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# **Research Article**

# COST MANAGEMENT STRATEGIES IN CONSTRUCTION MANAGEMENT IN LAGOS

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## ABSTRACT

Accomplishing project completion within the estimated cost is key standards for progress of any undertaking. Thus cost and control is vital thought for guaranteeing cost execution. Different cost management strategies can be applied all through the undertaking life cycle to avoid over run of cost. This study is centred on evaluating project cost execution and level of adequacy of different cost management strategies carried out in Lagos, Nigeria. Best methodologies of cost management embraced in development projects were cash flow forecasting, tender budgeting/estimating and cost plan. Cost management incorporates the cycles expected to guarantee that the undertaking is finished inside the endorsed spending plan. There are three key components in cost management. The expense the board incorporates the cycles associated with cost assessing, cost planning and cost controlling expenses so the undertaking can be finished inside the supported financial plan.

Keywords: Construction management, Cost management strategies.

# INTRODUCTION

As indicated by BS6079 Guide to project Management, (Lester, 2017) A project can be expressed as a novel arrangement of facilitated exercises with clear beginning and completing places, attempted by an individual or association to meet explicit goals inside characterized timetable, cost and execution boundaries (Lester, 2017) Construction management can be characterized as the most common way of controlling accomplishment of the task goals. The capability of a task the executives is to characterize the prerequisites of work, augmentations, Project assignment, arranging the execution of work, progress checking and changing the deviations from the arrangement. Cost means expenses incurred by contractor for labour, material, services, utilities etc. Cost management is the process by which cost (expenses) incurred on a project are formally identified, approved and paid (Vasista, 2017) Cost management is one of significant parts of venture the executives and significant instrument to control and work on cost execution of task? Project cost management helps in keeping the undertaking inside its characterized spending plan. Unfortunate expense the board frequently bring about cost overwhelm of task. Cost management is a vital interaction that anxieties the improvement of proficiency and centre's around the client and on benefit. It is "a theory", "a mentality" and "a bunch of procedures" to make more worth at lower cost. Cost Management addresses the issue of both exact expenses and other important data for decision making. Organization in pursuing the ideal choices to get to the next level project execution. Cost management ought to be intently adjusted to make part of corporate development systems; as the challenge isn't simply to bring down expenses of tasks yet in addition to "out contribute" contenders on development. There fundamental standards for accomplishing compelling expense the executives incorporate the setting development targets, fitting

expense decrease targets, select expense cutting and worked on hierarchical abilities. Consequently, viable expense the executives is vital to figure out cost structure and breaking down the costs moving through that construction Notwithstanding, cost management in development industry is less compelling and the majority of ventures neglect to accomplish fruitful task fulfillment bringing about huge measure of cost invade. Consequently, this study zeroed in on evaluating cost management strategies in development projects. While the aim of this journal is to exam construction management strategies in Lagos, Nigeria, the objectives expressly proclaim the extent of the exploration to cost management strategies in construction management through qualitative data analysis.

# LITERATURE REVIEW

Cost is the major and most huge thought all through the existence pattern of undertaking. Subsequently, it is vital to keep cost control and the executives from the very outset of the project as absence of cost management prompts bed overwhelm of projects. Figure 1 shows cost management processes. It demonstrates that cost assessing processes utilizes data from existing expense information base, agreements, plan and creation plans. The data created by the expense the board framework upholds the plan and creation, arranging and control processes and ought to be utilized to refresh the expense data set. Comparably to creation arranging and control, cost arranging and control is a repetitive interaction. It utilizes data from the cost evaluating and construction management cycles to give input to the expense information base that is destined to be utilized in future undertaking. As design, construction and contract are dynamic, thus cost management frameworks should be favourable, dynamic and adaptable to assimilate changes that might happen. Cost designing and amount reviewing envelop a wide assortment of cost the executives capabilities zeroing in on giving free, even handed, exact, dependable capital and working expense appraisals usable for speculation financing and task control.

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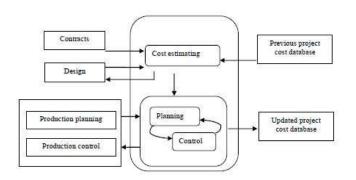


Figure 1: Cost Management Process (2017)

# Cost Management strategies in Lagos state

## **Construction Cost Management**

Basic Principle. \* the basic principle of project cost management is to control the relationship between construction project investment, progress, and cost. This is done primarily through the collection and sorting of various information in the project. On this basis, corresponding technical tools are used to analyse and deal with construction design changes or other related expenses.

Following the principle of "separation of quantity and price" in this procedure entails gathering all data generated during the actual building stage into a single data source. Investment estimating involves calculating the entire cost of building projects based on their features and the terms of their contracts using rational and scientific approaches. It contains. The Cost Management strategies to deal with cost management challenges occurring during the delivery of construction project. Challenges and strategies are referred below:

- Adhere to the market orientation; information is gathered, processed, and conclusions are formed after analysis; the whole construction project is taken into account, including all design, construction, and completion stages
- Based on the assumption of safety, the investment is minimized to the greatest extent possible in order to realize the goals of economic prudence and socially harmonious development, and the characteristics of technical feasibility and maximizing cost investment benefits are taken into account in order to realize overall control and optimal allocation of construction projects.
- 3. In order to offer, we should utilize modern resources to the fullest extent feasible, increase productivity, cut costs overall, and maximize the use of limited resources.(Chen, 2022.)

## Project resource planning:

Project resource planning is distinguishing every one of the Projects expected to execute a task improvement cycle and take it to the end. These Projects can be individuals chipping away at the task advancement process, like the project workers or their representatives, and the gear like the specific hardware accessible in restricted supply, enormous development vehicles, and foundation. The following are a couple of things you ought to remember while playing out the undertaking Project resource planning.

• You want to think about each of the authentic information that you have put away from the past ventures in general, similar to, the work and the previous timetables that the group had while dealing with different undertakings.

You want to take criticism from SMEs and all of the colleagues related with the task cost management process since this kind of cooperative methodology functions admirably in projects that don't have the previous information or data to utilize Although this step ought to be toward the beginning, project supervisors need to represent all of the ground real factors related with the task from the start so there are no issues in regards to cash coming down the line for the task improvement process and the expense the board cycle

## **Cost Estimation:**

Cost estimation is the most common way of evaluating each of the expenses related with the assets expected to ensure that the venture advancement process is executed from begin to end. To play out every one of the expense estimations related with the expense the cost management, we will require the following data:

- Cost of each and every asset that will be related with the undertaking improvement process and the expense the cost management strategies
- The resources necessities that will be given by the process resource planning guide
- Rundown of every one of the suspicions about the cost management process
- The time span that every project is expected to work for
- Understanding into the detailing designs of the organization and the organization's generally financial wellbeing

# **Cost Budgeting**

The Cost budgeting can be seen as a feature of the expense assessment or saw as a different cycle through and through. For a specific timeframe, this cost budgeting is dispensing expenses for a specific piece of the undertaking, similar to modules or individual errands connected with the venture.(wilson, 2022) The idea of a budget describes how an organizational strategy is turned into something tangible through the distribution of financial resources. The two sides of a budget are expenditure and revenue. Businesses are required to create budgets due to the expanding complexity of the construction sector, much as budgets are needed to manage a nation's economy. The ability to carry out plans is made possible by budgets. Budgets are utilized to translate these plans and strategies into qualitative and monetary measures that serve as the firm's core goals. Firms employ the budget estimation process to choose between strategies of expansion, contraction, or preserving the statuesque. Firms employ the budget estimation process to choose between strategies of expansion, contraction, or preserving the statuesque. This procedure aids in forming the firm's policy for future course of action dependent on the state of the market. Cost management is necessary for contractors to execute any project.

## **Cost Control**

Cost control is the method involved with ascertaining each of the expense fluctuations that will occur all through the venture improvement cycle and making a move about them. In the event that there are any ups and down with respect to cash, the project manager can change the extent of work to address the hole. Cost control is accomplished by the planning and scheduling of projects utilizing various qualitative methodologies offered by the sector. These plans are logically designed to give the contractor the ability to effectively manage his resources. The management team is responsible for ensuring that tasks are completed in accordance with

the intended course of action. When adjustments are required and unavoidable, new plans are created. A monitoring system must be started in order to carry out the desired course of action.

#### **Material Cost Control**

Making ensuring that purchases don't go beyond the intended allocation of the project's allocated spending is the main goal of material costing. The building setup defines material control as including realistic design, specification, and excellent procurement as well as their packing, handling, storage, and protection after fixing, according to Ibrionke. To make it simple to identify any shortages or surpluses during project execution, the purchase of material is based on the material schedule that was already created during pre-contract planning. The common standard papers required for material monitoring and control are recovery report forms, purchase orders, and material (storage) requisition forms. Invoices, delivery notes, and guidance notes are a few more crucial papers. All of these steps are taken to guarantee sound financial management and effective material cost control. However, an unmanageable project cost has a negative impact on a construction project's viability and frequently increases investment pressure, raises construction costs, lowers investment profits, influences investment decision-making, and, most importantly, leads to disputes that impede project progress. Given this context, the need of having strong cost management systems in contracting firms cannot be overstated. In actuality, cost control should be viewed as a key management tool that is essential for a construction company's existence. Cost management is a crucial goal for every business, and as a result, it is seen as the brain of a successful contracting company.

### Subcontracts

Performance and price of subcontracts would be handled similarly to materials. For each service to be provided, separate orders would be made, and the accounting would be the same. It is crucial in this situation that the subcontractor submits his estimate fully informed of the system's ramifications and the impact of his operations on the project's duration. A subcontractor's performance should also be evaluated based on a number of particular events or milestones, and his progress payment should be linked to these control events. It is vital for all parties to work together during the contract's execution to specify and analyse variants quickly so that revisions may be made. (Oyebode, 2019)

#### **Overheads and Indirect cost:**

As much as the direct costs previously mentioned, overhead and indirect costs also contribute to the project. The cost of project services (telephone, mail office, maintenance, utilities), indirect labour (materials handling, production control, etc.), and other tasks or areas that contribute to the cost of the work packages but may be challenging to evaluate directly are examples of indirect costs. Many companies manage these expenses by adding a certain proportion to the direct cost of Allocating them pro rata (in proportion to the overall cost of the project) or as part of a work package labour order. Yet, the resources utilized by management and cost managers for planning, observing, and Project management includes, among other things.(Oyebode, 2019)

- The Gantt diagram and
- Network analysis, which consists of
- Critical path method (CPM) (CPM)
- Performance evaluation and review techniques (PERT)

#### Value Management:

Value Management is a multi-disciplinary, group orientated, organized, logical cycle and methodical examination of capability which looks for best worth through the plan and development cycle to meet the client's apparent requirements a proactive, inventive, critical thinking administration to make unequivocal the client's esteem framework. The VM methodology likewise empowers the improvement of a worth culture inside the association which facilitates the way to achieving positive change. Consequently, it can be summed up as an objective setting process that means to fulfill the client's task necessities as well as it focuses on working on the connection among esteem and the client.

### **Schedule Monitoring**

Whenever a project is evaluated to see if everything is going according to plan, data collecting in the manner described below is required to determine the kind of issues that one may experience:

- For each activity, gather data on any discrepancies between anticipated and actual start dates.
- For each activity throughout the whole project, ascertain any discrepancies between the estimated and actual completion dates.
- Any unforeseen hold-up or other irregularities that change the project's scheduled completion date.
- Any action carried out beyond the network's order
- Any goal-related task that seems impossible to complete

A number of steps may be taken to correct any condition once the aforementioned data has been gathered and analysed. For instance, one might update a schedule by re-evaluating the length of some activities, or one can rearrange or remove activities that are represented in the most recent version of his or her program chart.

#### **Benefits of Cost Management strategies**

Understanding the importance of cost management is one of the easiest things you can do in the organizational paradigm. Cost management procedures are crucial to development projects since they mean to lay out a financial plan, which is then firmly observed and controlled. By making a characterized plan and assessment process, these methodologies can assist with overseeing cost assumptions from project origin to the beginning of the task. Precise assessing and vital preparation of expenses are huge moves toward the making of an extensive expense the executives program. Cost conviction and consistency are a definitive objectives of an effective expense the board system. Month to month reports separated into costs per building or region, as well as income investigation, give essential understanding into how intently the financial plan is being followed. Through a constant survey and assessing process, there is improved visibility for workers for hire into the expense and timetable of the whole project. Risk is likewise limited through cost management methodologies. Related to the remainder of the task group, the Cost management can gauge the expense of chance all through the undertaking in view of the gamble register made by the gamble supervisory crew or venture administrator. Along these lines, an expense supervisor can evaluate and prompt on the expense in light of venture plans and previous encounters on comparable forms. (wilson, 2022).

# DISCUSSION

Generally speaking, absence of quantitative information makes it challenging for chiefs to pass judgment on the ongoing status of albeit quality based specialized execution is one of the basic achievement factors for assessing a development project achievement; there is no practical guideline for estimating such intangibles. Accordingly in this paper an Endeavour is made to quantify and dissect the quality expense towards showing the assessment of cost management strategies in Lagos state Nigeria. From the above discussion, it is clear that the research model of project is a component of project proficiency and project viability which are additionally planned and addressed as far as cost execution and agreement conditions separately to meet the venture scope and definitions. Presently it is vital to bring various sorts of cost as goal measures and such measure when get exposed to the requirements referenced in agreement conditions would show the level of task achievement. The study also provided a decentralized and interconnected financial proof of concept system that solves the deficits of cost management within the different stages of construction management.

# RECOMMENDATION

While cost performance could be gotten both impartially and abstractly by changing quality expense also into its objective counterparts, but surveying how agreement conditions impacts the undertaking a positive outcome alongside the expense execution is an ordinary report that reflects more an emotional report. In this manner it is critical to perceive how an efficient report can be directed to interlink the investigation of benchmarking and. contract conditions towards prompting project achievement. It means a lot to additional concentrate by isolating the expense execution according to the viewpoint of client and supplier to choose the ideal place of undertaking productivity.

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# REFERENCES

- Chen, S. (2022.). Construction Project Cost Management and Control System Based on Big Data. Mobile Information Systems.
- Lester, A. (2017). Project management, planning and control: managing engineering, construction and manufacturing projects to PMI, APM and BSI standards.
- Oyebode, O. J. (2019). Input of Effective Cost Control in the Management of Construction Works and Architectural Excellence in Nigeria.
- Vasista, T. G. (2017). ). Strategic cost management for construction project success: a systematic study. . Civil Engineering and Urban Planning: An International Journal (CiVEJ, 41-52.
- wilson, F. (2022, April 26). Agile project Managment. Retrieved from Everything You Need to Know About Project Cost Management in 2022.