CHRISTIAN SERVICE UNIVERSITY COLLEGE

SCHOOL OF BUSINESS

DEPARTMENT OF ACCOUNTING AND FINANCE

THE EFFECT OF TRAINING ON FINANCIAL OFFICERS, A STUDY INTO COST MANAGEMENT TECHNIQUES IN PRODUCTION ORGANIZATIONS

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DISSERTATION PRESENTED TO THE DEPARTMENT OF BUSINESS ADMINISTRATION IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF DEGREE IN BACHELOR OF BUSINESS ADMINISTRATION

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DECLARATION

Candidate's Declaration

We hereby declare that this submission is our own work towards the award of degree and that, to the best of our knowledge, it contains no material previously published by another person nor material which has been accepted for the award of any other degree of the University, except where due acknowledgement has been made in the text.

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Supervisor's Declaration

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ABTSRACT

This essay starts with a background of the entire study, which presents the origin and effect of competition on the local markets and the need for producers to become lower-cost producers.

It also starts with the objectives of the study with respect to the research questions raised (in relation to the problem statement).

Literature available on the subject was reviewed reflecting different options being expected by different writers on cost management techniques available to production firms and how it can influence their scale of operations.

Questionnaire was design as an instrument for collecting information from relevant respondents to the study.

The performance of the industry on the local market was discussed in chapter four (4). The aims is to assess the effective cost management techniques on the firms operations in terms of sales volume, how traders and consumers view the price and quality of product, and how it had influence their level of demand for the product at the market, and cost management techniques used by the firms Finally, based on the facts gathered, conclusion was drawn on the price with recommendation of cost management techniques available for product firms and how it can be used effectively to reduce total cost to gain competitive advantage(lower cost production).

DEDICATION

This project is dedicated to our families and friends whose tireless effort and support has made it possible for us to reach this far.

ACKNOWLEDGEMENT

We are sincerely thankful to the Almighty God for His guidance and protection throughout our years of study. May his name be praised.

We are also grateful to our supervisor Dr. Solomon Arhin and all the lecturers in School of Business at Christian Service University College whose direction and advice has made this project a success.

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TABLE OF CONTENT

LIST OF TABLES

LIST OF FIGURES

CHAPTER ONE

INTRODUCTION

1.1 BACKGROUND INFORMATION

The increase in international trade and, or globalization and trade liberalization resulting in formation of some economic blocks such as European Union (EU) North American Free Trade (NAFT) General Agreement On Tariff And Trade (GATT) World Wide Web (www) Economic Community of West African State (ECOWAS) Public Private Partnership (PPP) have given companies growth opportunity and profitability in the various markets. Due to this Trade liberalization and internationalization or globalization, local companies continue to face stiff competition from their counterparts abroad and even companies within local market continue to compete among themselves. Apart from the above phenomenon, one economic system government has little or no control over the operation of the enterprises. Individual decide where to invest their scarce resources and seek a commensurate return whiles customers have the option to determine which products and quantity to purchase from different business with distinctive product at various quantities and prices.

A business strength, survival and profitability can be determined in terms of patronage of its products at the market. According to the law of demand, customers will be willing to buy at a certain quantity of a particular product at various price levels. To enhance efficient study, the product in question is limited to a product which has a substitute and equally performing well at the market as well as serving the purpose.

A product is said to be demand elastic when there are substitute and the result is that a small change (increase / decrease) in price will cause a large change (decrease / increase) in quantity demand. Thus the proportional change in quantity is greater than the proportional change in price (David C Colander). In a price elastic demand, a rise in the price of a good will cost the demander to shift consumption to a substitute good. In a price elastic demand, cutting or reducing price will increase total revenue (i.e. more customers will be willing to buy the product thereby increasing market share of the firm). Therefore a firm that cut its price can gain only by taking business away from it competitors and increase its share of the total market.

According to Fry et al (1998) such firms must be aware of two important concepts that govern cost of production example economies of scale and learning curve.

The concept cost management, more so suggest that managers should find ways of reducing cost (Drury C. 2000). This is generally acceptable to be true, as is the fact that some firms' cost structures are so high that their products are affected by the cost in terms of marketing and selling. Higher cost producers usually have lower market shares due to high selling price of products. As a result of the above mentioned problems that companies face (price competition from both within and outside the local market, rapid change in technology, rapid change in customers preference and lack of monopolistic system of economy), cost management have become a vital part of a company's growth strategy.

A research by Boston Consulting Group in 1973 on "the growth share matrix of the product portfolio" in the USA found that there was a positive correlation between market share and return on capital, so that companies in a strong competitive position for their base product will be earning high returns. To ensure profitability position, companies all over the world endeavor to become the lower cost producer which will promote high market share. This text can only be applicable in the Ghanaian industries when producers are able to ensure efficient cost management techniques which will aid in cost reduction.

Deep Company Limited within Kumasi metropolis is no exception to numerous producers in mineral water (sachet water) industry. If the company wants to survive and remain competitive in this industry, then it should adopt strategic management policies with cost management as its keen interest and target. Most Ghanaian manufacturing have also come to this realization and continue to introduce cost management techniques with ultimate aim of lower cost production thereby increasing market share which in turn increase profit return on capital. Some of the cost management techniques introduced by local producers includes process improvement (that is where an opportunity has been identified to perform process more effectively and efficiently and which have obvious cost reduction outcomes), total quality management (TQM), Just-in-Time (JIT).

1.2 STATEMENT OF THE PROBLEM

Competition has become vital and it is at the heart of every company to produce product that has lower cost base. Producing at lower cost means certain systems must be strategized by management and focus on all activities, policies, procedures and plans need to enhance absolute cost reduction. However, it is not enough to introduce the methods adopted by management to reduce cost, but also qualified and competent personnel should be employed to carry out the cost management functions. Besides, there should be adequate information from the external environment of the business which will help the business plan its cost structures.

There are numerous producers in the mineral water industry within Kumasi metropolis which has created demand for substitute goods. As a result of this, the mineral water is faced with strong competition within the industry which affects its market share per company posing a threat to the company's survival. Now the question is how can the companies maintain a strong market positioning in order to remain competitive, can the companies adjust the price of its product down to win more customers? Using mineral water companies in Kumasi metropolis as a case study, the key questions are:

1. What are the type of cost management techniques been used by producers in Ghana?
2. What were the procedures and steps adopted to execute these techniques of reducing cost
3. How is the system or techniques influencing the operation of the firm?
4. What is the impact of profit margin on the revenue of mineral water producers?
5. Does the firm know its competitors, activities, strength, and pricing methods?

It is of much hope that these questions should be answered and the intended objectives will be achieved.

1.3 OBJECTIVES

This research work seeks to find out the performance of cost management techniques used by local producers. The researcher especially seeks to:

i. Find out the cost management techniques used by local producer and their impact on lower cost of production.
ii. Find out the performance of local producers on its internal arrangement and control with regards to cost reduction process and quality improvement.
iii. The impact of price on demand of consumers in the purchases of mineral water.
iv. The impact of profit margin on the revenue of sachet water producers.
v. Find out whether the techniques have helped improved the standard of operations of the industry.
vi. Analyze how the techniques have helped the industries' market share
vii. Summarize findings and make recommendations.

The following key questions pertinent to the study are summarized from the objectives to guide the study:

i. Mineral water firms have various cost reduction strategies in operational system.

1.4 SIGNIFICANCE OF THE STUDY

The introduction and the use of cost management techniques by production and trading firms will enhance absolute cost reduction with the aim of price reduction thereby taking business away from competitors through market share maximization of mineral water companies in Kumasi metropolis will be taken by those who seek assistance to improve the performance of business (through cost reduction strategies and techniques) and achieve success.

The research will provide professional steps in which the mineral water companies can use to reduce its cost of production and operation. It will also highlight some cost management techniques which serve as a source of reference to others who may be willing to find out ways of reducing cost in their firms. Beside the study will bring out the importance of cost management to an organization and the need for management to adhere to cost management policies.

The research work carried out is of much importance to practically help the student and fulfils the theoretical academic teaching of the First Degree in Accountancy in order to gain recognition in the country. It will also serve as a manual for further studies to student in their field of study. Management and staff, and lectures may also need it as a guide in their policies and decisions.

1.5 LIMIT OF THE STUDY

The study will be limited to a particular product of mineral water company have substitute. The price of some products of competitors and their effect on the others within the Kumasi metropolis will also be found out.

1.6 LIMITATION OF THE STUDY

The research work was encompassed with many problems which have constrained the intended purpose for which it was perceived to be conducted. The following factors put a lot of restriction on the study.

i. Availability of adequate funds to conduct an intensive and detailed survey was limited
ii. Inadequate time for conducting the study placed much restriction on the research work.
iii. Respondents reluctant to attend to attend to needs of the research work due to ignorance and high level of illiteracy among entrepreneurs who are to provide valuable information to enhance reliability of the study.

iv. The right representation of the study will be undermined by the study area due to low level of production schedule which is the company 'status at the moment.

CHAPTER TWO

LITERATURE REVIEW

2.1 INTRODUCTION

This section focuses on cost management techniques used in production firms and also available mineral water companies in the Kumasi Metropolis to be more precisely, cost a and its components will be examined in relation to management Cost have different size in relation to policy formulated by management, employee’s attitude towards work .For example employees inefficiency due to lack of adequate training and idleness. Management is to ensure adequate measures that will enhance control of total operation with the aim of avoiding possible losses association with idleness and wastage. Management decision has a significant influence on cost. Cost do not “happen” as some people may say but result from management decision to implement a policy.

2.2 DEFINITIONS OF COST

According to the New Oxford English Dictionary on historical principles “cost is what must be given in order to acquire, produce, or effect something. The price (to be) paid for a thing” Lucy (2000) page 8 defines cost as “the amount of expenditure (actual or notional) increases on attributable to, a specified thing or activity”. The word cost according Lucy may be as a verb.

According to Cory Janssen, cost management is the process of effectively planning and controlling the cost involved in a business. It is considered one of the more challenging tasks in business management.

Cost may be defined as the establishment of budgets standards and actual cost of operations, processes activities, product and the analysis of funds (T. Lucey).

Cost object is any activity for which a separate measurement of cost is described. In other words if the users of accounting information want to the cost of something is called a cost object (Colin Drury).

Cost is the sacrifice made usually measured by the resources given up to achieve a particular purposes (Hiton Marher,Selto).

2.3 COST MANAGEMENT

Hilton et al (2000) page 28 defined cost management as “a philosophy, an attitude and a set of techniques to create more value at lower cost”. They further contended that cost management is philosophy of improvement because it promotes the idea of continually finding ways to help organizations make the right decision to create more customers value at a lower cost.

According to Cory Janssen, cost management is the process of effectively planning and controlling the cost involved in a business. It is considered one of the more challenging tasks in business management. Managers distribute resources, to achieve organizational goals.

2.4 RELATED STUDIES

According to Cataneda-Mendez, K., 1998) he said strategic Cost Management is the application of cost management techniques that simultaneously improve the strategic position of a firm and reduce costs (R. Cooper, 1998). Strategic cost management methods can be applied in service, manufacturing, and not-for-profit arenas. Some of the questions that will be answered will be as follows:

1. How can everyone reduce costs by improving quality and delivery of our products and services?
2. What is the manager's role?

According to Cooper R. Siangmuder (Jun 1998), he also remarked that, the main objective of cost management is to reduce the costs expended by an organization while strengthening the strategic position of the firm. Three ways to institute cost management techniques are establish systems to help streamline the transactions between corporate support departments and the operating units, devise transfer pricing systems to coordinate the buyer-supplier interactions between decentralized organizational operating units and use pseudo profit centers to create profit maximizing behavior in what were formerly cost centers.

These cost management systems will not only manage costs, but also enhance profit consciousness. This will help the organizations' ability to serve its customers because divisions will become increasingly more focused on operating more efficiently.

According to Medley, L. (2013) effective cost management involves managing a variety of costs. It is important to recognize these costs and acknowledge the classification of various expenditures. As a manger, this will help you become a better cost analyst.

General and Administrative (G&A) Costs - Costs which cannot be related to a specific project but benefit all activities. An example of a G&A cost is costs associated with financial management, security, or legal activities.

From the article of activity based models by Lewis .R: Resource planning determines what physical resources (i.e., people, equipment, and materials) are needed to complete a product. It is directly related to cost management because all of those elements cost the organization something, whether it be in terms of monetary funds or time. The resources needed for a project to be completed must be evaluated to assess the value the organization will get from taking a project on or changing its current methods to make it a more efficient organization. The following are elements that should be researched before making a cost management assessment:

Work Breakdown Structure (WBS) - This identifies the elements that will need resources in the project in order for the project to be successfully completed. This is the primary input to resource planning.

Historical Information - Provides information regarding what types of resources were required for similar work on similar projects.

Scope Statement - Contains the project justification and objectives. The justification and objectives should be considered during resource planning.

Resource Pool Description - Knowledge of the physical resources available/necessary for project completion.

Organizational Policies - Policies of the organization regarding staffing and the rental/purchase of supplies/equipment.

From the camp of (Joy, A.,) -Choosing the correct techniques for implementing cost management techniques is the key to being a successful cost manager. Cost management is a practical business practice that must not be taken lightly. Proper research and accurate forecasting is a must in cost management. Getting expert judgment to assess the organization's cost management position is a key to making the cost management process work.

Expert Judgment - This is required to assess the inputs to any process within an organization that needs to be evaluated. The judgment can be provided by anyone with specific training from various sources including, other units within the organization, consultants, Professional and technical associations.

From (Mary .R.-Industry groups). There are various elements that need to be identified before forecasting cost estimates. The following describes what needs to be recognized and analyzed before making any estimation.

Work Breakdown Structure (WBS) - Used to organize cost estimates and to ensure all work has been estimated that will cost the organization money or time. It is a checklist of responsibilities that will be completed within an organization.

Resource Requirements - The personnel, equipment and finances needed to complete a project.

Resource Rates - The individual/group must know the rates for each resource (i.e., amount of time personnel will be needed for work, the amount of money it will cost to run equipment...) to effectively tabulate the overall project cost. If the rates are unknown, they will have to be predicted in a professional manner.

Activity Duration Estimates- This affects cost estimates on any project. It involves the prediction of how much time will be expended by the organization. This figure is estimated into the cost of financing as an allowance.

Historical Information - The cost of many previous resources used and costs may be available from the following sources such as project files - there may be records of previous project results that may help to develop cost estimates, commercial cost estimating databases - historical data may be found from various other commercial sources, project team knowledge - members of the team may remember previous estimates, but they are generally unreliable.

Chart of Accounts - This illustrates the coding structure used by the organization. All estimates must be assigned to the correct accounting category.

(Dennis, A) Journal of Accountancy June 1998.-Techniques for Cost Estimating Cost estimating can be done in a variety of ways. Accurate cost estimating is one of the main elements involved in cost management. The following is a list of estimating techniques that may be used for an organization:

- Analogous Estimating (Top-Down Estimating) - Using the cost of a previous, similar project as a reference for predicting the cost of the current project. This is a form of expert judgment and is used when there is a limited amount of information about the project.
- Parametric Modeling - Using mathematical parameters to predict project costs. Models can be simple or complex. They are most reliable when (1) the historical information is correct, (2) the parameters are quantifiable, and (3) the model can be applied to both large and small scale projects.

Bottom-Up Estimating- This involves estimating the cost of work items and them summing the estimates to get a project total. Smaller work items increase the cost and accuracy.

Computerized Tools - Project management software and spreadsheets aid in project estimation.
Techniques for Cost Control in Cost Management by Medley, L. G., Sr. (1996) -Cost control defines the procedures by which the baseline may be changed and integrated. It includes the paperwork, tracking systems, and approval levels for authorization. The following are cost control techniques:

Performance Measurement - This helps assess the magnitude of any variations that occur within performance when compared with similar projects/services. An important part of cost management is to determine what is causing the variance and decide if the variance determines corrective action.

Additional Planning - There are few projects that go as planned. Revisions may occur regarding alternative approaches. According to information Management and Business articles Review (Vol. 5, No. 1, pp. 28-36, Jan 2013 (ISSN 2220-3796)

Cost Minimization Techniques**:**

A primary survey has been conducted with managers in top dairy companies of Pakistan and the findings have been discussed in detail. The findings include identification of cost components and their impact, cost minimization techniques and their impact on profitability as well as suggestions for new cost reduction measures.

This research article was the first one conducted on this topic in Pakistan and can also open new avenues for further research in this area.

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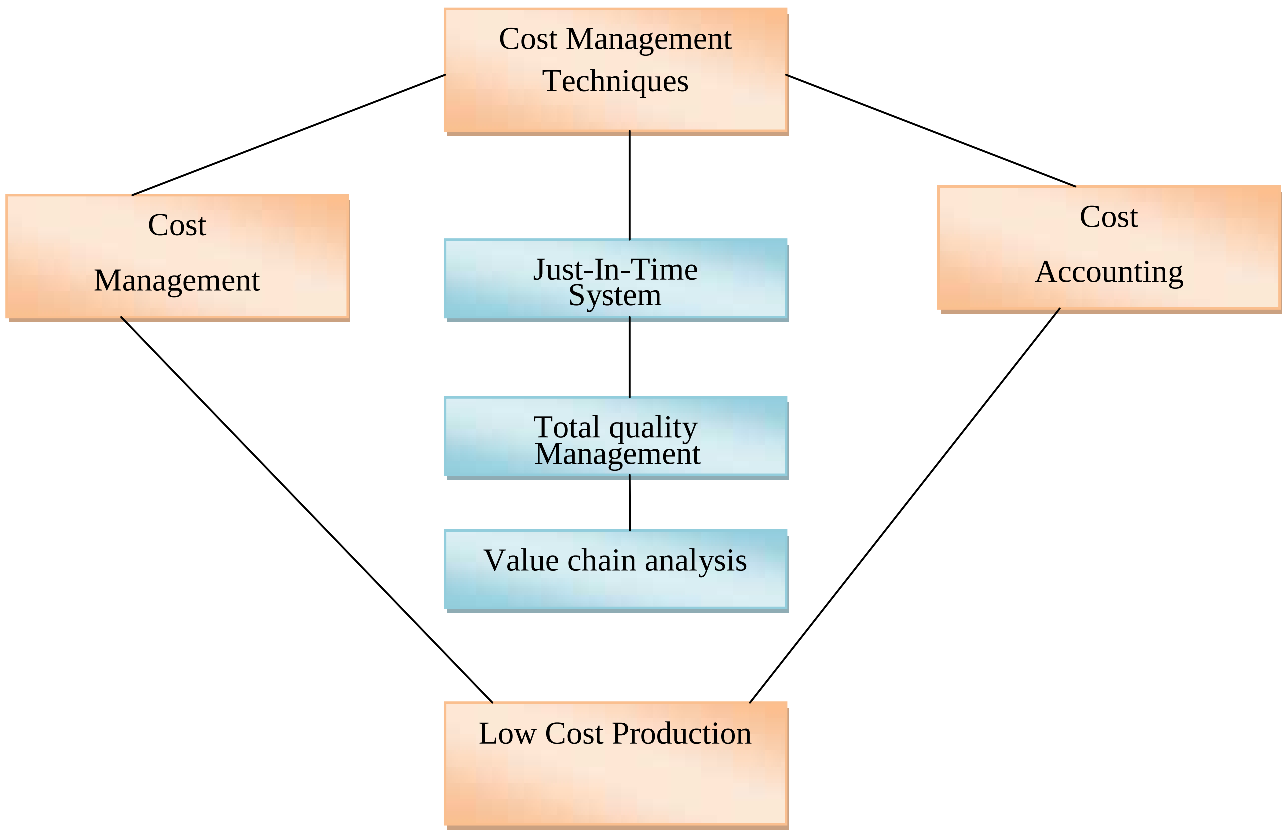
(Sherani,2010). On the other hand, end consumers are also faced with the key economic problem of limited income and high expenses (Sherani,2010). With the above context in mind, the targeted industry for this study is the mineral water product manufacturing industry.

Figure 1: CONCEPTUAL FRAME WORK



2.5 COST MANAGEMENT TECHNIQUES

This is the appropriate management cost control measures available for companies for their operational systems thus from production to the point of sales of it's products. The following are some cost management techniques available and appropriate to the mineral water firms.

2.5.1 Just-In-Time (JIT) System

JIT is a philosophy that can be applied to all aspect of business, including purchasing, production and delivery.

The goals of JIT are to produce and deliver product just in time to be sold profitably, and to purchase material just in time to be placed into manufacturing process. It is a continuous commitment to the pursuit of excellence in all phases of manufacturing systems, design and operations. The aim of JIT according Drury (2000) are elimination of non value added (waste), zero defects zero inventory, batch size of one, a 100% on time delivery service, developing customer – focused programs, developing a strong supplier relationship, and increasing employee involvement. The management of mineral water firms have adopted the JIT philosophy in operational system to enhance the elimination of waste. Waste may be term as activity which does not add values the firm's product. Some of which are lead time or cycle time involved in manufacturing and selling the product.

Examples inspection time, storage time, queue time and order processing time. All these activities add cost to the company's product but do not add value to it. Elimination of these non-value added activities will reduce total cost thereby resulting in a decrease in the price of the product.

2.5.2 Total Quality Management

To compete successfully in today's global competitive environment firms are becoming "customer oriented" and making customer satisfaction an overriding priority. Customers are demanding an ever improved level of service regarding cost, quality, reliability, delivery and choice of innovative new product. Quality has become one of the key competitive variables and this has created the need for management accountant more involve in the provision of information relating to quality of the products and services, and the activity that produce them. TQM is a technique which mineral water firms have adopted in their attempt to develop process of continuous quality improvement. Besides the firms have developed policies and practices to ensure that the firms product and services to customers exceed customer's expectation. For instance the firms have been able to reduce delay time with customer service and had being engage continuous search in quality improvement strategy. This had led to high priority being placed on mineral water firms by customers. To gain this competitive cost advantage is used to measure and report the many aspect of quality including production breakdowns and defects, waste, waste labor or raw materials, the number of services calls and the nature of complaints, warranty cost and product.

Management accounting system can help achieve their quality goals by providing variety of reports and measures that motive evaluate managerial effort to improve quality. These include financial and non-financial measure. A cost of quality report should be prepared to indicate the total cost to the with respect to the product or service produced that do not conform with quality requirements. According to Drury (2000), cost of quality report is considered in four main cost categories, which should be reported by a firm, which wants to prepare that report.

2.5.3 Value Chain Analysis

The value chain analysis is the link set of value-creating activities all the way from basis raw materials source for component supply through to the ultimate end-users, product, or service delivered to the customer. Coordinating the individual part of the value chain together create the conditions to improve customer satisfaction, particularly in terms of cost efficiency, and at a lower cost than its competitors will gain a competitive advantage. By viewing its link in the value chain as a supplier customer relationship, the opinions of the customers can be used to provide useful feedback information on assessing the quality of service provided by the supplier.

Drury (2000), is of the view that a firm should evaluate its value chain relative to the value chain of its competitors, such companies should adopt the following methodology:

- Identify the industry's value chain and then assign costs, revenues and assets to value activities. These activities are the building blocks with which firms in the industry created a product that buyers find valuable.
- Diagnose the cost drivers regulating each value of activity. A cost driver is any factor which causes a change in the cost of an activity example number of inspection hours, quantity of materials used, direct labour hours, etc.
- Develop sustainable cost advantage, either through controlling cost drivers better than competitors or by reconfiguration the value chain by systematically analyzing costs, revenues, and assets in each activity, a firm can achieve lower cost. This is achieved by comparing the firm's value change with the value chain of a few major competitors and identifying actions needed to manage a firm's value chain better than competitors.

2.6 KEY TERMS AND DEFINITIONS

Direct Costs - Costs that are physically related to a project. They are subject to the influence of the project manager. An example is a contractor that provides hardware or labor for a project.

Service Costs- Costs that cannot be specifically identified to a project but can be linked to a project and are assigned based on usage or consumption. An example is an automatic data processing system.

Avoidable costs. Cost that may be saved without adopting a given alternative.

Conversion costs. The sum of direct labour and manufacturing overhead costs; it is the cost of converting raw materials in to finished products.

Cost allocation. The process of assigning costs to object where direct measure of resources consumed by these cost objects does not exist.

Cost object. Any activity for which a separate measurement of cost desired.

Differential cost. The difference between the cost of each alternative action under consideration, also known as incremental cost.

Direct labor cost. Cost that can be specifically and exclusively identify identified with a particular cost object.

Direct material cost. Cost that can be specifically and exclusively identified with a particular cost object.

Direct material. Cost are costs that can be specifically and exclusively identify with a particular cost object.

Fixed cost. Cost that remain constant for a specified period of time and which are not affected by the volume of activity.

Irrelevant costs and revenues. Future cost and revenue that will not be affected by a decision.

Marginal cost. The additional cost of one extra unit of output.

Marginal revenue. The additional revenue from one extra unit of output.

Mixed cost. Cost that contain both a fixed and a variable component, also known as semi-variable costs.

Opportunity costs. Costs that measure the opportunity that is sacrificed when the choice of one course of action requires that an alternative is give up.

Overheads. Costs that cannot be identified specifically and exclusively with a give cost object.

Period cost. Cost that are not included in the inventory the period in which they are incurred.

Prime costs. The sum of all direct manufacturing costs.

Product costs.

Sunk cost. Costs that have been incurred by a decision made in the past and that cannot be changed by any decision made in the future.

Variable cost. Costs that vary in direct proportion to the volume of activity.

Cost Accounting Cost accounting is the establishment of budgets, standards cost and actual costs of operations, processes, activities or products and the analysis of variances, profitability, or the social use of funds. The cost accounting system of any organization is the foundation of the internal financial information system. Management need a variety of information to plan to control and to make decisions. Information regarding the financial aspect of performance is provided by the cost system.

Cost Management. Management of cost related activities achieved by collecting, analyzing, evaluating and reporting cost information used for budgeting, estimating, forecasting, and monitoring cost.

Cost management is the process by which companies control and plan the costs of doing business. Though there is no single accepted definition for this term because it has such broad applications and possible strategies. When properly implemented, this process will translate into reduced costs of production for product and services, as well as increased value being delivered to the customers.

For a company's management to be effective overall, cost management must be an integral feature of it. It is easiest to understand this concept if it is explained in the context of a single product.

Lower Cost Production. Cost management techniques help firms to be lower cost producers. According to Drury (2000) cost reduction is the main aim of introducing cost management techniques. Lower cost producer will maintain strong competitive position on the market. A reduction in cost means price will be cut down which attract more customers because of sensitivity of customers to price.

CHAPTER THREE

METHODOLOGY

3.1 INTRODUCTION

This chapter refers to the actual procedure and techniques, methods used in attempting to discover what the study is intended for. In order to arrive at a reliable conclusion about what is intended to be known, it is necessary to ensure that methods and techniques used at arriving at a conclusion are themselves dependable, objective, systematic and unaffected by personal bias.

Research methods constitute a tool for ordering data into forms suitable or into forms that can be subjected to empirical test.

With reference to the research topics, research method refers to the methods and techniques employed to investigate the effectiveness of cost management techniques. It outlines the following:

3.2 BACKGROUND OF THE STUDY

In light of credible references, the literature review shall aim to reaffirm the assumption that companies are facing cost pressures, the reasons for selection of mineral water industry as a sample industry, the key cost factors in the mineral water industry and why management techniques cost is a primary requirement of decision makers in this industry. Through a primary research survey with decision makers in leading water companies of Kumasi metropolis, this research article shall explore the key cost factors/determinants involved in the mineral water industry, the cost minimization techniques used by companies in this industry and acquire suggestions for further improvement. Apart from useful research implications, this article can also serve as a valuable guideline for decision makers & practitioners in the mineral water industry.

3.3 STUDY TYPE

This is a descriptive study as it has been undertaken to describe the characteristics of interest (cost components and their impact) in a mineral water industry. It describes the level of impact of these components as well as the measures taken to minimize costs, in order of importance.

3.4 STUDY DESIGN

The information for this research design collects gross sales for four years in order that the regression measurement will not be affected.

3.5 POPULATION SAMPLE TECHNIQUE

The population of study is made of sampling units that are the total number of targeted respondents to the research instruments. The population of this study includes in the organization:

- The general Manager/ Finance Manager
- Marketing Manager / Production Manager

Information relating to the company's external environment covering the study was south from shops or traders, and customers who patronizes the company's products.

3.6 SOURCES OF DATA

Sampling is the process of selection of a proportion out of the total population.

Sampling is used because the entire population, or the description of all the sampling units constituting a population. Sample frame, as specified above may further be conceived as a complete list of all that make up the population from which sample was drawn e.g. finance manager, marketing manager, shops and consumers

3.7 POPULATION SAMPLE SIZE

The sample size refers to the percentage of population covered. In all, 62 samples were made and selection was made as follows:

Simple random sampling was used because everyone in the target population had an equal chance of being selected. The choice of this approach was on the grounds that, it was easier and had the ability to represent a high degree of accuracy in the data collected. The research conducted at the various mineral water company was not base on simple random sampling this is because two selections made from the company was based on the relevance of information need from the two managers and no one else. However, the sixty selection made was based on simple random sampling method. This enhances effective distribution of research instruments.

3.8 RESEARCH INSTRUMENTS

The research used questionnaires and interviews as main tools to collect data for the study. Both tools were used to get much information about the assessment of cost management techniques used by the mineral water companies. The following are the research instruments with respect to the hypothesis used to acquire information to bring into existence this work piece:

3.9 METHODOLOGY FOR RESEARCH QUESTION ONE

This questionnaire is to be answered by accounting, marketing and production departments of mineral water firms and traders.

The purpose for which this research work is being conducted is purely academic and shall strictly be for such purpose kindly tick or provide answers to the following question which are relevant to your outfit where a question does not apply to your outfit, skip to the next question.

3.10 METHODOLOGY FOR RESEARCH QUESTION TWO

That deal with the industries' product in the Kumasi Metropolis, since the shops are on the field and know how the product is being patronized and also they will be in a better position to determine how the product is performing as against those of competitors. This is to determine the effect of cost reduction on price of goods and action of customers. Besides, structured face-face interview was conducted to interview fifty consumers of mineral water on the price changes, and quality.

3.11 DATA COLLECTION METHOD

The entire information needed for the research work was conducted directly from the respondents to the research instruments. This is known as primary data collection. Primary data refers to the statistical material, which the researcher originated for the purpose of the enquiry in hand. The information required under this study is one that have not been processed. As matter of importance it was the duty of the researcher to collect the data, process it to become useful and reliable information that that is relevant for the enquiry in hand.

3.12 DATA ANALYSIS METHOD

The response from the respondents were coded and presented in analyzing the data in very simple form. Raw data gathered and recovered in the field may be processed and reduced into some kind of order. They must be organized into an easily understood format, preferable by using some form of pictorial presentation such as tables, graphs and charts in order that trends and patterns can easily be understood. Besides correlation, mean, and chi-square was used to establish relationship between and among variables.

3.13 ETHICAL CONSIDERATION

The purpose for which this research work is being conducted is purely academic and shall strictly be for such purpose. Participant's identity shall remain undisclosed to any third party who comes across this information.

CHAPTER FOUR

DATA PRESENTATION AND ANALYSIS

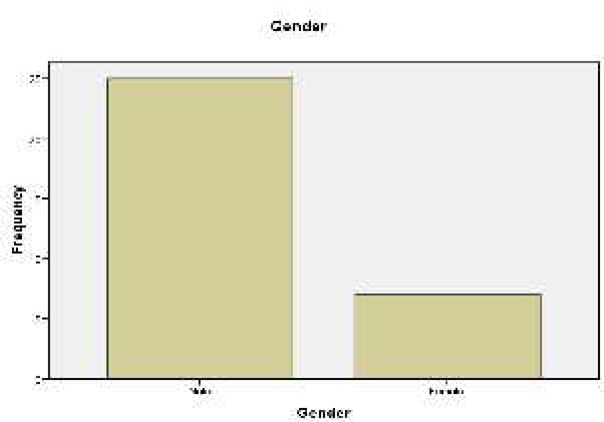
4.1 INTRODUCTION

This chapter presents the analysis and interpretation of the data collected from the research instruments presented to the respondents in both qualitative and quantitative form to provide reliable information.

4.2 DEMOGRAPHIC CHARACTERISTICS OF RESPONDENTS

Respondents' demographics characteristics investigated in this study included gender, age, level of education, and marital status. Findings relative to these characteristics are presented under their various respective headings and their implications analyzed below.

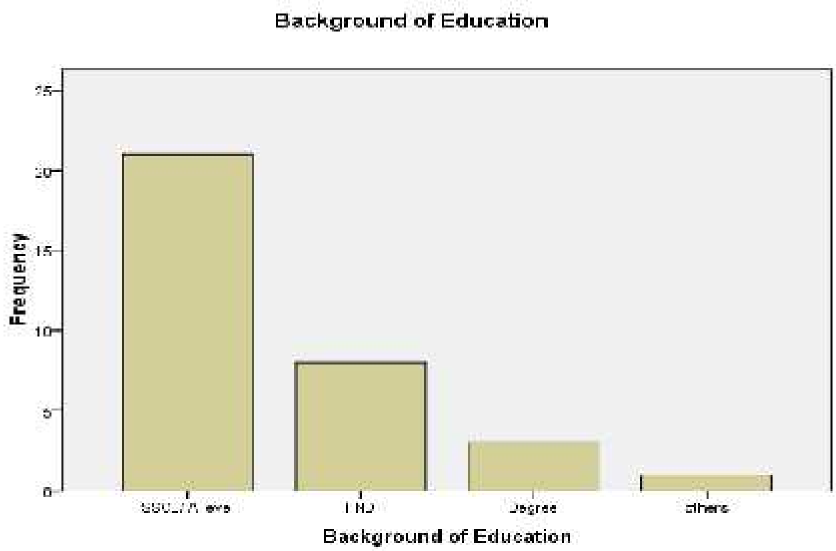
FIGURE 2: DEMOGRAPHIC ANALYSIS OF THE DATA



4.3 GENDER OF RESPONDENTS

The gender distribution of the respondents (customers) is presented in this section. The graph 4.3 below illustrates the results in the study. From the table below, it is seen that 32 respondents representing about 78.1% being majority of the respondents were males whilst about 21.8% of the respondents were females.

Figure 3 BACKGROUND OF EDUCATION



From the bar graph above it can deduced that out of the 32 people who answered the questionnaire 25 were men and 7 were women representing 75.8% and 21.2% respectively.

4.4 PERSONAL DATA

The General Managers are men with a GCE A Level certificate who started their employment with the company since its inception. He falls in the age range of 36-40years.The managers are acting as a finance and marketing manager of the company.

4.5 ESTABLISH OFFICES FOR SUPPORT SERVICES

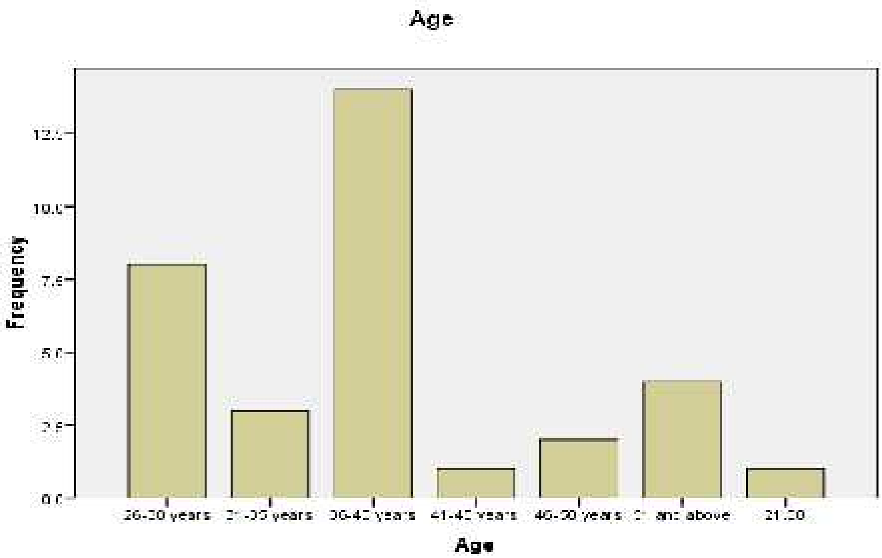
Out of the five support services listed among the value chain, only accounting service has an established office (Accounting department) dealing with administration services. The remaining support services which includes Human Relation, Legal, Information, and Telecommunication services do not have establishes offices in the firm but are contracted when the need arises.

The company is aware of cost management techniques but the General Manager failed to state the steps taken to ensure effective cost reduction system in the business of the company.

Out of the five support services listed among the value chain, all the five support service has an established office (Accounting department) dealing with administration services. The remaining support services which includes Human Relation, Legal, Information, and Telecommunication services establishes offices in the firm but not are effectively utilized.

The company is aware of cost management techniques but the General Manager failed to state the steps taken to ensure effective cost reduction system in the business of the company.

FIGURE 4 AGE DISTRIBUTIONS



Considering the age distribution of 26-30 years, 31-35years, 36-40years, 41-45years, 46-50years 51years above pulled the respective percentages 24.2%, 9.1%, 42.4%, 3.9%, 6.1% 12.1%.

TABLE 1 COST ELEMENT STATISTICS

	N	Minimum	Maximum	Mean	Std. Deviation
Insurance	33	1.00	2.00	1.0606	.24231
Holding Cost	33	1.00	1.00	1.0000	.00000
Cost of leakage and waste	33	1.00	11.00	1.3030	1.74078
Cost of Idle	33	1.00	3.00	1.1212	.41515
Cost of Inspection	33	1.00	2.00	1.0909	.29194
Valid N (listwise)	33				

Among the cost incurring elements in the organizations cost of leakages and waste hard the highest mean of 1.3030 with the standard deviation of 1.74078

4.6 ANALYSIS ON INCURRING COST ELEMENT

Based on the above findings, the key objective of irrelevant cost been associated with firms production resulting into high price proved positive with the mean of 1.3030 being cost of waste and leakages. This means that the various cost element that makes up the total production cost will increased by an irrelevant cost of wastage and leakages

TABLE 2 SALES VOLUME STATISTICS

	N	Minimum	Maximum	Mean	Std. Deviation
Quantity sold in 2011	33	1.00	4.00	1.6364	.92932
Quantity sold in 2012	33	1.00	4.00	2.2727	.80128
Quantity sold in 2013	33	1.00	5.00	2.7576	.93643
Quantity sold in 2014	33	1.00	5.00	3.3636	1.02525
Valid N (listwise)	33				

From the table above illustrating sales volume for four successive years 2014 has the highest mean of 3.3636 and standard deviation of 1,02525.

TABLE 3 PROFIT MARGIN STATISTICS

	N	Minimum	Maximum	Mean	Std. Deviation
Profit Margin for 2011	33	1.00	4.00	1.6667	1.10868
Profit Margin for 2012	33	1.00	3.00	1.8182	.72692
Profit Margin for 2013	33	1.00	4.00	2.2727	.76128
Profit Margin for 2014	33	1.00	4.00	1.7576	1.06155
Valid N (listwise)	33				

The industry's profit margin was represented by a mean of 1.7576 and standard deviation of 1.06155 from 2014 statistical analysis.

TABLE 4 COST CENTER STATISTICS

	N	Minimum	Maximum	Mean	Std. Deviation
Cost Reduction Techniques	33	1.00	2.00	1.3636	.48850
Advertisement	32	1.00	2.00	1.2500	.43994
Awareness of Cost management Techniques	33	1.00	5.00	1.3939	1.08799
Does price affects sales volume	32	1.00	2.00	1.0625	.24593
Effects of advertisement on sales	32	1.00	2.00	1.1562	.36890
Valid N (list wise)	32				

The above table illustrates cost centers in relation to organization stakeholders. It was deduced that majority of the management are aware of cost management techniques representing 1.3939 mean being the highest of the cost centers in the industry.

4.7 ANALYSIS ON COST CENTERS

The above findings form the basis to support the acceptance of the key question that states that mineral water firms have various cost reduction strategies in their operations.

The firms embark on advertising which have positive effect on sales that the firms through advertisement they able to push their to product to the customers in an cost effective manner that is why advertisement had positive mean effects on sales volume.

For three occasion profit margins were on the increase yet sales volume was also on the increase. This means that the firms were making 50% and above profit.

To establish the effectiveness of cost management techniques on the firm's sales volume there is the need to seek customer's perception of price of the product on sales volume or demand.

From the above information on the responds of effect of price on product with the positive mean of 1.0625 confirms that poor demand will be an effect of high price causing reduction in the firm's market share.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.1 INTRODUCTION

This chapter deals with the findings of the study and based on the findings, conclusion were drawn and appropriate recommendation were made for consideration.

5.2 SUMMARY OF FINDINGS

International and local competitions have incontrovertibly compelled producers to engage in lower cost production through the use of cost management techniques. Lower cost production ensures the creation of product that customer's value. It can be inferred from the study that customers demand for other product (substitute) is greatly determined by price and quality in that a firm with lower cost usually has lower price leading to increased market shares.

It is on this that the research decided to find out some of the cost management techniques available to production firms to enable it capitalized on the opportunities available to lower cost production.

The study also found out competency and skills of personnel engagement in the carrying out of cost management techniques.

Besides, the study assessed how the techniques have influenced the firms operation in terms of sales volume

Finally, the study assessed the performance of other products with respect to price and quality compared.

The research instruments were used to source information relevant to the study. The data was collected from the General Managers, mineral water firms. The data was presented and analyzed and based on the findings the objectives related to the study were achieved as follows.

- That mineral water firms have various cost reduction strategies in its operation was justified
- That the firms have a lot of irrelevant cost which have resulted into high cost in it production was also justified.

Finally it was concluded that there is increased demand for firm's product when produced at lower price.

5.3 CONCLUSION

The study focused mainly on cost management techniques used by firms and how these have influenced the scale of operation of the firm. It can be inferred from the fact gathered that the firms recorded a significant success in its operations as compare to others. This is due to the availability and utilization of some cost management techniques at its disposal. Some of these techniques are just-In-Time (JIT), Total Quality Management, Value Chain Analysis.

The conclusion was drawn as follows.

i. Raw materials occupied greater potion in the cost component of a production firm. The company had not been buying raw material from Ghana Water Company which should have been the case. The firm therefore saves cost of buying the raw material. It is located in the premise of the company. It means the firm has raw material for production. The deepness of the borehole will ensure absolute quality.

ii. Filtration. Quality is a cost reduction measure in that if consumers fail to buy a product because of poor quality the firm may run into financial losses as decline in market shares. If this happens, there is need to spend extra cost on quality measure, and cost of entry into a new existing market to re-launch the product. The firm does not incur any of these costs due to the fact that customers have very good perception about the quality of the product.

iii. The structure and operating capabilities does not warrant the establishment of certain support services in addition to the only existing accounting services taking charge of day-to-day administration works. The accounting department headed by the General Manager who ensures the effective running of the business.

iv. Customer’s perception that the price of the firm’s product is low has led to increased demand for the firm’s product. The perception confirms the demand principle that customers will be willing to buy a certain quantity with respect to various price levels.

5.4 RECOMMENDATION

After the study into cost management techniques used by EMW the following were recommended:

i. The firm should increase operation on the basis of JIT philosophy in order to eliminate more cost which are irrelevant to its operation like non – value added (waste).JIT will ensure a 100% - on time delivery service customer – focused operation that will increase sales level.

ii. The sale van should expand their sales distance to all part the region and even to some part of Accra and Sunyani to maximize its market share.

iii. The firm should work on ever – improving quality information. This is because quality is one of the key competitive variables that an organization should not undervalue. There should be a need for the firm to become more involved in the provision of information relating the quality of products and services and activities that produced them.

iv. The firm's sales have being increasing from year – to – year. This means there would be increase in accounts receivables (debtors), customers' order processing, and solving customer's complaint where necessary. We suggest there should be a marketing manager to take care of such activities. This would call for a new office for the marketing Department.

v. Wastage and leakages can be minimized if the firm employs full time workers to involve in the direct production. This will enabled the firm to gain the benefit of the learning curve.

vi. I recommend this project to any “persons” (i.e individuals, body of persons, or body of companies) who may only use it to gain knowledge in the field of cost reduction in order to gain competitive advantage. However, the research is not liable for any liability that may arise as a result of transactions entered into with the case study using the findings in this research work.

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APPENDIX 1

RESEARCH QUESTIONNAIRES

A STUDY INTO MANAGEMENT TECHNIQUES IN MINERAL WATER PRODUCTION ORGANIZATIONS

This questionnaire is to be answered by accounting, marketing and production departments of mineral water firms and traders.

The purpose for which this research work is being conducted is purely academic and shall strictly be for such purpose kindly tick or provide answers to the following question which are relevant to your outfit where a question does not apply to your outfit, skip to the next question

1. Status Male [ ]   Female [ ]

2. Educational qualification

   SSCE or A' Level [ ]

   Polytechnic HND [ ]

   University Degree [ ]

   Other profession [ ]

3. Age 26 years – 30 years [ ]

   31 years – 35 years [ ]

   36 years – 40 years [ ]

   41 years – 45 years [ ]

   46 years – 50 years [ ]

   51 years and above [ ]

4. What is the source of raw materials (water) for the production of the firm's product?

Ghana Water Company [ ]

Mechanized Borehole [ ]

Others [ ]

5. Do the firm store raw material (water) from the source before processing into mineral water? Yes [ ] No [ ]

6. Does the firm has storekeeper for maintaining store? Yes [ ] No [ ]

Does the firm incur the following cost?

7. Insurance on product at stock YES [ ] No [ ]

8. Room for goods in stock YES [ ] No [ ]

9. Waste/ Space leakage of produced goods YES [ ] No [ ]

10. Cost of idle time YES [ ] No [ ]

11. Cost of inspection on quality YES [ ] No [ ]

12. How many stages does the raw water passes during production?

a. 3 [ ] b. 4 [ ] c. 5 [ ] d. 6 [ ]

Please indicate the sales volume that relates to the following years:

Year Sales Volume (Packs)

13. 2011 i. Below 50,000 packs [ ]

ii. 50,000 - 100,000 packs [ ]

iii. 101,000-150,000 packs [ ]

iv. Above 200,000 [ ]

14. 2012

i. below 50,000 packs [ ]

ii. 50,000 - 100,000 packs [ ]

iii. 101,000-150,000 packs [ ]

iv. Above 200,000 [ ]

15. 2013

i. below 50,000 packs [ ]

ii. 50,000 - 100,000 packs [ ]

iii. 101,000-150,000 packs [ ]

iv. Above 200,000 [ ]

16. 2014

i. below 50,000 packs [ ]

ii. 50,000 - 100,000 packs [ ]

iii. 101,000-150,000 packs [ ]

iv. Above 200,000 [ ]

Please fill in the following as appropriate for the years below

Year Price of a Pack Profit margin as a percentage of sales (%)

17. 2011 i. 1.50 Below 20% [ ]

ii. 21%- 40% [ ]

iii. 41%- 60% [ ]

iv. 61%-80% [ ]

v. 81%-100% [ ]

18. 2012 i. 1.80 Below 20% [ ]

ii. 21%-40% [ ]

iii. 41%-60% [ ]

iv. 61%-80% [ ]

v. 81%-100% [ ]

19. 2013 i. 3.00 Below 20% [ ]

ii. 21%-40% [ ]

iii. 41%-60% [ ]

iv. 61%-80% [ ]

v. 81%-100% [ ]

20. 2014 i. 1.50 Below 20% [ ]

ii. 21%-40% [ ]

iii. 41%-60% [ ]

iv. 61%-80% [ ]

v. 81%-100% [ ]

21. Do the firm has established offices for the following support services: tick which is applicable in your outfit. Accounting Department and Human Resource Department [ ]

1. Accounting Department and Legal Service Department [ ]
2. Accounting Department and Information System [ ]
3. Accounting Department only [ ]
5. Human Resource Department only [ ]

6. Is the company aware of cost management techniques?

Yes [ ] No [ ]

22. What are the steps taken to ensure that total cost is reduced in your outfit

i. Eliminating of irrelevant cost [ ]

ii. Selling off by product. [ ]

23) Do customers buy the product directly from the factory?

Yes [ ] No [ ]

24. How would you describe sales personnel’s attitude toward customers

a. Very friendly [ ]

b. Friendly [ ]

c. Not friendly [ ]

25. Do customers complain about quality of the product? Yes [ ] No [ ]

26. Does the company embark on advertising? Yes [ ] No [ ]

27. If yes what is the impact on sales?

Very Good [ ] Good [ ] poor [ ]

28) Does price affects your sales volume per week.

Yes [ ] No [ ]