

Economic Factors and Infrastructure Project Success of Construction Firms in Rivers State, Nigeria

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Abstract

This study examines the effects of economic factors on the success of infrastructure projects by construction firms in Rivers State, Nigeria. Despite massive investments in public and private sectors to enhance various infrastructure, results from projects in the state continue to be plagued by delays, cost overruns, and inefficiencies. The study aims to identify the relationship among inflation, interest rates, exchange rate volatility and the cost and timeliness of the project which are the two major determinant of project success. A cross-sectional survey design approach was employed, and data collection was carried out in 162 managers and supervisors in six construction companies. The data were analysed with descriptive statistics and the Rank Order Correlation Coefficient (r) of Spearman via the software package of the Statistical Package and Data Analysis language (SPSS version 21). The results showed that there are strong and statistically significant relationship between inflation and project cost ($r = 0.642, p = 0.000$), interest rate and project cost ($r = 0.551, p = 0.000$) and exchange rate and project timeliness ($r = 0.596, p = 0.000$) and inflation and project timeliness ($r = 0.517, p = 0.000$). These results suggest that inflation and interest rates are the most significant factors that have an impact on the cost of projects and exchange rate fluctuation and inflation are the most contributing factors to project delays. The study concludes that macroeconomic instability plays a significant role in the cost ineffectiveness and delay of infrastructure projects in Rivers State. The report advises construction companies to engage in proactive risk management techniques, such as price adjustment provisions, hedging and financial forecasting, to reduce the impact of economic volatility. Furthermore, there is a need for policy interventions geared toward stabilising inflation and moderating interest rates and ensuring the consistency of exchange rates in order to enhance the performance of projects and ensure sustainable infrastructure delivery in Rivers State and Nigeria as a whole.

Keywords: Factors, Projects, Instability, Hedging, Interventions

1.0 Introduction

Rivers State, which is one of the major oil-producing states in the South-South region of Nigeria possesses many infrastructure requirements such as roads, drainage, ports, urban development works carried out mostly by local construction firms and national construction companies (Okonkwo & Ezeokoli, 2020). Over the years, Nigeria's fiscal and monetary policies have had profound implications in the macroeconomic environment in the form of investment patterns, financing conditions.

Over recent years, the said environment has been increasingly volatile and marked by high and persistent inflation, depreciation of the Naira and steep increases in the prices of imported and locally produced construction materials (World Bank, 2023; National Bureau of Statistics [NBS], 2024). Given that materials often contribute to a total project cost by about 60% in Nigeria, cost fluctuations have become a major risk factor for the performance of projects and contractor's profitability (Aibinu and Jagboro, 2022; Ofori, 2021).

Empirical reports and studies in the Nigerian construction industry suggest that inflationary pressures and material price escalations are considerably influencing project cost estimation, financial planning and timely project delivery (Olaniran et al., 2020; PwC Nigeria, 2022). Furthermore, the incessant depreciation of the Naira and interest rate fluctuation have made project financing and the performance of contracts more difficult especially in long endurance infrastructural projects (Odedirin and Windapo, 2019). Consequently, discouraging the degree of economic factors such as inflation, interest rate, and exchange rate fluctuation in infrastructure projects success is crucial for construction firms conducting business in Rivers State where the macro economic instability affects procurement, budgeting and delivery success.

1.2 Statement of the Problem

Despite massive public and private investments in infrastructure, the project results in Rivers State and Nigeria in general are known to be plagued by constant delays, cost overruns and quality shortcomings (Adewuyi & Odesola, 2021; Olaniran et al., 2020). Previous research has focussed to a large extent on the managerial, institutional and technical factors to be the primary determinants of these challenges (Ameh & Osekio, 2019; Damoah et al., 2018). However, the role of economic factors has been comparatively less targeted empirically in studies explaining recurrent underperformance of infrastructure projects.

Macroeconomic dynamics such as inflation, interest rate instability, exchange rate instability, financing problems, and material price volatility have been proven to have a significant impact on the outcome of construction projects (Aibinu & Jagboro, 2022; Ofori, 2021). Yet, their impact and combined impact on the success of infrastructure projects, especially at the sub-national level such as Rivers State, is under researched. This research gap is critical considering that regional

construction markets tend to respond more or less to economic shocks, as a result of the disparity in the procurement systems, supply chain structures and fiscal capacities of the sub-national governments (Nwagboso & Okonkwo, 2020). Furthermore, existing national-level studies may not adequately represent the localised realities of construction firms operating in the State of Rivers in which project financing risks, inflationary pressures and exchange rate volatility have an outsized effect on cost and schedule performance. Although several recent empirical and industry reports identify economic factors as some of the most powerful determinants of project deviations in Nigeria, little studies have combined firm-level survey data with macroeconomic factors to empirically separate the causal mechanisms linking economic conditions to project performance. This gap requires systematic research on the effect of key economic factors on the success of infrastructure projects in Rivers State, specifically by analysing the outcome of project cost and timeliness.

2.0 Literature Review

2.1. Conceptual Framework

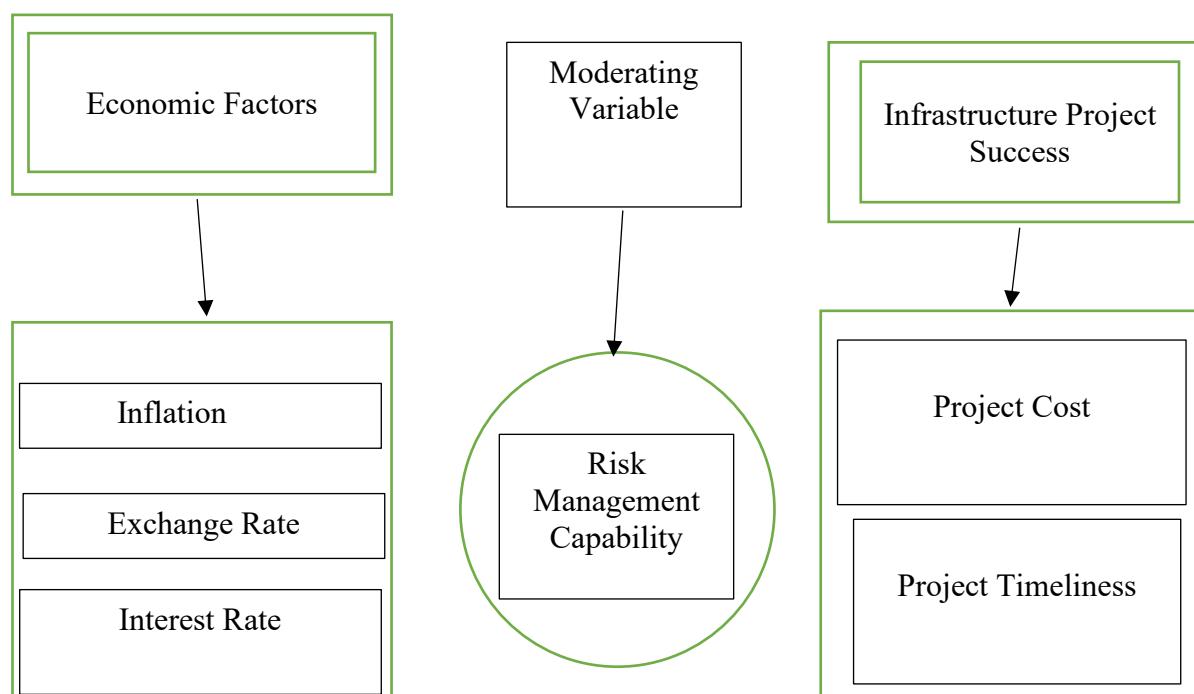


Figure 2.1: Conceptual framework on the relationship between economic factor and infrastructure project Success as well as the moderating effect of Risk Management Capability in Rivers State, Nigeria.

Source: Adapted from Taiye Eletu Issa and Emmanuel Aziegbe Akhigbe (2022)

2.1.1 Economic Factors.

Linda Callaway (2023) suggested that the word "economy" was derived in antiquity to the Greek civilization. It comes from the Greek words "oikos" which means household and "nomos" which means management or law. In ancient Greece, the term economy meant the management and organisation of the resources of the household or the community, such as finances, goods, and labour. According to Adam Smith and David Ricardo, the concept of economy termed as a system of production, distribution and consumption of goods and services. This was a shifting point from the traditional perspective of the economy as household management to national and industrial. In his great book, *The Wealth of Nations*, Adam Smith described the idea of the "invisible hand" and laid stress on market forces in determining economic outcomes. In regard to the project delivery, the economic condition of the firm and the environment plays a big role in the success of the project. Various economic factors together result in conditions and decisions in various sectors. These factors directly affect operational strategies, cost structures and profitability. For example, a high interest rate means that it is more expensive to borrow money and therefore more costly for companies to finance new projects, buy materials or expand operations. Similarly, consumer confidence at its lowest is reduced overall demand which can also indirectly impact the funding and capacity to invest by clients and projects. Furthermore, inflation wears down the buying power of the money; it means that the cost of building materials, labour, and equipment will become higher. This has a direct impact on the ability of construction firms to keep to project budgets and timelines. Likewise, upsurges and declines in exchange rates affect the cost of imported materials and machinery, adds further financial risks for bids by firms engaged in the development of infrastructure.

Overall, a firm's financial health, investment potential, and operational efficiency are governed in a large part by economic forces such as inflation, interest rate, exchange rate, and credit availability. In the case of the construction sector, these factors often mean the difference between a project being delivered on time, on budget, and to the expected quality standards or not.

2.1.1.1 Inflation

Inflation is a general rise in the prices of goods and services in an economy over some period. In Nigeria, the inflation is officially recorded by the National Bureau of Statistics (NBS), and it is usually documented either on a year-on-year basis or on a month-on-month basis. These measurements reflect the changes in rates of prices of consumer goods and services over a particular period. The rate of inflation that has become prevalent is widely determined by fiscal and monetary policies of various levels of government.

According to Chris Wiliges et al. (2023), inflationary pressures are not the same as the general costs of escalation normally expected in construction costs. The authors explained that the increase in the overall project cost over time may arise from various other factors such as change in technologies, increases in project complexity or modifications in designs, but specifically, inflation refers to the increase in prices of certain inputs such as concrete, steel, fuel or labour. As such, inflation may be a factor in cost escalation, but it is hardly the only determinant of it. The effect of inflation on the success of delivery of project by construction firms in Rivers state cannot be under emphasised. Rivers State is a key economic powerhouse and a key contributor to the overall economic ecosystem in Nigeria, especially in the area of the oil and gas exploration industry as well as the infrastructure activities. Construction firms within the state are typically involved with both public and private sector clients and all of them have different arrangements in terms of contracts and financing.

In many public sector contracts, funding constraints or delayed disbursements are common which means that construction firms have to enrich themselves from initial capital which is something that must be sought out on their own part in order to mobilise and execute projects. Payments normally are made at agreed milestones based on contractual terms. In eras of high inflation, however, the cost of materials, labour and logistics tend to increase significantly between the time of tendering and payment. This results in a gap between budgeted and actual costs, thus leaving the firms susceptible to cost overruns and financial stress. Consequently, inflation negatively affects the performance of projects by eating into profit margins, dragging out timelines of projects and making project disputes or contract variations likely. Effective inflation management strategies such as price escalation clauses, hedging or advance payment mechanisms notwithstanding, the delivery of construction projects in Rivers State is often delayed, compromised in quality or made financially unsustainable.

2.1.1.2 Exchange Rate

Exchange rate this means the rate at which the currency of one country can be exchanged for another. It is basically a comparison of the value of one country's money and that of another (Olulu-Briggs & Sunday, 2023); Sunday & Etugbo, 2023). The exchange rate of the nation is determined by apex financial institution in Nigeria so this job is to be performed by the Central Bank of Nigeria (CBN). The CBN, often called the "bankers bank", governs all the other banks in the country and is responsible for the formulation and implementation of monetary policies in such areas as exchange rate stability. Prior to the administration of President Bola Ahmed Tinubu, the Nigerian money market was very polarised and marked by profound structural unbalances, inconsistent monetary policies, and lack of access to credit in the various key sectors of the economy. A major manifestation of such polarisation was the continued gap between the official exchange rate and parallel (black market) rate. While the CBN tried to control the official rate forcing the currency to a fake rate, the rate in the black market often traded at a significantly higher level, indicating foreign exchange shortage and speculative pressures at an equilibrium level.

This large disparity in the value of the currencies tended to distort market signals, discourage foreign capital, and induce rent seeking as well as round tripping by market participants. Consequently, Nigeria's money market functioned under conditions of uncertainty and inefficiency with traditional tools of monetary policy mostly not proving effective in price stabilising or growth stimulating. According to Chase (2023) and Olulu-Briggs and Nwinee (2015), accurate estimation is important in the construction industry due to the fact that the contractors use cost estimates to submit competitive and profitable bids in the industry. He explained that exchange rate fluctuations can have a great impact on the profit margin, contingency provisions, overhead projections and overall pricing techniques. Similarly, Muhammed A.O. et al. (2021) identified exchange rate volatility as one of the major macroeconomic factors that affect the construction sector in Nigeria, which contributes to the rise in price of construction materials in Nigeria because of the heavy dependency on imported building materials. In addition, Hmouda (2024) observed the effects of the exchange rates fluctuations on the cost of materials and equipment imported, noting that the projects are often heavily depending on the foreign suppliers therefore may face a cost overrun due to the depreciation of the same currency. In the context of Rivers State, where a lot of infrastructural development carries an import bill of imported materials like steel, cement additives, machines and finishing materials, constant instability of the exchange rate could result in budget overruns, procurement time delays and

low profitability. Therefore, effective exchange rate management is a crucial macro-economic factor in the success of a project, which affects the efficiency of the cost as well as the on-time delivery in the construction industry.

2.1.1.3 Interest Rate

Interest rate is the cost of money or the return on investment for a savings. In Nigeria, most of the interest rates are based on the monetary policy of the country's central bank of Nigeria the Central Bank of Nigeria (CBN). Interest rates affect economic activities in terms of the cost of borrowing money, saving behaviour, investment level and, ultimately, pace of development. Infrastructure projects are capital intensive in nature and hence need sustenance of financial resources. In Rivers State, majority of infrastructure projects are funded either using leverage (borrowed funds) or by project advance payments made by clients. In leverage financing, construction companies take loans from banks or financial institutions to implement projects according to a contract. Payments are then made by the client upon completion of agreed milestones on a project.

In cases where clients provide mobilisation funds at the onset of a project, such funds are later amortised during subsequent valuations/ progress certificates, for recovering initial advance. This setup is advantageous to contractors because they do not have to borrow from external lenders incurring the extra cost of loan interest. However, in case there is no advance payment, the firms are forced to take loan from banks or other credit institutions to execute the construction project. Interest rates have a major impact on the success of infrastructure projects because they determine how much a particular infrastructure project can borrow, and how much credit will be available. High interest rates increase the cost of borrowing, discouraging investment and potentially involving project delays, downsizing or project abandonment. On the other hand, low interest rates make it cheaper for financing and attract investors for quick completion of projects and overall success of a project.

Moreover, the role of interest rates is a very important one in the determination of project viability especially when it comes to public-private partnerships (PPPs) and foreign investment decisions. In Nigeria, over the years the history of high interest rates quite related to the low level of infrastructural performance and moderate and stable interest rates have justified the growing of projects and effective delivery efficiency. Therefore, having a stable and moderate environment of interest rates improves project financing, cost efficiency, timely completion and long term sustainability of the projects

2.1.2 Infrastructure Project is a Success

Infrastructure development is essential to the development of the economy and social welfare, particularly in Rivers State with the presence of roads, bridges, houses, and water supports in the daily tranquilly of lives and activities of business. However, the success of these projects in terms of timely delivery, cost-efficiency and quality to a large extent depends on the prevailing economic conditions. There are factors like inflation, interest rates, currency fluctuations, and material cost volatility that often result in project delays, cost overruns and poor quality. Effective planning, financial management and stakeholder coordination are therefore essential if we are to overcome these economic challenges and ensure that infrastructure projects will be delivered successfully.

2.1.2.1 Project Cost

In project management, cost is much more than just a budget figure it is a dynamic component moulded by various economic variables. Along with time and scope, cost is one of the three basic pillars of the project management triangle. Projects which go over their budgets tend to suffer delays, a substandard quality, or even termination, while good cost management improves return on investment (ROI), confidence among stakeholders, competitiveness and long-term viability. Several economic factors affect project costs:

Inflation and Interest Rates: Rising inflation will make materials, labour, and services more expensive and high interest rates will make borrowing more costly especially for infrastructure investments that require a lot of capital.

Exchange Rate Fluctuations Fluctuating: currency rates influence the price of materials and equipment that companies import to operate, making pure financial hedging strategies a necessity for chain risk mitigation.

Labour Market Conditions: Skilled labour shortages may lead to an increase in wages and slow timelines, while high unemployment rates may lead to lower labour costs.

Supply Chain Disruptions: Economic instability can interfere with the supply of materials, create scarcity, and create high logistics costs; unemployment caused by such disruptions is reduced by sourcing locally and diversifying suppliers.

Government Policies and Taxation: Positive fiscal policies like subsidies or tax incentives can decrease costs of projects but tariffs and complicated regulations can increase budget.

2.1.2.2 Project Timeliness

In project management, time doesn't mean only a deadline, but it is a currency that has a direct impact on cost, quality and project results. Every delay or acceleration has an economic consequence and, as a result, time is a vital strategic resource. Efficient time management improves cost saving, revenue generation, risk reduction, and resource utilisation while poor time scheduling often leads to cost overruns, penalties, and lost opportunities.

2.1 Theoretical Framework

2.2.1 Resource Based View (RBV) Theory

The Resource-Based View (RBV) theory which was developed by Penrose (1959) and was later developed by Barney (1991) states that firms gain competitive advantage over time when they are resource based in ways that ensure that those resources are valuable, rare, inimitable and non-substitutable (VRIN). In construction companies, these resources are financial resources, human resources, technology, and project management skills.

According to Barney (1991), "firms with certain strategic resources which are valued, scarce, inimitable, and organised can perform better" For infrastructural development in Rivers State, it is the economic factors in areas such as access to credit, stability of inflation and exchange rate that will determine the availability and sustainability of such strategic resources. Firms with sufficient financial capacity can secure quality materials, or pay skilled labour on time, and keep projects on schedule, which will increase a firm's chances of success. Empirical evidence by Ede and Nwakanma (2020) upholds the availability of economic resources on performance and timely completion of road construction projects in Port Harcourt. Therefore, RBV offers a useful perspective to understand the effect of internal and external economic resources on the outcomes of infrastructure projects.

2.2.2 Cost Benefit Analysis (CBA) Theory

The Cost Benefit Analysis (CBA) theory was first coined by Jules Dupuit in 1848 and made formal by Boardman et al. (2018), which provides a framework to assess the economically feasible and efficient project. The theory has it that a project should go ahead only if the advantages expected from it are greater than the cost incurred. In the context of infrastructure development, CBA, decision-makers can determine whether prevailing economic conditions such as interest rates, inflation and exchange rate fluctuations support profitable investments. As Boardman et al. (2018) observed, "the essence of economic evaluation in project management is determining whether social benefits outweigh social costs."

Within the Nigerian context, one of the issues which has often affected project implementation is economic instability. Okoye and Ugochukwu (2021) found that inflation and exchange rate volatility are an important source of cost estimation and procurement planning distortions in construction firms in the Niger Delta. Hence, the CBA theory underscores the fact that infrastructure project success is not dependent on managerial efficiency alone, but also on macroeconomic stability which then support a favourable cost benefit balance.

2.3 Empirical Review

Ine Fubara Briggs (2022) studied the relationship between the contract management practises and performance of infrastructural projects in Rivers State. Using a purposive survey design and with 80 respondents, data were analysed with the help of the SPSS. The results showed that Structure and Resource (SR), Payment and Incentive (PI) and Feedback and Communication (FC) had good, positive and significant relationships with Infrastructure Project Performance (IFP) and the strong relationship was with SR. Confirmatory factor analysis found that factor loadings were greater than 0.7 and instruments were reliable. The study concluded that better contract management practises increase the performance of the projects and suggested that the Contract Managers increase these determinants to improve infrastructural delivery in Rivers State.

Similarly, Kelechi Charles (2020) focused on the effects of the economic environment namely inflation and interest rates on the profitability of manufacturing firms in Rivers State. Using a cross-sectional survey on 44 firms using Spearman's rank-order correlation, the results showed that both inflation and interest rates have a significant impact on the profitability. The study concluded that the economic environment has a substantial effect on the organisational performance as well as recommended managers monitor economic indicators closely to make informed decision making that would help sustain profitability.

In another study, Taiye Eletu Issa and Emmanuel Aziegbe (2022) discussed the link between Project Management Practises (PMP) and project success among construction firms in Rivers State. A cross-sectional survey of 162 employees of 6 firms showed high correlations between project scope management, cost management and project success indicators of quality and timeliness. The study concluded that effective scope and cost management is important

for project management in a bid to improve project outcomes and recommended that construction firms focus on their cost control in order to prevent the overruns and improve project delivery success.

3.0 Methodology

This study was carried out in a cross-sectional survey design to examine the impact of economic factors on the success of infrastructure projects by construction firms in Rivers State, Nigeria. The reason that this design was suitable because it allowed to collect data from a representative sample at one point in time and identify the relationship between different variables, such as inflation, exchange rate, interest rate and project success indicators.

The target population was 279 managers and supervisors from six construction companies found in Rivers State. These respondents were considered appropriate due to their involvement in project planning, financing and delivery processes which relate to the variables in the study.

Table 3.1 List of Companies and Numbers of Employees

S/N	NAME OF AGENCIES	NUMBER OF MANGER & SUPERVISORS
1	RHONETHA NIG LTD	50
2	DOVER ENGINEERING	50
3	ARCO M & E	50
4	AOS OWELL	50
4	RON OWEN & ASSOCIATES LTD	50
5	NIGER HYDRID LTD.	50
6	FFORDIAC ENGINEERING LTD	29
	TOTAL	279

Source: Fieldwork (2025)

The sample size was calculated based on Krejcie and Morgan (1970) formula to determine sample size. Based on this and on the whole 6 selected firms, 162 questionnaires were handed out. A simple random sampling method was used to ensure that every member of the population would have an equal chance of being chosen in the sample - reducing researcher bias and increasing sample representativeness.

Data that were collected from the field were analysed using Statistical Package for the Social Sciences (SPSS) version 21. Descriptive statistics was used to summarise the demographic characteristics of a group of respondents while Spearman Rank Order Correlation Coefficient was employed to offer the bivariate hypotheses and identify the strength and direction relationship between economic factors and success of infrastructure projects.

4.0 Results and Discussion

4.1 Presentation and Response Rate of Data

A total of 162 copies of the questionnaire were distributed to selected construction firms in Rivers State. Out of these, a total of 152 valid responses were returned and used for the analysis representing a 93.8% response rate which is considered adequate for statistical reliability. Descriptive analysis was made in order to summarise the responses on the major variables of the study. The responses to the 7 items were rated by the respondents to indicate their level of agreement using a 5-point Likert scale: "Strongly Disagree (1) to Strongly Agree (5)."

Table 4.1: Descriptive Statistics

Variable	Mean	Std. Deviation	Interpretation
Inflation	3.54	0.71	High agreement
Exchange Rate	3.38	0.68	High agreement
Interest Rate	3.26	0.73	Moderate agreement
Project Cost	3.42	0.77	High agreement
Project Timeliness	3.29	0.69	Moderate agreement

The above mean scores show that respondents largely agreed that economic factors do have significant effects on the project delivery outcome especially inflation and exchange rate fluctuation.

4.2 Test of Hypothesis

Table 4.2: Spearman Rank Correlation Coefficients among Variables (N = 152)

Variables	Project Cost	Project Timeliness
Inflation	$\rho = 0.642, p = 0.000$	$\rho = 0.517, p = 0.000$
Exchange Rate	$\rho = 0.384, p = 0.002$	$\rho = 0.596, p = 0.000$
Interest Rate	$\rho = 0.551, p = 0.000$	$\rho = 0.301, p = 0.006$

($p < 0.05$ indicates statistical significance)

Hypothesis One (H₀₁):

The inflation rate is not significantly related to project cost.

The result of the correlation ($r = 0.642, p = 0.000$) indicates that there is a high positive and statistically significant relationship between inflation and the project cost. Thus, H₀₁ is rejected. This implies that the more inflation is increased, the cost of the project is also raised to a large extent.

Hypothesis Two (H₀₂):

There is no significant relationship between exchange rate and timeliness of project.

The result ($r = 0.596, p = 0.000$) shows there is a moderate positive significant relationship between exchange rate and project timeliness. Therefore, H₀₂ is rejected. This implies that there is a contribution of exchange rate fluctuations in the case of project delays because of the rise in the import materials cost and supply chain disruption.

Hypothesis Three (H₀₃):

There is no significant relationship between interest rate and cost of the project.

The results of the above analysis were ($r = 0.551, p = 0.000$), indicating a positive and significant relationship between interest rate and the cost of the project. Hence, H₀₃ is rejected. This shows that high borrowing costs add to the total cost of project financing and execution.

Hypothesis Four (H₀₄):

There is no significant relationship between inflation and timeliness of the projects.

The result ($r = 0.517, p = 0.000$) shows that there is a moderate positive and significant relationship between inflation and timeliness of the project. Therefore, H₀₄ is rejected. Inflation also has indirect effects on delays of projects as firms find it hard to shift their procurement timelines and renegotiate material supply prices.

4.2 Discussion of Findings

The results show that economic variables have a significant impact on the successful delivery of projects in the construction firms in Rivers state. Inflation and interest rate were the most significant predictors of the project cost, whereas exchange rate and inflation were significant determinants in timeliness of the project.

These results are consistent with the studies of Okoye and Ugochukwu (2021) and Ede and Nwakanma (2020), which established that the persistent nature of inflation and volatility of exchange rates have perverse effects of distorting the cost control and schedule adherence in Nigerian construction projects. Similarly, Boardman et al. (2018) emphasised the point that economic conditions have a direct impact on project feasibility and financial sustainability.

The results are consistent with Cost Benefit Analysis Theory, which assumes that indicators of macroeconomics affect the viability of projects, and Systems Theory, which recognises the interdependency between external economic factors and internal project processes.

5.0 Conclusions and Recommendations

5.1 Conclusion

This research work focused on the relationship between economic factors (inflation, exchange rate and interest rate) and infrastructure project success (measured as project cost and project timeliness) among construction firms, Rivers State, Nigeria. Data obtained from 162 respondents from six major construction companies were analysed using Spearman Rank Order Correlation Coefficient through the use of version 21 of the statistical software package - Statistical Package for Social Sciences (SPSS). On the basis of the findings, the following conclusions were made:

- i. Economic factors have a critical bearing on the outcome of infrastructure projects in Rivers State. Inflation, exchange rate fluctuation and interest rate fluctuation directly impact on cost efficiency and on-time delivery of projects.
- ii. Inflation is still the most dominant factor in economics that affects both the cost of the project and timeliness. Constantly rising inflationary trends bring about the price instability and regular revision in the cost.

- iii. Exchange rate fluctuation leads to indirect delays in projects, particularly projects that depend on imported inputs, high interest rate increases financing costs, which translates into lower profit and financial flexibility of contractor.
- iv. The study affirms the propositions of Systems Theory and Cost-Benefit Analysis Theory which states that the success of the project is a factor that depends on the stability of economic inputs in the economic system and effective planning of the financial system.

In conclusion therefore, the need for enhancing the macroeconomic stability, developing the cost control machinery and reducing the achievement of the financial management capacity of the construction firms are essential factors in the achievement of successful infrastructure project delivery in Rivers state.

5.2 Recommendations

Based on the study's finding and conclusions, the following recommendations are suggested:

- i. The government should have effective monetary and fiscal policies for stabilising the rate of inflation, which will in turn help the construction firms to plan and execute construction projects within the approved budget.
- ii. The Central Bank of Nigeria should have consistent exchange rate policies by implementing transparent foreign exchange rates. Construction firms should also adopt local sourcing strategies and forward contracts to reduce the exchange rate risks.
- iii. Financial institutions should make affordable project financing facilities available, and contractors should make flexible repayment terms available to minimise financial pressure during the execution of the project.
- iv. Construction companies should incorporate financial forecasting and risk management systems in their project plans in order to adapt and mitigate risks in response to economic changes effectively.
- v. Government agencies should simplify procurement procedures and better payment systems to reduce any bureaucratic delays in the system that exacerbate the impact of inflation and exchange rate volatility.
- vi. Before the project is started, the firms should conduct detailed cost-benefit and sensitivity analyses to assess the potential impact of changing economic variables on the feasibility of the project.

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