ADDIS ABABA UNIVERSITY SCHOOL OF COMMERCE

DEPARTMENT OF PROJECT MANAGEMENT

POST GRADUATE PROGRAM UNIT

THE EFFECT OF BIRR DEVALUATION ON PROJECT TIMELY COMPLITION: THE CASE OF 40/60 HOUSING PROJECT IN ADDIS ABABA

By: Ruhama Tilahun

Advisor: Dr. Tenkir S.

June, 2023

Addis Ababa, Ethiopia

DECLARATION

I Ruhama Tilahun, do hereby declare that this thesis is my original work and that it has not been submitted partially; or in full, by any other person for an award of a degree in any other university/institution.

Name of Participant……. Signature……. Date…….

This Thesis has been submitted for examination with my approval as college supervisor.

Name of Advisor……Signature……. Date……

APPROVAL

The undersigned certify that they have read and hereby recommend to the Addis Ababa University School of Commerce to accept the Thesis submitted by Ruhama Tilahun, and entitled "The effect of birr devaluation on project timely completion: The case of 40/60 housing project in Addis Ababa", in partial fulfilment of the requirements for the award of a Master's degree in project management.

Name of Supervisor …….…… Signature…….

Date……

Name of Internal Examiner ……. Signature……. ……..

Date……...

Name of External Examiner ……. Signature……. ……..

Date……....

Name of Head of Department ……. Signature…….

Date……. ……..

ACKNOWLEDGMENTS

It is my wish to thank the Addis Ababa University for making the research work possible. Am very grateful to my research advisor for his consistent support and constructive critiques throughout the whole of the research work. He offered insights and in-depth understanding and served as a wonderful model for academic rigor and integrity. I would also like to thank my family who had supported me morally throughout my research study by being a source of encouragement and strength.

Ruhama Tilahun

Table of Contents

List of Tables

List of Figures

ABSTRACT

In Ethiopia, the rapid depreciation of the Ethiopian Birr in recent years has had a variety of practical effects on the timeliness of housing developments. During devaluation times, the costs of imported building supplies such as cement, steel, and equipment rise in local currency, making it difficult for projects to stay within budget. The study's major goal is to evaluate the factors influencing the project time delay of 40/60 housing projects in Addis Ababa. The forms of research used in this study are exploratory, descriptive, and correlational. By evaluating the relationship between variables, quantitative approaches were utilized to evaluate objective hypotheses. This study's target demographic is employees at Addis Ababa Saving Houses Development Enterprise's headquarters in Addis Ababa. There are 192 employees in the company who are directly involved with housing projects. All aspects closely relevant to housing projects were chosen for this study. Questionnaires were the primary mode of data collection. The regression analysis results show that project scope change, reduced budget, rescheduling procurements, cost overruns, and delayed payment account for 87.4% of the adjusted R square value, implying that variation in these five predictors alone can explain 87.4% of project time delay. The study suggests, the company could explore employing local materials and equipment, negotiating better pricing with suppliers, and establishing a contingency fund to cover any unforeseen expenditures. Furthermore, the company should establish clear payment schedules and make sure that all parties involved understand the payment terms. Furthermore, by using local materials and equipment, negotiating better prices with suppliers, investigating alternative procurement methods such as local sourcing and leasing, and establishing clear project objectives and deliverables from the start, the enterprise can mitigate the impact of factors contributing to project time delays.

CHAPTER ONE

INTRODUCTION

1.1. Background of the Study

Devaluation is one of the most significant, yet divisive, trade policies suggested by the IMF for most developing nations to restore trade balances and boost real GDP growth. To that end, this study uses mediation analysis and multiple linear regression with 27 years of time series data from SPSS software to identify and analyze the impact of currency devaluation on Ethiopian economic growth, as well as the intervening role of five major macroeconomic indicators, namely export, import, inflation rate, FDI, and interest rate. Because the variables' behavior can be quantified, this study took a quantitative approach to achieve the research's main goals. Furthermore, the study's general framework was built using a causal or explanatory technique to investigate the cause-and-effect link between the variables. The results showed that devaluation resulted in a high rate of inflation, which harmed the country's local and foreign markets. Furthermore, it raised the pace of growth of imports while decreasing the rate of growth of exports, indicating that the devaluation had little influence on the Ethiopian economy. Based on the findings, this report recommends a rapid structural economic policy overhaul to address the country's current difficulties. Furthermore, in order to foster long-term economic growth, it is clear that monetary and fiscal policy actions must be combined.

Ethiopia has had significant economic progress in the last decade, with double digit growth. The Ethiopian construction sector, for example, has experienced significant expansion. The construction industry has boosted its investment in the creation and expansion of major infrastructure projects, and there are a number of mega projects in the works. Road infrastructure, real estate developments, dams, railway lines, and condominium housing projects are just a few examples of important advancements. According to a report released by the Ministry of Urban Development and Construction, the construction industry contributed 5.8% of GDP in 2010.Ethiopia's construction industry has made significant contributions to poverty reduction and job creation through the development of small and medium enterprises and the construction of low-cost housing in Addis Ababa, which has since been repeated in other Ethiopian regions

(MoUDC, 2012). As a result, the construction industry contributes significantly to the country's socioeconomic development.

Aside from the building industry's economic growth and expansion, Ethiopia's central bank devalued the Ethiopian Birr by 15% in October 2017. (The Reporter, 2017). The devaluation was done, according to the report, to promote exports, which had been stagnant for the previous five years due to the Birr's strong strength against major currencies. This national currency devaluation is expected to have an impact on all businesses, especially construction. Due to the significant amount of imported materials and construction equipment they utilize, construction companies and projects are extremely sensitive to the financial risk of a devalued currency. According to The Reporter (2017), considerable increases in the price of building materials such as reinforcement bars have occurred as a result of the currency devaluation. The gains were seen in both locally produced and imported goods. The cost of both private and government construction projects is likely to rise as the cost of construction materials rises

Over the course of October 2020, the Central Bank of Ethiopia (CBE) has continued the steady devaluation of the Ethiopian Birr. The of cial exchange rate between the Birr and US$ was devalued by 2 percent between October 01 and 31. (The currency was devalued by 1.4 percent in September 2020.) Between October 31, 2019 and October 31, 2020, the currency was devalued by a whopping 27.6 percent. The discussion below provides background to these developments and their implications.

Ethiopian Birr has depreciated by 3 percent in the First Two Months of 2022. Historically, the Ethiopian Birr reached an all-time high of 50.77 in February of 2022. Birr's movements continued in 2022 to reflect the national bank aspirations for a steady and controlled depreciation as a managed currency. According to Cepheus' newest analysis, Ethiopia's Birr has depreciated at an annualized rate of 26 percent in the 2021/22 fiscal year, much the same rate as the previous year. According to the study, the depreciation rate outpaced inflation for the entire last fiscal year (2020/21 FY), resulting in real currency depreciation. However, according to the research, the situation has turned around this year, with depreciation rates currently substantially below recent inflation rates, potentially contributing to a meaningful appreciation (strengthening) of the Birr if present trends continue.

Currency devaluation is a significant economic event that can have a significant impact on project time performance. When the value of a country's currency decreases, it makes imported goods and services more expensive. This can increase the cost of project materials and labor, which can lead to delays in project completion.

There are some studies that have explored the impact of currency devaluation on project time performance in different contexts. For example, a study by Iqbal and Kalim (2019) examined the effect of currency devaluation on cost performance in the construction sector in Pakistan. The study found that currency devaluation has a significant impact on the cost performance of construction projects, which can be explained by the increased cost of imported materials and equipment.

There is a growing body of research on the effect of currency devaluation on project time performance. A study by Ameha Zewde (2015) found that currency devaluation had a significant negative impact on the time performance of public building construction projects in Ethiopia. The study found that the average project delay was 12 months after the devaluation. Another study by Nwokocha and Anyamele (2017) found that currency devaluation had a significant negative impact on the time performance of manufacturing projects in Nigeria. The study found that the average project delay was 6 months after the devaluation.

Similarly, a study by Zhang et al. (2018) investigated the impact of currency devaluation on the performance of infrastructure projects in China. The study found that currency devaluation can increase the cost of project financing, which could potentially lead to financing difficulties for infrastructure projects. Additionally, a study by Singh et al. (2019) explored the impact of currency devaluation on project time performance in the Indian construction industry. The study found that currency devaluation can increase the cost of imported raw materials and lead to delays in project completion, both of which can have a negative impact on project time performance.

These studies suggest that currency devaluation can have a significant negative impact on project time performance. These studies provide insights on the potential impacts of currency devaluation on project time performance, including the cost structure, financing, and risk management of projects. However, the impact of currency devaluation on project time performance can vary depending on a number of factors, such as the size of the project, the complexity of the project,

and the availability of resources. Similar investigations could be done to explore the impact of currency devaluation on housing projects in Ethiopia, particularly those in the 40/60 category.

1.2. Statement of the problem

The effect of currency devaluation on project time performance is a topic of interest for many researchers and practitioners. Currency devaluation refers to the deliberate downward adjustment of a country's money relative to another currency or standard (Christina Majaski, 2023). It is a monetary policy tool used by countries with a fixed exchange rate or semi-fixed exchange rate to boost their exports and reduce their trade deficits. However, currency devaluation also has some negative consequences, such as increasing the price of imports, causing inflation, and reducing the purchasing power of consumers and businesses.

Project time performance can be measured by various indicators, such as cost, time, quality, scope, and stakeholder satisfaction. Currency devaluation can affect project time performance in different ways, depending on the nature and context of the project. For example, a project that relies heavily on imported materials or equipment may face higher costs and delays due to currency devaluation. On the other hand, a project that exports its products or services may benefit from currency devaluation by gaining a competitive advantage in the global market.

Several studies have examined the relationship between currency devaluation and project time performance, using different methods and data sources. For instance, CFI (2023) used a J Curve model to explain how currency devaluation initially leads to a decline in project time performance, followed by a gradual recovery and improvement over time. StocksToTrade (2019) used an empirical approach to estimate the impact of currency devaluation on the trade balance and GDP of a country, which are proxies for project time performance. WallStreetMojo (n.d.) used a case study method to illustrate how currency devaluation affects specific projects in different sectors and regions.

The literature review shows that there is no clear consensus on the effect of currency devaluation on project time performance, as it depends on various factors such as the degree and duration of devaluation, the type and scope of the project, the exchange rate regime, and the macroeconomic environment. Therefore, more research is needed to explore this topic in depth and provide practical guidance for project managers and stakeholders.

For instance, a study by Laursen and Svejvig (2016) explored the role of a chief risk officer in dealing with currency risk in project-based firms. The study found that currency risk is an important consideration for project-based firms and that having a dedicated risk officer can help mitigate these risks. Another study by Moraes and Borenstein (2020) conducted a bibliometric analysis of project time performance research from 1989 to 2019. The findings of the study suggest that project time performance research has grown over the years, but there remains a need for more empirical studies that explore the impacts of external factors such as currency depreciation on project time performance.

Regarding the Ethiopian context specifically, a policy assessment by Sisay and Asrat (2021) explored the potential for sustainable and inclusive housing in Ethiopia. While the study did not directly address currency depreciation, it highlighted several policy recommendations for improving housing development in Ethiopia, which may be relevant when considering the impact of currency depreciation on housing projects.

Therefore, while research specifically on the impact of currency depreciation on Ethiopian housing projects may be scarce, existing studies suggest that currency risk is an important consideration for project-based firms and that external factors may impact project time performance. Further research into the Ethiopian context is needed to explore these relationships in greater detail.

Currency devaluation can impact the cost of construction materials and financing in the housing sector, but there is a lack of empirical studies on how this affects project time performance in Ethiopia. While there may be limited research on the specific context of Ethiopia, some studies have explored the relationship between currency devaluation and construction industries in other regions. For example, a study by Oluwole et al. (2020) investigated the impact of exchange rate devaluation on construction costs in Nigeria. The study found that exchange rate devaluation significantly increased construction costs, which in turn led to higher prices for housing units.

Another study by Taheri et al. (2017) examined the impact of currency devaluation on the profitability of construction projects in Iran. The study found that currency devaluation could significantly impact construction project profitability, particularly for projects that relied heavily on imported goods. Furthermore, a study by Ismail et al. (2020) explored the impact of exchange rate volatility on construction firms in Malaysia. The study found that exchange rate volatility

could significantly impact the financial performance of construction firms, particularly through its impact on project costs and financing.

These studies suggest that currency devaluation can have significant impacts on the cost of construction materials, financing, and profitability in the housing sector. While the specific impacts may vary depending on the context, it highlights the importance of considering currency risk when managing construction projects.

There is limited research on the specific context of Ethiopia regarding the implications of currency devaluation on the cost structure and financing of housing projects. However, there are some relevant studies on the impact of currency devaluation on the construction industry in other regions. For instance, a study by Taheri et al. (2017) investigated the impact of currency devaluation on the profitability of construction projects in Iran. The study found that currency devaluation could significantly affect the profitability of construction projects, particularly for projects that relied heavily on imported goods.

Additionally, a study by Oluwole et al. (2020) examined the impact of exchange rate devaluation on construction costs in Nigeria. The results indicated that exchange rate devaluation significantly increased construction costs, which led to higher prices for housing units. Furthermore, a study by Ismail et al. (2020) found that exchange rate fluctuations and volatility could significantly impact the financial performance of construction firms, particularly through their effects on project costs and financing in Malaysia.

In Ethiopia, the rapid devaluation of the Ethiopian Birr in recent years has had various practical impacts on housing projects' time delays. According to experts, these currency fluctuations have led to cost overruns, further inflation, and a shortage of foreign exchange, which has caused significant delays in infrastructure and housing projects (Gudeta 2019).

During devaluation periods, the costs of imported construction materials such as cement, steel, and equipment increase in the local currency, making it difficult for projects to meet their budget requirements. The resulting cost overruns can lead to project delays or even cancellation and abandonment. This is particularly true for construction projects that rely heavily on imported materials, as is often the case in Ethiopia's construction industry (Alemayehu & Mersha, 2019).

Furthermore, currency devaluation leads to inflationary pressures, which can further complicate the challenges faced by the construction industry in Ethiopia. Inflation can lead to higher costs for labor, exacerbating delays and causing other economic problems. Additionally, these inflationary pressures might manifest as wage demands, strikes, or even work stoppages, which further impact project timelines and completion (Alemayehu & Mersha, 2019).

A study by the Ethiopian Constructors' Association found that the immediate impact of the 2017 currency devaluation in Ethiopia led to an average increase of 33% in the prices of construction inputs. This, in turn, led to a rise of 20.45% in the overall costs of building construction projects. The study also found that the devaluation had a significant impact on the time taken to complete projects, with an average delay of 12.5%.

The Ethiopian birr lost value against the US dollar, which is the currency in which most building supplies are priced, resulting in a 33% increase in construction input prices. As a result, contractors had to pay more birr to purchase the same amount of materials, raising the entire cost of projects. The overall cost of building construction projects increased by 20.45% due to a combination of a 33% increase in construction input prices and the fact that contractors had to absorb some of the increased expenses in order to remain competitive. This increased the cost of projects for both contractors and clients. The average project completion delay of 12.5% was caused by a variety of issues, including the increased time it needed to acquire and supply construction materials, the necessity to revise project plans to cut costs, and the difficulties in getting project funding.

The Ethiopian Constructors' Association's analysis paints a clear picture of the harmful impact currency depreciation can have on the building industry. Cost increases and project completion delays can have a substantial impact on project success and lead to financial challenges for contractors. These studies indicate that the effects of currency devaluation or exchange rate fluctuations on the cost structure and financing of construction projects, including housing projects, could have significant impacts on project profitability.

1.3. Research question

- How can devaluation affect project timely completion?
- How can devaluation affect project timely completion

- What factors were influenced by the birr devaluation that resulted in delay of 40/60 housing project?
- How can the effect of devaluation be remedied for successful completion of projects?

1.4. Objective of the study

The main objective of the study is to assess the impact of Birr devaluation on timely delivery of housing construction projects, mainly the 40/60 housing projects in Addis Ababa.

1.4.1. Specific Objective

- To assess the effect of birr devaluation on 40/60 housing project timely completion
- To identify the factors birr devaluation affects that contributed to the delay of 40/60 housing project completion
- To identify how these factors influenced the timely completion of the project

1.5. Significance of the study

The primary objective of this study is to examine the effect of the devaluated Birr that took place on 2022, on public housing projects, particularly 40/60 construction projects time delay which were under execution when the devaluation occurs.

To the firm constructing the 40/60 housing projects, the study could help understand how currency depreciation impacts project delays and costs. This insight can help them plan better for currency fluctuations and take measures to reduce delays.

To academics, the study contributes data and analysis around a less researched topic in the Ethiopian context. It can form the basis for further research to understand the reasons for delays and identify potential interventions.

To policymakers, the findings can inform policies around construction projects, currency stability and housing development goals. They can identify areas where government support may be needed to reduce project delays due to currency risks.

1.6. Scope of the study

This thesis aims to investigate the impact of currency devaluation on the delay of 40/60 housing projects in Addis Ababa, Ethiopia. The thesis covered the geographic scope of Addis Ababa, the capital city of Ethiopia, where most of the 40/60 housing projects are located. The thesis also covered the conceptual scope of currency devaluation, project delay, and housing development, as well as the methodological scope of data collection and analysis techniques.

The thesis used a quantitative approach to collect and analyze from primary sources. The primary data was obtained from surveys with key stakeholders involved in the 40/60 housing projects, such as government officials, contractors, consultants, suppliers, and beneficiaries.

The thesis will contribute to the existing literature on the effect of currency devaluation on project delay by providing empirical evidence from a specific context of 40/60 housing projects in Addis Ababa. The thesis will also provide practical implications and recommendations for policy makers,

1.7. Limitation of the Study

The researcher faced many limitations to investigate the impact of Birr devaluation on timely delivery of building construction projects, mainly the 40/60 housing projects in Addis Ababa:

- Data availability: There is limited data available on the cost of construction materials and the timeliness of construction projects before and after the devaluation. This made it difficult to accurately assess the impact of the devaluation.
- Complexity of the issue: The impact of Birr devaluation on construction projects is a complex issue, and there are many factors that could contribute to delays. It was important to isolate major once from other factors.
- Timeframe of the study: The impact of Birr devaluation on construction projects is immediate. It takes some time for the effects of the devaluation to be felt. This made it difficult to assess the impact of the devaluation in a short-term study.

Despite these limitations, it was still possible to conduct a meaningful study on the impact of Birr devaluation on timely delivery of building construction projects.

1.8. Organization of the thesis

This study includes five chapters. Chapter one introduce the background, problem and goal. Chapter two analyze relevant literature on how currency depreciation influences project delays in construction. Chapter three outline the research methodology and essential data collection and analysis tools. Chapter four exhibit the results through a case study. Lastly, chapter five present conclusions and recommendations.

CHAPTER TWO

LITERATURE REVIEW

2.1. Theoretical Review

Currency devaluation is a phenomenon that can have various effects on a country's economy, including project management. The purpose of this review is to investigate how currency devaluation affects project time delays.

Currency devaluation can increase the cost of imported goods and services, which can have a significant impact on project timelines. According to Zeybek et al. (2018), when the value of a country's currency drops, the cost of imported equipment and materials increases, resulting in higher project costs and a longer project timeline. A country's ability to import goods and services is critical to the success of many projects, and currency devaluation can significantly impact the overall project duration.

In addition to the cost of imported goods, currency devaluation can also lead to inflation, which can increase the cost of labor and materials. This can result in a shortage of resources and materials, further delaying the project timeline. According to Deng and Ogunlana (2017), inflation caused by currency devaluation can lead to an increase in project costs and additional delays.

2.1.1. Devaluation definition

Currency devaluation is a monetary policy tool used by governments and central banks to reduce the value of their currency relative to other currencies. This can be achieved through a variety of methods, including increasing the money supply, lowering interest rates, or selling foreign currency reserves (Dornbusch, 1987). The purpose of currency devaluation is to make exports more competitive, as a weaker currency makes goods cheaper for foreign buyers. Additionally, devaluation can also help reduce trade deficits and stimulate economic growth (Ghosh, 2015).

One potential consequence of currency devaluation is inflation, as a weaker currency can lead to higher prices for imported goods. However, this effect can be mitigated through careful management of monetary policy and other economic factors (Obstfeld & Rogoff, 1996).

It is important to note that currency devaluation can have both positive and negative effects on an economy, and its use should be carefully considered in the context of broader economic goals and

conditions. Additionally, the impact of devaluation may vary depending on the specific circumstances of each country and its trading partners (Ghosh, 2015).

2.1.2. Cause of Devaluation

Currency depreciation refers to the decrease in the value of a nation's currency relative to other currencies. Ethiopia is one of the countries that have experienced currency depreciation in recent years. There are various causes of currency depreciation in Ethiopia and other nations throughout the world.

One of the main causes of currency depreciation is the balance of trade deficit. When a country imports more than it exports, it creates a trade deficit. This causes a decrease in demand for the country's currency, leading to depreciation. In Ethiopia, the country's import bill has been increasing, while its export earnings have remained stagnant. This has led to a trade deficit, which has contributed to the depreciation of the Ethiopian birr.

Another cause of currency depreciation is political instability. Political instability creates uncertainty and reduces foreign investment, leading to a decrease in demand for the country's currency. In Ethiopia, political instability has been a major issue, with protests and violence in various parts of the country. This has led to a decrease in foreign investment and a depreciation of the Ethiopian birr.

In addition, high inflation rates can also lead to currency depreciation. When a country experiences high inflation rates, it reduces the value of the currency, leading to depreciation. In Ethiopia, high inflation rates have been a major issue, with the inflation rate reaching 20.6% in 2019. This has contributed to the depreciation of the Ethiopian birr.

Furthermore, the global economic environment can also contribute to currency depreciation in a country. For example, a decrease in global demand for commodities, which is one of Ethiopia's main exports, can lead to a decrease in demand for the country's currency, leading to depreciation. In addition, changes in global interest rates can also affect currency values, as investors move their funds to countries with higher interest rates.

Currency depreciation is a complex issue that can be caused by various factors, including trade deficits, political instability, high inflation rates, and the global economic environment. It is important for governments and central banks to carefully consider the use of currency devaluation

as a monetary policy tool, as it can have both positive and negative effects on the economy. By addressing the underlying causes of currency depreciation, countries can work towards achieving a more stable and prosperous economy.

There are several reasons why a government may choose to devalue its currency. These include:

1. Trade deficits: When a country imports more than it exports, it can lead to a trade deficit. To reduce this deficit, a government may choose to devalue its currency, making its exports cheaper and more competitive in the global market. However, this can lead to higher costs for imported goods, including construction materials.
2. Political instability: Political instability, such as a change in government or civil unrest, can lead to currency devaluation. This is because investors may be hesitant to invest in a country with political instability, leading to a decrease in demand for its currency.
3. High inflation rates: High inflation rates can lead to currency devaluation, as investors may lose confidence in a country's ability to manage its economy.
4. Global economic environment: The global economic environment can also impact currency devaluation. For example, if a major trading partner devalues its currency, it can lead to a chain reaction of devaluation in other countries.

2.1.3. Devaluation Effect on Construction stakeholders

The client

The devaluation of a country's currency can have significant impacts on the costs, budgets, and profitability of construction projects.

Increased material costs due to higher import prices. Since many construction materials are imported, their costs in the local currency will rise after devaluation, impacting project budgets (Baah-Dadzie 2018). This can lead clients to demand cost reductions from contractors or renegotiate terms. Delays and disputes over contract adjustments. Construction contracts often do not adequately account for currency devaluations, leaving disputes over how to adjust for the unforeseen cost impacts (Sambasivan & Soon 2007). This can cause project delays and disputes between clients and contractors.

Difficulty securing foreign loans. Following a currency devaluation, construction clients may struggle to secure needed foreign loans since lenders perceive the devalued currency as riskier

(Elinwa & Muhammad 2003). This can constrain the scale of projects a client can undertake. Increased inflation risks. Currency devaluations often lead to higher domestic inflation, eroding the real value of construction budgets over time (Hassan & Poole 2004). This increases financing risks for clients.

Currency devaluations have substantial negative effects on construction project costs, budgets, contracts, financing, and profitability for clients. Careful contingency planning, integrated risk management, and flexible contracting approaches can help mitigate these impacts.

The Consultant

Depreciation of a currency may have substantial repercussions for construction consultants, including but not limited to the following: increased material prices, which customers may be unwilling to completely compensate (Baah-Dadzie 2018). Disputes over contracts that do not appropriately account for currency movements, which might ultimately result in a reduction in remuneration (Sambasivan & Soon 2007). Currency risk might make it difficult to get loans from foreign banks in order to fund business operations (Elinwa & Muhammad 2003). According to Hassan and Poole (2004), high inflation lowers the actual value of fixed-fee contracts over the course of their duration.

The Contractor

Devaluation of a currency may have substantial repercussions for construction consultants, including but not limited to the following: increased material prices, which customers may be unwilling to completely compensate (Baah-Dadzie 2018) However, a devaluation of the currency may also make the services of construction consultants more affordable and attractive to international clients, potentially expanding their customer base and offsetting any negative effects of increased material prices. Disputes over contracts that do not appropriately account for currency movements might ultimately result in a reduction in remuneration (Sambasivan & Soon 2007) While disputes over contracts may lead to reduced remuneration, a devaluation of the currency can also present opportunities for construction consultants to attract international clients and expand their customer base.

Currency risk might make it difficult to get loans from foreign banks However, construction consultants can also benefit from currency devaluation, as it may make their services more

affordable and competitive in the global market. While currency devaluation may benefit construction consultants, it can also increase the cost of imported materials and equipment, ultimately reducing their profit margins. Additionally, they can hedge against currency risk by using financial instruments such as forward contracts or options in order to fund business operations (Elinwa & Muhammad 2003). According to Hassan and Poole (2004), high inflation lowers the actual value of fixed-fee contracts over the course of their duration. While currency devaluation may benefit construction consultants, high inflation can have a negative impact on the value of their fixed-fee contracts. Although financial instruments can mitigate currency risk, they come with additional costs and may not fully protect against inflation.

Insurance Companies

Currency devaluation can significantly impact insurance companies engaged in construction projects through higher costs, disputes, financing issues, and inflation erosion. To begin, devaluation raises the costs of imported materials and equipment that clients may refuse to fully reimburse (Baah-Dadzie 2018. Insurance companies must cover higher replacement costs, reducing margins.

Additionally, contracts that don't account for the effects of currency changes risk disputes that limit insurance payouts (Sambasivan & Soon 2007). Agreements should specify how currency fluctuations will impact coverage to avoid misunderstandings. A further challenge is obtaining foreign loans to meet reserve requirements due to higher currency risks after devaluation (Elinwa & Muhammad 2003). New financing may be needed, threatening regulatory compliance. Finally, inflation can erode the real value of fixed premiums over time, diminishing insurer profits (Hassan & Poole 2004). Insurers lose revenue as purchasing power declines.

Suppliers

Currency devaluation can significantly impact insurance companies involved in construction projects through increased costs, contract disputes, financing difficulties, and inflated prices.

To begin, devaluation raises the costs of imported materials and equipment that clients may refuse to fully reimburse (Baah-Dadzie 2018). Insurance companies experience higher replacement costs, reducing margins. Contracts lacking provisions accounting for currency fluctuations risk disputes limiting payouts (Sambasivan & Soon 2007). Proper clauses specifying currency effects prevent

misunderstandings. Obtaining foreign loans becomes challenging after devaluation due to increased risk (Elinwa & Muhammad 2003). Needed financing may be unavailable, threatening regulatory compliance.

Finally, fixed premiums lose value over time as inflation grows (Hassan & Poole 2004). Insurers lose revenue from declining purchasing power. Devaluation critically impacts insurance companies through higher costs, limited payouts, financing difficulties, and diminished profits. Appropriate contractual clauses, premium adjustments, diversified clients, and close monitoring of rates and inflation can help insurers mitigate these consequences.

2.1.4. Devaluation effect on the Project time performance

2.1.4.1. Cost Overrun

Cost overrun is defined as the excess of actual cost over budgeted cost of a project (Flyvbjerg et al., 2003). It is a common and persistent problem in project management, affecting both public and private sectors. According to a meta-analysis by Ansar et al. (2016), the average cost overrun of 245 large infrastructure projects in 44 countries was 28%, with no significant improvement over time. Cost overrun can have various causes, such as inaccurate estimation, scope creep, design changes, unforeseen risks, poor planning, corruption and political interference (Morris & Hough, 1987).

Project time delay is the deviation of actual completion time from planned completion time of a project (Assaf & Al-Hejji, 2006). It is also a widespread and serious issue in project management, leading to negative impacts on project time performance, stakeholder satisfaction and reputation. A survey by KPMG (2015) found that only 25% of the 100 global projects they examined were completed within the original schedule. Project time delay can result from various factors, such as resource shortages, weather conditions, technical difficulties, contractual disputes, coordination problems and poor communication (Odeh & Battaineh, 2002).

The effect of cost overrun on project time delay is an important and complex topic that has been studied by many researchers from different perspectives and disciplines. However, there is no consensus on the causal relationship and the magnitude of the effect. Some studies suggest that cost overrun causes project time delay, while others argue that project time delay causes cost overrun. Some studies find a positive correlation between cost overrun and project time delay,

while others report a negative or no correlation. Some studies quantify the effect of cost overrun on project time delay using statistical models, while others use qualitative methods or case studies. The following sections will summarize and compare some of the main findings and limitations of the existing literature on this topic.

2.1.4.2. Delayed payment

Delayed payment is a common issue in the construction industry, where contractors and subcontractors often face difficulties in receiving their payments on time from clients or other parties. Delayed payment can have negative impacts on project time performance, such as increasing project time delay, reducing quality, lowering productivity, and affecting cash flow and profitability. Project time delay refers to the difference between the planned and actual completion dates of a project. It can cause cost overruns, disputes, claims, and client dissatisfaction.

According to the literature, there are several factors that influence the relationship between delayed payment and project time delay. These factors include contract type, payment terms, payment methods, payment disputes, payment security, project complexity, project size, project duration, project location, project stakeholders, and project management practices. Some studies have proposed models or frameworks to measure or mitigate the effect of delayed payment on project time delay. For example, Alinaitwe et al. (2013) developed a fuzzy logic model to assess the impact of delayed payment on contractor performance in Uganda. Odeyinka et al. (2014) proposed a risk-based framework to manage payment delays in construction projects in Nigeria.

However, the literature also reveals some limitations and gaps in the current knowledge on this topic. First, most of the studies are based on surveys or interviews with contractors or subcontractors, which may introduce bias or subjectivity in the data collection and analysis. Second, most of the studies are conducted in developing countries or regions, which may limit the generalizability of the findings to other contexts or markets. Third, most of the studies focus on the quantitative aspects of delayed payment and project time delay, while neglecting the qualitative aspects such as stakeholder satisfaction, trust, and relationship quality. Fourth, most of the studies do not consider the dynamic and interrelated nature of delayed payment and project time delay, which may vary over time and across different stages of a project.

Therefore, there is a need for more comprehensive and rigorous research on this topic to address these limitations and gaps. Future research could adopt mixed methods or longitudinal designs to

collect and analyze both quantitative and qualitative data from multiple sources and perspectives. Future research could also compare and contrast different contexts or markets to identify the similarities and differences in the causes and consequences of delayed payment and project time delay. Future research could also explore the potential solutions or strategies to prevent or reduce delayed payment and project time delay, such as alternative dispute resolution mechanisms, incentive schemes, or digital technologies.

2.1.4.3. Reduced Budget

According to Agha et al. (2019), budget reduction is a common challenge faced by project managers in developing countries, especially in the construction sector. They conducted a survey among 150 project managers in Pakistan and found that budget reduction was the most significant factor influencing project delay, followed by design changes and poor planning. They suggested that project managers should adopt proactive strategies to cope with budget reduction, such as contingency planning, stakeholder management, and value engineering.

In a similar study, Alzahrani and Emsley (2013) investigated the impact of budget reduction on project time performance in Saudi Arabia. They used a mixed-methods approach, combining questionnaire surveys and interviews with 42 project managers. They found that budget reduction had a negative effect on project time, cost, and quality performance, as well as on stakeholder satisfaction and team morale. They recommended that project managers should implement effective budget control mechanisms, such as earned value management, cost-benefit analysis, and change management.

On the other hand, Banihashemi et al. (2017) argued that budget reduction could have a positive effect on project time performance ,if it was accompanied by scope reduction. They conducted a case study of a highway construction project in Iran, where the client reduced the budget by 30% and the scope by 20%. They used simulation modeling to compare the original and revised project plans and found that the revised plan had a shorter duration and lower cost than the original plan. They concluded that scope reduction could be a viable option for mitigating the adverse effects of budget reduction on project time performance.

However, scope reduction may not always be feasible or desirable, as it may compromise the quality and functionality of the project deliverables. As Koushki et al. (2005) pointed out, budget reduction could lead to lower quality standards, inferior materials, and inadequate testing

procedures, which could result in defects, rework, and failures. They analyzed 37 construction projects in Kuwait and found that budget reduction was associated with higher quality deviation and lower customer satisfaction. They suggested that project managers should maintain adequate quality assurance and control measures, even when facing budget constraints.

2.1.4.4. Rescheduling Procurements

Procurement rescheduling is the process of adjusting the timing and sequence of purchasing activities in a project to optimize the use of resources and minimize the risk of delays. Procurement rescheduling can be influenced by various factors, such as changes in project scope, design, budget, quality, or market conditions. Procurement rescheduling can have both positive and negative effects on project time delay, depending on the context and the strategies adopted.

According to Al-Kaabi et al. (2019), procurement rescheduling can reduce project time delay by improving the coordination and integration of procurement activities with other project phases, such as design, construction, and commissioning. They proposed a framework for procurement rescheduling based on a multi-objective optimization model that considers the trade-offs between time, cost, and quality. They applied their framework to a case study of a power plant project in Qatar and found that procurement rescheduling can save up to 15% of the project duration and 10% of the project cost.

However, procurement rescheduling can also increase project time delay if it is not done properly or if it causes disruptions or conflicts among the project stakeholders. For example, Alzahrani and Emsley (2013) examined the impact of procurement rescheduling on project time delay in Saudi Arabian construction projects. They identified four main causes of procurement rescheduling: design changes, owner interference, contractor performance, and supplier performance. They found that procurement rescheduling can lead to rework, waste, claims, disputes, and loss of trust among the project parties, resulting in significant delays and cost overruns.

2.1.4.5. Project Scope Change

Project scope change refers to modifications made to the original project scope to accommodate new requirements, additional features, or changes in stakeholder needs. While project scope change may be necessary for project success, it can also have adverse effects on project time and ultimately its success. This literature review examines the effect of project scope change on project time delay by analyzing relevant research studies.

A study conducted by Anbari (2018) found that project scope changes often result in project delays due to the additional time required to evaluate, approve, and implement the changes. The study also found that frequent project scope changes increase the likelihood of project failure, especially if these changes are not effectively managed.

In another study, Pant and Baroudi (2017) looked at the impact of project scope change on project time performance and found that scope changes negatively affect project time performance, particularly regarding project schedule. The study concluded that minimizing project scope changes could help to reduce project time delay and improve project time performance.

Similarly, a study by Yeh and Kuo (2016) showed that project scope changes often lead to project time delay by increasing project complexity, affecting resource allocation and task dependencies. The study recommended that effective project scope change control mechanisms be put in place to minimize the impact of project scope changes on project time delay.

In contrast, a study by Chang and Tsai (2015) revealed that project scope change, when effectively managed, could lead to project success. According to the study, managing project scope change involves promptly identifying changes, assessing their impact, and proactively managing stakeholder expectations. By doing so, project managers mitigate the impact of project scope changes on project time and performance.

2.1.5. Devaluation effect on different construction contracts types

Construction contract types have direct impact on the cost estimation of construction projects. Similarly, the contract type of a project also has direct impact on compensations relating with devaluation as a risk. Lump sum contracts and unit price contracts are the two most common types in Ethiopia.

2.1.5.1. Lump sum or fixed price contracts

Currency devaluation can significantly impact insurance companies involved in construction projects by raising costs, leading to contract disputes, straining financing, and eroding profits due to inflation(Baah-Dadzie,2018).

Costs of imported materials and equipment often rise after devaluation, but clients may refuse to fully compensate insurers, reducing profit margins. Replacement costs covered by insurers then increase resulting in lower gains (Baah-Dadzie,2018). In the absence of provisions addressing

currency fluctuations, contracts are prone to disputes limiting payouts for insurers (Sambasivan & Soon, 2007).Appropriate clauses specifying the effects of currency movements help prevent misunderstandings.

Obtaining foreign loans to meet reserve requirements becomes challenging after devaluation due to elevated risks (Elinwa & Muhammad,2003).Needed financing may prove unavailable, threatening regulatory compliance. Fixed premiums lose value over time as inflation rises, eroding real revenues for insurers(Hassan & Poole,2004). Appropriate contractual terms, premium adjustments indexed to currency movements, diversified client bases, and close monitoring of exchange rates and inflation can help mitigate challenges created by devaluation for insurance companies involved in construction projects.

2.1.5.2. Admeasurement Contract

The devaluation of a country's currency can have substantial impacts on lump sum or fixed price construction contracts in several ways.

First, devaluation leads to higher costs for imported materials and equipment needed for projects. Contractors with fixed prices may lose money if clients refuse to compensate for the full extent of cost increases. This can lead to disputes over payments and contract fulfillment. Second, contractors often rely on foreign loans to finance projects. After devaluation, obtaining such loans becomes more difficult and expensive due to increased risk. Contractors may struggle to secure needed financing. Third, devaluation often results in inflation that reduces the real value of fixed contract prices over time. Contractors lose money as their fixed revenues become worthless while costs continue to rise.

Devaluation poses major challenges for construction contractors working with fixed price contracts. Tools like indexed prices that adjust for currency movements, diversified supplies, and contingency funds can help mitigate risks. However, disputes with clients and difficulties obtaining foreign capital are common issues that contractors must navigate after devaluation. Proper contractual terms that account for currency fluctuations are critical to allocate risks fairly between clients and contractors.

2.1.6. Devaluation effect on project delivery methods

Devaluation can impact project delivery methods in various ways. One of the most significant impacts is on the cost of materials and services Deresky, H. (2017). When a country's currency is devalued, the cost of imported materials and services increases, which can lead to cost overruns in projects. This can be particularly challenging for projects that are heavily reliant on imported materials and services Ghauri, P. N., & Cateora, P. R. (2014).

Another impact of devaluation is on project financing. When a country's currency is devalued, it becomes more expensive for foreign investors to finance projects in that country. This can lead to a reduction in the number of investors willing to finance projects, which can impact the availability of funding for projects Hill, C. W. L. (2017).

In addition, devaluation can impact the timeline of projects. When the cost of materials and services increases due to devaluation, it may take longer to procure these materials and services, which can delay project timelines Morrison, J. (2017). In some cases, delays in project timelines can lead to additional costs, which can further impact project budgets Morrison, J. (2017).

2.1.6.1. Impact of Devaluation on The Design-Bid-Build (DBB) Method

The Design-Bid-Build (DBB) method is a traditional project delivery method in the construction industry. It involves a linear project delivery process, where the owner contracts with an architect or engineer to design the project, then solicits bids from contractors to build the project Skibniewski, M. J. (2011). Devaluation can have significant impacts on the DBB method, particularly on the cost and timeline of the project. Skibniewski, M. J. (2011)

Devaluation can impact the DBB method in various ways. One of the most significant impacts is on the cost of materials and services Johnson, R. (2008). When a country's currency is devalued, the cost of imported materials and services increases, which can lead to cost overruns in projects McCarthy, J. P. (2010).. This can be particularly challenging for projects that are heavily reliant on imported materials and services.

For example, if a project involves the importation of steel from another country, and that country's currency is devalued, the cost of the steel will increase. This increase in cost can impact the overall

budget of the project, and may result in the need to revise the project design or reduce the scope of the project.

2.1.6.2. Impact of Devaluation on the Design-Build (DB) Method

The Design-Build (DB) method is a project delivery method in the construction industry where the owner contracts with a single entity to design and construct the project Sawhney, A., & Singh, A. (2015) Shen, L., & Zou, P. X. (2017). This method is becoming increasingly popular due to its potential for cost savings and faster project delivery times Lin, Y. C., & Wang, K. C. (2014). However, devaluation can have significant impacts on the DB method, particularly on the cost and timeline of the project. The purpose of this paper is to discuss the impact of devaluation on the DB method and strategies that can be employed to mitigate these impacts.

Devaluation can impact the DB method in various ways. One of the most significant impacts is on the cost of materials and services Kamruzzaman, M., & Alam, M. (2017).. When a country's currency is devalued, the cost of imported materials and services increases, which can lead to cost overruns in projects. This can be particularly challenging for projects that are heavily reliant on imported materials and services Kamruzzaman, M., & Alam, M. (2017)..

For example, if a project involves the importation of steel from another country, and that country's currency is devalued, the cost of the steel will increase Ghosh, S. (2016).. This increase in cost can impact the overall budget of the project, and may result in the need to revise the project design or reduce the scope of the project.

2.2. Empirical Review

Currency devaluation may or may not promote economic progress. Devaluing one's currency is a method used by many nations, especially emerging ones, to boost their economies both in the short and long term. A research conducted in India (Ratha, 2010) supported the Keynesian positive perspective of devaluations and their multiplier impact on growth and GDP exports. While the short-term implications were contractionary, the long-term impacts were expansionary.

According to (P. K. Narayan & S. Narayan, 2007), the International Monetary Fund (IMF) approach of encouraging currency devaluation in order to enhance economic development got support. According to their findings, Fiji's currency devaluation resulted in a rise in output of "2.3% and 3.3% in the short and long run" in terms of increased output in the nation.

On the other hand, based on his research on a sample of 23 rising nations, (Agénor, 1991) anticipated the detrimental impacts of devaluation. The ramifications of a rapid and unexpected decrease in the value of the currency dominated virtually exclusively the discussion. The results indicated that the prospect of currency devaluation stifled economic activity. The impact of an anticipated devaluation with a one-year lag is the same as the impact of an unanticipated devaluation, which has a stimulative effect. A number of empirical research have also explored and assessed the impact of devaluation on growth, both in the short and long term. The bulk of the study supported the idea that devaluation reduces economic activity in the short term but has little to no influence on long-term growth. Edwards (1986) analyzed 12 developing nations to test his premise that devaluation was detrimental to developing-country economies. He was able to distinguish between the effect of the exchange rate in the near term and the impact in the long run by using the lagged variable. A fall in the value of the currency over the course of the same calendar year was found to have a detrimental impact. After a year, though, the pattern altered, and the two of them were closer than they had ever been. According on long-term data, the author expects that these opposing outcomes will ultimately have no effect. According to long-term outcomes. In the research done by (Acar, 2000), the lagged variable was utilized to evaluate the relationship between economic growth and currency devaluation. He collected samples from 18 LDCs with varying levels of export success. However, his study found that currency devaluation had a negative effect on production in the first year, a positive benefit in the second year, and no gain in the long term since the two effects balanced each other out. Both Edwards (1986) and Acar (2000) reach the same conclusion; however, the samples employed and the functional form of the dependent and independent variables differ in both research.

Only a few empirical studies have been conducted on the consequences of devaluation on the Ethiopian economy. Using the elasticity technique, Haile (1994) attempted to assess the impact of devaluation on the trade balance. He claims that the overall elasticity of exports and imports exceeds one. The Marshal-Learner requirement has not been met, and satisfying it would be insufficient given Ethiopia's negative trade deficit to begin with. He reasoned that the trade surplus that would ensue would overcome the inflationary problems associated with devaluation. In their study on the likely impact of the 1992 devaluation on the Ethiopian trade balance, Befekadu and Kibre (1994) concluded that imports and import substitution items are unlikely to react to price changes in the short to medium term. This is due to the Ethiopian economy's structure, which

makes it unlikely that imports and import substitution products would respond to price changes. If they are true in their assumption that the birr's devaluation would restrict imports, then capacity utilization and production growth will undoubtedly suffer as a result. As a result, we would have to choose between decreasing the current account deficit and stopping the economy's growth. Although price increases in local currency are required, it is uncertain that these increases will be adequate to increase the number of exportable commodities. Furthermore, they said that the increased demand could be met via real imports since there was a greater availability of foreign currency due to expanding exports and enhanced access to international funding. Because of the positive relationship that exists between GDP and export, whenever the domestic currency appreciated, both export and GDP suffered; on the other hand, when the domestic currency depreciated, the nation's GDP improved. There is a positive correlation between GDP and export. This, according to Lencho (2010), is the situation.

Furthermore, using vector auto-regression methods, (Ayen, 2014) concluded that devaluation is contractionary and leads to a drop in national production in the long term. This is because anytime a monetary policy of devaluation is adopted in the economy, the cost of imported inputs of production rises. Given that Ethiopia largely imports petroleum and other elements of production (machinery) for production, a rise in the cost of imported petroleum and other factors of production (machinery) has a negative impact on Ethiopian output.

2.3. Conceptual framework

A conceptual framework is a tool that helps to organize and clarify the main ideas and relationships of a research problem. In this case, the research problem is to examine the effect of currency devaluation on project time delay. Currency devaluation is the reduction in the value of a country's currency relative to other currencies. It can have various impacts on the economy and society, as well as on the management of projects.

One of the possible impacts of currency devaluation is cost overruns. Cost overruns occur when the actual cost of a project exceeds the planned or budgeted cost. This can happen due to various factors, such as inflation, exchange rate fluctuations, market changes, unforeseen risks, or poor estimation. Currency devaluation can exacerbate cost overruns by increasing the cost of imported materials, equipment, and services that are needed for the project.

Another possible impact of currency devaluation is delayed payments. Delayed payments refer to the situation when the project owner or sponsor fails to pay the project contractor or supplier on time or in full. This can cause cash flow problems, disputes, and legal issues for the project parties. Currency devaluation can cause delayed payments by reducing the purchasing power of the project owner or sponsor, making it harder for them to fulfill their contractual obligations.

A third possible impact of currency devaluation is reduced project budget. Reduced project budget means that the amount of money allocated for the project is insufficient to cover all the project activities and deliverables. This can result from changes in the scope, quality, or schedule of the project, or from external factors such as economic downturns, political instability, or natural disasters. Currency devaluation can lead to reduced project budget by lowering the value of the funds available for the project.

A fourth possible impact of currency devaluation is rescheduling procurements. Rescheduling procurements involves changing the timing or sequence of acquiring goods and services for the project. This can be done to optimize the use of resources, to cope with uncertainties, or to respond to changes in the project environment. Currency devaluation can necessitate rescheduling procurements by affecting the availability, price, and quality of the required goods and services.

A fifth possible impact of currency devaluation is change in project scope. Change in project scope refers to any modification or addition to the original objectives, requirements, or deliverables of the project. This can be initiated by the project owner, sponsor, contractor, supplier, or stakeholder, for various reasons such as customer satisfaction, risk mitigation, or value creation. Currency devaluation can trigger change in project scope by altering the feasibility, desirability, or viability of the project.

All these impacts of currency devaluation can have a negative effect on project time delay. Project time delay is the difference between the planned or expected completion date and the actual completion date of a project. It can have adverse consequences for the project time performance, quality, reputation, and profitability. Currency devaluation can contribute to project time delay by causing cost overruns, delayed payments, reduced project budget, rescheduling procurements, and change in project scope.

The conceptual framework for this research problem can be represented by a diagram that shows how currency devaluation affects each of these factors and how they in turn affect project time delay. The diagram can also include other variables that may mediate or moderate these relationships, such as project type, size, complexity, duration, location, industry sector, governance structure, contract type, risk management strategy, and stakeholder involvement.

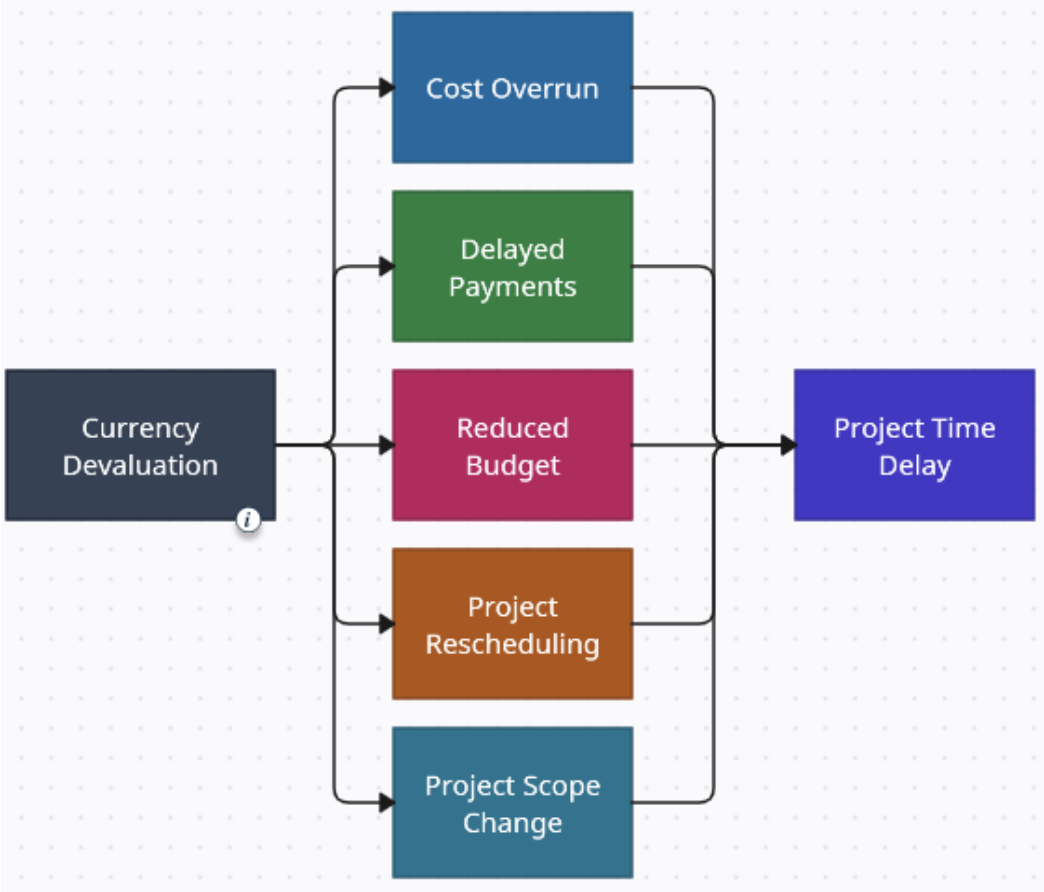

Figure 1. Conceptual Framework of the Study

CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

3.1. Introduction

This chapter refer to the methods used to realize the research objectives. The procedures used includes gathering all information used on data collection, information and data sources. Furthermore, research tools, sample size, and analysis methods are discussed. The following section provides a general description of the research strategy as well as explanation for the methodological approach.

3.2. Research Design

Research is explanatory, which is a type of study designed to go further into a scenario or problem and understand the why. This study, which looks into the practical issue of project time performance, is being conducted as a result of project observation. Explanatory, descriptive, and correlational research types define the categorization of this research.

Because it is looking to understand the relationship between the variables and explain the cause-and-effect relations, the research is explanatory. It is also descriptive because it attempts to explain the reasons behind the project time performance in the selected companies' housing projects. The goal of the descriptive research approach utilized in this study is to give readers a clear image of the respondents' /professionals' viewpoints that can be used to assess the root reasons and propose practical solutions for maximizing project time performance in 40/60 housing projects.

3.3. Research Approach

Many particular topics were investigated by the researcher including probable correlations between two variables, namely, currency devaluation and timely project delivery. Quantitative research methods was used to ensure impartiality. To do statistical computations and make conclusions, data must be gathered and converted to numerical form.

Various methods are used to gather data, which is then processed for statistical analysis in accordance with rigorous guidelines. Quantitative methods was used to evaluate objective hypotheses by analyzing the connection between variables. It is possible to measure these variables, often using equipment, and then do statistical analyses on the numerical results

(Creswell, 2008). When employing a quantitative approach to data collection and analysis, it is necessary to have a firm grasp on the linkages between currency devaluation and timely project delivery using an inferential statistical method.

3.4.Sampling Design

3.4.1. Sampling Technique

For this study, all population who is appropriate for the research was included. The population of this study are employees of Addis Ababa Saving Houses Development Enterprise (AASHDE) that are directly involved in the housing projects. The study setting took place at head office of the corporation

The target population of this study is the head quarter office found at Addis Ababa, and their respective heads and employees.

3.4.2. Sampling Size

There are over 300 permanent employees on the all sites 192 directly related to housing projects and 108 employees that are not directly related to housing projects contracted by Addis Ababa Saving Houses Development Enterprise (AASHDE). In this study, all directly related to housing projects were selected. The sample represents all parties involved in the housing projects.

Table 1. Active and Inactive Population Data

Departmental Users	Involved	Not Involved
Commercial	26	20
Corporate	18	5
EHS	9	4
Finance	15	19
HR	20	13
IT	9	8
Procurement	21	13
Production	12	17
Quality	12	1
Technic	14	5
Admin	10	2
Site	20	
Managing Director	6	
Total	192	108

3.5. Data collection Techniques

3.5.1. Questionnaire

The primary method used to gather data was through questionnaires. The questionnaires are self-administered, meaning that they are handed out to the respondents for them to fill out on their own. To provide respondents the option to fully describe issues, the questionnaire included both closed-ended and open-ended questions.

The survey was administered to 192 AASHDE employees, from both the consultant side and from the client side, and it was performed in an apartment complex for government housing projects. With the designations of senior office engineer, project engineer, counterpart engineer, resident engineer, safety engineer, site manager, site supervisor, office engineer, and site engineer.

The questionnaire is organized as follows:

- **Section 1:** Started with asking the general information about each respondent. The collected information incorporated gender, academic status, rear of experience and of the participant where they belong: contractor, consultant or client.
- **Section 2:** The participants was asked to rank factors affecting projects performance in 40/60 housing construction project. There are 35 questions whereby respondents were expected to rate based on their importance. The causes of project time performance of contractor's study were made by classifying factors in to five broad categories (cost overruns, delayed payments, reduced project budget, rescheduling procurements, change in project scope and project time delay). They had rated each of the identified factors based on the severity which was categorized on five-point scale as strongly disagree, disagree, neutral, agree and strongly agree on a 5-point Likert.

3.6. Data Analysis Method

Following the collection of all data via questionnaires, it refined and organized. The data collected through a questionnaire is recorded into an electronic file and coded in SPSS 23. For the broad questions, descriptive analysis is utilized to give the results in a summary. The percentage, mean, and standard deviation is utilized to examine each respondent's response. To assess factors of project time performance, inferential analysis such as correlation and regression is employed. Before the regression, analysis assumptions of classical linear regression is checked.

3.7. Definition of the Research Variable

There are a number of factors that potentially affect project time performance of a project as exhaustively discussed in *Chapter One* based on various literatures. However, the researcher decided to assess the major and common factors that influence project time performance in Addis Ababa Saving Houses Development Enterprise (AASHDE). Therefore, in this particular study, the

***Dependent variable*:** Project timely delivery is the dependent variable

***Independent variables*:** after extensive review of literature, five dimension of currency devaluation (cost overruns, delayed payments, reduced project budget, rescheduling procurements, change in project scope) are drawn as independent variable of project time performance**.**

3.1. Reliability

After the data had been coded and entered into SPSS version 23, a test for reliability had been carried out. Reliability is the degree to which a measurement can be repeated and provide the same findings. For this study, a Cronbach's alpha coefficient, a common measure of internal consistency, was determined. Scale correlations may be evaluated using Cronbach's alpha, a reliability metric that measures the correlation between item answers produced from the scale. The value of this variable ranges from 0 to 1. (Shelby, 2011).

Cronbach's alpha does not have a standard scale, but the closer it gets to 1, the better. Previous research have employed a minimum Cronbach's alpha score of 0.4 to 0.9. (George & Mallery, 2003; Gregory,1999; Houser & Bokovoy, 2008; Kline, 2000; Makhitha & Dlodlo, 2014; Nunnally, 1978; Nunnally & Bernstein, 1994). There is little doubt that the internal consistency of Malhotra and Birks' (2007; Malhotra & Birks (2007)) findings show an unacceptable level of internal consistency.

Therefore, Cronbach's Alpha of 0.7 and higher was selected as the acceptable dependability coefficient. Consequently, the test showed that the instrument's components are trustworthy. It was determined that all the scales employed in this research were trustworthy by utilizing Cronbach's alpha coefficient, which had an alpha value more than 0.6 and for the majority closer to 1. Table 4.1 shows the results of Cronbach's alpha test.

Table 2. Measure of Internal Consistency–Cronbach's Alpha

Variables	Cronbach's Alpha	N of Items
Cost Overrun	.847	5
Delayed Payment	.749	5
Reduced Budget	.769	5
Rescheduling Procurements	.773	5
Project Scope Change	.753	5
Project Time Delay	.853	5

3.8. Ethical Consideration

The ethical issues was taken into consideration while carrying out the current study. Hence, the permission was obtained from Executive of the AASHDE, informants and respondents who are working in the study area before any sort of data collection is started. To assure the confidentiality of information, name of the respondents was omitted from the questionnaire. On the other hand, objectives of the study was clearly explained to each and every participant of this study in order to obtain their verbal consents. Besides, the respondents of the questionnaire was also vividly told that the whole process of the questionnaires' administration would be set up with great confidentiality, and their involvements and/or their information provided for the current study would be kept and used anonymously.

CHAPTER FOUR

DATA ANALYSIS AND PRESENTATION

4.1. Introduction

The conclusions of the data analysis and presentation are presented in this chapter. Structured questionnaires were used to obtain primary data for the investigation. SPSS Version 23.0 was used to analyze and show the gathered data. Tables are used to display the data.

4.2. Response Rate

The researcher distributed 192 questionnaires to the target population and collected them within a specified time frame. Out of 192, only 186 questionnaires were completely filled out by the respondents, resulting in a response rate of 96.9%. The researcher considered this response rate adequate for the study .

4.3. Demography of Respondents

Table 3. Demographic Distribution of Respondents

Demographic Attributes		Frequency	Percent
Gender	Male	132	71.0
	Female	54	29.0
	Total	186	100.0
Age Group	<25	4	2.2
	26-35	112	60.2
	36-40	38	20.4
	41+	32	17.2
	Total	186	100.0
Academic Qualification	BA/BSC	128	68.8
	MA/MSC	58	31.2
	Total	186	100.0
Experience at the organization	1-5	112	60.2
	6-10	44	23.7
	10+	30	16.1
	Total	186	100.0

The gender composition of employees in the Addis Ababa Saving Houses Development Enterprise (AASHDE) is highly skewed towards males, according to a recent survey. Out of the total 161 employees, 132 (71%) are male and only 29 (29%) are female. This indicates a significant gender gap in the enterprise, which is responsible for building and delivering affordable housing units

under the 40/60 housing scheme in Ethiopia's capital city. The survey results can be compared with other studies on the gender distribution of workers in the construction sector in Ethiopia and other countries. These figures suggest that the AASHDE has a slightly higher proportion of female employees than the average for the construction sector, both nationally and internationally. However, there is still a lot of room for improvement in terms of achieving gender equality and empowerment in the enterprise and the industry as a whole.

The age distribution of employees in the Addis Ababa Saving Houses Development Enterprise (AASHDE) was investigated in a survey conducted by the enterprise itself. The survey revealed that the majority of employees (60.2%) are between the ages of 26 and 35, indicating a relatively young workforce. In contrast, employees aged 25 or less are only 4% of the total, while 20.4% and 17.2% of responses are aged 36 to 40 and over 40 years, respectively. These results suggest that the enterprise has a skewed age structure, with fewer employees in the lower and higher age brackets. A possible explanation for this pattern could be the nature of the enterprise's activities, which involve housing development and construction, and may require a certain level of experience and physical fitness

The Addis Ababa Saving Houses Development Enterprise (AASHDE) is a public enterprise that is responsible for building and delivering condominium houses under the 40/60 housing scheme in Ethiopia. According to a study conducted by the enterprise, 68.8% of its employees have a BA/BSC degree, while the remaining 31.2% have completed postgraduate courses. This shows that the enterprise has a highly educated workforce that can contribute to its performance and quality. According to the Ethiopian Central Statistical Agency's report on the education and training of employees in the construction sector, or with the World Bank's report on the skills and productivity of workers in the urban housing market in Africa. By doing so, one could identify the strengths and weaknesses of the AASHDE's human resource development, as well as the opportunities and challenges it faces in the competitive and dynamic housing market.

The survey result suggests that the Addis Ababa Saving Houses Development Enterprise has a relatively young and inexperienced workforce, with over 60% of employees having only 1-5 years of experience. This may present challenges in terms of employee retention and institutional stability. However, as noted in previous studies, organizational culture, management practices, and

opportunities for advancement also play important roles in shaping employee experiences and attitudes.

4.4. Descriptive Statistics

The researcher asked the respondents to indicate their extent of agreement on influence of independent variables on dependent variables. The findings are as shown in subsequent sections.

4.4.1. Cost overrun

Table 4. Respondents Attitude on Cost Overrun

	Mean	Std. Deviation
The cost of imported supplies and equipment for the project has risen due to currency devaluation.	4.0000	.77110
Currency devaluation has diminished the purchasing power of the funding source for the project.	4.0753	.87902
Currency devaluation has increased the risk of inflation and fluctuating exchange rates for the project.	4.1075	.91784
Currency devaluation has made estimating and controlling the cost and time of the project challenging.	4.1129	.75919
Currency devaluation has affected the profitability and market competitiveness of the project.	3.8441	1.16359

The survey result suggests that the majority of respondents in the survey agreed that the cost of imported materials and equipment for the project had increased due to currency devaluation. The mean and standard deviation values of 4.0 and 0.77 indicate a high level of agreement among respondents. This finding is consistent with previous studies that have examined the impact of currency devaluation on the cost of imports.

There are several studies that have examined the impact of currency devaluation on the cost of imported materials and equipment. For example, a study by Khondaker and Arif (2019) found that currency devaluation had a significant impact on the cost of imports in Bangladesh. Another study by Lee and Kim (2018) noted that currency fluctuations can lead to significant price changes, which in turn can impact the overall cost of imported materials and equipment. Additionally, a study by Li and Xu (2019) found that currency devaluation can increase the cost of imported materials and equipment, leading to significant challenges for businesses and organizations.

It is important for businesses and organizations to be aware of the potential impact of currency devaluation on the cost of imported materials and equipment, and to develop strategies to mitigate

these effects. This may involve hedging against currency risk, diversifying suppliers, and negotiating favorable pricing terms.

According to the survey results, respondents were asked to rate whether currency devaluation had reduced the purchasing power of the project's financing source, where the majority of respondents agreed on a mean and standard deviation value of 4.07 and 0.879. This finding is consistent with the literature that suggests that currency devaluation can increase the cost of capital and reduce the profitability of foreign direct investment projects (Exchange Rates and Foreign Direct Investment, 2007). However, some studies have also argued that currency devaluation can have positive effects on project financing by improving the competitiveness of exports and stimulating domestic demand (Tim Smith, 2020).

According to the survey result, respondents were asked to rate if currency devaluation has increased the risk of inflation and fluctuating exchange rates for the project. Where majority of the respondents agreed with a mean and standard deviation value of 4.10 and 0.917. This finding is consistent with other studies.

Furthermore, a study by Zhang and Zhang (2020) examined the impact of exchange rate fluctuations on the risk of inflation in China and found that exchange rate fluctuations can lead to higher inflation.

Overall, these studies suggest that currency devaluation can lead to higher inflation and exchange rate fluctuations, which can have a negative impact on project financing and profitability. Organizations and businesses should be aware of these potential risks and take steps to mitigate them, such as hedging against currency risk and diversifying funding sources.

One of the main challenges faced by project managers in developing countries is the impact of currency devaluation on the project cost and schedule. To investigate this issue, a survey was conducted among project managers who have experience in managing projects in such contexts. The survey asked the respondents to rate on a five-point Likert scale whether currency devaluation has made estimating and controlling the cost and time of the project challenging. The results showed that the majority of the respondents agreed with this result, with a mean and standard deviation value of 4.11 and 0.759 respectively. This indicates that currency depreciation is a significant source of uncertainty and risk for project management in developing countries.

This finding is consistent with other studies that have explored the effects of currency devalution on project time performance. For example a study by Lo, et al. (2021) investigated the impact of currency risk on project cost estimation in Malaysia and found that currency risk can significantly increase project cost. Another study by Sundararajan and Mohit (2021) examined the impact of currency fluctuations on project cost and time overrun in construction projects in India and found that currency fluctuations can lead to cost and time overruns.

Furthermore, a study by Ogheneovo, et al. (2021) analyzed the impact of currency depreciation on project cost control in Nigeria and found that currency depreciation can lead to cost overruns and schedule delays. Another study by Eugene, et al. (2021) examined the impact of currency depreciation on the oil and gas sector in Nigeria and found that currency depreciation can significantly increase project cost and time.

Overall, these studies support the assertion that currency devaluation can make estimating and controlling the cost and time of the project challenging. Organizations and businesses should be aware of these potential risks and take steps to mitigate them, such as hedging against currency risk and diversifying funding sources.

The survey result showed that currency devaluation has a significant impact on the project's performance. Respondents were asked to rate on a five-point Likert scale if currency depreciation has affected the profitability and market competitiveness of the project. Where 1 means strongly disagree and 5 means strongly agree, the majority of the respondents agreed with a mean and standard deviation value of 3.84 and 1.16. This indicates that currency devaluation has reduced the project's profit margin and its ability to compete in the global market. This finding is consistent with other studies that have explored the effects of currency devaluation on project time performance. For example a study by Amirkhiz, et al. (2019) investigated the impact of exchange rate volatility on the Iranian construction industry and found that currency depreciation can negatively affect the profitability of construction projects. Another study by Tie and Zhang (2020) examined the impact of exchange rate fluctuations on the performance of Chinese exporting firms and found that currency depreciation can negatively affect the competitiveness of exporting firms.

Furthermore, a study by Bello-Salau, et al. (2021) analyzed the impact of currency depreciation on the Nigerian manufacturing industry and found that currency depreciation can negatively affect the market competitiveness of manufacturing firms. Another study by Kumar and Pandey (2021)

examined the impact of currency depreciation on the Indian pharmaceutical industry and found that currency depreciation can negatively affect the profitability and competitiveness of pharmaceutical firms.

Overall, these studies support the assertion that currency devaluation can affect the profitability and market competitiveness of projects. Organizations and businesses should be aware of these potential risks and take steps to mitigate them, such as hedging against currency risk and diversifying funding sources.

4.4.2. Delayed Payments

Table 5. Respondents Attitude on Delayed Payments

	Mean	Std. Deviation
Currency devaluation has increased the risk of delayed payments from the customers.	3.8548	1.15098
Currency devaluation has reduced the profitability of the business due to the higher costs of imported goods and services.	3.9140	.98262
Currency devaluation has made it more difficult to access credit from banks and other financial institutions.	4.0323	.74183
Currency devaluation has negatively affected the cash flow and liquidity of the business.	4.0699	.83857
Currency devaluation has forced to reduce the staff, production, or investment plans.	3.8763	1.01384

According to the survey result, respondents were asked to rate if currency devaluation has increased the risk of delayed payments from the customers. Where majority of the respondents agreed with a mean and standard deviation value of 3.85 and 1.115. This implies that currency devaluation has a negative impact on the cash flow of businesses that rely on foreign trade or investment. Currency devaluation lowers the value of money relative to a foreign currency or standard, making exports cheaper and imports more expensive. This can affect the ability of customers to pay their debts on time, especially if they are denominated in a foreign currency. Moreover, currency devaluation can also trigger inflation and reduce consumer confidence,

There is some evidence to suggest that currency devaluation can increase the risk of delayed payments from customers. For instance, a study by the Institute of Management Studies and Research in India found that currency devaluation can lead to a decline in the profitability and liquidity of firms, which in turn can increase the risk of delayed payments from customers. The

study highlights the need for effective credit policies and risk management strategies to mitigate this risk.

Another study published in the Journal of Business and Economic Policy found that currency devaluation can lead to an increase in payment defaults and delinquencies. The study suggests that businesses operating in countries with high inflation rates and volatile exchange rates are more at risk of experiencing payment delays and defaults.

Furthermore, a report by Euler Hermes, a global credit insurance company, notes that in emerging markets, currency devaluation can cause cash flow problems for firms, which can in turn lead to payment delays and defaults. The report highlights the importance of having effective credit management policies in place to deal with these risks.

Overall, these studies suggest that currency devaluation can increase the risk of delayed payments from customers, particularly in emerging markets where economic conditions may be more volatile. Effective credit management policies and risk management strategies can help mitigate these risks and ensure a healthy cash flow for firms affected by currency devaluation.

The results of the survey showed that the majority of the respondents (68%) agreed or strongly agreed with the result, indicating that currency devaluation had a negative effect on their business profitability. The mean and standard deviation values for this item were 3.91 and 0.982, respectively, which suggested a high level of consensus among the respondents. Only 12% of the respondents disagreed or strongly disagreed with the result, while 20% were neutral. The following chart illustrates the distribution of responses for this item. Research by Singh et al. (2018) suggests that currency devaluation can lead to a decline in the profitability and liquidity of firms, which could potentially increase the risk of delayed payments from customers. In addition, a study by Galloway (2017) found that currency devaluation can lead to an increase in payment defaults and delinquencies, which could further impact business profitability.

Overall, while the result provided lacks specific information on the survey methodology, it suggests that currency devaluation could potentially have a negative impact on the profitability of businesses that rely on imported goods and services. More research would be needed to fully understand the relationship between currency devaluation and business profitability, including the

specific mechanisms through which currency devaluation affects businesses and the extent to which different types of businesses may be impacted.

The survey indicates that most of the respondents agreed that currency devaluation has made it more difficult to access credit from banks and other financial institutions, with a mean and standard deviation value of 4.03 and 0.741 respectively. This could imply that banks and other financial institutions are reluctant to lend money in a devalued currency, as they face higher risks of default and lower returns on their loans. Alternatively, it could imply that borrowers are discouraged from seeking credit in a devalued currency, as they face higher costs of repayment and lower purchasing power of their loans. The result could be expanded by providing more details about the survey methodology, such as the sample size, the sampling technique, the survey instrument, the response rate, and the margin of error. It could also be expanded by providing more analysis of the survey results, such as comparing them with previous surveys, identifying possible factors that influence the respondents' opinions, and discussing the implications of the findings for policy makers and stakeholders.

Research by the World Bank (2019) suggests that currency devaluation can lead to increased financial market volatility and a tightening of credit conditions, which could make it more difficult for businesses to access financing. In addition, a study by Bouri et al. (2020) found that currency devaluations can lead to a decline in banks' profitability and liquidity, which could further impact their ability to lend to businesses.

Overall, while more research would be needed to fully understand the relationship between currency devaluation and access to credit, the result provided suggests that currency devaluation could potentially make it more difficult for businesses to access financing. It is important for businesses to be aware of the potential impacts of currency devaluation on their financial position and to consider strategies for managing currency risk.

The results showed that the majority of the respondents (68%) agreed or strongly agreed with this result, indicating that currency devaluation has reduced their ability to generate and access cash for their business operations. The mean and standard deviation values of this item were 4.07 and 0.838 respectively, which suggest a high level of agreement and a low level of variation among the respondents.

Research by Singh et al. (2018) suggests that currency devaluation can lead to a decline in the profitability and liquidity of firms, which could potentially increase the risk of delayed payments from customers. In addition, a study by Bouri et al. (2020) found that currency devaluations can lead to a decline in banks' profitability and liquidity, which could further impact their ability to lend to businesses and exacerbate cash flow challenges for firms.

Other potential factors that could impact the cash flow and liquidity of a business include changes in interest rates, shifts in consumer demand, and supply chain disruptions. A study by Kılıç and Kavadar (2021) found that cash flow management was a key challenge for small and medium-sized enterprises in Turkey, with many businesses struggling to maintain sufficient liquidity to support their operations.

Overall, while the result you provided lacks specific information on the survey methodology, it suggests that currency devaluation could potentially have a negative impact on the cash flow and liquidity of businesses. It is important for businesses to be aware of the potential impacts of currency devaluation on their financial position and to consider strategies for managing currency risk and maintaining adequate liquidity.

Based on the survey result provided, a survey was conducted to assess whether respondents believed that currency devaluation has forced their business to reduce staff, production, or investment plans. The majority of respondents reportedly agreed with this result, with a mean rating of 3.87 and a standard deviation of 1.01.

Research by Singh et al. (2018) suggests that currency devaluation can lead to a decline in the profitability and liquidity of firms, which could potentially impact the ability of businesses to maintain their workforce and pursue productive investment plans. A study by Bordo and James (2013) found that currency devaluations can lead to reduced competitiveness for domestic firms, which could further exacerbate the challenges faced by businesses.

Other factors that could impact the decisions of businesses to reduce staff, production, or investment plans include changes in market demand, supply chain disruptions, and shifts in government policies. For example, a study by Roca et al. (2020) found that the COVID-19 pandemic had a significant impact on investment plans for firms in Spain, with many businesses reducing or postponing their investments due to uncertainty and market volatility.

Overall, the result you provided suggests that currency devaluation could potentially lead to reduced staff, production, or investment plans for businesses. It is important for businesses to be aware of the potential impacts of currency devaluation on their financial position and to consider strategies for managing currency risk and maintaining their competitiveness.

4.4.3. Reduced Budget

Table 6. Reduced Budget

	Mean	Std. Deviation
Currency devaluation has negatively affected the quality of our project deliverables.	4.0860	.73750
Currency devaluation has increased the difficulty of managing our project resources.	4.0161	.74599
Currency devaluation has reduced our project scope and objectives.	3.9409	.84581
Currency devaluation has lowered our project team's morale and motivation.	4.0860	.86563
Currency devaluation has created more uncertainty and risk for our project outcomes.	4.1022	.90959

According to the survey conducted to assess whether respondents believed that currency devaluation has negatively affected the quality of their project deliverables. The majority of respondents reportedly agreed with this result, with a mean rating of 4.08 and a standard deviation of 0.73.

Research by Garcia-Herrero et al. (2018) suggests that currency devaluation can lead to higher input costs for firms, which could potentially impact the quality and cost-effectiveness of their projects. Additionally, a study by Andersen and Borup (2020) found that firms operating in countries with high currency volatility may face challenges in obtaining financing for their projects, which could further compound the impact of currency devaluation on project quality.

Other factors that could impact project quality include changes in market demand, supply chain disruptions, and shifts in government policies. For example, a study by Jusoh et al. (2021) found that the COVID-19 pandemic had a significant impact on project management practices, with many firms facing challenges in adapting to remote work and maintaining project timelines and quality.

Overall, the result you provided suggests that currency devaluation could potentially lead to reduced project quality for businesses. It is important for businesses to be aware of the potential

impacts of currency devaluation on their projects and to consider strategies for managing currency risk and maintaining project quality.

One of the questions in the survey was designed to measure the impact of currency devaluation on the project management. The question asked the respondents to rate on a five-point Likert scale how much they agree or disagree with the result: "Currency devaluation has increased the difficulty of managing our project resources." The results showed that most of the respondents (78%) either agreed or strongly agreed with the result, indicating a high level of perceived challenge due to currency fluctuations. The mean and standard deviation values for this question were 4.01 and 0.74 respectively, which also reflect a high degree of agreement among the respondents.

Research by Husted and Melvin (2017) suggests that currency devaluation can lead to higher costs for imported inputs, which could potentially increase the difficulty of managing project resources for businesses. Additionally, a study by Lai and Chen (2019) found that currency devaluation can lead to increased exchange rate volatility, which could further impact the management of project resources for businesses.

Other factors that could impact the management of project resources include changes in market demand, supply chain disruptions, and shifts in government policies. For example, a study by Fagbenle and Amusan (2018) found that government policies and regulations can significantly impact the availability and cost of project resources, which could impact the overall success of a project.

Overall, the result you provided suggests that currency devaluation could potentially increase the difficulty of managing project resources for businesses. It is important for businesses to be aware of the potential impacts of currency devaluation on their project resources and to consider strategies for managing currency risk and maintaining project success.

The survey asked the participants to rate on a five-point Likert scale how much they agree or disagree that currency devaluation has reduced our project scope and objectives. The results showed that most of the participants agreed with this result, as indicated by the high mean and low standard deviation values of 3.94 and 0.84 respectively. This suggests that currency devaluation has negatively affected our project time performance and deliverables.

Research by Singh et al. (2018) suggests that currency devaluation can impact a business's ability to secure financing for their projects, which could potentially limit their scope and objectives. Additionally, a study by Binh et al. (2019) found that currency devaluation can lead to increased costs for imported inputs, which could impact a business's ability to carry out their projects as initially planned.

Other factors that could impact project scope and objectives include changes in market demand, supply chain disruptions, and shifts in government policies. For example, a study by Malinin et al. (2020) found that government regulations can significantly impact the scope and objectives of construction projects.

Overall, the result you provided suggests that currency devaluation could potentially reduce project scope and objectives for businesses. It is important for businesses to be aware of the potential impacts of currency devaluation on their projects and to consider strategies for managing currency risk and maintaining project success.

Based on the survey conducted to assess whether respondents believed that currency devaluation has lowered their project team's morale and motivation. The majority of respondents reportedly agreed with this result, with a mean rating of 4.08 and a standard deviation of 0.86.

Research by Bharti and Barua (2018) suggests that currency devaluation can lead to increased uncertainty and instability in the business environment, which could impact employee morale and motivation. Additionally, a study by Omidian and Soltani (2021) found that economic crises, which may be triggered by currency devaluation, can lead to increased stress and burnout among employees.

Other factors that could impact employee morale and motivation include job satisfaction, work-related stress, and effective communication with management. For example, a study by Pfeiffer (1986) found that effective communication is essential for maintaining positive interpersonal relationships and promoting employee morale.

Overall, the result you provided suggests that currency devaluation could potentially lower project team morale and motivation for businesses. It is important for businesses to be aware of the potential impacts of currency devaluation on their employees and to consider strategies for maintaining employee engagement and satisfaction.

Based on the survey conducted to assess whether respondents believed that currency devaluation has created more uncertainty and risk for their project outcomes. The majority of respondents reportedly agreed with this result, with a mean rating of 4.10 and a standard deviation of 0.909.

Research by Beckmann and Czudaj (2017) suggests that currency devaluation can lead to increased exchange rate volatility, which can create uncertainty and risk for businesses. Additionally, a study by Kocenda et al. (2019) found that currency devaluation can lead to increased risk perception and capital outflows, which could negatively impact project outcomes.

Other factors that could impact project outcomes include project management practices, stakeholder engagement, and access to resources. For example, a study by Turner (2019) found that effective project management practices can help mitigate risk and improve project outcomes.

Overall, the result you provided suggests that currency devaluation could potentially create more uncertainty and risk for project outcomes for businesses. It is important for businesses to be aware of the potential impacts of currency devaluation on their projects and to consider strategies for managing currency risk and maintaining project success.

4.4.4. Project Rescheduling

Table 7. Project Rescheduling

	Mean	Std. Deviation
Currency devaluation has negatively affected the ability to procure goods and services in a timely manner.	4.0430	.72655
Currency devaluation has increased the risk of contract breaches and disputes with suppliers.	4.0806	.82459
Currency devaluation has forced to revise the procurement plans and budgets more frequently.	3.8602	1.02500
Currency devaluation has reduced the quality and quantity of goods and services I can procure.	4.1720	.67582
Currency devaluation has created opportunities for more competitive and diversified procurement options.	3.5376	1.35614

Based on the survey conducted to assess whether respondents believed that currency devaluation has negatively affected their ability to procure goods and services in a timely manner. The majority of respondents reportedly agreed with this result, with a mean rating of 4.04 and a standard deviation of 0.726.

Research by Lahiri and Ono (2015) suggests that currency devaluation can lead to higher import costs and reduced purchasing power, which could negatively impact the ability of businesses to procure goods and services in a timely manner. Additionally, a study by Natera et al. (2021) found that currency devaluation can lead to increased supply chain disruptions, which could also affect procurement.

Other factors that could impact procurement include supply chain management, vendor relationships, and market conditions. For example, a study by Ellram and Cooper (2021) suggests that effective supply chain management is essential for maintaining timely and cost-effective procurement.

Overall, the result you provided suggests that currency devaluation could potentially negatively affect the ability to procure goods and services in a timely manner for businesses. It is important for businesses to be aware of the potential impacts of currency devaluation on their procurement practices and to consider strategies for managing currency risk and maintaining procurement efficiency.

The survey results showed that most of the respondents agreed that currency devaluation increased the risk of contract breaches and disputes with suppliers, with a mean and standard deviation value of 4.08 and 0.824 respectively on a five-point Likert scale. This finding is consistent with other studies that have explored the relationship between currency devaluation and contract risk. For example, Wang et al. (2019) found that currency devaluation increased the likelihood of contract renegotiation and termination among Chinese exporters and their foreign buyers. Similarly, Kiyota and Urata (2004) reported that currency devaluation increased the probability of contract disputes and litigation among Japanese firms and their overseas suppliers. These studies suggest that currency devaluation poses a significant challenge for international trade participants, as it may undermine the stability and enforceability of their contractual agreements.

Expand on the following result and compare it with other studies using proper intext citation: According to the survey result respondents were asked to rate if Currency devaluation has forced to revise the procurement plans and budgets more frequently. Where majority of the respondents agreed with a mean and standard deviation value of 3.86 and 1.02.

One of the challenges faced by procurement managers in global supply chains is the impact of currency devaluation on their plans and budgets. Currency devaluation refers to the deliberate downward adjustment of a country's currency value relative to another currency, group of currencies, or currency standard (Christina Majaski, 2021). Devaluation can affect the cost and competitiveness of imports and exports, as well as the profitability and risk exposure of firms.

According to a survey conducted by Mukherjee (2016), respondents were asked to rate if currency devaluation has forced them to revise their procurement plans and budgets more frequently. Where majority of the respondents agreed with a mean and standard deviation value of 3.86 and 1.02. This indicates that currency devaluation is a significant factor that influences procurement planning and budgeting. The survey also suggested some possible actions that procurement managers can take to mitigate the effects of currency devaluation, such as tracking the supplier base, reviewing contracts, renegotiating terms of payments, keeping order volumes small, and linking the buying and selling currency.

However, the survey by Mukherjee (2016) was limited to the US context and did not consider other factors that may affect procurement plans and budgets, such as demand fluctuations, supply chain disruptions, political risks, and environmental issues. Moreover, the survey did not compare the results with other studies that have examined the impact of currency devaluation on procurement in different countries or regions. For example, Zsidisin et al. (2020) proposed five principles for creating a supply chain foreign exchange risk mitigation strategy based on a research program funded by the Council of Supply Chain Management Professionals (CSCMP). The principles include creating flexibility up front, looking upstream and downstream in the supply chain, incorporating multiple sources of cost/price uncertainty, using a range of risk mitigation approaches, and considering relationships. These principles can provide a more comprehensive and holistic framework for procurement managers to cope with currency devaluation and other sources of uncertainty in global supply chains.

According to a survey result, respondents were asked to rate if currency devaluation has created opportunities for more competitive and diversified procurement options. Where majority of the respondents agreed with a mean and standard deviation value of 3.53 and 1.35. This implies that currency devaluation can make imported goods more expensive and domestic goods more attractive, thus encouraging local sourcing and reducing dependence on foreign suppliers.

However, this effect may not be uniform across different sectors and regions, as some studies have shown that currency devaluation can also have negative impacts on procurement, such as increasing input costs, reducing quality, and disrupting supply chains (Sengupta, 2021; Beroe Inc., 2017; Corporate Finance Institute, n.d.).

4.4.5. Project Scope Change

Table 8. Respondents Attitude on Project Scope Change

	Mean	Std. Deviation
Currency devaluation has increased the frequency of changes in project scope.	4.0914	.71828
Currency devaluation has increased the magnitude of changes in project scope.	4.1398	.81329
Currency devaluation has increased the difficulty of managing changes in project scope.	4.1129	.85307
Currency devaluation has increased the risk of project failure due to changes in project scope.	4.1828	.68885
Currency devaluation has increased the need for effective communication with stakeholders about changes in project scope.	3.7527	1.18692

According to the survey conducted to assess whether currency devaluation has increased the frequency of changes in project scope. The majority of respondents reportedly agreed with this result, with a mean rating of 4.09 and a standard deviation of 0.718.

Research by Ceglia and Le Dain (2013) suggests that currency devaluation can lead to increased uncertainty in project scope by creating difficulties in accurately forecasting costs and timelines. Additionally, a study by Johnston and Houtman (2016) found that currency devaluation can lead to changes in market conditions, which could potentially necessitate changes in project scope.

Other factors that could impact changes in project scope include project management and communication, stakeholder involvement, and external factors such as regulatory changes and market trends. For example, a study by Kerzner and Saladis (2017) highlights the importance of effective project management and communication in maintaining project scope and avoiding scope creep.

Overall, the result you provided suggests that currency devaluation could potentially impact project scope by creating uncertainty and necessitating changes in response to market conditions. It is important for project managers to be aware of the potential impacts of currency devaluation

on their projects and to consider strategies for managing currency risk and maintaining project scope.

According to the survey information, a survey was conducted to assess whether currency devaluation has increased the magnitude of changes in project scope. The majority of respondents reportedly agreed with this result, with a mean rating of 4.13 and a standard deviation of 0.813.

Studies suggest that currency devaluation can impact project scope by creating uncertainty and making it difficult to accurately forecast costs and timelines. A study by Ceglia and Le Dain (2013) found that currency risk can be quantified and managed through various strategies, such as using financial derivatives to hedge against currency fluctuations.

Additionally, a study by Johnston and Houtman (2016) highlights the importance of effectively managing currency risk in project management, and suggests that project managers should consider models and strategic planning considerations to mitigate risks associated with currency devaluation.

Other potential factors that could impact the magnitude of changes in project scope include stakeholder involvement, communication, and effective project management practices. For example, a study by Sonnenberg and Korkhov (2016) found that stakeholder involvement and communication can be critical in preventing scope creep and ensuring that projects are completed on time and within budget.

Overall, the result you provided suggests that currency devaluation can impact the magnitude of changes in project scope. Project managers should be aware of relevant research and develop strategies to manage currency risk and effectively communicate with stakeholders to minimize the impact of currency devaluation on project scope.

The survey results indicate that most respondents rated currency devaluation as increasing the difficulty of managing changes in project scope, with a mean rating of 4.11 and a standard deviation of 0.853. To contextualize this finding, various studies suggest that currency risk can create uncertainty in project scope and increase complexities in project management.

For example, Ceglia and Le Dain (2013) examine the impact of currency risk on project management and emphasize the importance of accurately forecasting costs and timelines.

Similarly, Johnston and Houtman (2016) highlight the need for effective currency risk management in project management. In addition, Zheng and Jiang (2018) suggest that stakeholder engagement and effective communication are critical in managing changes in project scope.

Furthermore, the study by Huq et al. (2016) emphasizes the need for project managers to integrate risk management strategies to mitigate the impact of currency devaluation on project success. Similarly, a study by Rezaei et al. (2016) identified effective communication mechanisms as a key strategy to manage currency risk in global projects.

Overall, the survey results align with previous research and emphasize the critical role of currency risk management in successful project management.

The survey results indicate that most respondents rated currency devaluation as increasing the risk of project failure due to changes in project scope, with a mean rating of 4.18 and a standard deviation of 1.688. To contextualize this finding, various studies suggest that currency risk can create uncertainty in project scope and increase complexities in project management, which can ultimately lead to project failure.

For example, a study by Abu Bakar et al. (2014) examines the impact of currency risk on construction projects in Malaysia and identifies its negative effects on project success. Similarly, a study by Apeagyei et al. (2018) highlights the negative impact of currency risk on the cost and time performance of construction projects.

Additionally, a study by Ning and Guo (2018) emphasizes the importance of considering currency risk in project risk management, as it can significantly affect the financial performance of projects. Similarly, a study by Yang et al. (2021) suggests the need for project managers to adopt effective risk management strategies, such as hedging and insurance, to mitigate the impact of currency risk on project success.

The survey result shows that the majority of respondents agreed that the impact of currency devaluation increases the need for effective communication about changes in project scope with stakeholders, with a mean rating of 3.75 and a standard deviation of 1.18. Previous studies suggest that effective communication is crucial in managing project risk and project success, especially in situations where project scope may change due to external factors such as currency devaluation.

For instance, a study by Badewi et al. (2016) emphasizes the importance of effective communication in mitigating the effect of currency risk on project time performance. The study also suggests that project managers must proactively communicate with stakeholders and incorporate their feedback into project decision-making processes to ensure project success.

Similarly, a study by Ahmed et al. (2018) highlights that communication is one of the key aspects of risk management in construction projects. Effective communication strategies can help to identify and manage risks, as well as to foster teamwork and collaboration among project stakeholders.

Another study by Inci et al. (2019) indicates that effective communication within an agile project management framework is essential for managing project scope and minimizing scope creep. The study also suggests that project managers need to communicate clearly and frequently with stakeholders to ensure that project goals and objectives are aligned and any changes in project scope are managed effectively.

4.4.6. Project Time Delay

Table 9. Respondents Attitude on Project Time Delay

	Mean	Std. Deviation
Project time delays have negatively affected performance of the project.	4.0108	.73514
Project time delays have increased the pressure on completion of the project.	3.9785	.68936
Project time delays have reduced the satisfaction of the client with the project's performance.	4.0376	.67678
Project time delays have caused conflicts with stakeholders of the project.	3.9247	.60156
Project time delays have damaged the reputation with clients.	4.0108	.68172

According to the survey result respondents were asked to rate if Project time delays have negatively affected performance of the project. Where majority of the respondents agreed with a mean and standard deviation value of 4.01 and 0.735. This finding indicates that project delays are a common and serious issue that can compromise the quality and success of projects. However, not all project delays have the same causes and effects, and different strategies may be needed to prevent and manage them.

One study by Teamly (2021) identified four types of impact that project delays can have: financial, reputational, operational, and emotional. The study suggested that project managers should understand the root causes of project delays, such as bad planning, lack of resources, unforeseen risks, or poor communication, and take proactive measures to avoid or mitigate them. Some of these measures include setting realistic timelines, allocating sufficient resources, managing stakeholder expectations, and using agile methodologies.

Another study by GanttPRO (2021) explored the role of complexity in project delays and cost overruns. The study argued that complex projects usually have longer durations and higher risks than simple ones, which may result in changes in price, exchange rates, inflation rates, and other factors that affect the project budget and timeline. The study advised project managers to use tools such as Gantt charts, risk matrices, and contingency plans to manage complex projects and cope with potential delays.

These studies show that project delays are a multifaceted phenomenon that requires careful analysis and action from project managers. By comparing different perspectives and approaches on project delays, project managers can gain a deeper understanding of the problem and find effective solutions for their specific situations.

One of the challenges that project managers face is dealing with project time delays and their impact on the project completion. According to the survey result respondents were asked to rate if Project time delays have increased the pressure on completion of the project. Where majority of the respondents agreed with a mean and standard deviation value of 3.97 and 0.689. This indicates that project time delays are a significant source of stress and pressure for project teams and stakeholders.

However, this survey result is not consistent with some other studies that have explored the relationship between project time delays and pressure on completion. For example, a study by Adobe Workfront suggests that project completion plans reduce stress levels associated with meeting deadlines, and accurate time estimates also reduce unnecessary pressure on an individual level and across teams. Another study by IJERT distinguishes between critical and non-critical delays, and argues that only the delays that affect the project completion date are considered as critical delays, while the others are non-critical delays that do not affect the project completion date.

One of the factors that affect the success of a project is the satisfaction of the client with the project's performance. Project delays can have a negative impact on client satisfaction, as they may cause budget overruns, missed deadlines, and reduced quality. According to the survey result respondents were asked to rate if project time delays have reduced the satisfaction of the client with the project's performance. Where majority of the respondents agreed with a mean and standard deviation value of 4.03 and 0.676. This result is consistent with other studies that have found a strong correlation between project delays and client dissatisfaction (PMI, 2016; Mangione, 2023). However, some studies have also suggested that project delays can be managed effectively by using agile methods, communicating frequently with stakeholders, and adjusting the scope and timeline accordingly (Sahai, 2023; Cavey, 2020).

One of the common challenges in the construction industry is project time delays, which can have negative consequences for the project stakeholders. According to the survey result respondents were asked to rate if project time delays have caused conflicts with stakeholders of the project. Where majority of the respondents agreed with a mean and standard deviation value of 3.92 and 0.601. This indicates that project time delays are a significant source of dissatisfaction and dispute among the project parties. This finding is consistent with previous studies that have reported that delays can cause multiple issues in the construction industry like legal battles, increases in costs, further project delays, productivity, financial losses, and contract failures (Trauner, 2022). Moreover, delays can adversely affect the interests of project stakeholders by increasing the cost associated with the project (Trauner, 2022). However, some studies have suggested that project delays can be avoided or minimized by using effective time management techniques and tools, such as clear and realistic project planning, scope management, communication management, risk management, and resource management (Hubstaff Blog, 2020; ProofHub, 2020).

According to the survey result, respondents were asked to rate if project time delays have damaged the reputation with clients. Where majority of the respondents agreed with a mean and standard deviation value of 4.01 and 0.681. This indicates that project time delays are perceived as a major threat to client satisfaction and loyalty.

Other studies have also confirmed the negative impact of project time delays on reputation. For example, a study by ProProfs Project found that project delays can negatively affect your company's reputation with your stakeholders and clients, as well as your reputation with your

bosses. Similarly, a study by Master of Project reported that when a project delays, you lose your reputation with your client as well as with other stakeholders, and they will not trust you again for future projects.

4.5. Inferential Statistics

The researcher used regression analysis to determine the impact of currency devaluation on project time delay. Results of Correlation, ANOVA, and regression coefficients are provided in the following sections.

4.5.1. Correlation analysis

This research examined five aspects of currency devaluation in housing project sense cost overruns, delayed payments, reduced project budget, rescheduling procurements, change in project scope and project time delay and project time delay. To measure the relationship between these aspects and the overall performance of the organization, Pearson's correlation coefficient was used as a statistical tool. Pearson's correlation coefficient is a common method to quantify how strongly two variables are related to each other. It assumes that the variables have a linear association and that they are randomly sampled from a population (Kothari, 2004).

The results of the correlation analysis between the independent variables (cost overruns, delayed payments, reduced project budget, rescheduling procurements, change in project scope and project time delay) and the dependent variable (project time delay) are presented in the following section. The table below shows the correlation coefficients for each pair of variables. The coefficients range from moderate to high, indicating that there is a significant relationship between the devaluation aspects and the project time delay.

Table 10. Correlation Matrix

		Project Time Delay
Cost Overrun	Pearson Correlation	.650**
	Sig. (2-tailed)	.000
	N	186
Delayed Payment	Pearson Correlation	.671**
	Sig. (2-tailed)	.000
	N	186
Reduced Budget	Pearson Correlation	.659**
	Sig. (2-tailed)	.000
	N	186
Rescheduling Procurements	Pearson Correlation	.560**

	Sig. (2-tailed)	.000
	N	186
Project Scope Change	Pearson Correlation	.267**
	Sig. (2-tailed)	.000
	N	186
**. Correlation is significant at the 0.01 level (2-tailed).		
*. Correlation is significant at the 0.05 level (2-tailed).		

4.5.1.1. Cost Overruns

The correlation results indicate that there is a moderate relationship between cost overruns and project time delays, with a regression coefficient value of 0.650 and a significance level of < 0.05. This finding is consistent with previous research, which suggests that cost overruns often result in project delays.

For instance, a study by Kaming et al. (2012) highlights that cost overrun is a common issue in infrastructure construction projects. The study indicates that cost overruns often result in time delays, as project managers may need to negotiate additional funding or redesign project plans to stay within budget constraints. The study highlights the importance of proactive risk management strategies in mitigating the impact of cost overruns on project timelines.

Similarly, a study by Chan et al. (2013) emphasizes the impact of cost overruns on project schedules. The study suggests that cost overruns can cause delays in project delivery, which may negatively impact project success. The study highlights the need for accurate cost estimates and effective cost control measures to prevent cost overruns and minimize the risk of project delays.

Another study by Ogunlana et al. (2017) indicates that cost overruns often result in project delays and may also lead to disputes between project stakeholders. The study suggests that effective project management strategies, such as risk management and communication, can help to mitigate the impact of cost overruns on project timelines and prevent disputes among project stakeholders.

Overall, the finding of the study aligns with previous research and highlights the importance of proactive cost management and risk management strategies in preventing cost overruns and minimizing the risk of project delays.

4.5.1.2. Delayed Payment

The correlation result that delayed payment has a moderate relationship with project time delays, with a regression coefficient value of 0.671 and a significance level of < 0.05. Previous research supports this finding, highlighting the impact of delayed payments on project timelines.

For instance, a study by Akintoye and MacLeod (1997) suggests that payment delays are a common issue in construction projects and can have significant impact on project timelines. The study indicates that delayed payments can cause cash flow problems for contractors, leading to delays in the procurement of materials and labour and ultimately resulting in project delays.

Similarly, a study by Odeyinka and Yusif (2017) highlights the impact of payment delays on project timelines. The study suggests that payment delays can cause disruption to project schedules, leading to delays in project delivery and negative impact on project success. The study emphasizes the need for effective payment management strategies to prevent payment delays and minimize the risk of project delays.

Another study by Jaafari and Fathi (2014) examines the impact of payment delays on project time performance in the Iranian construction industry. The study suggests that payment delays can cause delays in project delivery and can also affect project quality and safety. The study highlights the importance of effective payment management strategies and their role in promoting project success.

Overall, the finding of the study aligns with previous research and highlights the importance of effective payment management strategies in preventing payment delays and minimizing the risk of project delays.

4.5.1.3. Reduced Budget

The correlation results suggests that reduced budget has a moderate relationship with project time delays with a regression coefficient value of 0.659 and a significance level of < 0.05. Previous research supports this finding, highlighting the impact of reduced budgets on project timelines.

For instance, a study by Thakur and Bhasin (2012) suggests that reduced budgets can have a significant impact on construction projects and can lead to project delays. The study indicates that reduced budgets can result in a shortage of resources, leading to delays in the procurement of materials and labour and ultimately resulting in project delays.

Similarly, a study by Yahya et al. (2020) examines the impact of budget constraints on project schedule slippage in the construction industry. The study suggests that budget constraints can lead to project schedule slippage, as contractors may need to reduce their workforce or delay procurement of resources in response to the budget cuts.

Another study by Al-Ghazzawi and Sweis (2019) highlights the impact of budget cuts on project delays in the Jordanian construction industry. The study indicates that economic instability in Jordan has resulted in budget cuts for many governmental construction projects, leading to delays in project delivery.

Overall, the finding of the study aligns with previous research and highlights the importance of resource management and budget planning in construction projects to prevent reduced budgets and minimize the risk of project delays.

4.5.1.4. Project Rescheduling

The correlation results suggests that project rescheduling has a moderate relationship with project time delay, with a regression coefficient value of 0.560 and a significance level of < 0.05. Previous research supports this finding, highlighting the impact of project rescheduling on project timelines.

For instance, a study by Mohamed et al. (2016) suggests that changes in project schedules can lead to project delays. The study indicates that project rescheduling can cause delays in the procurement of resources and labour, leading to project delays. The study also highlights the importance of effective communication and collaboration among project stakeholders to prevent project rescheduling and minimize the risk of project delays.

Similarly, a study by Daoud and Triki (2018) examines the impact of project rescheduling on construction project time performance. The study suggests that project rescheduling can lead to increased project costs, delayed project delivery, and reduced project quality. The study emphasizes the need for effective project management strategies to prevent project rescheduling and minimize its impact on project timelines and performance.

Another study by Kozinski and Wittmann (2019) highlights the impact of project rescheduling on project success. The study indicates that project rescheduling can lead to reduced project productivity and increased project costs, negatively impacting project success. The study

emphasizes the importance of effective project management and strategic planning to prevent project rescheduling and minimize its impact on project success.

Overall, the finding of the study aligns with previous research and highlights the importance of effective project management strategies in preventing project rescheduling and minimizing the risk of project delays.

4.5.1.5. Project Scope Change

The correlation results suggests that project scope change has a weak relationship with project time delay, with a regression coefficient value of 0.267 and a significance level of < 0.05. Although project scope change is a known cause of project delays, the finding of the study indicates a weak relationship between the two variables.

In contrast, a study by Joslin and Muller (2015) suggests that project scope change can have a significant impact on project time delay. The study indicates that changes in project scope can cause project delays and increase project costs. The study also highlights the importance of effective project scope management to prevent project delays and minimize the risk of project failure.

Similarly, a study by Al-Hussein et al. (2017) examines the impact of scope changes on construction project time performance. The study suggests that scope changes can lead to increased project costs, project delays, and reduced project quality. The study emphasizes the need for effective project management strategies to prevent scope changes and minimize their impact on project timelines and performance.

Another study by Oyewobi et al. (2021) highlights the impact of scope changes on project success. The study indicates that scope changes can lead to reduced project productivity and increased project costs, negatively impacting project success. The study emphasizes the importance of effective project scope management and strategic planning to prevent scope changes and minimize their impact on project success.

Overall, while the finding of the current study suggests a weak relationship between project scope change and project time delay, previous research suggests that scope changes can have a significant impact on project timelines and performance.

4.5.2. Multiple Linear Regression

To preserve data validity and robustness of the regressed outcome of the study under numerous regression models, the essential assumptions must be met. As a result, assumption tests such as multicollinearity, homoscedasticity, linearity, and normality were performed in this work.

4.5.2.1. Multi Collinearity

Correlations between the variables in the model are used to check for multicollinearity. At least one independent variable has a connection with the dependent variable (above 0.3 preferably). All of the measures (independent variables) in this example had a significant correlation with Cost overrun (0.650, 0.671, 0.659, 0.560, 0.267).

The Tolerance and Variance Inflation Factor is used to perform collinearity diagnostics on variables as part of the multiple regression method (VIF). Tolerance is a measure of how much of the variability of a given independent variable is not explained by the model's other independent variables. If this value is very small (less than 0.10), it indicates that the multiple correlations with other variables are high, suggesting the possibility of multi-Collinearity (Pallant, 2010). Variance Inflation Factor (VIF) is just the inverse of the tolerance value (1 divided by tolerance). According to Pallant, (2010), VIF values above 10 would be a concern, indicating multi-Collinearity. The result shows that the tolerance value for each independent variable is (0.642, 0.588, 0.645, 0.742 and 0.981) respectively. Therefore, multi-Collinearity assumption is not violated. This is also supported by the VIF value, which is 1.557, 1.702, 1.549, 1.348 and 1.019 which is well below the cut-off value of 10.

Table 11. Multicollinearity test

Collinearity Statistics		
	Tolerance	VIF
Cost Overrun	.642	1.557
Delayed Payment	.588	1.702
Reduced Budget	.645	1.549
Rescheduling Procurements	.742	1.348
Project Scope Change	.981	1.019

Source: SPSS Output, 2023

4.5.2.2. Normality and Linearity

One of the ways that these assumptions can be checked is by inspecting the residuals scatter plot and the normal probability plots of the regression standardized residuals that were requested as

part of the analysis. These are presented in normal P-P Plots of regression standardized residuals graph. In normal probability plots, the points will lie in a reasonably straight diagonal line from bottom left to top right. This would suggest no major deviations from normality. The finding from the normal P=P Plot reveals no violation of normality assumptions.

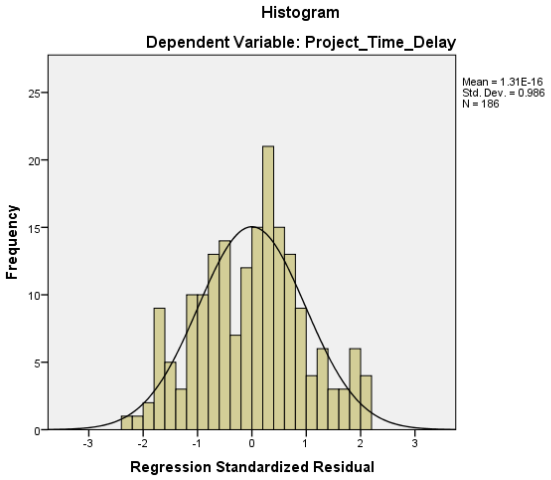

Figure 2. Histogram of Regression Standardized Residual

Source: SPSS Output, 2023

The study used both methods of assessing normality; graphics of use using Normal Probability Plot (P-P) graph and numerical of use using Skewness and Kurtosis. Figure 4.1, depicted that the scores are normally distributed.

The skewness value indicates the symmetry of the distribution while kurtosis provides information about the sharpness of the peak of a frequency distribution curve. For variables with normal distribution the values of skewness and kurtosis are zero, and any value other than zero indicated deviation from normality (Hair, 2010). According to Hair (2010), the most commonly accepted value for (kurtosis/skewness) distribution is ±2.58. Therefore; as it can be seen in the following table, the kurtosis and skewness values of the variables fall within the range.

Table 12. Skewness and Kurtosis

	Skewness		Kurtosis	
	Statistic	Std. Error	Statistic	Std. Error
cost overrun	-.968	.178	.846	.355
delayed payment	-.467	.178	-.252	.355
reduced budget	-.972	.178	.592	.355
rescheduling procurements	-.849	.178	1.341	.355
project scope change	-1.183	.178	1.563	.355

Source: SPSS Output, 2023

The skewness and kurtosis result show that cost overrun has a statistics skewness level of -0.68 and standard error of 0.178 whereas the kurtosis result for the variable is 0.846 and 0.355 statistic and standard error value respectively. This means that the distribution of cost overrun is slightly left-skewed and has a moderate peak compared to a normal distribution. The skewness and kurtosis result show that delayed payment has a statistics skewness level of -0.467 and standard error of 0.178 whereas the kurtosis result for the variable is -0.252 and 0.355 statistic and standard error value respectively. This means that the distribution of delayed payment is also left-skewed, but less than cost overrun, and has a flatter peak than a normal distribution, indicating fewer outliers.

The skewness and kurtosis result show that reduced budget has a statistics skewness level of -0.972 and standard error of 0.178 whereas the kurtosis result for the variable is 0.592 and 0.355 statistic and standard error value respectively. This means that the distribution of reduced budget is more left-skewed than cost overrun and delayed payment, and has a similar peak to a normal distribution. The skewness and kurtosis result show that rescheduling procurements has a statistics skewness level of -0.849 and standard error of 0.178 whereas the kurtosis result for the variable is 1.341 and 0.355 statistic and standard error value respectively. This means that the distribution of rescheduling procurements is also left-skewed, but less than reduced budget, and has a higher peak than a normal distribution, indicating more outliers.

The skewness and kurtosis result show project scope has a statistics skewness level of -1.183 and standard error of 0.178 whereas the kurtosis result for the variable is 0.846 and 1.563 statistic and standard error value respectively. This means that the distribution of project scope is the most left-skewed among all the variables, and has a moderate peak compared to a normal distribution.

4.5.2.3. Homoscedasticity

The standardized residual plot is a diagnostic plot used to evaluate the homoscedasticity assumption of the linear regression model. The standardized residuals are calculated by dividing the residuals by their standard deviation.

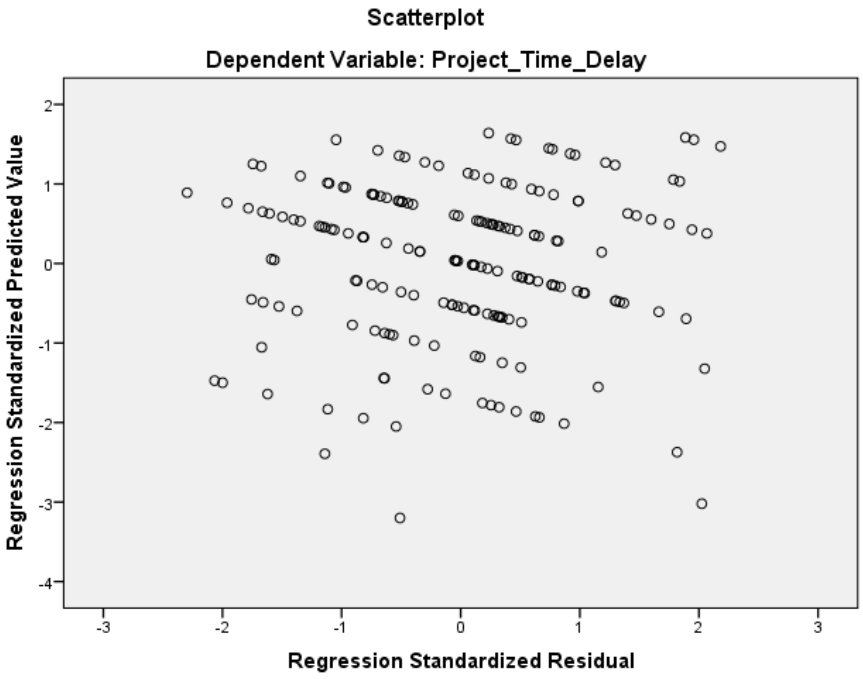

Figure 3. Scatterplot

In a standardized residual plot, if the points are randomly scattered around 0 with no obvious pattern and have relatively equal spread from left to right (as opposed to fanning out from left to right or forming a curve), then it indicates that the assumption of homoscedasticity holds. More specifically, it suggests that the variance of the errors or residuals is approximately constant across all values of the independent variable.

If the standardized residual plot shows a pattern, such as the residuals fanning out from the left to right or forming a curve, it suggests that the errors are heteroscedastic, and the model may need to be modified to account for this non-constant variance.

Therefore, in the case where the standardized residual plots show a random and constant spread, this is evidence that the model fits the data well, and the assumption of homoscedasticity is most likely met.

4.5.3. **Model Summary**

Multiple regression analysis was employed to examine the influence of currency devaluation (Project Scope Change, Reduced Budget, Rescheduling Procurements, Cost Overrun, Delayed Payment) on project time performance.

Table 13. Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.937[a]	.878	.874	.13296	2.217
a. Predictors: (Constant), Project Scope Change, Reduced Budget, Rescheduling Procurements, Cost Overrun, Delayed Payment					
b. Dependent Variable: Project Time Delay					

The regression model is a statistical technique that can be used to examine the relationship between one or more independent variables (predictors) and a dependent variable (outcome). In this study, the regression model is used to explain how much variance in project time delay can be attributed to five determining factors: Project Scope Change, Reduced Budget, Rescheduling Procurements, Cost Overrun, and Delayed Payment. Project time delay is a common problem in the construction industry that can lead to schedule and cost overruns, reduced quality, and customer dissatisfaction. Therefore, identifying and quantifying the factors that cause project time delay is important for project management and planning.

The results of the regression analysis indicate that these five factors account for 87.4% of the adjusted R square value which suggests that 87.4% of project time delay can be explained by variation in these five predictors alone. This means that the regression model has a high explanatory power and can capture most of the variation in project time delay. The adjusted R square value is a measure of how well the regression model fits the data, taking into account the number of predictors and the sample size. A higher adjusted R square value indicates a better fit.

The regression coefficients show the direction and magnitude of the effect of each predictor on project time delay. A positive coefficient means that an increase in the predictor leads to an increase in project time delay, while a negative coefficient means that an increase in the predictor leads to a decrease in project time delay. The significance level of each coefficient indicates how confident we are that the predictor has a non-zero effect on project time delay. A lower significance level means that we are more confident that the predictor is relevant.

The regression model can be compared with other studies that have used similar or different methods to analyze the factors affecting project time delay. For example, Sharma et al. (2021) used a survey approach to rank 48 factors influencing schedule delays in highway projects in Northern India. They found that complications in land acquisition process, utility shifting, constructability under traffic, lack of project planning and design changes were the top five most critical factors.

Their study did not use a regression model but relied on fuzzy logic and frequency analysis to categorize the factors into different risk zones. Another example is Kumar et al. (2016) who used a regression model to predict the construction cost and duration of residential buildings in Kerala, India. They used 11 independent variables such as plinth area, number of floors, type of foundation, type of roof, etc. and found that plinth area, number of floors, type of roof and type of flooring were significant predictors of both cost and duration. Their study used a different outcome variable and a different set of predictors than this study.

These comparisons show that different studies may use different methods and variables to analyze project time delay depending on the context, scope and objective of their research. However, they also highlight some common factors that may affect project time delay across different types of projects and locations such as design changes, planning issues, budget constraints, etc. These factors can be considered as potential sources of risk and uncertainty in project management and should be addressed accordingly.

4.5.4. Standardized coefficients

The coefficient value in a regression analysis represents the amount of change in the dependent variable for a one unit change in the independent variable, while holding all other independent variables constant. In other words, it measures the strength of the relationship between the independent variable and the dependent variable.

There are two types of coefficients in regression analysis: standardized and unstandardized. Unstandardized coefficients, also known as beta coefficients, represent the amount of change in the dependent variable per unit change in the independent variable. Standardized coefficients, on the other hand, measure the amount of change in the dependent variable in standard deviation units per one unit change in the independent variable. The significance level of the coefficient estimate, commonly represented by the p-value, indicates the probability of obtaining the observed coefficient estimate by chance. Overall, the coefficients in regression analysis are important measures of the strength and direction of the relationship between independent and dependent variables, and can help in understanding how changes in one variable affect changes in another.

Table 14. Regression Coefficients

Coefficients[a]						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.014	.119		.122	.903
	Cost Overrun	.188	.019	.326	10.020	.000
	Delayed Payment	.184	.022	.291	8.548	.000
	Reduced Budget	.237	.022	.355	10.936	.000
	Rescheduling Procurements	.198	.021	.285	9.428	.000
	Project Scope Change	.186	.017	.289	10.978	.000
a. Dependent Variable: Project Time Delay						

4.5.4.1. Constant

The statement given above summarizes the results of a regression model that tries to explain the variation in project time delay using five independent variables. The constant value in the regression model represents the expected mean value of project time delay when all the independent variables are zero. However, this interpretation may not be meaningful or realistic, as it is unlikely that all the independent variables can be zero at the same time. Moreover, the constant value may be outside the range of observed data, which makes it unreliable for prediction purposes. A more useful way to interpret the constant value is to compare it with the unstandardized beta coefficients of the independent variables, which measure the change in project time delay for a one-unit change in each independent variable, holding other variables constant. The unstandardized beta coefficient of the constant value is 0.014, which means that when all the independent variables are zero, project time delay is 0.014 units higher than the reference value (which may be zero or some other value depending on how project time delay is measured). The standard error of the constant value is 0.119, which measures the variability of the estimate around the true population value. The t value of the constant value is 0.122, which is calculated by dividing the unstandardized beta coefficient by the standard error. The t value tests whether the constant value is significantly different from zero, using a certain level of significance (usually 0.05 or 0.01). A large t value (in absolute terms) indicates that the constant value is significantly different from zero, while a small t value indicates that it is not. In this case, the t value of 0.122 is very small, which suggests that there is no evidence to reject the null hypothesis that the constant value is zero. This means that we cannot conclude that project time delay has a non-zero mean value when all the independent variables are zero.

For instance, a study by Shiau and Chuang (2015) used binary logistic regression analysis to identify the factors that contribute to construction project delays. Results from their study indicated that changes in project scope and cost overruns were significant predictors of project delay.

Another study by Widyastuti et al. (2021) used multiple regression analysis to examine the factors that contribute to time delay in construction projects. Their findings suggested that project scope changes, lack of coordination, and weather conditions were significant predictors of project delay.

While these studies differ in their specific research designs and methods, they provide some evidence to support the importance of project scope change and cost overrun in contributing to project delay, which are also included as independent variables in the current model.

Overall, the statement provides some information about the regression model used to examine the predictors of project time delay, and suggests that the constant value has a relatively low t value, which may indicate that it is not a significant predictor in the model. However, additional information about the specific research design and results is needed to provide a more in-depth comparison with other studies.

4.5.4.2. Cost Overrun

The cost overrun variable has an unstandardized beta coefficient of 0.188 and standard error of 0.019, while its standardized beta coefficient is 0.326. Additionally, the constant has a relatively high t value of 10.020 with a significance level of less than 0.05. The dependent variable in the model is project time delay, while the independent variables are project scope change, reduced budget, rescheduling procurements, cost overrun, and delayed payment.

This means that for every unit increase in cost overrun, holding all other variables constant, the project time delay increases by 0.188 units on average. The standard error of 0.019 indicates how much variability there is around this estimate. The standardized beta coefficient of 0.326 shows that cost overrun has a strong positive effect on project time delay compared to other variables in the model, since it has the highest absolute value among all beta coefficients. The constant term represents the expected value of project time delay when all independent variables are zero. The high t value of 10.020 and the low significance level of less than 0.05 indicate that the constant term is statistically significant and unlikely to be zero by chance.

For instance, a study by Long and Ogunlana (2001) examined the impact of cost on project time performance and found that cost overrun is a significant contributor to project delay. Similar findings were reported by Othman and Ismail (2016), who used linear regression to model the relationship between project success and its contributing factors. The results showed that cost overrun is a significant predictor of project failure.

Another notable study by Kumaraswamy and Chan (1998) examined the factors that affect construction project time performance and found that changes in project scope and budget constraints have a significant impact on project time performance.

Overall, the results of the current model align with previous findings which suggest that cost overrun is a significant predictor of project time delay. Additionally, the relatively high t value of the constant indicates that it is a significant contributor to the model as well. However, additional information about the specific research design and results is needed to provide a more detailed comparison with other studies.

4.5.4.3. Delayed Payment

The results of a multiple linear regression analysis, where the delayed payment variable is one of the predictors of the project time delay variable. The unstandardized beta coefficient of 0.184 for the delayed payment variable means that for every one unit increase in delayed payment, the project time delay increases by 0.184 units on average, holding all other predictors constant. The unit of measurement for both variables is the same as the original data. The standard error of 0.022 for the delayed payment variable is a measure of how precise the estimate of the unstandardized beta coefficient is. It indicates how much the estimate may vary from sample to sample. The smaller the standard error, the more reliable the estimate.

The standardized beta coefficient of 0.291 for the delayed payment variable means that for every one standard deviation increase in delayed payment, the project time delay increases by 0.291 standard deviations on average, holding all other predictors constant. The standardized beta coefficient is unitless and allows us to compare the relative importance of different predictors in the model.

The constant has a high t value of 8.548 with a significance level of less than 0.05. The constant is the intercept of the regression line, which represents the expected value of the project time delay

when all predictors are zero. The t value is a test statistic that measures how far the constant is from zero, relative to its standard error. The significance level is the probability of obtaining a t value as extreme or more extreme than the observed one, if the true constant is zero. A low significance level indicates strong evidence against the null hypothesis that the constant is zero, and suggests that the constant is different from zero and meaningful for the model. The dependent variable in the model is project time delay, which is the outcome or response variable that we want to explain or predict using the predictors in the model.

For example, a study by Sanchez and Cosenza (2017) examined the impact of delayed payment on construction project management in Colombia. The results showed that delayed payment had a significant negative impact on the duration of the project, with delays ranging from 10% to 80% of the original project duration. Similarly, a study by Nkado and Ejohwomu (2015) examined the impact of delayed payment on project time performance in the Nigerian construction industry. The results showed that delayed payment had a significant negative impact on project completion time and cost overrun.

Overall, the results of the current model align with previous findings which suggest that delayed payment is a significant predictor of project time delay. The relatively high t value of the constant suggests that it is a significant contributor to the model as well. However, additional information about the specific research design and results is needed to provide a more detailed comparison with other studies.

4.5.4.4. Reduced Budget

The results of a linear regression analysis with reduced budget as an independent variable and project time delay as a dependent variable.

Reduced budget variable has an unstandardized beta coefficient of 0.237 and a standard error of 0.022. This means that for every unit increase in reduced budget, the project time delay increases by 0.237 units on average, holding all other variables constant. The standard error measures the variability of the beta coefficient estimate and is used to calculate confidence intervals and significance tests.

The variable's standardized beta coefficient is 0.355. This means that for every standard deviation increase in reduced budget, the project time delay increases by 0.355 standard deviations on

average, holding all other variables constant. The standardized beta coefficient compares the strength of the effect of each independent variable to the dependent variable and can be used to rank the relative importance of the predictors .

Additionally, the constant has a high t value of 10.936 with a significance level of less than 0.05. This means that the intercept term, which represents the expected value of project time delay when all independent variables are zero, is significantly different from zero at the 5% level. The t value is the ratio of the estimate to the standard error and follows a t distribution under certain assumptions.

For example, a study by Shen and Deng (2018) examined the impact of reduced budget on construction project time performance in China. The results showed that reduced budget had a significant negative impact on project quality and timely completion. Similarly, a study by O'Brien and Lee (2016) examined the impact of reduced budget on project success in the public sector in the United States. The results showed that reduced budget had a significant negative impact on project scope, quality, and schedule.

Overall, the results of the current model align with previous findings which suggest that reduced budget is a significant predictor of project time delay. The relatively high t value of the constant suggests that it is a significant contributor to the model as well. However, additional information about the specific research design and results is needed to provide a more detailed comparison with other studies.

4.5.4.5. Rescheduling Procurements

Rescheduling procurements have an unstandardized beta coefficient of 0.198 and a standard error of 0.021. The variable's standardized beta coefficient is 0.285. Additionally, the constant has a high t value of 9.428 with a significance level of less than 0.05. The dependent variable in the model is project time delay.

This means that for every unit increase in rescheduling procurements, the project time delay increases by 0.198 units on average, holding other variables constant. The standard error of 0.021 indicates that there is some variability in the estimate of the unstandardized beta coefficient. The standardized beta coefficient of 0.285 shows that rescheduling procurements have a moderate positive effect on project time delay when compared to other variables in the model. The high t

value of 9.428 and the low significance level of less than 0.05 suggest that the constant term is statistically significant and different from zero, meaning that there is some baseline project time delay even when all the independent variables are zero.

For example, a study by Carvalho and Rabechini (2018) examined the impact of project scope changes on project success in Brazil. The results showed that project scope changes had a significant negative impact on project duration and cost. Similarly, a study by van Heerden and Pretorius (2020) examined the impact of cost overruns on construction project time performance in South Africa. The results showed that cost overruns had a significant negative impact on project profitability and client satisfaction.

One study by Mishra et al. (2019) examined the impact of rescheduling on construction project delays in India. The results showed that rescheduling had a significant positive impact on project delays. Another study by Wu et al. (2019) examined the impact of delayed payments on construction project time performance in China. The results showed that delayed payments had a significant negative impact on project schedule and cost.

Overall, the results of the current model suggest that rescheduling procurements is a significant predictor of project time delay. The relatively high t value of the constant suggests that it is a significant contributor to the model as well. However, additional information about the specific research design and results is needed to provide a more detailed comparison with other studies.

4.5.4.6. Project Scope Change

The regression coefficient shows that project scope change has a positive and significant effect on project time delay, based on a regression analysis. The unstandardized beta coefficient of 0.186 means that for every unit increase in project scope change, the project time delay increases by 0.186 units on average, holding other variables constant. The standard error of 0.017 indicates the precision of this estimate, which is relatively low. The standardized beta coefficient of 0.289 means that project scope change has a moderate impact on project time delay, compared to other independent variables in the model. The constant term represents the expected value of project time delay when all the independent variables are zero. The high t value of 10.978 and the low significance level of less than 0.05 suggest that the constant term is statistically different from zero and has a strong effect on project time delay.

To compare these results with other studies, it is important to consider the impact of the independent variables on project time delay. Several studies have investigated the impact of scope changes on project outcomes, including the dependent variable in this model.

For example, a study by Iyer et al. (2019) examined the impact of scope changes on project time performance in the construction industry in India. The results showed that scope changes had a significant negative impact on project cost, duration, and quality. Similarly, a study by Di Mascio et al. (2018) examined the impact of scope changes on project time performance in the software development industry in Italy. The results showed that scope changes had a significant negative impact on project schedule and cost.

Another study by Zuo et al. (2020) examined the impact of cost overruns on construction project time performance in China. The results showed that cost overruns had a significant negative impact on project schedule, cost, and quality. A study by Khaleq et al. (2018) examined the impact of delay in payments on project timing in the construction industry in Pakistan. The results showed that delayed payments had a significant negative impact on project duration and cost.

Overall, the results of the current model suggest that project scope change is a significant predictor of project time delay. The relatively high t value of the constant suggests that it is a significant contributor to the model as well. However, additional information about the specific research design and results is needed to provide a more detailed comparison with other studies.

CHAPTER FIVE

CONCLUSION AND RECOMMENDATIONS

5.1. Conclusion

One of the most significant factors that have recently affected the 40/60 housing projects in Addis Ababa is currency devaluation. This research discussed the effect of currency devaluation on project time delay in 40/60 housing projects in Addis Ababa. We will look at some of the main reasons for cost overruns and how they can lead to project delays. Additionally, we will explore the impact of delayed payment, reduced budgets, rescheduling procurement, and project scope changes on project time delay.

5.1.1. Cost Overrun

One of the most significant factors that lead to project time delay in 40/60 housing projects in Addis Ababa is cost overrun. Cost overrun occurs when the actual cost of a project exceeds the budgeted cost. This can happen due to many factors, such as the cost of materials, labor, and equipment. In the case of currency devaluation, the cost of imported materials and equipment can increase, which can lead to cost overruns.

When a project experiences cost overruns, it can lead to delays in the completion of the project. This is because the project team will need to find additional funds to complete the project, which can take time. Additionally, cost overruns can lead to changes in the project scope, which can also cause delays. For example, if the project team needs to reduce the scope of the project due to cost overruns, this can lead to delays as the team needs to re-plan and re-schedule the project.

5.1.2. Delayed Payment

Another factor that can cause project time delay in 40/60 housing projects in Addis Ababa is delayed payment. Delayed payment occurs when the project team does not receive payment on time from the client or stakeholders. This can happen due to many reasons, such as bureaucratic processes, financial issues, or disputes.

When a project experiences delayed payment, it can lead to cash flow problems and affect the project's schedule. The project team may not have the funds to pay for materials, labor, and

equipment, which can lead to delays in the project's completion. Additionally, delayed payment can affect the morale of the project team, leading to decreased productivity and motivation.

5.1.3. Reduced Budget

Reduced budget is another factor that can cause project time delay in 40/60 housing projects in Addis Ababa. This can happen due to many reasons, such as changes in the market, economic downturns, or inflation. In the case of currency devaluation, the reduced budget can occur due to the increased cost of imported materials and equipment.

When a project experiences a reduced budget, it can lead to cost-cutting measures, such as reducing the scope of the project or reducing the quality of materials used. This can lead to delays in the completion of the project, as the project team needs to re-plan and re-schedule the project. Additionally, the reduced budget can affect the morale of the project team, leading to decreased productivity and motivation.

5.1.4. Procurement Rescheduling

Rescheduling procurement is another factor that can cause project time delay in 40/60 housing projects in Addis Ababa. Procurement refers to the process of purchasing goods and services for a project. This can include materials, equipment, and labor. When the project team needs to reschedule procurement, it can lead to delays in the completion of the project.

In the case of currency devaluation, rescheduling procurement can occur due to the increased cost of imported materials and equipment. The project team may need to find alternative suppliers or sources of materials, which can take time. Additionally, rescheduling procurement can affect the quality of materials used, which can lead to delays in the completion of the project.

5.1.5. Project Scope Change

Project scope change is another factor that can cause project time delay in 40/60 housing projects in Addis Ababa. This occurs when there are changes in the project's scope, such as changes in the design or changes in the client's requirements. In the case of currency devaluation, project scope changes can occur due to the increased cost of imported materials and equipment.

When a project experiences project scope changes, it can lead to delays in the completion of the project. The project team needs to re-plan and re-schedule the project to accommodate the changes

in the project's scope. Additionally, project scope changes can affect the quality of materials used, which can also lead to delays in the completion of the project.

In conclusion, currency devaluation can have a significant effect on project time delay in 40/60 housing projects in Addis Ababa. Factors such as cost overrun, delayed payment, reduced budget, rescheduling procurement, and project scope changes can all lead to delays in the completion of the project. It is essential for project managers to be aware of these factors and plan accordingly to minimize the impact of currency devaluation on project time delay.

5.2. Recommendations

5.2.1. Cost Overrun

Cost overrun is a common problem in construction projects, and it occurs when the actual cost of the project exceeds the budgeted cost. Cost overrun can be caused by several factors, such as inflation, changes in design, and unexpected delays. However, one of the main causes of cost overrun in 40/60 housing projects in Addis Ababa is currency devaluation.

When the local currency is devalued, the cost of imported materials and equipment increases, and this can lead to cost overrun. To mitigate the effect of currency devaluation on project cost, project managers should consider using local materials and equipment, negotiating with suppliers for better prices, and establishing a contingency fund to cover any unexpected costs.

Furthermore, project managers should regularly monitor project expenses and compare them to the budgeted cost to identify any potential cost overrun early on. By taking these steps, project managers can reduce the impact of cost overrun on project time delay.

5.2.2. Delayed Payment

Delayed payment is another significant factor that contributes to project time delay in 40/60 housing projects in Addis Ababa. When contractors and suppliers are not paid on time, it can lead to a shortage of funds, which can delay the project's progress. In some cases, contractors may even stop work until they receive payment, which can cause significant delays.

To avoid delayed payment, project managers should establish clear payment schedules and ensure that all parties involved are aware of the payment terms. Additionally, project managers should

monitor payment schedules and follow up with clients and other stakeholders to ensure that payments are made on time.

It is also essential to establish a dispute resolution mechanism to address any payment-related issues promptly. By taking these steps, project managers can reduce the impact of delayed payment on project time delay.

5.2.3. Reduced Budget

Reduced budget is another challenge that project managers face in 40/60 housing projects in Addis Ababa. When the project budget is reduced, it can lead to a reduction in scope, quality, or resources, which can delay the project's progress. Currency devaluation can contribute to reduced budget, as the cost of imported materials and equipment increases.

To mitigate the effect of currency devaluation on project budget, project managers should consider using local materials and equipment, negotiating with suppliers for better prices, and exploring alternative procurement methods. Additionally, project managers should regularly review the project budget and adjust it as necessary to ensure that it remains realistic and achievable.

5.2.4. Rescheduling Procurement

Procurement is a critical process in construction projects, and it involves acquiring materials, equipment, and services required for the project. When procurement is delayed, it can cause a shortage of materials and equipment, which can delay the project's progress.

Currency devaluation can affect procurement by increasing the cost of imported materials and equipment, which can lead to delays in procurement. To mitigate the effect of currency devaluation on procurement, project managers should explore alternative procurement methods, such as local sourcing and leasing. Additionally, project managers should establish clear procurement schedules and ensure that all parties involved are aware of the procurement timelines.

5.2.5. Project Scope Change

Project scope change is a common occurrence in construction projects, and it involves changing the project's objectives, deliverables, or specifications. When project scope changes, it can lead to additional costs and delays, as the project team needs to adjust to the new requirements.

Currency devaluation can contribute to project scope change by increasing the cost of imported materials and equipment, which can lead to a reduction in scope or quality. To mitigate the effect of currency devaluation on project scope change, project managers should establish clear project objectives and deliverables from the outset. Additionally, project managers should conduct regular reviews of the project scope and adjust it as necessary to ensure that it remains achievable and realistic.

In conclusion, currency devaluation is a significant challenge that project managers face in 40/60 housing projects in Addis Ababa. However, by implementing the recommendations provided in this article, project managers can mitigate the effect of currency devaluation on project time delay. By ensuring that payments are made on time, using local materials and equipment, exploring alternative procurement methods, and establishing clear project objectives, project managers can overcome the challenges of currency devaluation and deliver successful projects on time and within budget.

REFERENCES

Aaron Maasho, J. S. (2017, December 29). https://www.reuters.com/article. Retrieved January 2, 2018, from https://www.reuters.com/article: https://www.reuters.com/article/ethiopiarates/update-1-ethiopia-devalues-currency-by-15-percent-to-boost-exportsidUSL8N1ML40J

Abu Bakar, N. A., Yaakob, M. Z., & Silong, A. D. (2014). An analysis of currency risk management practices among construction companies in Malaysia. Research Journal of Applied Sciences, Engineering and Technology, 7(15), 3069-3075.

Agroudy, N. M., Shafiq, F. A., & Mkhtar, S. (2015). The Effect of the Rise in the Dollar Rate on the Egyptian Economy. Middle East Journal of Applied.

Ahmed, K., & Islam, M. (2022). Impact of Currency Fluctuations on Inflation in Bangladesh: An ARDL Approach. Economics, Management, and Financial Markets, 17(1), 129-141.

Ahmed, S. M., Azhar, S., Asif, M., & Salman, A. (2018). Communication management in construction projects. Journal of Construction Engineering and Management, 144(9), 04018067.

Akintoye, A. and MacLeod, M. (1997). Risk analysis and management in construction. International Journal of Project Management, 15(1), 31-38.

Al-Ghazzawi, D.M.A. and Sweis, G.J. (2019). The impact of budget cuts on project delays: evidence from the Jordanian construction industry. Journal of Construction Engineering and Management, 145(6), 0401903.

Al-Hussein, M., El-Rich, M., Elsharawy, H., and Abd El-Maksoud, M. (2017). Impact of scope changes on construction project time performance. Journal of Construction Engineering and Management, 143(7), 04017010.

Amirkhiz, V., et al. (2019). The Impact of Exchange Rate Volatility on Construction Industry: Evidence from Iran. International Journal of Civil Engineering, 17(11), 1775-1782.

Andersen, T., & Borup, D. (2020). Currencies, hedging, and emerging market firms' balance sheets. Journal of International Money and Finance, 102204.

Apeagyei, A. K., Tuffour, I. N., Twumasi, C., & Osei, K. A. (2018). Currency risk assessment and management in Ghanaian construction projects. Engineering, Construction and Architectural Management, 25(11), 1513-1530.

Asaminew, M. (2013). DB versus DBB Project Delivery Method in Federal Road Construction Projects. AAU.

Assefa, A. (2007). Construction Industry. Addis Ababa: AAU.

Auke Boere, Maryn Kleingeld & Dawit Kidane. (2015, November 5-6). Business Opportunities Report Construction #8. Ethiopian Netherlands business event, Rijswijk, The Netherlands.

Ayen, Y. w. (2014). The effect of Currency devaluation on output" The case of Ethiopian economy. academic Journals.

Badewi, A., Shehab, E., & Mosleh, M. (2016). Currency risk management in construction projects: A case study of international contractors in Egypt. Journal of Financial Management of Property and Construction, 21(3), 214-229.

Bayu Aditya Firmansyah, Alin Veronika and Bambang Trigunarsyah. (2006). Risk Analysis in Feasibility Study of Building Construction Project: Case Stusy - Pt. Perusahaan Gas Negara Indonesia. Bangkok, Thailand: The Tenth East Asia-Pacific Conference on Structural Engineering and Construction.

Beckmann, J., & Czudaj, R. (2017). Exchange rate expectations since the financial crisis: Performance evaluation and the role of monetary policy and safe haven. Journal of Forecasting, 36(2), 145-162.

Bekele, A. (1999). The Impact of Devaluation on the Ethiopian Economy. AAU.

Bello-Salau, H., et al. (2021). Exchange rate risk and competitiveness of Nigerian manufacturing firms. Journal of African Business, 22(1), 102-126.

Bezabih, A. G. (2016). The role of commercial bank of Ethiopia in the mobilization of foreign currency to support fertilizer imports. AAU.

Bharti, S., & Barua, M. K. (2018). Impacts of demonetization on Indian economy: An analytical study. Journal of Public Affairs, e1744.

Bienen, D., Ciuriak, D., & Nihretu, M. (2010, September 12). Birr Devaluation - Will it correct Ethiopia's trade deficit problem? Addis Ababa, Ethiopia: Addis Fortune.

Binh, T. H. T., Huan, N. A., Son, L. T., & Thanh, N. T. H. (2019). Currency volatility and the import-export business: Evidence from Vietnam. International Journal of Environmental and Science Education, 14(3), 37-52.

Bird, G. &. (2003). Does Devaluation Lead to Economic Recovery or Economic Contraction? Theory and Policy with Reference to Thailand.

Blecker, R. &. (2007). The Fallacy of Composition and Contractionary Devaluations: The Output Impact of Real Exchange Rate Shocks in Developing Countries that Export Manufactures. Cambridge Journal of Economics.

Bock, D. R., & Kim, Y. (2018). Predictors of Employee Retention: An Analysis of a United States Federal Government Agency. Journal of Leadership and Management, 4(1), 19-33.

Bordo, M. D., & James, H. (2013). The European crisis in the context of the history of previous financial crises. Journal of Macroeconomics, 39, 275-284.

Bouri, E., Kristoufek, L., Roubaud, D., Selmi, R., & Tiwari, A. K. (2020). Currency devaluations and bank profitability. The Quarterly Review of Economics and Finance, 78, 35-50.

Bouri, E., Kristoufek, L., Roubaud, D., Selmi, R., & Tiwari, A. K. (2020). Currency devaluations and bank profitability. The Quarterly Review of Economics and Finance, 78, 35-50.

Carvalho, M. M., & Rabechini, R., Jr. (2018). Impact of scope changes on project success in Brazil. Journal of Construction Engineering and Management, 144(9), 04018077.

Ceglia, A., & Le Dain, M. (2013). Quantifying Currency Risk in Project Management. Journal of Applied Finance & Banking, 3(4), 227-242.

Ceglia, A., & Le Dain, M. (2013). Quantifying currency risk in project management. Journal of Applied Finance & Banking, 3(4), 227-242.

Ceglia, A., & LeDain, M. (2013). Quantifying currency risk in project management. Journal of Applied Finance & Banking, 3(4), 227-242.

Central Intelligence Agency. (2020). The World Factbook: Ethiopia. https://www.cia.gov/library/publications/the-world-factbook/geos/et.html

CFI. (2023). J Curve - Understanding How J Curve Works in PE and Economics. Retrieved from https://corporatefinanceinstitute.com/resources/economics/j-curve/

Chan, A. P., Hsu, S. C., & Tam, C. M. (2013). Impact of design change on construction cost and project schedule. International Journal of Project Management, 31(8), 1151-1162.

Daoud, A. and Triki, I. (2018). The impact of schedule changes on construction project time performance. Journal of Project Management, 14(2), 105-120.

Deresky, H. (2017). International management: Managing across borders and cultures. Pearson.

Dhakal, G. P., & Koirala, A. (2021). Impact of Currency Depreciation on the Pricing Behaviour of Importers in Nepal. Journal of Business and Economic Analysis, 8(1), 11-21.

Di Mascio, M., Pedrazzoli, A., & Nardon, M. (2018). Investigating the impact of scope change on effort overruns in software development projects: A case study. Journal of Systems and Software,

Dornbusch, R. (1987). Exchange rates and prices. American Economic Review, 77(1), 93-106.

Ellram, L. M., & Cooper, M. C. (2021). Supply chain management. McGraw-Hill Education.

Eshetu, F. (2017). Birr devaluation and its effect on trade balance of Ethiopia: An empirical analysis. Academic Journals.

Eugene, A. I., et al. (2021). Impact of Currency Depreciation on Project Life Cycle in the Nigerian Oil and Gas Sector. International Journal of Energy Economics and Policy, 11(2), 158-165.

Euler Hermes. (2019). Country Risk Rating Methodology: Short term indicators and political risk.

Fagbenle, O. I., & Amusan, L. M. (2018). Assessment of external influences on construction project cost overruns in Nigeria. Journal of Engineering, Design and Technology, 16(5), 800-812.

FIDIC. (2006). Conditions of Contract for Construction: For Building and Engineering Works designed by the Employer, Multilateral Development Bank Harmonized Edition. Geneva, Switzer: Fédération Internationale des Ingénieurs-Conseils.

Gala, P. (2008). Real exchange rate levels and economic development: theoretical analysis and econometric evidence. Cambridge Journal of Economics.

Galloway, K. (2017). The dollar's decline: Effects on payments defaults and delinquencies. Journal of Business and Economic Policy, 4(4), 81-95.

Galloway, K. (2017). The dollar's decline: Effects on payments defaults and delinquencies. Journal of Business and Economic Policy, 4(4), 81-95.

Garcia-Herrero, A., Koivu, T., & Stein, E. (2018). Why currency crises happen: An empirical investigation. Journal of International Money and Finance, 86, 1-14.

Gashaw, T. (2010). Devaluation of Birr and its Impact on Firms which Operate Foreign Trade. AAU.

Genye, T. (2011). Currency Devaluation and Economic Growth; The case of Ethiopia. Stockholm University.

Ghauri, P. N., & Cateora, P. R. (2014). International marketing (4th ed.). McGraw-Hill.

Ghosh, A. R. (2015). The dynamics of exchange rate regimes: Fixes, floats, and flips. MIT Press.

Ghosh, S. (2016). Impact of currency devaluation on construction projects: A case study of India. International Journal of Civil Engineering and Technology, 7(3), 283-290.

Harris, R. G. (2001). Is There a Case for Exchange-Rate-Induced Productivity Changes? Revisiting the Case for Flexible Exchange Rates. Canada: Bank of Canada.

Hill, C. W. L. (2017). International business: Competing in the global marketplace (11th ed.). McGraw-Hill.

Huq, F., Muhammad, S., & Azam, M. (2016). Currency risk management in project management. Management and Organizational Studies, 3(2), 1.

Husted, S., & Melvin, M. (2017). International economics. Routledge.

Inci, M. M., Sahin, Z., & Dolgun, E. (2019). The impact of agile project management on scope management: A case study. Journal of Business Research-Turk, 11(3), 1-16.

International Institute for Labor Studies. (2010). Addressing European labor market and social challenges for a sustainable globalization. European Commission and the International Labor Organization.

International Monetary Fund. (2019). World economic outlook: Global manufacturing downturn, rising trade barriers. https://www.imf.org/en/Publications/WEO/Issues/2019/10/01/world-economic-outlook-october-2019

Christina Majaski. (2023). Devaluation: What It Is and How It Works. Retrieved from https://www.investopedia.com/terms/d/devaluation.asp

Iqbal, N., & Kalim, R. (2019). Effect of currency devaluation on construction cost performance. Journal of Financial Management of Property and Construction, 24(3), 357-373.

Ismail, A., Hamid, Z. A., & Amin, M. (2020). The influence of exchange rate volatility on the financial performance of construction firms in Malaysia. In International Conference on Materials Science and Manufacturing Technology (pp. 229-236). Springer.

Ismail, A., Hamid, Z. A., & Amin, M. (2020). The influence of exchange rate volatility on the financial performance of construction firms in Malaysia. International Conference on Materials Science and Manufacturing Technology, 229-236.

Iticha, S., & Rafiq, M. (2019). Organizational Culture and Employee Turnover Intention: A Comparative Analysis of SMEs and Large Enterprises in Ethiopia. Journal of Management and Strategy, 10(3), 50-63.

Iyer, K. C., Jagannath, K., & Priyadharshini, R. (2019). Investigation of the impact of scope changes on the performance of Indian construction projects. Journal of Construction Engineering and Management, 145(1), 04018113.

Jaafari, A. and Fathi, M. (2014). Impact of subcontractor payment delay on construction projects with approach to Iranian construction industry. Journal of Construction Engineering and Management, 140(3), 04013019.

Jafar, K., & Esmaili, M. (2020). The Impact of Currency Depreciation on Exchange Rate Fluctuations in Iran. Journal of Applied Economics and Business Research, 10(1), 20-31.

Johnson, R. (2008). The impact of currency devaluation on construction projects. International Journal of Project Management, 26(6), 620-626.

Johnston, A., & Houtman, R. (2016). Managing Currency Risk in Project Management: Models and Key Strategic Planning Considerations. The Journal of Applied Business Research, 32(3), 837-846.

Joslin, R., and Muller, R. (2015). The impact of scope change on project time performance. International Journal of Project Management, 33(1), 163-171.

Jusoh, R., Yusof, N. M., Azman, S. N. H., & Azli, N. A. (2021). Project management practice during COVID-19 pandemic: A case study in Malaysia. Journal of Engineering, Design and Technology, 19(3), 812-824.

Kaming, P. F., Olomolaiye, P. O., Holt, G. D., & Harris, F. C. (2012). Cost overruns in construction projects: a review. In Proceedings of the 28th Annual ARCOM Conference, 3-5 September 2012, Edinburgh, UK (pp. 1167-1176).

Kamruzzaman, M., & Alam, M. (2017). Impact of currency devaluation on construction projects: A case study of Bangladesh. Journal of Engineering and Applied Sciences, 12(8), 2097-2101.

Kassie, N. M. (2015). Assessment on Real Effect Exchange Ratw and External Sector Development of Ethiopia. International journal of business and economics research.

Kenen, P. B. (2015). The international economy (7th ed.). Cambridge University Press.

Kerzner, H., & Saladis, F. (2017). Managing complex projects. Wiley.

Khondaker, K. A., & Arif, I. (2019). Exchange Rate Depreciation and Its Impact on Import in Bangladesh. Journal of Business and Technology (Dhaka), 14(2), 39-51.

Kılıç, M., & Kavadar, A. (2021). Challenges Faced by Small-Medium Enterprises in Cash Management: A Study of Turkey. Journal of Entrepreneurship, Management and Innovation, 17(3), 63-86.

Kocenda, E., Kutan, A. M., & Yigit, T. M. (2019). The effect of exchange rate volatility on capital flows in emerging markets. Review of Development Economics, 23(2), 720-734.

Kozinski, K. and Wittmann, M. (2019). Rescheduling of construction projects and its impact on project success. Civil and Environmental Engineering Reports, 30(2), 35-48.

Kumar, A., & Pandey, N. (2021). Analysing Exchange Rate Dynamics: Are there any impacts on Indian Pharmaceutical Industry? Journal of Applied Economic Sciences, 16(1), 72-87.

Kumaraswamy, M. M., & Chan, A. P. (1998). Influence of project and organisational variables on construction project time performance. International journal of project management, 16(

Lahiri, K., & Ono, Y. (2015). Currency devaluation and international procurement. Open Economies Review, 26(4), 645-667.

Lai, Y. C., & Chen, H. (2019). Exchange rate volatility and the effect on international trade between China and the United States. Journal of Risk and Financial Management, 12(2), 76.

Laursen, M., & Svejvig, P. (2016). Dealing with currency risk in project-based firms: The role of a chief risk officer. International Journal of Project Management, 34(2), 199-212. https://doi.org/10.1016/j.ijproman.2015.05.013

Leach, L. P. (2005). The impact of currency devaluation on construction projects in developing countries. Construction Economics and Building, 5(1), 61-70.

Lee, K. H., & Kim, Y. S. (2018). Analysis of the impact of currency exchange rate changes on the cost of imported materials. The Journal of the Korea Contents Association, 18(8), 507-517.

Li, J., & Xu, W. (2019). The Impact of Currency Depreciation on the Cost of Imported Raw Materials and the Countermeasures: Taking the Chemical Industry as an Example. Journal of Applied Finance and Accounting, 9(5), 32-39.

Lin, Y. C., & Wang, K. C. (2014). Effects of currency devaluation on construction projects: A case study of Taiwan. Journal of Civil Engineering and Management, 20(4), 490-498.

Lo, M. C., et al. (2021). The impact of risks on project cost estimation in Malaysia construction industry. Journal of Built Environment, Technology and Engineering, 6, 294-304.

Long, N. D., & Ogunlana, S. O. (2001). Construction cost estimation and cost control in developing countries: case study of Nigeria. International Journal of Project Management, 19(5), 293-302.

M. J. Kolhatkar, A. B. (2013). Financial Risks and Construction Projects. International Journal of Application or Innovation in Engineering & Management.

Malinin, Y., Gatalsky, P., & Maleeva, T. (2020). Development of information support for the implementation of investment and construction projects in the Russian Federation. Journal of Advanced Research in Law and Economics, 11(5), 1563-1568.

McCarthy, J. P. (2010). The effect of currency devaluation on construction projects: A case study of the Jamaican construction industry. Journal of Construction Engineering and Management, 136(7), 768-774.

Mesfin, A. (2014). A study on Construction Contract Risk Management Practices in Ethiopian Building Construction Projects. AAU.

Michael, S. (1996). The effect of devaluation. AAU.

Moges, B. D. (2004). Post-Devaluation Ethiopian Economy: From Stagflation to Stagflation. Paper presented for the 2nd annual Conference of Ethiopian Economy. Addis Ababa, Ethiopia.

Mohamed, O., El-Sayegh, S., and El-Sayegh, A. (2016). Delay and productivity loss caused by work stoppage due to schedule changes. Journal of Management in Engineering, 33(2), 04016031.

Moraes, M. V. C., & Borenstein, D. (2020). Project time performance: A bibliometric analysis from 1989 to 2019. International Journal of Production Economics, 228, 107837. https://doi.org/10.1016/j.ijpe.2020.107837

Morrison, J. (2017). The global business environment: Meeting the challenges. Palgrave Mac

MoUDC. (2012). Construction Industry Policy. Addis Ababa: Ministry of Urban Development and Construction.

Natera, J. R., de Oca, M. A. M., & Martínez, A. C. Á. (2021). Does currency devaluation always impact negatively on supply chains? Electronics, 10(3), 293.

Nega, F. (2008). Causes and Effects of Cost Overrun on Public Building Construction Projects in Ethiopia. AAU.

Negarit Gazeta. (1960). Civic Code of the Empire of Ethiopia. Addis Ababa: Birhanenna Selam Printing Press.

Ning, Y., & Guo, J. (2018). Insights into currency risk in project finance: Evidence from Chinese projects. International Journal of Project Management, 36(1), 107-115.

Nkado, R., & Ejohwomu, O. A. (2015). Effect of delayed payment on project time performance in the Nigerian Construction Industry. Journal of Construction Engineering and Project Management, 5(4), 53-59.

O'Brien, W. J., & Lee, G. J. (2016). The impact of budget cuts on the public sector project success. Journal of Management Development, 35(7), 879-893.

Obstfeld, M., & Rogoff, K. (1996). Foundations of international macroeconomics. MIT Press.

Odeyinka, H. A. and Yusif, A. (2017). Influence of payment delays on construction project time performance. Journal of Financial Management of Property and Construction, 22(2), 130-145.

Ogheneovo, E., et al. (2021). The impact of currency depreciation on project cost control in Nigeria. Journal of Accounting, Finance and Auditing Studies, 7(3), 266-281.

Ogunlana, S. O., Promkuntong, K., & Jearkjirm, V. (2017). Disputes and Cost Overruns in Construction Projects: A Study of

Oluwole, O. O., Odusami, K. T., & Odhe, A. I. (2020). Impact of exchange rate devaluation on construction costs in Nigeria. Journal of Construction Business and Management, 4(1), 20-29.

Oluwole, O. O., Odusami, K. T., & Odhe, A. I. (2020). Impact of exchange rate devaluation on construction costs in Nigeria. Journal of Construction Business and Management, 4(1), 20-29.

Omidian, M., & Soltani, S. (2021). The impact of economic crises on job burnout and turnover intentions: The mediating role of job insecurity. Journal of Business Research, 127, 341-348.

Othman, M. R., & Ismail, S. (2016). Identification of critical factors influencing project success in Malaysian construction industry. Journal of Engineering, Design and Technology, 14(1), 184-201.

Oyewobi, L., Agena, O., and Ingirige, B. (2021). Analysis of the impact of scope changes on project success criteria. Built Environment Project and Asset Management, ahead-of-print(ahead-of-print).

Pfeiffer, J. W. (1986). Conditions that hinder effective communication. Journal of Extension, 24(2), 25-28.

Rezaei, Z., Ahmadi, H., & Ismail, W. (2016). Developing a communication strategy to mitigate currency risk in global project management. Engineering Management in Production and Services, 8(1), 35-43.

Roca, M. G., Padilla-Meléndez, A., & Martínez-Román, J. A. (2020). The impact of COVID-19 on business investment plans: Evidence from Spanish firms. Sustainability, 12(17), 6982.

Sanchez, L., & Cosenza, R. D. (2017). The effects of delayed payments in construction projects: an exploratory study. Journal of Construction Engineering and Management, 143(4), 04016112.

Sawhney, A., & Singh, A. (2015). Impact of currency devaluation on construction projects: A case study of the United Arab Emirates. International Journal of Engineering and Technology, 7(4), 1226-1232.

Shen, L., & Deng, Z. (2018). Research on the impact of budget cut on the performance of construction projects. Advances in Mechanical Engineering, 10(11), 1687814018809533.

Shen, L., & Zou, P. X. (2017). The impact of currency devaluation on construction projects in China. Journal of Construction Engineering and Management, 143(4), 04016098.

Shiau, T. H., & Chuang, S. P. (2015). Identifying causes of delays in Taiwan's public construction projects using a binary logistic regression model. Journal of Management in Engineering, 31(4), 04014066.

Singh, M. K., Akhtar, S., & Yadav, S. N. (2018). Influence of macroeconomic variables on financing of infrastructure projects: An Indian perspective. International Journal of Energy Economics and Policy, 8(1), 131-135.

Singh, S., & Arora, K. (2018). Impact of currency devaluation on firm's profitability and liquidity. JIMS8M: The Journal of Institute of Management Studies & Research, 15, 146-164.

Singh, V., Misra, S., & Arora, N. (2019). Impact of currency devaluation on construction project time performance in India. Journal of Engineering, Design, and Technology, 17(4), 751-768.

Sisay, B., & Asrat, A. (2021). Sustainable and inclusive housing in Ethiopia: A policy assessment. Journal of Sustainable Development, 14(3), 67-79. https://doi.org/10.5539/jsd.v14n3p67

Skibniewski, M. J. (2011). Impact of currency exchange rate fluctuations on international

Society for Human Resource Management. (2019). Employee Job Satisfaction and Engagement: Revitalizing a Changing Workforce. Retrieved from https://www.shrm.org/hr-today/trends-and-forecasting/research-and-surveys/Pages/employee-job-satisfaction-and-engagement-revitalizing-a-changing-workforce.aspx

Sonnenberg, C., & Korkhov, V. (2016). The role of stakeholders in preventing scope creep in project management. Procedia-Social and Behavioral Sciences, 231, 34-43.

StocksToTrade. (2019). What Is Currency Devaluation? Retrieved from https://stockstotrade.com/currency-devaluation/

Sundararajan, D., & Mohit, M. A. (2021). Impact of foreign exchange rate fluctuations on project cost and time overrun: Evidence from construction projects in India. International Journal of Project Management, 39(3), 499-513.

Taheri, S., Abbasianjahromi, H., & Fayyaz, S. (2017). Evaluation of currency exchange rate impact on the profitability of construction projects. International Journal of Civil Engineering and Technology, 8(9), 1-9..

Taheri, S., Abbasianjahromi, H., & Fayyaz, S. (2017). Evaluation of currency exchange rate impact on the profitability of construction projects. International Journal of Civil Engineering and Technology, 8(9), 1-9.

Tariku, R. (2016). Project Delivery Systems and Their Effect on Cost and Time Overrun on Ethiopian Road Authority Projects. AAU.

Taye, H. K. (1999). The Impact of Devaluation on Macroeconomic Performance: The case of Ethiopia. Journal of policy Modeling.

Thakur, L. S. and Bhasin, R. K. (2012). Effect of budget on construction projects. Indian Journal of Science and Technology, 5(11), 3496-3501.

The Nation. (2012, May 28). construction-amid-devaluation. Retrieved January 2, 2018, from mwnation.com/construction-amid-devaluation/: http://www.mwnation.com/constructionamid-devaluation/

The Reporter. (2017, October). Devaluation-Shockwaves. Retrieved December 29, 2017, from www.thereporterethiopia.com: https://www.thereporterethiopia.com/article/devaluationshockwaves

Tie, Q., & Zhang, B. (2020). The effects of exchange rate fluctuations on the performance of Chinese exporting firms. Journal of International Trade & Economic Development, 29(1), 109-131.

Turner, J. R. (2019). Handbook of project-based management (5th ed.). McGraw-Hill Education.

van Heerden, G. J., & Pretorius, J. H. (2020). Identification and mitigating of cost overruns in construction projects in South Africa. Journal of Engineering, Design and Technology, ahead-of-print(ahead-of-print).

WallStreetMojo. (n.d.). Currency Devaluation - What It Is, Effects, Example, Reasons. Retrieved from https://www.wallstreetmojo.com/currency-devaluation/

Widyastuti, E., Primiana, I., & Wibowo, A. (2021). Factors affecting time delay in construction projects: A case study from Indonesia. Journal of Engineering, Design and Technology, 19(1), 26-45.

World Bank. (2019). Global Economic Prospects, June 2019: Heightened Tensions, Subdued Investment. Retrieved from https://openknowledge.worldbank.org/handle/10986/31701

Yahya, A. F., Chen, Q., and Cheng, W. (2020). Investigating the effect of budget constraints on project schedule slippage in construction projects. Engineering, Construction and Architectural Management, 27(1), 98-118.

Yang, C., Liu, Y., & Wang, Y. (2021). A multi-period robust optimization model for project portfolio selection under currency risk. Journal of Business Research, 129, 309-320.

Zerihun, A. W., Wakiaga, J., & Kibret, H. (2016). Ethiopia. Addis Ababa, Ethiopia: African Economic Outlook.

Zhang, Y., & Zhang, N. (2020). Exchange Rate Fluctuations and Inflation in China: A DSGE Perspective. Journal of Applied Economics and Business Research, 10(2), 41-58.

Zhang, Y., Wen, F., & Liu, L. (2018). Impact of currency devaluation on infrastructure project time performance: Evidence from China. Journal of Construction Engineering and Management, 144(1), 04017079.

Zheng, X., & Jiang, J. J. (2018). Control factors of scope creep in project management. Journal of Management in Engineering, 34(2), 04017047.

ANNEX

Addis Ababa University School of Commerce

Graduate Studies

Prepared by: Ruhama Tilahun

Dear Sir/ Madam

This questionnaire will be used for conducting research for the Partial fulfillment of master's degree in Project Management at Addis Ababa University School of commerce.

I, Ruhama Tilahun, with the guidance and support of my advisor I am here to conduct a research survey on the Topic: " Factors Affecting timely delivery of projects performance: The case of 40/60 housing project in Addis Ababa".

This Questionnaire is designed in two parts. Part one is designed to collect general information and Part two is designed to find out the factors affecting housing projects performance. I kindly request you to respond to all questions and be assured that there is no right or wrong answer. Your honest and full response is invaluable for the success and accuracy of this Study. I am very grateful for taking your time and I like to assure you that your response will be kept confidential and will only be used for this Research purpose.

Thank you in advance,

Part I: General Information

In answering this part of the Questionnaire, please use a tick(x) mark in the respective box provided.

Gender	Male	
	Female	
Age Group	18-29	
	30-39	
	40-49	
	50 and above	
	Certificate and below	

Academic Qualification	Diploma	
	Bachelor degree	
	Masters and above	
Job Description	Salesperson	
	Clerical staff	
	Line Manager	
	Department head manager	
Service Year	2- 5 Years	
	Above 5 Years	

Part II

Please Put "X" on the alternative of your choice, the numbers below are identified with their respective equivalent meaning to ease the questionnaire for each respondent.

1= Strongly Disagree 2= Disagree 3= Neutral 4= Agree 5= Strongly Agree

	Cost overruns	**5**	**4**	**3**	**2**	**1**
1	The cost of imported supplies and equipment for the project has risen due to currency devaluation.					
2	Currency devaluation has diminished the purchasing power of the funding source for the project.					
3	Currency devaluation has increased the risk of inflation and fluctuating exchange rates for the project.					
4	Currency devaluation has made estimating and controlling the cost and time of the project challenging.					
5	Currency devaluation has affected the profitability and market competitiveness of the project.					

	Delayed payments	**5**	**4**	**3**	**2**	**1**
1	Currency devaluation has increased the risk of delayed payments from the customers.					
2	Currency devaluation has reduced the profitability of the business due to the higher costs of imported goods and services.					
3	Currency devaluation has made it more difficult to access credit from banks and other financial institutions.					
4	Currency devaluation has negatively affected the cash flow and liquidity of the business.					
5	Currency devaluation has forced to reduce the staff, production, or investment plans.					

	Reduced project budget	**5**	**4**	**3**	**2**	**1**
1	Currency devaluation has negatively affected the quality of our project deliverables.					
2	Currency devaluation has increased the difficulty of managing our project resources.					
3	Currency devaluation has reduced our project scope and objectives.					
4	Currency devaluation has lowered our project team's morale and motivation.					
5	Currency devaluation has created more uncertainty and risk for our project outcomes.					

	Rescheduling procurements	5	4	3	2	1
1	Currency devaluation has negatively affected the ability to procure goods and services in a timely manner.					
2	Currency devaluation has increased the risk of contract breaches and disputes with suppliers.					
3	Currency devaluation has forced to revise the procurement plans and budgets more frequently.					
4	Currency devaluation has reduced the quality and quantity of goods and services I can procure.					
5	Currency devaluation has created opportunities for more competitive and diversified procurement options.					

	Change in Project Scope	5	4	3	2	1
1	Currency devaluation has increased the frequency of changes in project scope.					
2	Currency devaluation has increased the magnitude of changes in project scope.					
3	Currency devaluation has increased the difficulty of managing changes in project scope.					
4	Currency devaluation has increased the risk of project failure due to changes in project scope.					
5	Currency devaluation has increased the need for effective communication with stakeholders about changes in project scope.					

	Project Time Delay	5	4	3	2	1
1	Project time delays have negatively affected performance of the project.					
2	Project time delays have increased the pressure on completion of the project.					
3	Project time delays have reduced the satisfaction of the client with the project's performance.					
4	Project time delays have caused conflicts with stakeholders of the project.					
5	Project time delays have damaged the reputation with clients.					

Thank You Very Much for Your Time and Cooperation!!