., & Willak, W. (2018). Cost benefit analysis and European Union cohesion policy: Economic versus financial returns in investment project appraisal. *Journal of Benefit Cost Analysis*, 9(1), 147-180.
- Ghassan, F. I. (2015). Challenges of applying cost benefit analysis to information technology in developing countries. *Journal of Applied Science University, Amman, Jordan*, 2(2), 1-5.
- Hjelmbrekke, H., Klakegg, O. J., & Lohne, J. (2017). Governing value creation in construction project: A new model. *International Journal of Management, Project and Business*, 10 (1), 60–83.
- Holstvolden, G. (2019). Value for money and cost benefit analysis. *International Journal of Project Management*, 37(4), 549-564.
- Khan, A, A. H., Muhammad, W. I. I., & Muhammad, I. (2018). Infrastructure project governance: An analysis of public sector project in Northern Pakistan. *Journal of Governance and Integrity*, 1(1), 120–134.
- Khan, A., Waris, M., Ismail, I., Sajid, M., Ullah, M., & Usman, F. (2019). Deficiencies in project governance: an analysis of infrastructure development program," *Administrative Sciences*, 9(no. 1, p. 9, 2019).
- Khadaroo, I. (2014). The valuation of risk transfer in UK school Public-Private Partnership contracts. *The British Accounting Review*, 46, 154–165.
- Kind, J. W. J., Wouter, B., & Jeroen, C. J. H. (2017). Accounting for risk aversion, income distribution and social welfare in cost-benefit analysis for flood risk management. *Wiley Interdisciplinary Reviews: Climate Change*, 8 (2), 446-461.
- Kochhar, K. (1996). Explaining firm capital structure: the role of agency theory vs. transaction cost economics. *Strategic Management Journal*, 17(9), 713–728.

- Lawani, A., & Moore, D. (2016). Project management practices in government organizations of developing countries: a systematic review," *International Journal of Business & Management*, 4(9), 89–98.
- Laxminarayan, R., Jamison, D. T., Krupnick, A. J., & Norheim, O. F. (2014). Valuing vaccines using value of statistical life measures. *Vaccine*, 32(39), 65–70.
- Klakegg, O. J., Williams, T., & Shiferaw, A. T. (2016). Taming the “trolls”: Major public projects in the making. *International Journal of Project Management*, 34(2), 282-296.
- Ness, P., Volden, G. H., Odeck, J., & Richardson, T. (2017). Neglected and underestimated negative impacts of transport investments. Concept report no. 54. Ex ante *Academic Journals of Trondheim*, 3(3), 1-6.
- Newnes, L. B., Mileham, A. R., Cheung, W. M., Marsh, R. R., Lanham, J. D., Saravi, M. E., & Bradbery, R. W. (2018). Predicting the whole-life cost of a product at the conceptual design stage. *Journal of Engineering Design*, 19(2), 99-112.
- Omoniyi, S., & Jiboye, A. D. (2011). Effective housing policy and sustainability development in Nigeria. *International Journal of Development Studies*, 6(1), 129-135.
- Pessali, H. (2006). The rhetoric of Oliver Williamson’s transaction cost economics. *Journal of Institutional Economics* 2(1), 45-65.
- Pinto, É. (2014). Financial assessment of the energy efficiency of buildings – social cost-benefit analysis). *Marketing & Menedzsment (Marketing & Management)*, 4(3), 28 35.
- Riaz, A., & Noor, B. M. (2014). Performance of projects in public sector of Pakistan: Developing a framework for future challenges. *Serbian Project Management Journal*, 4(1), 3-12.
- Samset, K., & Christensen, T. (2017). Ex ante project evaluation and the complexity of early decision-making. *Public Organization Reviews*, 17(1), 1–17.
- Thomas, V., & Chindarkar, N. (2019). The Picture from Cost-Benefit Analysis. *Economic Evaluation of Sustainability*, 2(2), 453-465.
- Volden, G. H., & Andersen, B. (2018). The hierarchy of public project governance frameworks: an empirical study of principles and practices in Norwegian ministries and agencies. *International Journal of Management, Project and Business*, 11(1), 174–198.
- Volden, G. H., & Samset, K. (2017). Governance of major public investment projects: Principles and practices in six countries. *Project Management Journal*, 48(3), 90–108.
- Walker, R. M., & Boyne, G. A. (2006). Public management reform and organizational performance: An empirical assessment of the U.K. Labour government’s public service improvement strategy. *Journal of Policy Analysis and Management*, 25(2), 371-393.
- Williamson, E. (1979). Transaction-cost economics: the governance of contractual relations. *Journal of Law and Economics*, 22(2), 233–261.
- Winch, G. M. (2001). Governing the project process: a conceptual framework. *Construction Management and Economics*, 19(8), 799–808.