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ABSTRACT

In East Africa, Kenya is leading in both cement production and consumption. There are around 8 cement companies in Kenya. Three of these companies are listed at the Nairobi security exchange. Cement companies that are listed at NSE are Bamburi cement, ARM cement limited, East Africa Portland cement limited. Private companies are Mombasa cement, National cement, and Savannah cement. Competition amongst cement manufacturing is getting tough due to higher demand and supply in the real estate industry therefore companies are much interested in assessing financial positions to get or retain higher market share. Thus, this study focused on the effect of target costing on financial performance of manufacturing industry in Kenya. The study used both qualitative and quantitative research method. The target population of the study was 100 middle level management. The study used primary source of data that was collected through questionnaire that consist of structured questions. Quantitative data was collected analyzed through descriptive analysis and SPPSS presentations was presented through percentages, means, standard deviations, and frequencies. The information was displayed by use of frequency tables. The study findings revealed that financial performance of manufacturing industry in Kenya was significantly related with target costing. However, it was also found that target costing had positive influence on performance of cement manufacturing industry in Kenya. The study concluded that Process costing method was vastly used by the cement companies among the cost accounting methods.

Key Words: *Costing, Cement Manufacturing*

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INTRODUCTION

A Cost can be defined as the money or resources associated with a purchase, business transaction or any other activity. Different industries adopt varying methods of ascertaining cost of their products depending on the nature of production and the type of output (pristine, 2017). There are several types of costs namely fixed, variable, overhead cost, activity-based cost, marginal cost, full cost, traditional cost, absorption cost, incremental cost, sunk cost etc**.**

A Fixed cost is one that does not change with an increase or decrease in the amount of goods or services produced or sold. (Wilkinson, 2013) A variable cost is a company's cost that is associated with the amount of goods or services produced. A company's variable cost increases and decreases with its production volume. When production volume goes up, the variable costs will increase. On the other hand, if the volume goes down so too will the variable cost (Nickolas, 2019). The major cost elements that are associated with production of cement include power and fuel costs, raw material cost, and selling expense among others. Power and fuel cost are major costs and account for 30% of the price of cement when it's sold. As a result, power and fuel have a major impact on a company's expenditure. The second major component in the production of cement is the cost of raw material. The primary raw material that is used is limestone. Raw materials account for 30%-40% of the cost of sales. Other expenses include employee costs, administration expenses, and repair and maintenance charge. These account for 15%- 20% of the cost of sale. (Pabon, 2019).

Bamburi cement limited manufactures and sells cement and cement products for the building sector in Kenya and Uganda. The company exports its products to Reunion, Uganda and Mayotle. Brands in its retail range include Power max, Powercrete, Nguvu, Supaset, Multipurpose, Powerplus, Roadcem, Pre-cast concrete paving blocks sell under the Bamburi Blox name. The company also supplies Pre-cast concrete paving blocks sell under BamburiBlox name. The company also supplies precast molded cement products used for drainage, edge constraints, fencing and walling and ready-mix cement. (African financials, 2021).

THE Savannah cement investment, which stands at an estimated value of KES 10 billion, is indigenously owned by Kenyan investors. The company comprises local investors who committed to running east Africa s eco-friendliest and efficient cement-manufacturing complex to world-class standard savannah cement operates an eco-friend cement grinding plant with capacity of 2.4 million tons a year. The plant is near Nairobi which accounts for 50% Kenya's cement consumption savannah cement is not only designated to make the best use of green technology, but is also focused on revolutionizing environment management in the regional cement industry. (savannah cement, 2021).

The Kenyan construction industry has experienced speedy growth in the past decade driven by a huge demand for housing as well as the government focus on mega infrastructure projects. Attracted by this growth, several cement manufacturers have ventured into the Kenyan market bringing to six, the total number of top cement manufacturing companies in the country. (mwangi, 2019).

The Kenyan cement market saw a demand increase of 26.6% in the first five months of 2021, driven by public infrastructure and home construction projects across the country. According to the Kenyan national bureau of statistics, local cement consumption stood at 3.35 million tonnes in the January to May window compared to 2.64 million tonnes last year. During the period, production rose, 27.3% t0 3.38 million tonnes, from 2.65 million tonnes in the equivalent period of 2020 as manufacturers raced to meet the rising demand. (mutegi, 2021).

Problem Statement

The consumption of cement in Kenya dropped in 1.4 million tonnes in the second quarter of 2018 indicating slow activity in the real sector. In the first quarter of this year, cement consumption stood 15.7 percent while that cement consumption stood at 1.5 million tonnes. According to the Kenyan national bureau of statistics (KNBS), the volume of cement imports fell 15.7 per cent while that of cement clinker fell eight percent in the first quarter of 2018.Similarly the volume of imports of construction material such as iron and steel bars, and rods declined by 4.9percent during the quarter in review stated KNBS. The downward trend in cement consumption began in 2017 despite the standard gauge Railway (SGR) construction project that was going on last year. (Mbogo, kenyanwallstreet.com, 2018). Kenyan cement manufacturers are facing tough times as sluggish demand for the construction material as well as an influx of cheaper imports from Asia continue to undermine their profitability. Although most of the local cement firms are not listed on the Nairobi Securities Exchange, and are therefore not obliged to disclose their financial statements, the dismal performance of listed firms has painted a grim picture of the key sub-sector of the economy. (Aviv-based & Coast, 2018).

Competitive strategy is a major concern for top cement companies in Kenya. The major cement firms in Kenya include the Bamburi cement, East African Portland cement, and the Athi river mining, Rhino cement. These companies have to compete for limited resources market and limited customers for them to achieve their mission or objectives (Wanyonyi, 2012). Most studies had

Focused costing from the perspective of cost component, liquidity factor, cost design, hence they under looked factors such as cost ABC costing, Standard costing, Marginal costing, Target costing. , hence these has brought my attention on the gab left behind therefore this study will fill the gap by exploring effect of costing models on financial performance of cement manufacturing industry. Through deep investigation of how ABC Costing, Standard costing, Target costing and Marginal costing effect on performance of manufacturing industry through analysis of cement manufacturing industries.

Study Objective

The objective of this study was to determine effect of target costing on financial performance of cement manufacturing industry in Kenya. The hypothesis of the study was;

- H_{01}: Target costing has a significant impact on financial performance of manufacturing industry in Kenya.
- H_0: Target costing has no significant influence on the performance of cement manufacturing industry in Kenya.

LITERATURE REVIEW

Theoretical Review

Transaction Cost Theory

Ronald Coase, in1937, was the first to highlight the importance of understanding the cost of transacting, but TCE as a formal theory started in earnest in the late 1960s and early 1970s as an attempt to understand and to make empirical prediction about vertical integration ("the make-buy-decision"). In its history spanning now over five decades, TCE has expanded to become one of the most influential management theories, addressing not only the scale and scope of the firm but also many aspects of its internal workings, most notably corporate governance and organizational design. TCE is therefore not only theory of the firm, but also theory of management and of governance (Mahoney, 2017).

Transaction cost theory could be defined as the expenses involved in carrying out some goods and services through the market. In Other words, Transaction cost can be the market running cost. Transaction cost theory has to deal with the running cost while selling or buying goods and service. (Jonah, 2018)

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Transactions are defined as the cost of running an economic system and include direct and non-direct cost of negotiating and monitoring and enforcing explicit and implicit exchange between the firm and customer. Transaction costs can be defined into pecuniary cost which relate to travel costs, opportunity costs, administrative hassle and non-pecuniary transaction cost which include various requirements for accessing financial service such as minimum depositing requirement with drawl fees, opening fees and other requirements. (Sabana, 2014).

The basis of modern economics presents a series of works synthesized in the theory of transaction costs, which is the basis of economics of transaction cost as well as contemporary economics. The economics of transaction costs studies the transaction cost of goods and services among market participants. The economics of transaction cost has grown into usable practical tool, suitable to explore the proud types of problems in different science. (Ćetković, Lakić, Knežević, Žarković, & Sazonova, 2016).

According to (Mabuza, Ortmann, & Wale, 2014) their study sought to analyze the effect of transaction costs on the choice of marketing channels and quantity of mash rooms sold by producer in Swaziland. Result indicated that the difficulty in accessing market information and lack of bargaining power reduces producer's likelihood of participating in remunerative markets.

Empirical Review

Target costing originated in japan during 1960s along with just-in-time inventory. It is widely practiced in more than 80% of the companies in the assembly industries and more than 60% of the companies in processing industries. Target costing involves use of specialized tools like functional analysis, value engineering, value analysis and make use of inter-departmental dynamics to achieve the desired results. Good results can be achieved by combining employees from strategy, planning, marketing, engineering, finance and production into expert team. (Perčević & Hladika, 2016).

Target costing achieves its objectives by transmitting the competitive pressures faced by the firm to its product designers and suppliers. It creates a common language among the various functions involved in bringing products to market: production, product engineering, procurement, and marketing. It helps individual in the various functions develop products that have the right functionality, quality, and cost. (بارانی, n.d.) .

Cooper and slagmulder characterize value engineering as "a multidisciplinary approach to product design that maximizes customer; it increases functionality and quality while reducing cost." Related to the understanding of early cost commitment, value engineering activities begin in parallel with the first stages of a product development process. (Heinz ahn, 2018).

Target costing, strategic cost management is a subject of debate, it is estimated that the cost for a product or service is based on the sale of products or services, based on the company's earnings achievement. In fact the target costing approach is to achieving cost competitive products or services on condition that the price is determined based on the expected profit determined. (Rostami, Rostami, & Moradi, 2016)

Most of industries such as cement industry compete in competitive market which demands the exact commercial strategies to be determined by organization. In a competitive environment, the ever increasing is regarded as one of the principal parameters for customers. In reply to cost improvement many manufacturers have embarked on accepting and utilizing the management accounting tools and techniques among them is the target cost based costing. (Pakizeh, Vali, Hanzaei, & Moradi, 2013)

Conceptual Framework

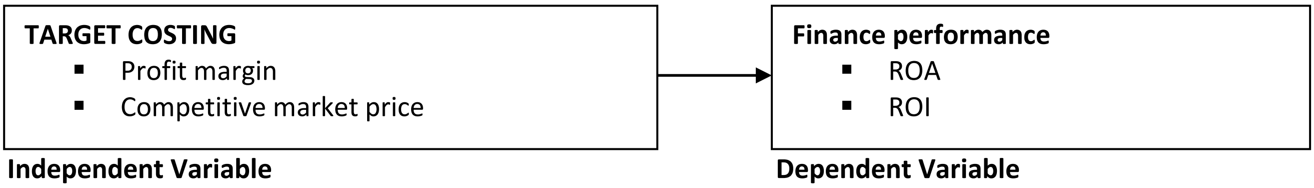

Figure 1: Conceptual Framework

METHODOLOGY

Descriptive research design was used in this study. The target population was 100 respondents. The sample size of the study was 124 respondents which was 69% of the target population. Questionnaire was the main data collection tool in this study. Before processing the responses, the completed questionnaire were edited for completeness and consistency. Quantitative data collected was analyzed using descriptive statistics using SPSS and was presented through percentages, means, standard deviations, and frequencies. The information was displayed by use of par charts, graphs, pie-charts and in prose-form. Pilot study was carried out using 13 respondents chosen from samples.

FINDINGS AND DISCUSSION

Descriptive analysis

This section presents descriptive analysis findings on the independent (ABC costing, target costing, standard costing, marginal costing) and dependent variables (Financial performance) of the study.

Financial Performance

The study respondents were requested to show their level of agreement with the statements in relation to financial performance. The results were shown in table 1 below;

Table 1: Descriptive Statistics for Financial Performance

	N	Mean	Std. Deviation
There has been increase on the number of employees in the last five years	98	3.76	.83
We have opened up new branches for our organization to serve customers better	98	4.61	.48
Our return on investments has increased	98	2.59	1.12
We have an increase in profits in the past three years	98	3.85	.79
Our revenues have increased in the past three years	98	4.63	.69
Our return on assets has increased	98	4.37	.69
Valid N (list wise)	98		

Source: Research Data (2022)

The analysis in table 1 showed that the majority who scored the highest mean of 4.63 and a standard deviation of 0.69 agreed that our revenues have increased in the past three years. This was closely followed by those who too agreed that we have opened up new branches for our organization to serve customers better a mean of (4.61) and a standard deviation of (0.48). Futher more resopndents agreed their return on assets has increased with a mean of (2.59) and a standard deviation of (1.12). There has been increase on the number of employees in the last five years at a mean of (3.76) and a standard debviation of (0.83).

Target Costing and Financial Performance

The respondents were requested to show their level of agreement with the statements in relation to target costing. The results were as shown in Table 2.

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Table 2: Target Costing and Financial Performance

	N	Mean	Standard Deviation
Target costing provides accurate profits rather than cost	98	3.12	1.05
Target costing takes into account all profit and costs	98	3.37	1.23
Is target costing good in analysis of product lines	98	2.77	1.40
Does constant target costing benefit decision makers?	98	3.62	1.32
Target costing enhance cost control through inclusion of all cost?	98	3.00	1.40
Target costing is help full in determining exact price	98	3.63	.99
Target costing help in buy and make decisions	98	3.85	.60
Target costing assist in time element	98	3.24	1.20
Target costing simplify operations	98	3.24	1.08

Source: Research Data (2022)

Target costing has been acknowledged to be one of the factors that influence financial performance of cement manufacturing companies. The respondents were therefore required to rate their responses on a likert scale of 1-5 where: 5= Strongly Agree; 4= Agree; 3= Undicided; 2= Disgree; 1=Strongly Disagree. The analysis in table 4.8 below shows that all the respondents in the category agreed that; Target costing help in buy and make decisions, at a mean of (3.85) and a standard deviation of (0.60). Target costing is help full in determining exact price at a mean of (3.63) and a standard deviation of (0.99). Target costing takes into account all profit and costs at a mean of (3.37) and a standard deviation of (1.23). Target costing assist in time element with a mean of (3.24)and a standard deviation of (1.20), same as target costing simplify operations at a mean of (3.24) and a standard deviation of (1.08).

The study findings further agreed with Most of industries such as cement industry compete in competitive market which demands the exact commercial strategies to be determined by organization. In a competitive environment, the ever increasing is regarded as one of the principal parameters for customers. In reply to cost improvement many manufacturers have embarked on accepting and utilizing the management accounting tools and techniques among them is the target cost based costing (Pakizeh, Vali, Hanzaei, & Moradi, 2013).

CONCLUSION AND RECOMMENDATIONS

The study evaluated the effect of target costing on financial performance of cement manufacturing industry in Kenya. The study showed that target costing influence financial performance. Further, the findings established that, there is a statistically significant strong positive relationship between target costing and financial performance of cement manufacturing industry. Furthermore, the study found that variations in financial performance are influenced by target costing. Therefore, the study confirms that standard costing is very important for financial performance of cement manufacturing industry in Kenya.

Majority of the manufacturing companies in their daily operations are usually challenged by cost management. Some organizations have allocated and entire department with smaller cost departments to try and deal with the issue of cost management. The manufacturing companies have come to find out that to a great extent target costing management has a direct impact on the financial performance of these organization. Results were based on a questionnaire completed by the cost and management accountants of the selected cement companies. Study findings indicated several aspects of the extent use of cost and management accounting in the selected industry. Process costing methods is vastly used by the cement companies among the cost accounting methods.

Suggestion for Further Studies

The study considers ROA as a measure of firm performance in future the study recommended that another study should be done in corporation other measures of performance to investigate if the relationship will be that same.

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