

# **Assessing Project Cost Planning in the Construction Industry**

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## **Abstract**

Some of the factors that contribute to project failure include poor cost planning and inaccurate initial cost estimation. The purpose of this research was to identify factors in the construction industry that affect construction projects' ability to meet budgeted costs and to make recommendations for meeting budget cost criteria. In this study, the survey research strategy was used. According to the research findings, the main challenges that caused construction projects to fail to meet their budgeted costs were project scope changes, project design changes, unexpected site conditions, pre-tender cost underestimation, insufficient resources due to a lack of capital, and poor site management and supervision. To overcome these obstacles, some strategies for ensuring compliance with budgeted costs were identified. Cost control strategies included, among others, acting when deviations occurred during the implementation stage, ensuring accurate project cost estimation, regular cost checking against the planned budget, and regular cost reporting to stakeholders as the project progressed. The study recommended, among other things, that all changes to the project scope go through the approved change request process, and that if there is a change, all other project elements such as cost, time, and quality must be amended to reflect the change to ensure that the change is within the allocated project budget.

## **Keywords**

Cost overrun, Construction, Project management, Project cost, Project planning, Budgeted costs

## **1. Introduction**

Modern societies create value by building assets that are used for social and economic purposes, such as factories, schools, hospitals, office buildings, and highways. These assets are built through construction projects (Conradie et al. 2016). Through project management, the construction industry provides economic and social infrastructure such as residential spaces, roads, airports, electricity, and communication facilities (Ibrahim et al. 2010). A project is a short-term attempt to create a unique product or service or to achieve a specific result (Shinde and Mata 2016). Each project has a formulated purpose to address a unique problem or to develop a unique idea (Van-Rijn 2016). Using the project, the construction industry positively impacts national economic growth and employment creation (Berk and Bicen 2018). El-adaway et al. (2020) investigated the relationship between Chinese building investment and gross domestic product (GDP). They discovered that, while economic growth had a long-term effect on construction spending, construction investment had a significant short-term impact on economic growth.

By 2030, global construction output is predicted to increase by 85 per cent to \$15.5 trillion (Jawad and Ledwith 2021). According to Shinde and Mata (2016), the construction sector is crucial to both global and national economies, since it offers a wide range of employment opportunities to the population. South Africa is currently faced with a crisis, as it has one of the world's highest rates of youth unemployment (Von Solms and Nel 2017). The construction industry employs many unskilled workers and therefore, it is the sector which increases the employment rate fastest (Berk and Bicen 2018). A study conducted in 2019 indicated that the construction industry in the United Kingdom (UK) accounted for about 10% of the total employment (Fulford 2019). In many developing countries, the construction industry makes an estimated contribution of between 6% and 9% to the gross domestic product (GDP) (Pooe and Pillay, 2019). GDP refers to the goods and services produced by the national economy, excluding the value of the goods and services used up in production (Killingsworth et al. 2020).

In South Africa, the construction industry contributed about 8% of formal employment and about 9.6% of the GDP between 2008 and 2016 (Pooe and Pillay 2019). However, research conducted by Fungo et al. (2017), argued that, despite the importance of infrastructure for African countries' economic growth, infrastructure investments such as transportation, power and telecommunications accounted for only 2-3% of the GDP. In 2017, the construction industry contributed 8% to the GDP in India (Ingle et al. 2020). In European countries, the volume of construction for the GDP was 10% in 1980 and 7% in 2004 (Berk and Bicen 2018). In China, infrastructure investment accounted for 7.78% of the GDP on average between 1996 and 2005 (Fungo et al. 2017).

Construction is dominated by small and medium enterprises (SMEs) which are estimated to account for about 97% of all construction companies throughout the European Union (EU) (Gledson and Phoenix 2017). SMEs contribute significantly to corporate structure and employment and play an important role in the Portuguese economy (Forte and Sá 2020). The majority of Australian construction firms (97.8%) are categorised as SMEs. They account for 70% of Australia's labour force and contribute 44.6% of the total market value (Hong et al. 2019). Although the global construction industry generates more than \$3.9 trillion annually, it has the highest yearly rate of business failures when compared to other sectors (Mahamid 2013).

### **1.1 Objectives**

This research aims to accomplish the following goals: to identify the challenges affecting project management in the construction sector in order to meet project cost planning requirements; and to provide strategies that could be used in the construction sector to optimize cost planning requirements.

## **2. Project Management in the Construction Industry**

A project is a brief endeavour undertaken to provide a unique commodity, service or result (Shinde and Mata 2016). Dealing with projects in an organisation may be done methodically with the help of project management (Fraser-Arnott 2018). Project management has clear lines of authority which make it easy to manage projects effectively (Ovadia 2018). The complexity of large-scale construction projects, as well as the size of the global construction market, are growing at a high rate, requiring the development of effective and dependable project managers, as well as their management counterparts (Owusu-Manu et al. 2020).

A project is viewed as a temporary network within an ongoing network of the organisation (Fulford 2019). Every project is unique and conceived with a specific objective in mind (Putlitz 2019), and has a defined start and end (Shinde and Mata 2016). The project's end is reached when its objectives are reached or when it is terminated with the conclusion that its objectives cannot be met or when its need no longer exists (Shinde and Mata 2016).

Construction is vital for building the necessary infrastructure in both developed and developing nations to enable economic growth and social fairness (Owusu-Manu et al. 2020). Maluleke (2018) adds that the construction industry accounts for a large proportion of the economy in developing countries. This sector contributes 80% of the total equity assets, 10% of the gross domestic product (GDP) and more than 50% of employment opportunities in developing countries (Owusu-Manu et al. 2020). World construction investment accounts for roughly 10% of the global economy (Maluleke 2018). The industry is exposed to high-risk conditions that affect projects and require the use of structured procedures to achieve project goals and ensure profitability (Owusu-Manu et al. 2020). The main problems in developing countries include socioeconomic stress, lasting resource shortages, structural failures, and a general inability to deal with issues direct (Owusu-Manu et al. 2020). Other challenges in the sector include no performance liability; low-fixed capital requirements; unstable weather; seasonal effects; unstable ground conditions; cost overruns; and government interference in project delays (Owusu-Manu et al. 2020).

The project lifecycle consists of four stages that form part of effective project management (Camp et al. 2018). The four stages of project management that make up the project lifecycle are initiation, planning, monitoring and controlling, implementation, and termination (Camp et al. 2018). The client must be involved throughout the project lifecycle regardless of the project's complexity (Putlitz 2019).

### **2.2 Economic Impact of the Construction Industry**

Construction creates the physical environment in which most other economic activities take place, and it is an important industry in every country's economy, regardless of its level of development (Ilhan and Yobas 2019). Construction is a broad term that covers a variety of economic activities, including building construction, civil

engineering and specialised construction, according to the United Kingdom’s (UK’s) standard industrial classification of economic activities (Gledson and Phoenix 2017). The operations of small and medium-sized enterprises (SMEs) engaged in the construction industry are seen to be especially visible (Gledson and Phoenix 2017). In the United Kingdom, a small business has fewer than 49 workers, whereas a medium-sized business has more than 249 employees.

Construction is dominated by SMEs which account for roughly 97% of all construction firms in the EU, according to estimates (Gledson and Phoenix 2017). In 2015, there were 273 775 construction-related firms in the UK, with 65 443 of these being registered contractors in the industry (Gledson and Phoenix 2017). Approximately 2.93 million people are employed by these businesses. There is a wide range of traits and characteristics among companies. Size and organisational maturity are two characteristics that might influence innovation practices in a firm (Gledson and Phoenix 2017). SMEs play a vital role in the global economy. According to the Organisation for Economic Cooperation and Development (OECD), SMEs account for 99% of all companies in OECD nations, they account for 50–60% of all value generated and they have been the primary sources of employment growth since the financial crisis of 2008 (Forte and Sá 2020). In 2013, 99.9% of the businesses were classified as micro, small or medium-sized (Forte and Sá 2020).

### **2.3 The Causes of Poor Project Cost Planning Leading to Cost Overrun**

The primary purpose of project management is to complete any project on time, on budget and within the scope of the project (Adaku and Asiedu 2020). The project management’s success or failure criteria (cost, time and quality) are typically referred to as an iron triangle (Adaku and Asiedu 2020). If project costs exceed the budget, the financing profile will no longer fit the budget requirements, causing significant schedule slippage (El-Maaty et al. 2017). The actual outcome of costs, calculated as a ratio of expected expenses, is known as cost overrun (Adaku and Asiedu 2020). Cost overrun also refers to the situation in which the final cost at the end of the project exceeds the original price of the contract (El-Maaty et al. 2017). The inability of the construction industry to complete a project on budget is the main cause of customer dissatisfaction (Niazi and Painting 2017). Cost overruns may arise for a variety of reasons, causing issues on different projects (El-Maaty et al. 2017). Lack of productivity, cost overruns and client unhappiness are examples of such issues. These concerns have a significant impact on the country’s economic growth and slow down direct foreign investment in the construction industry (Niazia and Painting 2017).

Various studies have been carried out across the world to determine the reasons for cost overruns in highway construction projects (El-Maaty et al. 2017). Cost overruns in construction are big issues, with nine out of ten projects experiencing cost overruns. Furthermore, cost overruns might be up to 183% more than the expected budget (Niazi and Painting 2017). Cost overruns are a global issue, but they are especially difficult in underdeveloped countries (Niazi and Painting 2017). According to research on construction projects conducted in the UK, cost overruns were caused by poor project management, unexpected terrain conditions, design and development challenges, a lack of information, flaws in design schematics, insufficient estimation techniques, the performance of the design team, construction schedules, claims, commercial pressures, purchase routes, external factors and people (El-Maaty et al. 2017).

Construction project cost overruns may also be due to poor estimates of project costs and uncertain environmental factors during project implementation (Famiyeh et al. 2017). The payment problem at the top of the hierarchy has a serious ripple effect on the cash flow problems along the entire chain. The impact of time overruns includes cost overruns, early termination of projects by clients, lawsuits and arbitration lawsuits (Famiyeh et al. 2017). A study of 31 construction projects in Indonesia showed that the main reasons for cost overruns were “an inaccurate take-off of materials, increased material costs and increased costs due to environmental restrictions” (Famiyeh et al. 2017). Table 1 lists the factors that contribute to cost overruns in construction projects as well as the consequences of poor project cost planning.

Table 1. Factors resulting in the cost overrun

<b>Factor</b>	<b>Description</b>	<b>References</b>
Design and scope changes	Any alteration to the project scope or pressure to deliver content that exceeds what the customer and vendor originally agreed to	Ebrahim et al. (2017) Khabisi (2013) Komal et al. (2020)

<b>Factor</b>	<b>Description</b>	<b>References</b>
Unexpected site conditions	Consider the transfer or relocation of physical land, access, topography, infrastructure and public services.	Amarasekara et al. (2018) Famiyeh et al. (2017) Khabisi (2013) Towey (2013)
Pre-tender cost underestimation	Cost underestimation occurs when the cost of a project is estimated lower than what it turns out to be after project execution.	Awosina et al.(2018) El-Maaty et al. (2017) Famiyeh et al. (2017)
Insufficient resources due to contractor/lack of capital	Misallocation of scarce resources, resulting in a loss to those who have funded the project and a negative impact on the ultimate users of the project	Awosina et al. (2018) Mpofu et al. (2017) Towey (2013)
Poor site management and supervision	The site management team resolves managerial and technical issues on the construction site using meetings and observations. Site management teams should be ready to deal with problems and hazards on-site in a systematic and efficient manner.	El-Maaty et al. (2017) Famiyeh et al. (2017) Khabisi (2013) Mohamed and Anumba (2006)

## **2.4 Strategies to Optimize Project Cost Planning to Meet Project Budget Requirements**

There are different strategies that construction companies may employ to plan their cost-effectively in order to achieve budget commitment. Cost estimation, tendering and cost control procedures are among the formal costing methods recommended by researchers for UK contractors (Robson et al. 2016). Different authors have different views to ensure accurate cost planning. Minimising cost overrun is a significant step that construction companies should take to attempt to meet planned project costs. This may be achieved by ensuring that the actual project cost does not exceed the cost limit (Towey 2013). The cost limit is the total cost target for all project elements (Towey 2013). The study by Mulenga (2014) identified different measures that might be used to minimise cost overrun in Malaysia as effective scheduling and strategic planning, effective site supervision and management, regular progress updates and transparent platforms for information and communication, and emphasis on the experience of the project team. There are various strategies that construction companies can use to effectively plan their costs in order to meet budget commitments. As shown in Table 2, different authors have different perspectives on how to ensure accurate cost planning.

Table 2. Strategies to Optimize Project Cost Planning

<b>Optimisation Strategy</b>	<b>Description</b>	<b>References</b>
Project cost control	Cost control consists of the conversations, actions and responses to cost deviations that occur during the project implementation stage to maintain project cost in accordance with the client's financial plan.	Adebowale et al. (2020) Adjei (2020) Towey (2013)
Project cost estimation	The process of predicting and forecasting the time, cost and other resources required to complete a project to meet the project goals	Adebowale et al. (2020) Adjei (2020), Al-Janabi et al. (2020)
Cost checking	Cost checking is used to ensure that the final budgeted cost matches the initial estimated cost. If cost errors are not found early, they may be carried forward to a later stage of cost checking.	Adjei (2020) Towey (2013)
Cost reporting	The concept assists in guaranteeing that the project cost guidance is kept up to date to enable users of budget and performance data, and to deliver cost data that satisfies the needs of financial data users.	Adjei (2020)
Cost planning	The cost planning process starts with the creation of a rough estimate, followed by the establishment of cost objectives for each aspect. A cost plan is used in the construction industry to keep track of projected costs during the design and construction phases of a project.	Adjei (2020) Khabisi (2013) Kissi et al. (2016)
Project cost budgeting	Budgeting refers to the maximum finances agreed upon and authorised by management or members of the construction team for the execution of the project.	Khabisi (2013)
Cost performance	In the construction business, it is critical to keep track of the project cost performance to guarantee that the construction costs stay within budget.	Khabisi (2013)

### 3.Methods

This section describes the research methodology used to carry out the research. The methodology is defined as an explanation of why data is gathered, what data is gathered, where it is gathered, when it is gathered, how it is gathered and how it is analysed (Ndou 2009). This section also provides an outline of how the research was carried out, based on the research onion guide used by Saunders and Tosey (2013), as shown in Figure 1 below.

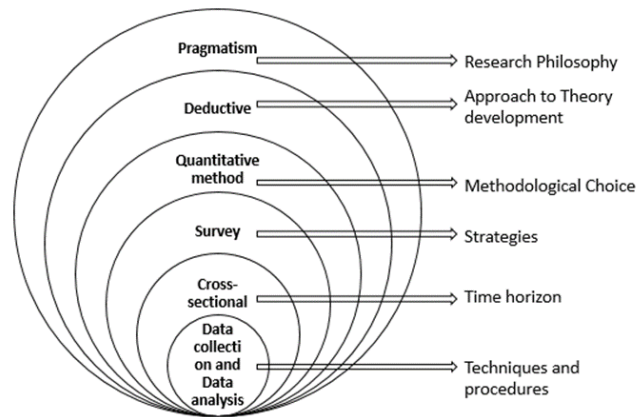


Figure 1. Research onion (Saunders and Tosey 2013)

The goal of this study was to identify the issues that lead to poor cost planning in the construction industry and to propose solutions to the problem. As a result, pragmatism was the appropriate philosophical stance for this study because research questions needed to be addressed. The deduction is the process of progressing from the general to the specific such as beginning with a theory, deriving hypotheses from it, testing those hypotheses, and finally updating the theory (Woiceshyn and Daellenbach 2018). The research applied a deductive approach by “basing analysis on pre-existing theory” (Azungah 2018). The deductive technique is well-suited for this research because of its advantage of analysing prior studies and past occurrences. Assessing project cost planning in the construction industry requires knowledge from previous studies before developing new knowledge and recommending new practices to overcome the problem (Nwadigo et al. 2021).

Data may be collected with the aid of different methods which include qualitative, quantitative and mixed methods. Quantitative data consists of numeric data and qualitative data is non-numeric data such as words and images (Saunders et al. 2016). The mixed method combines qualitative and quantitative research methods (Saunders et al. 2016). The quantitative research method was used for this study; it entails test groups with all participants being of the same nature and all answering a series of questions to establish a trend or pattern (Adams 2018). The research strategy consists of a general plan for answering the research questions (Saunders et al. 2016). The description of this layer emphasises the fact that researchers might utilise one or more strategies in their research design to answer a research question or address a research problem (Saunders and Tosey 2013).

In this study, the survey research strategy was used. Survey research is widely used, and it is critical for both field and individual researchers to follow criteria in order to obtain relevant insights (Hulland et al. 2017). The time horizon is another aspect of research design that defines the time frame for the research (Melnikovas 2018). Cross-sectional and longitudinal timeframes are the two types of time horizons used in research. Cross-sectional horizons collect data only once to answer a research question, whereas longitudinal studies investigate a phenomenon at multiple points in time to answer the research question (Mdontsane 2017). Thus, in order to save the time required for a longitudinal study, it was decided that this research would use a cross-sectional method because the study's goal was to collect reliable data that could be used to draw solid conclusions and generate new knowledge that could be investigated further (Zangirolami-Raimundo et al. 2018).

#### 4. Data Collection

The systematic process of acquiring and measuring information on variables of interest to answer research questions, test hypotheses and evaluate outcomes is known as “data collection” (Kabir 2016). Individuals were the primary source of data for this research which was obtained through a survey. The current research used a questionnaire which was configured using the electronic platform that is Google forms. The link to the survey was sent out to reputable organisations to distribute to their network. These organisations include universities, the Project Management Institute (PMI) and the Engineering Council of South Africa (ECSA). To ensure that there is no bias in the data collection process, the survey was configured in such a way that participants’ IP addresses were not collected or any information that would make the researcher identify participants.

The questionnaire included three sections (Table 3). The first section was the demographic information which was meant to assess the characteristics of the respondent. The second question was designed to answer the first research question which is: What are the challenges impacting the effective cost planning to meet project budget in the construction industry? The third question was designed to answer research question two that is: How can the construction industry optimize cost planning to meet budgeted project costs?

Table 3. Questionnaire design table

Research Question	Measurement
Demographic Information	Self-reported Age, Qualification and experience
What are the challenges impacting effective cost planning to meet project budgets in the construction industry?	<ol style="list-style-type: none"> <li>1. Design and scope changes</li> <li>2. Unexpected site conditions</li> <li>3. Pre-tender cost underestimation</li> <li>4. Insufficient resources due to contractor/lack of capital</li> <li>5. Poor site management and supervision</li> </ol>
How can the construction industry optimize cost planning to meet budgeted project costs	<ol style="list-style-type: none"> <li>1. Project cost control</li> <li>2. Project cost estimation</li> <li>3. Cost checking</li> <li>4. Cost reporting</li> <li>5. Cost planning</li> <li>6. Project cost budgeting</li> <li>7. Cost performance</li> </ol>

#### 5. Results

##### 5.1 Demographic Information

The majority of respondents (70%) have a four-year degree, and only 12% have matric (Table 4). Eight per cent (8%) of respondents have national diplomas, 6% have three-year degrees and 4% have master's degrees or equivalent qualifications. The respondents’ work experience ranges from zero to 21 years. The majority of respondents (42%) have 1-5 years of work experience, while 40% have less than one year.

Table 4. Demographic Information (N=50)

Items	Frequency	Percentage	Cumulative percentage
<i>What is your highest qualification?</i>			
Grade less than matric	0	0	0
Matric	6	12	12
National Diploma	4	8	20
3-year degree	3	6	26
4-year degree e.g., BSc Hons, B-Tech, etc.	35	70	96
Master's degree or equivalent	2	4	100
Ph.D. or equivalent	0	0	100
<b>Total</b>	<b>50</b>	<b>100%</b>	
<i>How many years of experience do you have in the construction industry?</i>			
Less than 1 year	20	40	40
1-5 years	21	42	82

Items	Frequency	Percentage	Cumulative percentage
6-10 years	5	10	92
11-15 years	2	4	96
16-20 years	1	2	98
21-25 years	1	2	100
More than 25 years	0	0	100
<b>Total</b>	<b>50</b>	<b>100</b>	

### 5.1 Challenges Impacting Project Management in the Construction Sector to Meet the Project Cost Planning Requirements

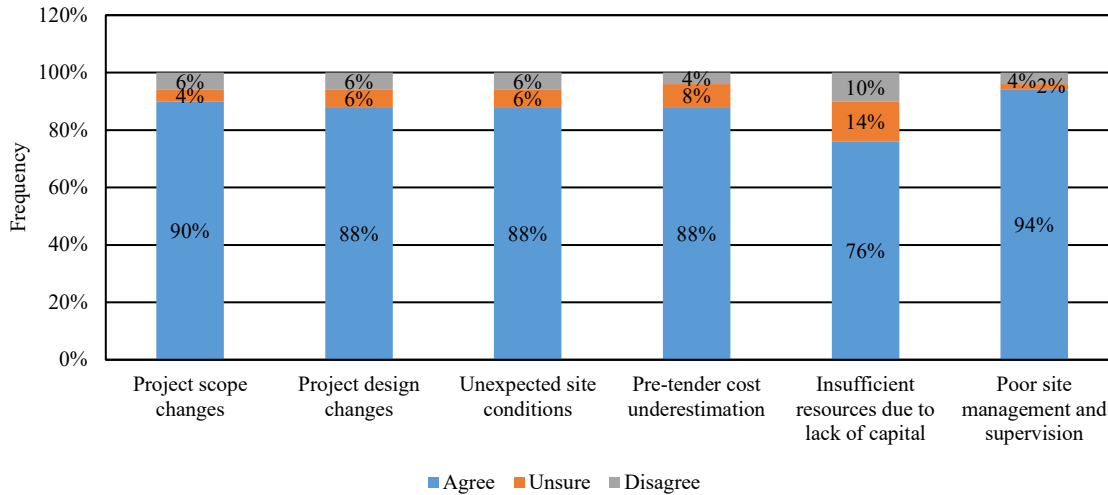


Figure 2. Challenges that cause construction projects to exceed the budget

Most respondents (90%) agreed that scope changes caused construction projects to exceed their budgeted costs (Figure 2). Scope changes were one of the major factors that resulted in cost overruns in the construction sector (Adebowale et al. 2020). A total of 6% of the respondents disagreed that scope changes could cause construction projects to exceed their budgeted costs. The rest of the respondents (4%) did not fully understand the question and decided to select “Unsure” for this question or they decided to reserve their opinions.

Project design changes, unexpected site conditions and pre-tender underestimation each had 88% of the respondents agreeing to these as factors of cost overrun in the construction projects. The majority of respondents (76%) agreed that insufficient resources due to lack of capital also influenced project cost overruns. Poor site management and supervision had the highest percentage of respondents (94%) agreeing that this was another factor causing project cost overrun. Mulenga (2014) stated that poor site management was the main cause of construction project overruns.

### 5.2 Results: Strategies to Optimize Project Cost Planning

Towey (2013) suggested that the cost control method should be used to alert the design team of the budget changes before advancing the design further. Figure 3 represents the strategies identified to optimise project cost planning. The majority of the respondents (98%) agreed that to maintain project budget control, it was important to implement cost control by acting when deviations occurred during the implementation stage. Other respondents (2%) chose to reserve their comments by selecting “Unsure”. None of the respondents disagreed with the statement.

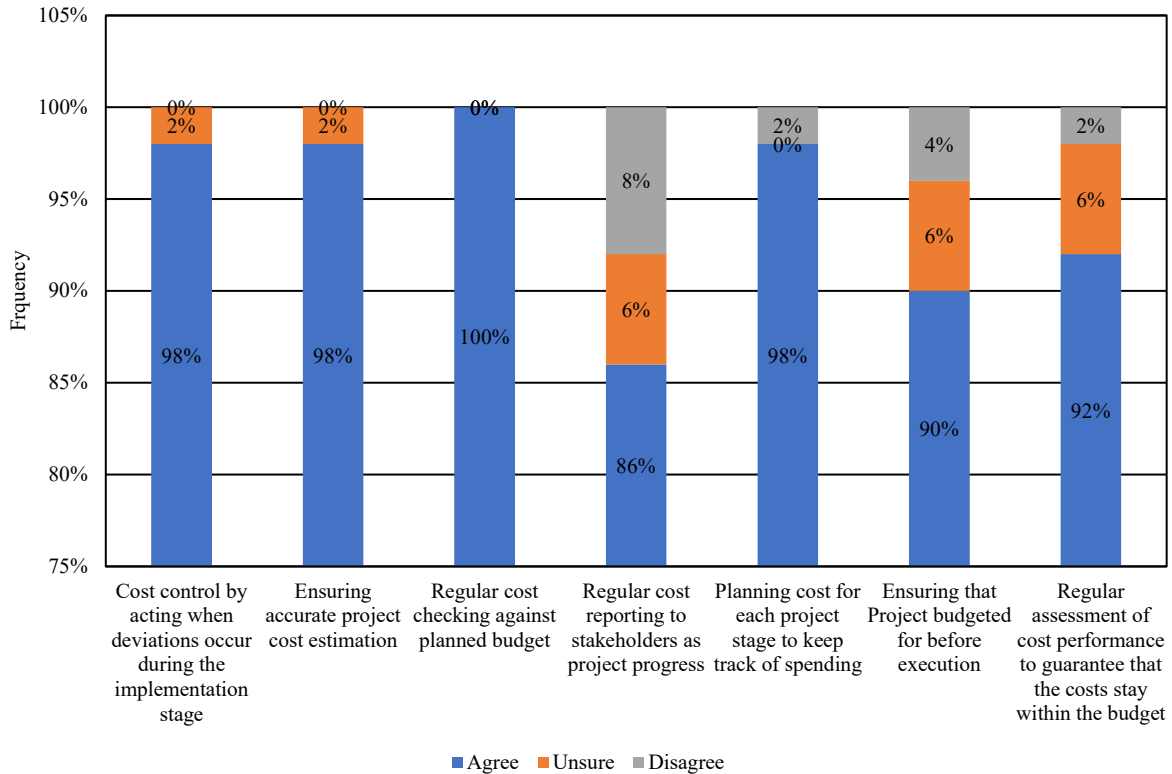


Figure 3. Strategies to optimize project cost planning

The majority of the respondents (98%) agreed that ensuring accurate project cost estimation could help with project budget control. Project managers should keep track of the project cost and ensure it remains within budget (Ebrahim et al. 2017). Hence, 100% of the respondents agreed to regular cost-checking against the planned budget, while 86% agreed to regular cost reporting to stakeholders as the project progressed. Ninety-eight per cent (98%) of the respondents agreed that planning costs for each project stage to keep track of spending could help with budget control, while 90% of the respondents agreed that one had to ensure that a project was budgeted for prior to execution. Regular assessment of cost performance to guarantee that the cost stayed within the budget was agreed to by 92% of the respondents.

### 5.3 Proposed Improvements

Ovadia (2018) stated that according to the *Project Management Body of Knowledge (PMBOK)* project scope management needs to fulfil the checklist of project objectives, deliverables, milestones, technical requirements, limits and exclusions, as well as reviews with the customer. Therefore, it is recommended that the scope checklist be compiled and signed off by all the project stakeholders. Furthermore, all the changes on the project scope must go through the approved change request process and if there is a change, all other project elements such as cost, time and quality need to be amended to reflect the change to ensure that the change is in line with the allocated project budget.

Unexpected site conditions were one of the highlighted problems that cause construction projects to exceed the project budgeted cost. This research recommends that a thorough site investigation by a qualified professional should be conducted before bidding. This will ensure that the contractor incorporates all the additional costs in the quotations to solve any identified problems. In addition, a clause should be included in the contracting agreement, ensuring that the client carries any additional costs which may arise because of site conditions of which the contractor was not aware when quoting for the project. This will eliminate project cost overruns due to unexpected site conditions and improve the project success rate within the allocated budget.



Inaccurate cost estimation results in harming the construction companies' reputation and causing financial loss and cost overruns. In addition, it results in claims or lawsuits and ultimately, project failure (Adebowale et al. 2020). According to Awosani et al. (2018), the inadequacy of cost performance on construction projects should be fine-tuned by acquiring information and skills, as well as increasing the estimator's estimating technique when considering modern technologies. Therefore, it is recommended that construction companies invest in hiring experienced personnel in project cost estimation and empower them with relevant education and technologies to close the gap in their knowledge base if needed. Previous similar successful project budgets should be used as a reference to cover all details to consider when quoting a project.

Project managers use their expert skills to plan and execute construction projects on-site, monitor construction operations, control work to ensure that it follows the plan and complete the project on schedule and within budget (Besseling 2018). Therefore, it is recommended that qualified and experienced project managers be appointed to manage the construction projects to ensure compliance with the project requirements and alignment between the allocated project budget and progress to avoid cost overruns. Project planning includes determining the required project resources and allocating them (Van Rijn 2016). Failure to plan adequately reduces the probability of the successful implementation of a project. It is, therefore, recommended that more time be spent on the planning phase with total stakeholder participation in the process to ensure the implementation stage runs smoothly and with a high probability of project success.

#### **5.4 Validation**

The level of systematic or built-in accuracy in a questionnaire is referred to as "validity" (Bolarinwa 2017). Validity can also be defined as the extent to which a concept is correctly quantified in quantitative research and the accuracy with which the research conclusions reflect the data (Noble and Smith 2015). For this study, the validity of the questionnaire was confirmed using face validity. The research supervisors reviewed the questionnaire based on expert judgment before the implementation of the survey was carried out. To assess the reliability of research results, researchers need to assess the integrity of the study in terms of the application and suitability of the methods performed and the integrity of the conclusions (Noble and Smith 2015). To ensure reliability compliance, this research employed Cronbach's alpha to measure internal consistency. According to Makhanya et al. (2020), the internal consistency of a Cronbach's alpha coefficient of 0.7 and higher is considered satisfactory.

#### **6. Conclusion**

This study aimed to identify the challenges in the construction sector impacting construction projects to meet their budgeted cost and to provide strategies that could be used to meet budget cost requirements. The research was conducted, using the survey method through the publishing of the survey link on the Google Forms platform. The researcher found that project scope changes, project design changes, unexpected site conditions, pre-tender cost underestimation, insufficient resources due to lack of capital, as well as poor site management and supervision were the main challenges that caused the construction sector to not meet the project budgeted costs. To overcome these challenges, the study identified cost control by acting when deviations occurred during the implementation stage, ensuring accurate project cost estimations, regular cost checking against the planned budget, regular cost reporting to stakeholders as the project progressed, planning costs for each project stage to keep track of spending, ensuring that a project was budgeted for prior to execution, regularly assessing cost performance to guarantee that the costs stayed within the budget as strategies which might be used in the construction sector to meet budget cost requirements. The respondents further mentioned risk management, cost management, project planning, accurate cost estimation, project scheduling, scope management, project management education, site management, progress monitoring, budget assessment, skilled project team and cost control as other strategies which they had used in their line of work to meet budget cost requirements.

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