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Optimizing Efficiency: Analyzing the Impact of Production Planning and Control on Operational Costs in the United Arab Emirates (Uae) Manufacturing Industry

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Abstract

The study set out to answer several specific questions regarding manufacturing firms' MPC system implementation, including how widespread the system is, what obstacles businesses encountered, what advantages they gained, and how the system correlated with operational performance. This investigation made use of a descriptive research strategy. Researchers in this study sought out responses from production, quality assurance, and financial departments at each of the 48 registered manufacturing firms in the United Arab Emirates. In order to gather information, questionnaires were utilized. Frequencies, means, percentages, and standard deviations were utilized as descriptive statistics. To examine the interrelationships of the research variables, inferential statistics were employed, including regression and correlation analysis. According to the research, the companies that participated in the study adopted and used various components of manufacturing planning control systems. Organizations adopted and implemented material requirement planning systems(3.83), justin-time (3.88), enterprise resource planning (3.97), and manufacturing resource planning systems to a greater extent. The study found that while MPC systems have many benefits, such as reducing stockouts and making it easy to monitor processes across departments, they also have many challenges, such as communication barriers, resistance to change, an unstable commodity market, a lack of qualified personnel, insufficient resources, long decision-making processes, late raw material deliveries, and unreliable material suppliers. According to the regression analysis, the operational performance of UAE manufacturing firms was affected by Materials Requirement Planning, Manufacturing Resource Planning, Enterprise Resource Planning, and Just-in-time systems. The research concluded that manufacturers should find alternative ways to overcome the obstacles to manufacturing planning and control system adoption and implementation. The time constraint in gathering data and attempting to meet the project submission deadline was the study's primary limitation. Although it was not the primary goal of this study, the authors did suggest doing additional research into the obstacles that businesses encounter when trying to adopt and implement manufacturing planning and controls systems. The United Arab Emirates (UAE) manufacturing firms were the focus of this study; however, the same or similar studies could be conducted for the entire country or even another country in the same industry.

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CHAPTER ONE INTRODUCTION

> Background Information

Management can accomplish the set goals with the help of production planning and control. Managing and directing a company's resources to achieve its set objectives is known as production planning and control. It facilitates the timely and highquality delivery of materials without interruption. The steps taken in preparation for the actual production process are known as production planning. Among these are the manufacturing schedule, financial batch quantities, priority dispatch, and operation sequencing.

The execution of all production plans, including starting production, sending out things, and monitoring production operations, is ensured by production control. The comprehensive scheduling of tasks, the assignment of workloads to machines and people, and the actual flow of work are all aspects of production planning and control that deal with the implementation of set out plans. Production, on the other hand, is the process of systematically turning raw materials into finished goods. A succession of actions is required for a production to be successful. Utilizing human capital, monetary funds, machinery, supplies, and man-hours efficiently is one of them.

Despite its critical importance, production planning and control faces obstacles that prevent it from functioning at peak efficiency in the industrial sector. The absence of up-to-date automation tools for precise calculations, fluctuations in the market and after-sale service, losses caused by unforeseen circumstances, manufacturing order wastage, and other similar issues all serve as formidable obstacles. An ongoing evaluation of previously established production planning and control systems can efficiently handle all of these issues. Additionally, being adaptable will assist management deal with these unforeseen circumstances by giving them the freedom to act.

An organization's demise is within reach if its planning and control processes are ineffective, since operating costs will rise. Businesses will see a dip in their profit margins if production planning and control aren't handled properly. Thomas (2020) argues that accounting for costs is an essential component of both production planning and control. When it comes to managing a company's finances and performance, cost management is a top priority. Reducing expenses while increasing output is the holy grail of production management. Still, manufacturing firms' budgets and strategies are impacted by the many changes that come with expanding their businesses. For instance, Manufacturing companies may struggle due to various factors such a misuse of materials during production. In order to overcome these obstacles, businesses must implement tight production planning and control systems.

Using the most effective systems available, manufacturing companies are devoted to providing consumers with the highest quality products possible. Manufacturing companies strive to improve their production by adopting new and emerging strategies that suit their type of business, according to Kemunto (2015). What distinguishes one company from another in the cutthroat business world is how that company handles the demands that come from both inside and outside the company (Harrington, 1995). The operations strategy of a firm is to maximize customer value, and it is in harmony with the business strategy because it guides the day-to-day activities within the firm's internal processes (Mwololo, 2015).

In order to guarantee that their end product meets the high standards needed to satisfy their customers, many companies have turned to Total Quality Management (TQM) as a management strategy. This method, as described by Kasongo and Moono (2011), is a management-led effort to increase the organization's competitiveness, effectiveness, and flexibility by involving all employees.

To ensure that the available capacity can be transformed into finished goods to fulfill both the current and future demand for products, it is crucial to plan and oversee the company's operations (Jacobs, Berry, Whybark & Vollman, 2011). Since this has a positive effect on an organization's overall performance and all competitive priorities, manufacturing firms should integrate their supply chain with their strategies for better performance (Miguel & Brito, 2011). As a subsystem of the organization, manufacturing planning and control is crucial to the effectiveness of the operations. According to Chermack (2011), a company's environment can change frequently and swiftly depending on the current economic climate. As a result, planning processes must account for this new reality, along with the complexity and uncertainty it brings. A key player in Kenya's healthcare system is the pharmaceutical industry, which includes both domestically invested manufacturers and those who import their goods, as well as wholesalers and retailers. The illegal importation of drugs lowers their quality, endangering human life (Opiyo, 2006). The consumer-patient has also become more demanding of personal autonomy and ease of use in their healthcare system as a result of environmental shifts (Murule, 2011). Businesses can gain an edge over their competitors by implementing various strategies. Murule (2011) states that in order to produce goods or services at a lower cost than competitors, a cost leadership strategy should prioritize efficient scale of operation and be based on lower overall costs. To compete with the low-priced pharmaceuticals imported from other countries, local manufacturers should prioritize product quality in addition to offering lower prices.

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• Manufacturing Planning and Control

With the help of a system called Manufacturing Planning and Control (MPC), companies are able to better manage the flow of materials, make better use of their human and material resources, coordinate their internal operations with their suppliers, and gauge market demand based on customer feedback (Graves, 1999). The fact that the manufacturing planning and control system is an integral part of the organization and helps to support the manufacturing strategy gives the company a leg up in the market, as acknowledged by Wacker and Hanson (1997). As pointed out by Newman and Sridharan (1995), the manufacturing function encounters various environmental conditions that it must perform under. In these conditions, the MPC system plays a significant role in supporting the manufacturing process. Decisions regarding the acquisition, utilization, and allocation of production resources are made through the use of the firm's MPC systems in order to ensure customer satisfaction (Graves, 1999). A competitive advantage and the ability to distinguish leading manufacturers from the rest can be achieved through a well-executed MPC system, according to Arnold, Chapman, and Clive (2011). The systems approach and the quantitative approach are the two main methods for multi-criteria decision-making (MPC), according to Chan and Burns (2002). Using MRP, ERP, JIT, and Manufacturing Resource Planning (MRP11), this study will employ a systems approach to planning and organizing production.

An information system known as Materials Requirement Planning (MRP) attempts to predict the time and date of the master schedule requirements for the translation of raw materials and component parts into finished products (Stevenson, 2013). In MRP II, an expanded version of MRP, all of a company's departments work together to aid in decision-making in areas such as production planning and control, human resource management, financial accounting, engineering, buying, and marketing (Lyson & Farrington, 2012). A company's many departments and operations can be coordinated by implementing an Enterprise Resource Planning (ERP) system. Using the bare minimum of human, material, and mechanical resources to satisfy consumer demand is the goal of Just-In-Time (JIT) production (Lyson & Farrington, 2012).

• Operational Cost

Historically, operational cost has been defined as the degree to which goals related to cost, flexibility, quality, and speed have been achieved (Ferdows & De Meyer, 1990). The operational cost of a firm is defined as its capacity to achieve results through the implementation of effective management and strong governance (Mwale, 2014). As pointed out by Christomer (1999), the firm aspires to be adaptable enough to meet customer demands in the shortest amount of time while providing top-notch products at affordable prices. But in their pursuit of customer satisfaction, organizations must watch that operational expenses have not gone up. The findings are corroborated by Schuman and Brent (2007), who pointed out that businesses strive to minimize operational expenses while simultaneously making sure their operations are effective, generating revenue, and satisfying customers. For example, some buyers may care a lot about a company's ability to meet their urgent needs in the shortest amount of time possible, as stated by Chase, Jacobs, and Aquilano (2006). Consequently, the company's focus should be on adaptability as a performance indicator. Cost, delivery, flexibility, and quality are some of the operational performance attributes that can be measured differently.

A thing's cost is the total amount of money spent on it, according to Lyson and Farrington (2012). When determining prices and the bottom line, cost is a critical factor to consider. A company's productivity is the deciding factor in both its output and its total cost of production, thus reducing costs should be an ongoing priority (Stevenson, 2013). One measure of a company's reliability is the accuracy with which it completes customer orders (Collier & Evans, 2006). A perfect order is one that is delivered on time, with the correct goods, in the correct invoice, and in the correct condition, all of which the customer had anticipated. According to Stevenson (2013), the time required to fulfill orders is known as delivery time. One competitive advantage that organizations utilize is the speed with which goods or services are delivered to the customer. The capacity to adapt to new circumstances is known as flexibility (Stevenson, 2013). Sometimes, a product or service's design needs to be tweaked.

A client's needs can vary in terms of both the total quantity and variety of products and services that a business provides. According to Collier and Evans (2006), one definition of flexibility is the capacity to efficiently and swiftly adjust to evolving demands. A high-quality product or service, according to Stevenson (2013), is one that consistently meets or exceeds the needs and expectations of its target audience. Since every consumer has unique wants and needs, quality can mean different things to different people (Lyson and Farrington, 2012).

➢ Statement Problem

The overarching goal of this research is to identify the factors that influence manufacturing companies' marketing strategies and production costs, with the hope of drawing conclusions about how these factors affect the companies' bottom lines and cash flow. Within this control measure, there are procedures and a program put in place to cut costs. The objective is to lower the margin of business expenses from where they are now, which is not very safe, to where they want to be, with the end goal being to reach a certain profit margin. Consequently, this study is necessary to resolve the issue of rising expenses (both operational and production costs), which has led to decreased profitability in manufacturing enterprises.

In order to back up an organization's manufacturing strategy, Manufacturing Planning and Control is a crucial subsystem (Wacker & Hanson, 1997). According to Olhager and Seldin (2007), a manufacturing firm's operational performance can be significantly enhanced by implementing the MPC approach, particularly at the sales, operations planning, and master planning levels. In the United Arab Emirates, manufacturing contributes significantly to both the GDP and the number of jobs available

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(Kalunda, Nduka, and Kabiru, 2012). Companies' unique traits dictated the pursuits that would yield the best results for them, as pointed out by Howard, Kochhar, and Dilworth (1999). Measurements of performance include supply chain performance, production flexibility, and delivery performance, all of which manufacturing firms use to boost efficiency and cut costs (Oketch, 2014). According to Kalunda, Nduka, and Kabiru (2012), each company is free to choose its own MPC system activities.

The relationship between the MPC system and the manufacturing environment was investigated by Newman and Sridhan (1995) to determine how it improves the execution of activities. Product volume and variety, competitive priorities, and technological processes are three ways to describe the environmental conditions that manufacturing functions encounter. In order to determine the most important connections between MPC systems, the environment in which the firm operated, and organizational performance, they surveyed manufacturing firms in the USA. Based on their research into three different Hong Kong supply chain environments, Chan and Burns (2002) found that an organization's operational performance is impacted by the MPC system it employs. They learned that by investigating the systems' applications in production planning and control, one can gauge an organization's relative merits. Olhager and Selldin (2007) state that the type of MPC system to be used is determined by the products and their market characteristics, with the choice being influenced by the operations strategy.

On a regional level, research had focused on specific systems rather than the MPC system overall, using a variety of theoretical frameworks. The pursuit of a more advantageous position in the market has prompted many companies to implement ERP systems, as stated by Momanyi (2014). According to the data collected from the surveys of several manufacturing firms, a large number of these companies have implemented the ERP system, and their management has also noticed an improvement in their overall performance. Based on his findings, Kyengo (2014) argued that regulatory bodies should educate manufacturing firms on how to improve their operational performance through strategic planning. His study focused on the metal and allied sector in the United Arab Emirates. Mwololo (2015) aimed to determine how competitiveness and operational performance are related for manufacturing firms in the UAE. After reviewing the survey responses, he deduced that a company's operational excellence is influenced by the degree to which its customers perceive its value. While many studies have examined manufacturing firms and the concept of manufacturing planning and control, none have examined the level of implementation of these systems or their impact on operational performance in UAE manufacturing firms. Researchers at the local level have focused on studying specific MPC systems rather than the systems in their entirety. In light of this knowledge vacuum, the current research set out to address the following question: "How do manufacturing firms in the UAE fare in terms of operational cost in relation to manufacturing planning and control?"

➤ Aim of The Study

The primary aim of this research study is to understand and analyze the impact of production planning and control on operational costs within the UAE manufacturing industry.

> Objectives of The Study

The research study objectives will include:

- To find out the relationship between production planning and control and operational cost in manufacturing companies in UAE.
- To find out whether technology advancement got any relationship on control and production planning and Operational cost.
- To evaluate the production planning and control practices within the manufacturing industry in the UAE.

Research Questions

The research study will address three major questions:

- What is the correlation between control and production planning on the operational costs in the manufacturing industry?
- What production planning and control practices exist within the manufacturing industry in the UAE?
- What is the impact of technology advancement on control and production planning with reference to how operational costs are managed in the manufacturing industry

➤ Hypothesis

- There is a positive correlation between effective PPC and operational cost reduction.
- Information systems integration and automation mediate the relationship between PPC and operational costs.

➤ Importance of The Study

The research will give manufacturing company executives a chance to think about the challenges they're facing with cost control. It will show how effective cost management methods have been and how they have affected profitability. Those in charge of governance will also benefit from the research because it will shed light on the consequences of using ineffective techniques of cost control. The advantages of cost control are shared by all parties involved, including tax authorities and auditors. Infrastructure facilities will be improved as a result of increased revenue.

CHAPTER TWO BACKGROUND

➤ Introduction

Operational costs refer to the regular expenses that arise from the day-to-day functioning of a business. The process of identifying, allocating, and controlling these costs may appear simple, but it is actually quite complex and has led to the development of numerous management practices (Mike, 2010).

Vollman (2007) defines operational costs as the expenditures related to the ongoing management and operation of a business. The operational cost is a constituent of the operating income statement. Operational costs typically exclude capital investments but encompass various aspects of running a business, such as accounting and legal fees, bank charges, sales and marketing expenses, travel costs, entertainment expenses, non-capitalized research and development expenses, office supply expenses, rent, repair and maintenance expenses, utility expenses, and salary and wage expenses.

Anthonio (2009) defines operational costs as the ongoing expenses that a company accrues while conducting its business operations. They include nearly all the expenditures accrued by a company, excluding financing costs (interest), income tax, and depreciation. Therefore, on the income statement, operating income is defined as the residual amount obtained by subtracting the cost of revenue and other expenses from the total revenue.

According to Banga & Sharma (2013), production planning is the process of determining a manufacturing plan, issuing information for its execution, and collecting and recording data. This is a managerial function that focuses on the design and planning of production, including decisions on what, when, where, and how to produce, as well as determining the quality, quantity, and target market for the products (Banga & Sharma, 2013).

In Wild's (1980) perspective, these functions aim to establish the fundamental decision-making model in production, encompassing both long-term and short-term planning, while also identifying the process, politics, and cost-effective control mechanisms. Banga & Sharma (2013) argue that production planning is crucial for every business, emphasizing its absolute necessity.

Production planning offers the advantage of providing clear comprehension to each employee regarding their role in the production process. All stakeholders involved in the planning process, including the company and its employees, derive advantages from it. Gaining proficiency in catering to diverse clientele is crucial, given the multitude of services and industries that exist. Is it not possible to adequately cover a single topic and consider it complete? The significance of production planning lies in its ability to optimize operational efficiency and ensure effective allocation of resources. Having a precise understanding of the client's service requirements. Thoroughly contemplating production planning can be advantageous for any business that requires the service. It is crucial to acknowledge that a significant number of individuals must participate in this process (Banga & Sharma, 2013). No single individual can accomplish such a task independently. This is an unattainable feat. It is essential to have varying degrees of comprehension in all aspects of business in order to develop effective production planning. Ultimately, it is collaborative effort that successfully accomplishes the task. This can be readily comprehended in a straightforward manner. Each individual possesses a distinct purpose, position, and duty to fulfill. Each individual can subsequently implement their plan proficiently to enhance the respective company. In the film "Wild" released in 1980, the significance of this aspect is recognized, leading to an enhancement in productivity and instilling a feeling of ownership among all employees of the company. Experiencing this sentiment, comprehending the significance of valuing every employee in such a manner, motivates them to exert greater effort, resulting in the company not only achieving but even exceeding its objectives. The significance of production planning cannot be overstated. This is the operational mechanism and the key to achieving success for a business.

Martand (2013) defined it as the strategic process through which management assesses the needs of the company in order to achieve cost reduction and increase production volumes, thereby meeting customer demands. This is accomplished by employing advanced and superior quality machinery and equipment. Adekoya (1978) argued that regrettably, manufacturing companies in the UAE have not prioritized the acquisition of contemporary machinery. As a result, they continue to rely on outdated methods and machinery that were first introduced in the 1960s and 1970s. According to Adekoya, this has resulted in a state of stagnation and significantly constrains the potential for future expansion in the sector.

According to Armstrong & Nwachukwu (2006), manpower planning is the management process of ensuring that there are sufficient human resources available to successfully complete tasks. According to Banga & Sharma (2013), manpower planning is a strategic approach to acquiring, utilizing, enhancing, and retaining the human resources of a company. As stated by Vetter, as referenced in Sharma, Manpower planning is the systematic procedure through which management determines the necessary steps for the organization to transition from its current manpower status to its desired manpower status.

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Material planning, as defined by Banga & Sharma (2013), is the systematic process of establishing consumption standards and determining the necessary materials for a manufacturing program. This involves considering various factors such as the decision to produce or purchase, establishing standards and specifications, assessing available sources of supply, and evaluating stock availability. According to Umoh (2005), managing an organization's inventory is an effective method for planning and controlling inventory. He stated that this would be accomplished by determining the optimal stock level required to prevent both understocking and overstocking.

There appears to be a strong correlation between production planning and operational expenses. Production plans of this nature have a significant impact on inventory plans and control systems, often exerting influence or even dictating their course. Production plans typically dictate the quantity of goods maintained within the production system. Continuous productions, which involve mass production, necessitate the maintenance of substantial inventories, including finished goods, work in progress, raw materials, and spare parts, at all times. Conversely, intermittent production systems may necessitate a substantial inventory level. The quantity of inventories maintained, however, will be contingent upon the particular production schedules and programs.

Due to the complexity of modern production, it is necessary to carefully plan both technological operations and administrative activities in order to consider all potential limitations, constraints, and benefits. Rodrigo et al (2010) conducted a study that was grounded in transaction cost theory. This study focuses on the strategic planning and international expansion strategies of companies, as well as the organized measures necessary to enhance the likelihood of achieving success. In a study conducted by Jain (2008), the focus was on production planning, control, and industrialization. The study emphasized the importance of strategic planning in order to effectively meet customer needs and generate a satisfactory level of profit.

In 2007, Vollman conducted a study on manufacturing planning and control systems. The foundation of his research lies in the meticulous organization of converting and reorganizing raw materials into finalized products. Nevertheless, the aforementioned studies fail to examine the crucial requirements in production planning and operational costs. This study aims to address the existing knowledge gap by achieving production objectives related to quality, quantity, cost reduction, and timely delivery. It also aims to ensure uninterrupted production flow to meet customers' diverse demands for quality and committed delivery schedule, while effectively utilizing the firm's resources.

CHAPTER THREE LITERATURE REVIEW

➤ Introduction

The purpose of this chapter is to survey the relevant literature on the topic of the study. Findings from both theoretical and empirical sources were considered in this chapter, which ended with a brief overview.

> Theoretical Framework

Both the contextual theory of cost and the standard cost theory were utilized in the research investigation. The classic cost theory allows an organization to achieve a production level that results in optimal profit while incurring the least expenses (Abdul & Isiaka, 2015). The theory separates the long-run costs from the short-run costs. Capital equipment and entrepreneurial spirit are fixed in the short term but become flexible in the long run. Two types of expenses are total variable costs and fixed costs. According to the contextual theory of costs, expenses should only be included in the income statement for the period in which they are incurred (Abdul & Isiaka, 2015).

• Theory Constraints

Maximizing total process throughput by utilizing all activities that would cause a bottleneck in the workstations is the goal of Theory of Constraints (TOC) (Collier & Evans, 2006). Time-based execution control (TOC) is a scheduling method that zeroes in on processes that cause bottlenecks (Stevenson, 2013). According to Jacobs, Berry, Whybark, and Vollman (2011), any resource with a capacity that is equal to or less than the required demand is considered a bottleneck operation. According to Stevenson's (2013) book Operations Management: Theory and Practice, Eli Goldratt created the Theory of Constraints (TOC) method in 1984. Goldratt reasoned that since the bottleneck operations were limiting the system's output, rescheduling the non-bottleneck operations would cut down on the time those operations sat idle (Stevenson, 2013). Collier and Evans (2006) state that constraints dictate production output by limiting it to their own capacity; this, in turn, causes a constraint in the value stream, as described by Melton (2005).

Installing TOC as an add-on is a natural progression for a company running an MPC system since, similar to other applications, it uses the basic database already in place (Jacobs et, al., 2011). Companies that use TOC see improvements in operations, shorter lead times, lower inventory levels, and higher returns on investment (ROI), say Chan and Lin (2008). According to Jacobs et al. (2011), manufacturing firms are unable to accomplish more due to constraints. However, by concentrating on limiting resources, TOC scheduling improves performance. To ensure a smooth operation, the MPC system must supply sufficient data on the movement of materials. This research made use of the Theory of Constraints because it sheds light on potential sources of constraints and offers advice on how to deal with them.

• System Theory

Collier and Evans (2006) state that in order to complete a task, a system must have interconnected parts. The central tenet of the systems approach is that, as stated by Stevenson (2013), the interrelationships among the subsystems constitute the whole, rather than the parts themselves. In a similar vein, Bellgran and Safsten (2010) state that systems theory is concerned with the relationships and interactions between the various parts of a system.

Yourdon (1989) argues that the output and purpose of a system are the defining characteristics that set it apart from its surroundings. A holistic view of systems theory is necessary to comprehend how internal and external factors influence an organization's performance, according to the theory's proponents.

If even a single step in a company's production process breaks down, the whole system could collapse (Collier and Evans, 2006). The reason behind this is that manufactured goods are made up of multiple parts that can function separately but must be assembled in a specific order to function properly. Every design, improvement, or implementation should consider the impact of the entire system, as pointed out by Stevenson (2013). Prioritizing the subsystems is the only way to achieve overall efficiency, which is crucial. A company or organization is seen as a system when it interacts with both its industry and society (Koontz & Weihrich, 2009). Utilizing systems theory, one can gain insight into the interconnectedness of an organization's various departments.

All departments adhere to the principle that production should never exceed what the marketing department can manage. Cooperation amongst the system's components is essential. Because each subsystem in manufacturing firms relies on the others to function well, systems theory describes this interaction and how it is relevant to this study.

> Manufacturing Planning and Control

To stay ahead of the competition in today's cutthroat manufacturing industry, companies are implementing manufacturing planning and control systems (Stevenson, Hendry & Kingsman, 2005). According to their advice, variables like the customer's inquiry stage, business size, level of customization, and shop floor configuration substantially increase the concept's applicability.

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According to Kehoe and Boughton's (2001) research on internet-based supply chains and methods of manufacturing planning and control, any manufacturing organization's operations will be successful if they have well-established systems of planning and control both internally and throughout the supply chain. According to Persentill (2000), the goals of management should direct the use of MPC systems to efficiently and effectively manage the flow of materials and the utilization of resources.

Zijm (1999) claims that existing MPC systems do not adequately investigate the many planning and control issues that emerge in the industry. Technical and logistical planning, capacity planning, and materials coordination issues must all be addressed in order to resolve these challenges. Rondeau and Litteral (2001) backed the concept of technological integration by acknowledging that MPC systems have developed through time, incorporating new technologies to improve their core capabilities. Since MPC systems are responsible for the efficient functioning of manufacturing organizations, it is important to examine their function in light of the evolution of information transmission and communication (Kehoe & Bonghton, 2001). According to Kotchar, Davies, and Kennerly (1999), Manufacturing Planning and Control Systems (MPCS) help manufacturing organizations achieve their goals while also meeting competitive priorities such as cost, quality, flexibility, and delivery.

According to Persentill and Alptekin (2000), in today's manufacturing environment, there is more competition among firms, more variety in products, and shorter product life cycles. It should be possible to respond quickly to changes in demand with a good MPC system that permits flexibility. The selected MPC strategy should control the shift in system performance that happens as a result of product type variation, as pointed out by Persentill and Alptekin (, 2000). Rather than degrading, the system should demonstrate remarkable improvement. There will be little degradation and maximum improvement in the system performance metrics as a result of product type variation. Understanding the appropriate MPC system functions is crucial for manufacturing companies to develop computerized control strategies that achieve efficient operations. Different MPC systems require different functions.

> Operational Cost

How well an organization does in its operations in comparison to certain benchmarks is known as its operational performance (Birech, 2011). According to Kochhar and Kenneley (1998), when the MPC system's functional specifications are inadequate, the systems fail to meet actual user requirements, leading to the poor operational performance of the firm. Operational performance, say Mitchelmore and Rowly (2010), can be either an independent or dependent variable, depending on the perspective taken on the matter. A more efficient manufacturing planning and control system can help firms reduce production costs and increase market responsiveness (Jacobs et al., 2011). According to Hubbard (2009), a company's operations ought to be productive and efficient. Companies have set goals and objectives that must be met, and the performance measurements that have been set up make sure that they can. When these objectives are met, it shows that the company is highly effective in its operations. Choosing the right MPC approaches, especially at the master planning and sales and operations planning levels, can significantly boost a manufacturing firm's operational performance (Olhager & Seldin, 2007).According to what Olhager and Seldin found, a manufacturing firm's performance can be greatly affected by the MPC approaches used, especially when dealing with environments that are highly dynamic (2007).

Cost Terms and Concepts

• Cost Classifications

A unit's cost is the total amount of money an organization has spent on its production (Oluwagbemiga, et al., 2014). The cost of doing anything is its price tag. According to Weetman (2010), a cost is the monetary outlay for a certain activity. In monetary terms, it represents the quantities of resources sacrificed to acquire an item or service. The method of determining cost is known as costing, and it is based on cost (Weetman, 2010).

The methods and procedures for determining cost are what costing is all about, says the Institute of Company Secretaries of India (ICSI) (2013). Methods for calculating the price of a good or service are based on these established concepts and guidelines. The goal of cost accounting—a subfield of general accounting—is to manage and keep track of monetary expenditures. Establishing budgets, standard costs, and actual costs of operations, processes, activities, or goods are all part of cost accounting. It also includes analyzing variances and determining profitability. (ICSI, 2013)

To make the cost management system more communicative, costs are grouped into several types (Akeem, 2017). 2013 (ICSI) It has been pointed out that there are several ways in which expenses can be classified. These include historical and pre-determined classifications, material, labor, and overhead classifications, direct and indirect classifications based on traceability, and fixed, variable, and semi-variable classifications based on changes in activity. Classify costs further according to their relationship to the accounting period (capital vs. revenue), their degree of controllability (controllable vs. non-controllable), and the analytical and decision-making processes involved (opportunity, marginal, sunk, joint, deferential, replacement, common, etc.).

> Understanding The Importance of Cost Control

Cost Control

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According to Akeem (2017) states that described cost control as setting a benchmark and then keeping performance at that level. Because it controls and decreases unnecessary spending, cost control is crucial to a business. As long as the unit cost and measurement remain within reasonable bounds, the component of marginal costs is of primary significance (Akeem, 2017). Clement, (2015) states that in order to control costs, one must regularly and frequently compare real expenditure with predefined standards or budgets. This allows one to recognize and rectify unwanted tendencies from stands at an early stage.

Adeleke (2014) states that as a result of being the backbone of any organization, cost containment is crucial to the success of every enterprise. Entities can only turn a profit if their management has a complete and accurate picture of everything that goes into making that profit. Among the most important considerations are the associated costs (Adeleke, 2014). Among the many advantages of cost control, as stated by Akeem (2017), are the following: the ability to easily express control over all operations, from purchasing goods to accounting for sales; the efficient utilization of both materials and labor; and the ease with which management can make policy decisions. Labor, materials, sales, and overhead are four areas where many businesses must exercise strict cost management (Akeem, 2017).

The cost of labor may be seen in three ways: a higher base wage, lower production, and shorter working hours. Many businesses find it challenging to cut labor costs since wage rates cannot be reduced because of minimum wage laws and trade unions. It is feasible to reduce labor costs by increasing labor productivity, which in turn motivates management to boost wages. However, this can only be achieved if the rate of overtime production per worker grows at a higher pace than the wage rate increases. One of the main reasons for increasing expenses and wastage due to inadequate management is the improper use of materials. Waste of materials must be minimized if costs are to be kept low. The business must ensure that it is not spending too much money in order to meet its sales targets in order to regulate sales. Sales budgets help businesses plan and control their income.

Factory expenditures that cannot be directly invoiced as any other product part are included in overheads. Efficient cost absorption, allocation, and distribution can bring the cost down to a more manageable level. The source is Akeem (2017). Organizations should regulate and cut costs to an acceptable extent to assure higher profit development, according to the suggestion. Successful cost control requires that organizations implement cost reduction strategies into their daily operations. Without behavioral controls, such motivation and incentives, it is difficult to keep costs in check, which is why it's important to keep workers motivated to reach set targets.

• Cost Control & Cost Reduction

Akeem (2017) states that lowering the per-unit costs of goods and services without sacrificing their quality or usefulness is what we mean when we talk about cost reduction as a proactive strategy to cut costs. Setting a benchmark and keeping performance at that level is what cost control is all about (Akeem, 2017).

As a means of controlling and regulating out-of-control expenditures, cost reduction and control are critical to every business (Akeem, 2017). Cost reduction is the overarching goal of cost control, hence the two go hand in hand. Akeem (2017) states that the goal of cost reduction is to identify potential areas where expenses might be reduced. The Institute of Chartered Accountants of India (ICSI, 2013) lent credence to this. Despite their differences, the two goals of cost control and reduction are complementary and incompatible.

According to Akeem (2017), It is proposed that businesses can outperform their competitors in terms of price without sacrificing product quality if they master the art of cost control and reduction. Organizations place a premium on cost management and reduction strategies because they aid in managing and cutting down on wasteful spending. 2013 (ICSI)

Justified by stating that cutting costs involves making an attempt at improvement with the goal of attaining a substantial and long-lasting decrease in overall cost. It implies cutting costs and decreasing waste while keeping or increasing productivity. Reducing costs is not about keeping performance at a certain level; rather, it's about assuming that there are hidden savings opportunities in established norms and standards, which are then constantly challenged with the goal of improving by revealing these savings (ICSI, 2013).

Requirements for Effective Cost Control Systems

• Cost Control System

An organization's costs can be better managed and controlled with the help of a cost control system, which has been defined in various ways (Kinney & Raiborn, 2011; (ICSI), 2013). In the presence of an efficient cost control system, cost reduction can also take place effectively, and control of costs depends on it (Kinney & Raiborn, 2011). Data for planning and control is provided by a cost control system from the time activities are planned until they are completed (Kinney & Raiborn, 2011).

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It includes the network components, detectors, assessors, and effectors, and primarily focuses on data found within the organization. In order to achieve control, the management cycle must begin with planning, which entails establishing operational targets and objectives. An efficient Cost Control System is established during the planning phase by launching performance goals, which are inputs to the control phase (Kinney & Raiborn, 2011).

The two parts of a good cost control system that were revealed were accounting control and operational control. In smaller companies, operational control is most commonly used, where the manager keeps an eye on things and makes sure everything is running smoothly to keep costs in check. As the company expands, more and more authority is transferred to lower-level employees. With the expansion of the company comes the need to supplement operational control with accounting control, since the former can no longer guarantee the absence of waste, idleness, inefficiencies, and other costs. In order to keep tabs on expenses, you need to set up a system of records that can analyze them, record them, and then provide you with relevant reports that show how people are handling their duties (Clement, 2015).

A solid control system is built upon a foundation of cost consciousness, as stated by Kinney and Raiborn (2011). Understanding cost changes, cost containment, cost avoidance, and reduction are all aspects of cost control that contribute to a cost-conscious attitude among company employees. Managers cannot control costs on their own (Kinney & Raiborn, 2011), thus cost control requires buy-in from across the organization.



Effective Cost Control Systems

Fig 1 Cost Control System

Understanding cost - Gaining insight into the causes of cost variations between periods or from budgeted amounts is essential for effective cost control. It all starts with budget preparation, and you can't do that without first figuring out what factors influence cost fluctuations from one period to the next. A flexible budget can help you adjust for changes in volume-related costs (also known as variable costs), inflation, adjustments to supplier costs, and discounts based on purchase quantity (also known as quantity discounts). Keeping expenses in check requires an awareness of such shifts (Kinney & Raiborn, 2011).

Cost Containment – According to Kinney and Raiborn (2011), reducing costs is all about keeping increases in total fixed and per-unit variable costs to a minimum from one period to the next. Because factors such as inflation, taxation, and regulatory changes impact supply and demand from the outside, it is only applicable internally to the organization. For this reason, cost containment works best for expenses that originate from inside the company, such as those caused by fluctuations in supply and demand, the amount bought, or the time of year. (Kinney and Raiborn, 2011).

Cost Avoidance - The term "cost avoidance" was first used by Kinney and Raiborn (2011) to describe a strategy for cutting costs by preventing an increase in anticipated expenditures. When cost containment is not possible, cost avoidance steps in to find reasonable substitutes for spending money on things that aren't essential. (Kinney and Raiborn, 2011).

Cost Reduction- Reducing costs and avoiding unnecessary ones go hand in hand (Kinney & Raiborn, 2011). The goal of both cost reduction and cost avoidance is to bring down overall expenses. Implementing cost reduction measures during the design stage helps to avoid carrying high costs throughout the product's life cycle. When new ways to cut costs emerge, the process is expanded to the production level. Cutting out unnecessary steps and byproducts during production helps keep costs down (Kinney and Raiborn, 2011)

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• Procedure of Implementing Cost Control System

In 2011, Kinney and Raiborn Provided a five-step process for managing costs that management can follow to establish a favorable setting for cost control and effective cost management. Managers can follow this five-step process:

One crucial question to ask is whether the costs being considered are product or period costs, or if they are fixed or variable costs (Kinney & Raiborn, 2011).

Where do those expenses come from? Who was the source of the purchases? What time did the purchases occur? The term "spend analysis" can describe this in a more general sense. This is backed up by the fact that, according to Jim (2015), in order for a company to establish a reliable cost management system, it needs to know how much money it makes and where that money goes. Lastly, it needs to figure out what expenses aren't directly related to making money (Jim, 2015).

According to Kinney and Raiborn (2011), it is necessary to inform all employees about the importance of cost control and the need to be aware of which costs need to be managed better. They should also understand why this is important for both the company and themselves.

According to Kinney and Raiborn (2011), it is important to teach employees about cost control, encourage them to offer suggestions for cost control, and motivate them to adopt cost control principles. Rewards can vary from verbal praise to monetary bonuses to paid vacation days. An additional quality of good managers is their ability to adapt to new situations and ways of doing things (Kinney & Raiborn, 2011).

According to a study conducted by Jim (2015), employees should be involved in decisions about cost control, and that they should have access to accurate cost information and understand the company's objectives. Not only will management gain a better understanding with employee input requests, but employees will also be more motivated to participate. Better cost control and overall organizational improvement are guaranteed outcomes of an open-door policy that encourages employee feedback (Jim, 2015).

The necessity for management to produce reports that show real results, compare actuals to budgets, and compute variances was proposed by Kinney and Raiborn (2011). In order to understand why costs were either controlled or not controlled in the past, management needs to assess these costs. To better manage cost-driving activities going forward, this kind of analysis can shed light on what they are (Kinney & Raiborn, 2011).

Kinney and Raiborn (2011) proposed that management should perceive the cost control system as an ongoing process rather than a quick fix, and that this perspective should be fostered. The company's long-term plan, not the immediate needs, should guide all budgetary decisions. It would be unwise for a business to stock up just because a manufacturer is offering steep discounts on their products. Ideally, the business would purchase just what it needs to keep its consumers happy (Kinney & Raiborn, 2011). It is imperative that cost management practices are institutionalized. In order to maximize profits, management and staff should always be looking for ways to cut down on wasteful tasks (Jim, 2015).

> The Relationship Between Cost Control & Profit Maximization

An incentive for entrepreneurs to engage in production is the potential for profits. More businesses will join a competitive market if profits rise. More money will be available for companies to invest in new machinery and grow (Chand, 2015).

Obtaining external financing will also be easier for a profitable firm. Banks are more likely to lend money to shareholders, and shareholders are more likely to desire to purchase shares in profitable firms. Because of their success, these companies may also have an easier time attracting top directors and managers (Chand, 2015).

There may be temporal variation in the impact of a decline in profit. Companies may act as if it doesn't exist at all in the beginning if they anticipate it will be temporary. Eventually, if profits stay low or go down even more, a few Strategies for Maximizing Earnings: There are two primary approaches to maximization of profit:

- Reduce cost of production
- Raise Revenue

It is possible to lower production costs in several ways. One way is to cut down on inefficiency and waste. Increasing the efficiency of the production factors is another. The second option may wind up increasing expenses in the near term, but reducing average costs and increasing revenue via better quality in the long term is possible (Chand, 2015).

For instance, a company might invest more in employee training or upgrade to newer, more technologically sophisticated machinery. As a result of these changes, average cost should go down in the long term as production per worker and machine goes up (Chand, 2015).

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Mergers and acquisitions are a third strategy for growing a company. It is possible that economies of scale will work better for a bigger company. It is probable that the total revenue will be higher. The larger its market share, the more likely it is that its total profit and profit per unit will be higher. Demand for the products of very powerful firms is often not very elastic. A company can boost its income by charging more when demand is not responsive to price changes. Reducing prices may increase revenue if demand is elastic. (Chadha, 2015). The cost control procedures incorporate various methods for controlling costs.

Budgetary Control

The efficient allocation of resources toward the realization of a predetermined goal is central to budgetary control, according to Akeem (2017). It is a method for planning and controlling expenses through the use of budgets. In budgeting, goals and methods for achieving them are defined; in control, the current state of affairs is monitored to make sure it stays on track (Akeem, 2017).

Making decisions, planning, evaluating performance, and exercising control are all possible goals of creating a budget. Spending, priorities, timing, and decision-making are all aided by a well-planned budget. Management is helped in gathering the specific data needed by different departments, which makes it easier to formulate plans and achieve company goals.

Budgets give information about the structure, behavior of expenditure, trends in revenue, and demands of different activities and functions of the organization. This is necessary for the planning process, which involves detailed information about past performance, present, and future predictions.

The goal of control-budgetary control is to make the most efficient use of available resources while minimizing losses and wastage. As a result, costs are monitored and explained when they deviate from the planned cost. If necessary, steps are taken to bring the cost down to match the budgeted amount. Akeem (2017) notes that budgetary control may also include budgetary systems with the goal of better cost control.

• Standard Costing and Variance Analysis

The process of estimating the total cost of production per unit is known as standard costing (Akenbor & Agwor, 2015). It is an integral part of management accounting control techniques. To find the operational efficiency, it compares the standard cost to the actual cost of each product or service. To better control costs and make the most of available resources, managers can use standard costing (Akenbor & Agwor, 2015).

Although standard costing and variance analysis are useful tools for cost control, Gauci (2015) argued that they are more applicable to large and medium-sized businesses than to micro and small businesses. In a repeatable, predictable, and standardized setting, where all processes should be identical and any differences should be eliminated, standard costing is also considered appropriate (Gauci, 2015). The possibility of discovering that the anticipated cost is significantly different from the actual cost was raised by who cast doubt on this (Weetman, 2010).

Management takes a number of factors into account when deciding which variances to investigate in variance analysis, so not all variances are investigated. Some of the things that are considered include controllability, level of significance, and materiality (Oyewu, 2013).

By comparing the actual and standard costs, variances help to reconcile the total cost difference (Gauci, 2015). Explaining why performance was below expectations is the primary goal of variance analysis. Management can enhance operations, fix mistakes, and better allocate resources to cut costs in this way (Gauci, 2015).

Effects of Weak Cost Controls

Organizations run the risk of being weakened by a decline in operational performance if cost control techniques are not effectively implemented. Increases in repair and maintenance expenses, labor costs, and waste are common results of ineffective cost control measures. When costs rise without a corresponding rise in labor, operational performance will inevitably suffer (Oyewu, 2013).

• Wastage

Inadequate supervision of workers leads to poor cost control (Akenbor & Agwor, 2015), which in turn causes employees to waste the organization's resources because they can do whatever they want with them. In manufacturing, waste occurs when the number of inputs used to make a product is less than the number of outputs, or the final product. Two types of waste can be distinguished: normal waste and abnormal waste. The former refers to the kind of waste that is anticipated and planned for prior to production, while the latter is defined as waste that goes beyond the normal loss and leads to an increase in costs, possibly as a result of employee negligence (Akenbor & Agwor, 2015).

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• *Repair & Maintenance*

According to Eti (2014), the purpose of repairs and maintenance is to restore the asset to its previous state and ensure that it continues to operate as intended. Some maintenance and repair costs are predictable and expected, while others are more ad hoc. The reasons behind those that were not anticipated include insufficient oversight, employee carelessness, inadequate training, and excessive inventory levels. The necessity for planned maintenance becomes apparent when repair and maintenance expenses rise, indicating that these cost control techniques are inadequate (Eti, 2014).

Successful cost control begins with the decision to purchase highly reliable equipment that requires little in the way of repairs or maintenance (Eti, 2014). As a result, organizations with this culture tend to have low repair and maintenance costs. Consequently, the organization benefits from the plant's dependability, longevity, and reduced maintenance costs (Eti, 2014). In order to decrease repair and maintenance costs, manufacturing company management should apply equipment life-cycle cost analysis (Gransberg & O'Connor, 2015). One part of managing a fleet of equipment is doing a life cycle cost analysis to keep costs in check. Based on the economic life of a piece of equipment, fleet managers can decide whether to repair, replace, or retain it. In order to maximize the cost effectiveness of the fleet by optimizing the overall lifecycle value of each piece in the fleet, managers need to implement cost control measures. Without these measures, most companies struggle to control repairs and maintenance costs (Gransberg & O'Connor, 2015).

• *High labour Costs*

Expenditure made by an organization to acquire the services of individuals in order to accomplish its objectives is known as labor costs (Anwar & Dr. Muhammad Aslam, 2011). Because they can be changed (increased or decreased) by the organization, labor costs are considered one of the long-term controllable expenses. As a competitive tactic, most companies use strategic cost control methods to lower labor costs. Anwar and Dr. Muhammad Aslam (2011) state that in order to reduce labor cost, strategies should integrate human resource management with modern technology to offer coordinated, broad-based, and long-term approaches.

Anwar and Dr. Muhammad Aslam (2011) found that most companies' labor cost increases are due to ineffective cost management. This finding also suggests that management's cost control techniques may have weaknesses. Otherwise, substantial labor variance will occur if the targets are not aligned with the management's labor budget. When management tries to compensate for labor variances caused by inefficient management contracts, they may resort to hiring more workers, which drives up labor overhead costs, which in turn reduces operational performance and causes the labor budget to balloon (Anwar & Dr. Muhammad Aslam, 2011). But according to Hammermesh (2014), there are other variables besides organizational weak control methods that can affect labor costs.

Location, efficiency, supply, and demand are some of the factors that determine how much these expenses will be. Organizations in economically depressed areas typically have lower labor costs than companies in areas with higher cost of living. On the other hand, if a company is looking to recruit skilled workers in an area without an educated workforce, they may have to offer financial incentives to attract them to move, which could drive up labor costs (Hamermesh, 2014).

Labor cost variations are not only caused by supply and demand, but also by factors that cost control techniques cannot control (Hamermesh, 2014). Management uses the same principles of supply and demand that it uses to set prices for goods and services when deciding how much to pay employees. Businesses might expect to pay relatively high labor costs if the industry in which they operate experiences worker shortages (Hamermesh, 2014)

• Decrease in Operational Costs

Careless use of cost control techniques or methods leads to inefficient use of resources, which in turn drags down an organization's performance (Akenbor & Agwor, 2015). If there isn't enough oversight of employees due to lax cost control, then workers are free to waste the company's resources anyway they like, which in turn lowers performance. Reducing operational performance could be due to cost control measures taken by the organization, as operational performance involves coordinating the efforts of its various strategic business units (SBUs) to ensure that they are all working towards the same goal (Akenbor & Agwor, 2015).

Weak cost control techniques impact a company's performance because they reduce profitability (Abdul & Isiaka, 2015). One of the most important indicators of a company's financial health is its profit margin. So, it is essential to have effective cost control techniques to ensure that costs do not go beyond acceptable levels. When profitability is compromised, expansion and operational performance are also hindered (Isiaka & Abdul, 2015)

> Empirical Review

The effect of cost control measures on profitability has been the subject of numerous academic investigations. (Siyanbola & Raji, 2013) based on their research into how cost control affects the profitability of manufacturing industries. Their research demonstrated that manufacturing companies in Nigeria can significantly increase their profitability by controlling costs.

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The researchers in this study used a budget as their primary instrument for controlling costs effectively. They studied WAPCO, a cement company in West Africa, and analyzed their data using Pearson correlation. Research instruments utilized were questionnaires.

A direct correlation between cost control, reduction, and profit was found in Akeem's (2017) research on the impact of cost management strategies on organizational performance. According to the study's findings, if a company wants to increase its profits, it needs to keep costs under control and reduce them to a reasonable level. The research strategy used was a descriptive survey. As research tools, questionnaires were utilized.

There is a statistically significant correlation between effective cost management and financial success, according to research on a subset of manufacturing companies (Abdul & Isiaka, 2015). The data collected was analyzed using descriptive and nonparametric statistics after a random distribution of questionnaires to manufacturing companies in Nigeria.

Abdul and Isiaka (2015) cite research by Adeleke (2014) that looked at the relationship between cost control techniques and profitability in Nigerian banks. The study found no statistical significance. Descriptive statistics were employed in the analysis of secondary data.

According to a study conducted by Dattero, Kanet, and White (2011) investigated potential AI-based improvements to the MPC system, with the goal of creating a computerized MPC that could avoid the issues encountered by existing MRP and similar systems. Finding out how to avoid wastages by utilizing proper procedures for controlling production and inventory was the main objective of the study. Large manufacturing firms have shifted from a traditional reorder point system to computerized materials requirement planning systems; to avoid wastages, they concluded that a more efficient and superior MPC system could be achieved by incorporating the idea of economic batch scheduling. The MRP was the only system in the MPC system considered in this study; it did not examine the entire MPC system.

Because manufacturing companies operate in complex environments and have multi-dimensional strategic objectives, it is crucial to choose an MPC system that suits their specific environment. In their 1995 study, Newman and Sridharan surveyed manufacturing firms in the Midwest of the US to determine the relationship between the manufacturing environment and organizational infrastructure. The study verified that the manufacturing firm's overall performance would be improved by adopting an MPC system. It also stressed the importance of selecting an MPC system that matches the environment, by mapping the four most popular MPC systems with the environment and the infrastructure support system because it will affect the firm's performance. To learn how environmental factors impact MPC system selection, a similar study should be carried out in Kenya, and more specifically in the capital city of Nairobi.

Now that the MPC systems aren't limited to internal manufacturing operations, the e-commerce solution has reoriented them to focus on the supply chain. According to research by Chan and Burns (2002), which compared the efficiency of different MPC systems in different supply chain settings, this has improved the firms' competitive performance. The study also found that an MPC system's performance is positively correlated with organizational performance, with a well-implemented system leading to even better organizational performance. Three modules of the supply chain were the subject of the study that took place in Hong Kong.

Their research led them to believe that the MPC system had a direct impact on the company's productivity. Considering the pharmaceutical industry, the identical study ought to be carried out in Nairobi, Kenya. Wacker and Sheu (2006) conducted a study using data collected from 16 countries worldwide to determine the impact of MPC on manufacturing competitiveness. The study found that MPC helped achieve delivery competitiveness. As a whole, the MPC system improves manufacturing through materials and capacity planning and production activity control. In this study, the factors that were taken into account when calculating delivery competitiveness were product design, cost, flexibility, and quality. The study didn't look at all the MPC systems to see which ones could give companies an edge in the market; it just picked out a handful.

Research by Rondeau and Litteral (2009) found that effective MPC systems are crucial for firms to integrate their suppliers and customers into their internal operations. Scientists set out to determine how the MPC system is affected by the development of information technology. The researchers determined that the manufacturing environment has gone global and that, in order to maintain and improve the effectiveness of MPC, it would be necessary to integrate advanced information technology with the existing MPC systems. They arrived at this conclusion after analyzing the history of the MPC system. According to the research, MPC systems like ERP and management information systems are crucial to this integration's positive effects on overall business performance. More research into the best practices for training and the evolution of MPC systems is needed for this study.

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Regulations imposed by the pharmaceutical industry had an impact on the medical device manufacturers (Murule, 2011). In order to understand how pharmaceutical manufacturing firms in Kenya dealt with the changes that occurred in the industry, this study was conducted. Manufacturing firms managed the competitive environment caused by industry changes by implementing strategies in pricing, marketing, strategic alliances, communication, and technology. This study drew its conclusions from data collected through questionnaires. There was no investigation into the impact of the MPC systems on the companies in the study.

According to Momanyi (2014), manufacturing companies have begun to use ERP systems for managing customer relations, production, plant maintenance and scheduling, and procurement. The purpose of the research was to identify the factors that have influenced ERP implementations in Kenyan manufacturing companies. Better returns, enhanced data security and decision making, and reduced production costs are all ways in which ERP boosts a company's performance. The local study focused solely on ERP and neglected to examine any of the other MPC systems.

Nyori and Ogola (2015) state that new technology and changing consumer demands are driving significant shifts in production methods and system architectures. The researchers in this study set out to learn how manufacturing companies in Kenya have benefited from technological progress. According to their research on manufacturing companies' use of advanced manufacturing technology in Kenya, a positive interaction between technological potential and manufacturing challenges was formed through technological adoption. The research ignored the MPC system overall, which is also dependent on technology, in favor of MRP and ERP, two technological advancements.

According to Manese (2014), just-in-time based quality management improves both cost and quality by making the best use of human resources. Focusing on simplification, eliminating waste, and continuous improvement were identified as factors that would improve JIT in the study on just-in-time adoption and performance of major oil companies. Manese (2014) states that the model to be developed for JIT was determined by the company's readiness to implement it. As the JIT system improved the company's performance, the studies concluded that companies should prioritize manufacturing system integration and streamlining, setting goals that require continuous improvement, developing production controllable processes, and responding to customer requirements if they want to adopt the system.

Conceptual Framework



Fig 2 Conceptual Framework

Summary

The goal of this chapter is to compile various academic works on the topic of the effect of cost management on profit maximization into a single cohesive whole. The study's methodology included investigating cost control's intended use, the factors that must be considered to establish an efficient cost control system, the various cost control techniques used, and the outcomes of using ineffective methods. A discussion of research methods follows in Chapter 3

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CHAPTER FOUR RESEARCH METHODOLOGY

➤ Introduction

The researcher outlined the process or methodology that would be used to achieve the research goals in this section. Research instrument and data analysis technique, research instrument and population and sample techniques, ethical consideration, and research design are the subsections that will be presented in this chapter.

➤ Research Design

A research design is a plan that begins with the formulation of clear and unambiguous research objectives, organized methods of data collection, and a clear choice of the population and samples to be studied (Rajasekar, 2006). According to Almalki, (2016) research design is defined as a process that aids in planning the when, where, and how of gathering and analyzing data. According to Almalki (2016), there are several main types of research designs, including descriptive and explanatory designs.

In order to provide a descriptive stance on the topic of the effect of cost control on profit maximization, the study will conduct research using a descriptive design. Researchers were able to better understand the challenges faced by manufacturing companies and develop effective solutions to boost profitability by employing a descriptive approach to data collection. As an additional component of the descriptive research design, interviews and questionnaires were used to gather information about the situation at the time of the research. Furthermore, the researcher could only report events as they occurred; they had no say over the variables.

> Population of Study

The term "targeted population" was first used by (Alvi, 2016) to describe the set of people thought to be important for the study. All members of the specified criteria for a research investigation make up the target population, and the selected individuals help in coming up with a research conclusion by using data collection methods (Alvi in 2016).

According to Saunders (2007), a population can be anything like a collection of people, businesses, or social interactions; it's also the source of the research sample that shows the most similarity among the elements. Financial, Sales and Marketing, Human Resources, Production and Processing, Quality Control, and Product and Development departments were the primary foci of the research, which aimed to gather data from UAE manufacturing companies.

> Sampling Techniques

It is a procedurally selected subset of the target population or the accessible population. It is not necessary to draw a sample size because all of the target populations can be interviewed, even though the number of populations is known (Alvi, 2016).

The total targeted population was 100 participants with a sample size of 48 participants all of whom worked in manufacturing firms in UAE. The sample was obtained from three firms based in Abu Dhabi.

Department	Number
Product & Development Department	12
Quality Control	10
Production & Processing Department	13
Human Resource Management	3
Sales & Marketing	4
Finance Department	6
Total	48

Table 1 Sampling Techniques

The formula developed by Slovene was used to determine the sample size:

$$\mathbf{n} = \frac{N}{1 + (N \times e^2)}$$

> Research Instruments

In a 2003 study, Birmingham and Wilkinson Research instruments are tools that researchers use to collect data for their studies. Questionnaires and interviews are examples of research instruments that researchers use; their selection has a significant impact on the quality and validity of the data collected (Birmingham & Wilkinson, 2003). As a means of collecting first-hand accounts, the researcher distributed questionnaires.

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According to Birmingham and Wilkinson (2003), a questionnaire is a document that contains a set of questions, typically designed to be sent to a large number of subjects in order to collect data for a survey. According to Saunders (2007), a questionnaire consists of a set of questions presented in a specific order with clear instructions on how to answer each question. It is a standard tool for storing information that is out of the reach of the observer physically. Organized and unorganized questionnaires are both possible. The researchers polled the populace using surveys that included both yes/no and open-ended questions.

➢ Data Collection

For proper collection of data, the research selected the type of data that was to be processed hence, the primary data was selected. Primary data was the suitable form of data that could be obtained from this study as the research had direct access to the targeted population through highly placed employees working from three different manufacturing firms based in Abu Dhabi (SKM Air Conditioning, Porcellan & Emerson Limited) which the data collected more reliable than secondary data. Therefore, in order to proceed with the data collection method, it is crucial to acknowledge that a research study can gather, retain, and analyze data from primary sources to eliminate any trace of deceit or prejudice from the researcher. Hence, the chosen data collection method was suitable for gathering data from primary sources. Nevertheless, this study incorporated certain elements of secondary data, including journals, published books, articles, and official publications obtained from the companies utilized in this research.

This study aimed to facilitate the researcher's comprehensive analysis of how manufacturing firms in the UAE can enhance efficiency by examining the influence of planning and control on operational costs. In addition, the survey participants were notified about the procedure via telephone calls and WhatsApp messages in order to obtain consent for the execution of the survey. The study aimed to include a population of 100 respondents. However, only 48 individuals from the sample size willingly completed the questionnaire at both SKM Air Conditioning, Porcellan & Emerson Limited. Furthermore, the research question was tailored to align with the study's objective. Consequently, the questionnaire consisted of closed-ended questions that were employed to gather data from the participants.

➤ Reliability & Validity

• Validity

The veracity and precision of scientific results are crucial to research validity (Brink, 2011). Both the existence of the target variable and the results of the instrument's intended measurement should be revealed by a validity study (Brink, 2011). The reliability and accuracy of the research findings are determined by the validity of the study (Thanasegaran, 2012). When it measures the target variable faithfully and unaffected by confounding variables, we say that the research instrument is valid.

We must not take inadequacies lightly because they have major implications for the overall results of the study (Thanasegaran, 2012). The researcher ensured the validity of the research instruments by using research objectives and questions when creating the questionnaires and interview guides. We checked the research instruments to make sure they were valid and that the questions they asked were relevant to the problem we were studying.

Reliability

Information is considered reliable to the degree that it is free from error and produces accurate results (Thanasegaran, 2012). According to Thanasegaran (2012), data is deemed reliable when multiple researchers using the same instruments produce consistent results on the same topic. Reliability seeks to minimize errors in the collected data (Brink, 2011). When the same measurements are taken on the same sample under the same conditions, they should consistently produce the same results (Brink, 2011).

Respondents may have been reluctant to share sensitive information due to factors like competition anxiety, and the fact that the study took place at a private institution adds to this problem. So that respondents could remain anonymous, the researchers set up a drop box for them to use when they were ready to turn in their unsigned questionnaires. Structured interview questions helped to cover all bases, and other research tools made sure the data was reliable. The goals of each objective were covered in the questions.

In order to reduce the possibility of mistakes, the questionnaires will be distributed to the respondents first thing in the morning, before they are too tired from their work.

Data Analysis Technique

In order to draw valid conclusions from data, data analysis is a methodical process that includes using statistical and logical methods to describe, evaluate, and illustrate the data (Walton N., 2013). After collecting and organizing survey responses into a coding sheet, we will run the numbers through SPSS 20.0, a computer program for statistical analysis. The researcher will use descriptive statistics, such as variance, standard deviation, quartile deviation, and range, to analyze the objectives. The subjects in the questionnaire were asked to select one to five scales, and the researcher will describe them using these metrics. 1=agree 2=strongly agree 3=Neutral 4=disagree 5=strongly disagree.

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> Ethical Considerations

By protecting the identity, privacy, and confidentiality of participants, the researcher in this study adhered to all applicable ethical standards. Ensuring adherence to ethical standards, the researcher will approach company administration for authorization to administer surveys to employees, assuring them that the data collected will be utilized exclusively for academic purposes. The researcher is committed to protecting the privacy, anonymity, and confidentiality of the participants. This research will be conducted in an ethical manner, and the researcher assures that all copyrights will be respected.

CHAPTER FIVE FINDINGS

➤ Introduction

Data presentation, analysis, and interpretation are the main topics of this chapter. Tables, graphs, and pie charts outline the collected data. Based on the mode, conclusions are drawn from the presented data.

> Demographic Data

• Gender of Respondents

Determining gender in research is crucial for understanding how outcomes may vary based on biological and social factors. It enables researchers to identify potential gender-specific trends, tailor interventions, and ensure the generalizability of findings. Recognizing gender differences is essential for advancing knowledge in fields like medicine, psychology, and sociology, promoting inclusivity, and addressing disparities in health and well-being. Overall, incorporating gender as a variable enhances the depth and applicability of research outcomes.

Table 2 Gender of Participants					
Frequency percentage Valid Percent Cumulative Percentage					
Male	31	65	65	65	
Female	17	35	35	100	
Total	48	100	100		

The data presented in the figure reveals that men made up 64.6% of the total respondents, with 17 females accounting for 35.4% of the total. Out of all the gender respondents, 31 are male and 17 are female.



Martial Status

During the study, the respondents were required to indicate their martial status and the table below shows the data obtained showing the marital status of the respondents.

Table 3 Martial Status					
	Frequency	Percent	Valid Percent	Cumulative	
				Percent	
Single	13	27.1	27.1	27.1	
Married	29	60.4	60.4	87.5	
Divorced	6	12.5	12.5	100.0	
Total	48	100.0	100.0		

Table 3 Martial Statu

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From the above data, 60% of the respondents were married, 27% were single and 12% were divorced.



Fig 4 Frequency of Martial Status

• Age of The Participants

The data in the table above shows that, according to the age distribution of the respondents, 6.5% were in the 18-27 age bracket, 31.3% were in the 28-37 age bracket, 29.2% were in the 38-47 age bracket, 22.9% were in the 48-57 age bracket, and 4.2% were 58 and above.

	Frequency	Percent	Valid Percent	Cumulative
				Percent
18-27 years	6	12.5	12.5	12.5
28-37 years	15	31.3	31.3	43.8
38-47 years	14	29.2	29.2	72.9
48-57 years	11	22.9	22.9	95.8
58 years and above	2	4.2	4.2	100.0
Total	48	100.0	100.0	





• Level of Education

Table 5 Level of Education						
	Frequency Percent		Valid Percent	Cumulative		
				Percent		
Secondary	7	14.6	14.6	14.6		
Diploma	12	25.0	25.0	39.6		
Bachelor	21	43.8	43.8	83.3		
Master	5	10.4	10.4	93.8		
Other	3	6.3	6.3	100.0		
Total	48	100.0	100.0			

Almost seven percent of respondents were secondary school students, twelve percent had a diploma, twenty-one percent had a bachelor's degree, ten percent had a master's, and three percent were classified as having no degree at all, according to the data shown above.



Fig 6 Frequency of Level of Education

• Experience

Table 6 Experience					
	Frequency	Percent	Valid Percent	Cumulative	
				Percent	
Less than a year	8	16.7	16.7	16.7	
1-2 years	17	35.4	35.4	52.1	
3 and above years	23	47.9	47.9	100.0	
Total	48	100.0	100.0		

The respondents' work experience is shown by the data above. Of the respondents, 8.7% are in the less than a year category, 17.4% are in the 1–2-year category, and 47.9% are in the 3+ year category.



Fig 7 Frequency of Experience

> Descriptive Statistics

Examining the survey results in light of the study's aims is the focus of this section. Questions pertaining to the objectives were posed to the respondents, and their answers were analyzed.

• Effect of High Cost of Production and Operational Cost

	Frequency	Percent Valid Percent Cumulative			
				Percent	
Agree	23	47.9	47.9	47.9	
Strongly agree	14	29.2	29.2	77.1	
Neutral	4	8.3	8.3	85.4	
Disagree	5	10.4	10.4	95.8	
Strongly disagree	2	4.2	4.2	100.0	
Total	48	100.0	100.0		

 Table 7 Effect of High Cost of Production and Operational Cost

The data indicates that the performance of the manufacturing sector is being impacted by the extremely high operational and production costs. About half of the people who took the survey (23 people) agreed with the statement given above; nearly a third (29.2%) strongly agreed; a small percentage (4.3%) were unsure; and a small percentage (5.4%) disagreed. 2.2% of the people strongly disagree.

• Cost Reduction and Cost Control Are Important to an Organization to Assist in Regulating Waste

			-	-
	Frequency	Percent	Valid Percent	Cumulative Percent
Agree	25	52.1	52.1	52.1
Strongly agree	13	27.1	27.1	79.2
Neutral	3	6.3	6.3	85.4
Disagree	4	8.3	8.3	93.8
Strongly disagree	3	6.3	6.3	100.0
Total	48	100.0	100.0	

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The numbers back up the claim that cost reduction and cost control are crucial for any business looking to rein in wasteful spending. Fifty-two people, or 52.1% of the total, checked the "Agree" box. Out of the total number of respondents, 13 (or 27.1%) are in "Strongly agree," 3 (or 6.3%), are "Neutral," and 4 (or 8.3%), are in "Disagree" with the statement given above. 3.3% of the population strongly disagrees.

Reducing Costs Directly Shows an Increase in The Levels of Profits

Reducing costs directly correlates to an increase in an organization's profit level, according to the data. "Agree" was selected by 27 respondents, or 56.3% of the total. In regards to the statement mentioned earlier, fifteen respondents (31.3%) are in "Strongly agree," four (8.3%) are in "Neutral," and one (2.1%) are in "Disagree". among whom one in ten (2.1%), strongly disagree.

	Frequency	Percent	Valid Percent	Cumulative
				Percent
Agree	27	56.3	56.3	56.3
Strongly agree	15	31.3	31.3	87.5
Neutral	4	8.3	8.3	95.8
Disagree	1	2.1	2.1	97.9
Strongly disagree	1	2.1	2.1	100.0
Total	48	100.0	100.0	

Table 9 Reducing Costs Directly Shows an Increase in The Levels of Profits

Cost Controls Increases Sales and Profitability for an Organization

Table 10 Cost Controls Increases Sales and Projudbing for an Organization							
	Frequency	Percent	Valid Percent	Cumulative			
				Percent			
Agree	18	37.5	37.5	37.5			
Strongly agree	21	43.8	43.8	81.3			
Neutral	5	10.4	10.4	91.7			
Disagree	2	4.2	4.2	95.8			
Strongly disagree	2	4.2	4.2	100.0			
Total	48	100.0	100.0				

Table 10 Cos	t Controls	s Increases	Sales	and	Profita	bility fe	or an	Organizatio	on
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Cost control increases the likelihood that a company will sell its products at a lower rate than its competitors, according to the data. 18 people (or 37.5% of the total) selected "Agree" as their response. The following percentages of respondents are regarding the statement given: (21 or 43.8% agree), (5 or 10.4% are unsure), and (2 or 4.2%) are against. 2.2% of the people strongly disagree.

Cost Controls Relies Heavily On the Existence of Effective Cost Controls •

	Frequency	Percent	Valid Percent	Cumulative
				Percent
Agree	25	52.1	52.1	52.1
Strongly agree	15	31.3	31.3	83.3
Neutral	6	12.5	12.5	95.8
Disagree	1	2.1	2.1	97.9
Strongly disagree	1	2.1	2.1	100.0
Total	48	100.0	100.0	

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According to the data in the table, a reliable and efficient cost control system is crucial for keeping costs in check. "Agree" was selected by twenty-five people, or 52.1% of the total. Regarding the statement mentioned earlier, fifteen respondents (31.3%) are in "Strongly agree," six (12.5%) are in "Neutral," and one (2.1%) are in "Disagree." along with one or two and a half percent who strongly disagree

• Removing Waste and Non-Value Adding Activities During Production

	Frequency	Percent	Valid Percent	Cumulative
				Percent
Agree	22	45.8	45.8	45.8
Strongly agree	17	35.4	35.4	81.3
Neutral	5	10.4	10.4	91.7
Disagree	2	4.2	4.2	95.8
Strongly disagree	2	4.2	4.2	100.0
Total	48	100.0	100.0	

Table 12 Removing Waste and Non-Value Adding Activities During Production

Reducing production costs is facilitated by removing non-value adding activities and waste, as shown in the table. Of the participants, 22 (or 45.8%) were selected as "Agree." Seventeen people (or 35.4% of the total) are in "Strongly agree" with the statement as written above, ten people (or 10.4% of the total) are in "Neutral" on the matter, and two people (or 4.2% of the total) feel strongly disagree. 2.2% of the people strongly disagree.

• To What Extent Do You Agree That Companies Should Carryout Educational Awareness On Cost Control Issues?

Table 13 To What Extent Do You Agree That Companies Should Carryout Educational Awareness On Cost Control Issues

	Frequency	Percent	Valid Percent	Cumulative
				Percent
Agree	14	29.2	29.2	29.2
Strongly agree	31	64.6	64.6	93.8
Neutral	2	4.2	4.2	97.9
Disagree	1	2.1	2.1	100.0
Total	48	100.0	100.0	

What percentage of the population do you think should be educated about the importance of cost control in the workplace? 14. (or 29.2%) of those who took the survey selected "Agree." A total of 31 respondents (or 64.6% of the total) are in "Strongly agree" mode regarding the statement given above, while 2 respondents (or 2.4%) are in "Neutral" mode and 1 respondent (or 2.1%) firmly disagrees.

• Cost Containment is Suitable for Cost Which Are Induced by Internal Factors to The Organization

Table 14 Cost Containment is Suitable for Cost Which Are Induced by Internal Factors to The Organization

	Frequency	Percent	Valid Percent	Cumulative
				Percent
Agree	26	54.2	54.2	54.2
Strongly agree	12	25.0	25.0	79.2
Neutral	6	12.5	12.5	91.7
Disagree	2	4.2	4.2	95.8
Strongly disagree	2	4.2	4.2	100.0
Total	48	100.0	100.0	

According to the numbers, cost containment works best for expenses that originate from inside the company. Twenty-six people, or 54.2% of the total, selected the "Agree" option. Twelve respondents, or 25.0%, are in "Strongly agree" mode, six, or 12.5%, are in "Neutral" mode, and two, or 4.2%, are in "Disagree" mode regarding the statement given above. 2.2% of the people strongly disagree.

CHAPTER SIX DISCUSSION

Characteristics of Study Participants

Here we give some background on the people who took part in the study's primary data collection: the respondents. In order to determine the study's distribution of respondents and learn about their characteristics, this background information was compiled. The study's results, presented in both tabular and graphical formats, show that men made up 65% of the respondents and females 35%. In addition, 12.5% of the respondents were in the 18-27 age range, 31.3% were in the 28-37 age bracket, 29.2% were in the 38-47 age bracket, 22.9% were in the 48-57 age bracket, and 4.2% were 58 and up.

Based on these findings, middle-aged adults (those between the ages of 28 and 37) made up the largest demographic of research participants. This suggests that the majority of the selected businesses are run by middle-aged individuals. Almost 65% of respondents were male, according to the demographic data, which shows that men are actively involved in manufacturing companies.

> Objectives

Finding out what cost control is all about was the primary goal of the research. Analyses of the responses showed that 52.1% of people agreed, 27.1% strongly agreed, 6.3% were neutral, 8.3% disagreed, and 6.3% strongly disagreed that cost reduction and cost control are important for organizations because they help to regulate and reduce unwanted expenses. Organizations place a high value on cost control, as demonstrated by the result.

Results show that cost control increases the chances of an organization selling its products at a lower rate than its competitors. 37.5% of respondents agreed with this statement, while 43.8% strongly agreed, 10.4% were neutral, and 4.2% disagreed or strongly disagreed.

Comprehending the prerequisites for a successful cost control system was the secondary aim of the study. A solid and effective cost control system is crucial for cost control, according to the results of this answer. According to the results of the survey, 52.1% of people think that a good cost control system is crucial to a company's efficiency and effectiveness, while 31.3% strongly agree. 12.5% are unsure, and 2.1% don't think that cost control is all that important.

Examining the connection between cost control and profit maximization was the third objective of the study. The study found that among the participants, 39.6% were in agreement and 35.4% were strongly in agreement that cost control has a significant impact on profit maximization. A further 10.4% were neutral, 8.3% disagreed, and 6.3% strongly disagreed. Maximizing profits is heavily impacted by cost control, according to this answer's findings.

Finding out what happens when ineffective cost control techniques are put into play was the fourth goal of the research. In their study, the researchers found that while 66.7% of respondents strongly agreed that weak cost control techniques lead to higher labor costs, 22.9% were in agreement, 6.3% were neutral, and 4.2% disagreed with this finding. This answer's findings point to a rise in labor costs as an indicator of ineffective cost control techniques.

CHAPTER SEVEN

CONCLUSION AND RECOMMEDATION

➤ Introduction

The research study's conclusions and a synopsis of its earlier chapters are presented in this section. In addition to providing suggestions for additional research based on the findings, the research also includes recommendations.

Summary of Research

The first chapter provided context for the study by outlining the problem and its objectives. Assumptions, research questions, and the study's significance were emphasized. In addition, the chapter began with a brief overview before moving on to study limitations, definitions of key terms, and finally, a conclusion.

A literature review of previous research and the thoughts of other academics was presented in the second chapter. Using the research objectives, the researcher conducted a literature review. The research methods and procedures were detailed in Chapter 3. Here is how the chapter was organized: The research strategy, the intended readers. Ethical considerations, data gathering methods, and the validity and reliability of research tools were also part of it. Data was collected using both quantitative and qualitative methods. Thirty employees from different departments of Primeseed.co. were selected as the primary data source. There was an emphasis on presenting, analyzing, and interpreting the data in Chapter 4. The information was displayed in a graphical format using tables, pie charts, and bar graphs. Based on the mode, we analyzed the provided data and drew conclusions. The last chapter provided a synopsis, findings, suggestions for future research, and recommendations.

➢ Conclusion

Finding out how cost control affects manufacturing companies' ability to maximize profits was the primary goal of the study. The study was motivated by a rise in costs that led to lower profitability in the manufacturing sector.

Since it is obvious that manipulating costs can increase profit, all of the research objectives were met, and the conclusion drawn is that cost control has a positive impact on company profitability.

Accounting strategies like budgetary control, standard costing, and variance analysis made it clear that elements of costs like materials, labor, and overhead could be strategically controlled to achieve higher profit levels, as could workers' behavior. A good cost control system is essential for cost management because it minimizes costs by eliminating wastages and reducing inefficiencies in production and the entire organization. Additionally, the results showed that weak cost control techniques led to higher labor costs, material wastages, repair and maintenance costs, and lower operational performance.

➢ Recommendations

According to the study's results, lower-level employees are not involved in initiatives or decision-making that affect cost control measures. Because cost control is an ongoing process that necessitates the support and participation of all employees constantly, and because management cannot control costs on their own, it is imperative that all employees be involved when proposing departmental initiatives to control costs.

Organizational cost control is crucial, and businesses should do what they can to raise awareness about it. It is important to explain the significance of cost minimization to employees and conduct these meetings and campaigns on a monthly or quarterly basis.

The study's results showed that most people think businesses should raise employee knowledge and understanding of cost control issues through educational initiatives.

Additional research into the function of budgetary control as a means of cost management to support an organization's competitive advantage is suggested by the researcher. According to the research, one of the most important ways to find ways to save costs is to have a budget and to keep to it.

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REFERENCES

- [1] Abdul, & Isiaka. (2015). The traditional cost theory and contexcual theory of cost. International Journal of management sciences and humanities (IJMSH).
- [2] Adeleke, E. (2014). Cost management techniques and performance of Nigerian banks- Thesis. Ife: Obafemi Owolowo University.
- [3] Akeem, L. (2017). Effect of cost control and cost reduction techneques in Organizational performance. International Business and Mnagement, p. 19-34.
- [4] Akenbor, C., & Agwor, a. T. (2015). Standard Costing and Cost Control in Nigerian Oil and Gas Industry. Journal of Modern Accounting and Auditing, p. 185-193.
- [5] Almalki, S. (2016). Research Methodology. ResearchGate, pp.55-62. Alvi, M. (2016). Manual for Selectig Sampaling Techniques in Research. Munich Personal RePEc Archive, p 10.
- [6] Anwar, M. S., & Dr.Muhammad Aslam, M. R. (2011). Temporary Job and its Impact on Employee Performance. Global Journal of Management and Business Research, pp 15- 20.
- [7] Birmingham, p. .., & Wilkinson, D. (2003). Using research instruments; guide for researchs. Routledge. Newyork: Person Education.
- [8] Bloch, E. (2014). Measures to resuscitate industry crucial. The Zimbabwe Independent, 50-62.
- [9] Brink, H. (2011). Validity and reliability in qualitative research. African Online Scientific Information Systems, p 206.
- [10] Chand, S. (2015). Principle of Profit Maximization of Different Firms. Your Article Library, P 5-6.
- [11] Clement, O. (2015). Practical Food and Beverage Cost control. London: Cengage Learning.
- [12] Drury, C. (2013). Management and Cost Accounting. London: Business Press.
- [13] Eti, M. O. (2014). Reducing the cost of preventive maintenance (PM) through adopting a proactive reliability-focused culture. Applied energy, pp.1235-1248.
- [14] Gauci, A. (2015). The relevance of standard costing and variance analysis in the manufacturing industry. Malta.
- [15] Gransberg, D., & O'Connor, a. E. (2015). Major Equipment Life-cycle Cost Analysis. Minneasota: Research Services & Library.
- [16] Hamermesh, D. S. (2014). Do labor costs affect companies' demand for labor? . IZA World of 56 Labor, pp11-19.
- [17] Jhingan, M. (2004). Mangerial Economics. Delhi: Vrinda Publications Ltd. Retrieved from https://www.scirp.org
- [18] Jim, H. (2015). Economics of Scale are Dead. <u>http://smallbusiness.chron.com/affects-laborcosts-21137.html</u>.
- [19] Joseph, M. (2014). An assessment of the budget and Budgetary Control in Enhancing financial performance of an organization. Research journal of finance and accounting, Vol. 5, ISSN 2222-1697(paper).
- [20] Kinney, M. R., & Raiborn, a. A. (2011). Cost Accounting Foundation and Evalutions. London: Cingage Learning.
- [21] Mapakame, E. (2014). Rags to riches and back to rags. The Sunday Mail: Business News, 2(2014), p. 4.
- [22] Okafor, F. (1983). Invesment Decisions. London: Continuum International Publishing Group Ltd.
- [23] Oluwagbemiga, O., Olugbenga, O., & Saccheaus, a. S. (2014). Cost management practices and Firm's performance of manufacturing organizations. International Journal of Economics and Finance, page 234.
- [24] Oyewu, B. (2013). Strategic cost management as a recession survival tool in the Nigerian manufacturing and financial service industries:. Research journal of finance and accounting, Vol 4,, ISSN 2222-1697(paper).
- [25] Rajasekar, S. (2006). Reasearch Methodology. ResearchGate. Saunders, M. (2007). Research Methods for Business Students. Toronto: Pearson Education.
- [26] Siyanbola, T., & Raji, a. G. (2013). The Impact of Cost Control on Manufacturing Industries' Profitability. International Journal Management and Social Science research, p. 4. ssdufer8. (sdhfief). sjdsd. asshhe: asewh.
- [27] Thanasegaran, G. (2012). Reliability and Validity Issues in Research. Semantic Scholar, 13. Walton, N. (2013). What Is Research Ethics? Research Ethics blog, 45. Journal of Economics and Finance, page 234.
- [28] Oyewu, B. (2013). Strategic cost management as a recession survival tool in the Nigerian manufacturing and financial service industries:. Research journal of finance and accounting, Vol 57 4,, ISSN 2222-1697(paper).
- [29] Rajasekar, S. (2006). Reasearch Methodology. ResearchGate. Saunders, M. (2007). Research Methods for Business Students. Toronto: Pearson Education.
- [30] Siyanbola, T., & Raji, a. G. (2013). The Impact of Cost Control on Manufacturing Industries' Profitability. International Journal Management and Social Science research, p. 4.
- [31] Thanasegaran, G. (2012). Reliability and Validity Issues in Research. Semantic Scholar, 13. Walton, N. (2013). What Is Research Ethics? Research Ethics blog, 45.
- [32] Weetman, P. (2010). Management Accounting. Essex: Pearson Education.

APPENDICES

APPENDIX 1: QUESTIONNAIRE

The aim of this study is to understand the relationship of production planning and control in your organization and operational cost. Your active participation in this study will be of great importance as it will contribute positively towards my academic journey and all information provided will be purposefully for this study and it will not be shared whatsoever.

Part 1: demographic Information

1.	Please indicate your department							
2.	Please state your role/designation in the organization							
3. Any of	What type is your organization? Locally owned (), Multinational () other, please specify							
4. Male Female	4. Please indicate your gender Male() Female()							
5. Below	Please indicate your age ow 25 () 26-35() 36-45() 46 and above ()							
6. Less tł	5. Please tick appropriately, Length of service in this organization?Less than 1 year ()2-5()6-10()11 years and above ()							
7. Certifie If othe	V. What is your level of education Certificate () Diploma () Undergraduate () f other, please specify. Output							
8. 0-16 Y Part 2	For how long ()	g has bee 17-25	n the organiza Years ()	ation operating? 26-30 Years ()	More than 31 years ()		
	•							

9. Effect of high cost of production and operational cost affects performance Strongly Agree () Agree () Neutral () Disagree () Strongly Disagree ()

10. Cost Reduction and cost Control are important to an organization to assist in regulating waste Strongly Agree ()
Agree ()
Neutral ()
Disagree ()
Strongly Disagree ()

11. Reducing costs directly shows an increase in the levels of profits Strongly Agree ()

Agree () Neutral () Disagree () Strongly Disagree ()

12. Cost controls increases sales and profitability for an organization Strongly Agree ()
Agree ()
Neutral ()
Disagree ()
Strongly Disagree ()

13. Cost controls relies heavily on the existence of effective cost controls
Strongly Agree ()
Agree ()
Neutral ()
Disagree ()
Strongly Disagree ()

14. Removing waste and non-value adding activities during production Strongly Agree ()
Agree ()
Neutral ()
Disagree ()
Strongly Disagree ()

15. Cost containment is suitable for cost which are induced by internal factors to the organization
Strongly Agree ()
Neutral ()
Disagree ()
Strongly Disagree ()