KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY KUMASI

INSTITUTE OF DISTANCE LEARNING (IDL)

THE DEVELOPMENT OF TOTAL QUALITY MANAGEMENT MODEL FOR THE BEVERAGE INDUSTRY BASED ON KASAPREKO COMPANY LIMITED'S EXPERIENCE

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DECLARATION

I hereby declare that this submission is my own work towards the MSc and that, to the best of my 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)	Signature	Date

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DEDICATION

I dedicate this work to my late mother, Eunice Aku Nsah for her immerse contribution

towards my post graduate education but did not see my completion programme.

ABSTRACT

The aim of this study was to explore the implementation of TQM in Kasapreko Company Limited (KCL) and model a TQM framework for the beverage industry. Data were gathered from a total of 54 respondents from KCL through a questionnaire survey. The respondents were selected using stratified random sampling within the KCL. The data collected was analyzed with descriptive statistics using frequencies and a Relative Index (RI) model for ranking responses on the Likert scale. The results of the analysis showed that all the respondents were aware of the TQM policy of the company. Furthermore, it was found out that TOM policies are very effective in the company. This was indicated through relatively high RI values of statements such as "TQM policies have clearly defined scope" and "company's TQM policies are consistent with workplace operation's objectives" with RI values of 0.700 and 0.670. High RI values were found for statements on the business results of TQM processes at the KCL. For instance, "Increase Revenue" had an index of 0.948. "Increasing workers competency" and "Reduction of number of customer complaints" both with an RI of 0.915. Typical challenges of good TQM implementation were found to include "Lack of committed and skilled implementing officials" and "Poor Coordination and communication" which had RI values of 0.919 and 0.911. The framework was modeled to embody significant TQM processes such as clearly defining policy scope; making policy consistent with workplace and operational objectives as well as clearly defining responsibilities for all different departments. The study recommends the regular training of employees within the firms of the beverage industry to empower them.

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CHAPTER ONE

INTRODUCTION

1.1 Background of Study

Organizations across the world do face stiff competitions as a result of increased customer requirements and global competition. Alongside the aforementioned issues, Zhou (2012) states that increased cost of energy and materials which are critical to manufacturing has created a need for firms to constantly undertake transformation of its processes so as to maximize their operations strategically and tactically.

According to Demirbag et al. (2006), in the mist of stiff competition and globalization, a major driver of success for firms lies in their ability to deliver quality within the services rendered or goods produced. Total Quality Management (TQM) is known as a method of managing an organization to improve overall effectiveness and performance (Zhang et al., 2000).

TQM is also considered as a part of strategy implementation (Dean and Bowen, 1994), a competitive advantage-providing management model (Prajogo and Sohal, 2004), and one of the most popular and most often recommended approaches to help companies to improve their efficiency and competitiveness (Kumar et al., 2009). In addition, TQM has been applauded for the ability to improve employee relations, operating procedures, customer satisfaction, and financial results (Kumar et al., 2009).

With the need to compete in a global market increasingly becoming the norm, local protectionist laws are no longer been effective and the fear of losing contracts to other

manufacturing firms on the basis of quality is prompting local Ghanaian firms to inculcate quality into their system so as to enhance firm's efficiency and competitiveness.

In Ghana, the case of the Kasapreko Company Limited in total quality management merits replication within the beverage industry. The TQM processes of the company has promoted the company to be a market leader within the beverage industry in Ghana and internationally through their consistent customer focused product line over the years.in addition, the company has been ISO certified through its constant quality improvement management. Given the importance of quality management practices, the researcher seeks to develop a total quality model for the beverage industry based on Kasapreko Company Limited experience.

1.2 Statement of Problem

It is critical for individuals to understand the very principles that underlie the concept of TQM, this is so due to the high rate of failure involving TQM implementations, which according to Narasimhan (2011) is a result of hasty adoption without an understanding of fundamental attitudinal changes key to the success of the process. An understanding of underpinning principles is key to ensuring positive impact and progression.

With competition increasing domestically as well as globally, firms can only survive as suggested by Kotler (2003) if they can only satisfy and exceed customer expectations. Innovations and increased research and development has become key to firm success as a result of customer demand for improved products at lower prices increasingly been the order of the day. To produce better products at lower prices, firms must continuously improve their production processes.

In order to meet the wide and varied quality demands of customers, firms are required to meet international standards such as (ISO) 9000. However, in Ghana, very little is known on how TQM influence quality of product. Also, very little research has been done to assess the influence of TQM on firm productivity and quality of products. It is against this backdrop that manufacturing firms in Ghana should endeavor to incessantly make unflinching efforts to producing and providing goods and services that meet international as well as local quality standards through the implementation TQM.

1.3 Research Questions

- 1. What are the TQM processes in Kasapreko Company Limited?
- 2. What are the TQM challenges in Kasapreko Company Limited?
- 3. How can we model TQM processes in line with the Kasapreko Experience?

1.4 Research Aim

The aim of this study was to explore the implementation of TQM in Kasapreko Company Limited

1.5 Research Objectives

- 1. To explore the TQM processes undertaken by Kasapreko Company Limited.
- 2. To determine the TQM challenges faced by Kasapreko Company Limited
- To develop a TQM implementation model for the beverage industry based on Kasapreko Company Limited

1.6 Relevance of Study

An effective TQM implementation and adoption can improve competitive abilities and provide strategic advantages in the marketplace for firms. The study will be a source of reference to government and policy makers that will redirect the attention on the need to assist manufacturing firms in the practice of quality management to provide quality goods to capture loyal customers. Again, it will give a policy direction to the Ghana Standard Board, the Consumer Protection Agency and foreign agencies like ISO and others that are committed to seeing the development, growth and the successful implementation of TQM in Ghana.

The study will also provide insight to industries in Ghana, more especially to manufacturing firms both private and state-owned, to employ the TQM in the process of product design and manufacturing.

Furthermore, to business advisors, this study will open avenues for opportunities in business consulting. Small firms that are willing to implement TQM practices will need the services of business advisors or management consultants for quality management implementation. Above all, the study will contribute to existing literature by presenting evidence from the outcome of this thesis.

1.7 Scope/ Limitations of Study

1.7.1 Scope of study

The manufacturing sector of Ghana, is a broad area that the researcher alone cannot research into. Therefore, the researcher would limit the study to Kasapreko Company Limited.

1.7.2 Limitations of study

It was the researcher's objective to cover several manufacturing firms to aid in comparing of data, but the researcher is limited to analyzing historical data from Kasapreko Company Limited, since other firms are not willing to come forth with data. Also lack of time and financial constraints hindered this project thereby limiting the work to only Kasapreko Company Limited.

1.8 Research Methodology

The researcher adoptsa quantitative research design in conducting the study. Furthermore, random sampling techniques was adopted for the study to select the respondents based on their availability and willingness to partake in the study. Primary data emanated from questionnaire survey of individuals within the Kasapreko Company Limited, Ghana. Secondary information from both publish and unpublished sources were used to complement the primary data. Descriptive statistics using means, frequencies and percentages with the help of Statistical Package for the Social Sciences (SPSS).

1.9 Organization of study

The entire study would be organized into five major chapters. The initial chapter, chapter one spells out the intent and motives for the research, the background of the study, statement of the problem, purpose of the study, research objectives, and research questions, significance of the study, research limitations and the chapter outline are discussed. Chapter two reviews relevant literature relative to this work. The third chapter on the other hand, focuses on the research design, research scope, sample size and sampling technique, types and source of data, research instrument, description of data collection procedure and limitations. Chapter four covers the analysis and presentation of results. Finally, chapter five provides the summary, conclusion, and recommendation of the study respectively.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

The essence of this literature review is to get understanding of the impact of TQM on business excellence of firms and potential reasons for TQM failures. In addition to getting a complete understanding of the theory and practice of TQM, various studies were analyzed and reviewed.

2.2 Evolution of Total Quality Management

TQM is a process that has been thoroughly researched by many quality gurus. These experts sought to devise an action plan for successful implementation of TQM. These experts included Deming, Juran, Ishikawa and Crosby.

Whiles working at the Census Bureau in the 1940's, Deming introduced the use of statistical process control to monitor the mammoth operation of key punching data from census questionnaires on to millions of punch cards. According to Stevenson (2011), Deming's emphasis was on the use of statistical quality control techniques to reduce variability in the production process.

Also credit is given to Deming for the development of the Deming's Wheel, or plan-docheck-act (PDCA) cycle, although it was originally formulated by Walter Shewhart and renamed by the Japanese. This is a four-stage process aimed at ensuring quality management whiles complementing his earlier 14 point strategy. However, the four-stage process seeks to identify current problems pertaining within production processes, whiles identifying opportunities for enhancing same and implementing an effective working plan.

The four-wheel process is preceded by the planning stage, which seeks to bring to the fore problems within a production system or process, in order for a plan to be developed targeted at improving or solving such problems.

This is followed by the "DO" stage which is the second stage aimed at implementation of the developed plan targeted at solving the process problems on experimental basis, whiles evaluating to ensure improvement within faulted processes. This is mostly associated with product design stage, which seeks to ensure customer requirements are met, hence managers documenting varied changes and gathering of data for evaluation during implementation.

It is critical for one to ensure that planned solutions are monitored and evaluated to ensure fulfillment of targeted goals and this is what the third stage seeks to achieve through the evaluating of collected data to ensure established goals are been met as a result of the planned solutions to identified problems.

The final stage of the cycle institutionalizes the improvement and continues the cycle. The best way to accomplish this is to communicate the results to other members in the firm and then implement the new procedure if it has been successful. All these stages are repeated over again in the cycle. It is worthy of note that Deming's Fourteen (14) point and the Four-wheel process are the basis of modern day quality management systems within major effective and efficient firms.



Figure 2.1 Deming's Wheel (PDCA Cycle)

Source: Russell and Taylor, 2011

Notably, the one considered to have influenced quality management more after W. Edwards Deming, is Dr. Joseph Juran. Other gurus worth noting are Ishikawa and Crosby.

Though each of these TQM gurus do have their own distinct approach to quality management, however the principles and practices proposed aids for better understanding of the concepts of TQM thereby acting as a solid base for a research into it.

A major agreement between these gurus is that, the responsibility of commitment, empowerment, encouragement, leadership and suitable sustenance to firm technical and human resource lies with management. They are entrusted with the responsibility of determining the environment and framework within which operations of a firm are run, hence it becomes imperative that they endeavor to nurture the involvement of all employees in the quality improvement, whiles developing a culture of quality by causing a change in perception as well as attitude towards quality.

Also another agreement between the gurus is a need for a clear cut strategy, policy and firm-wide evaluation of issues relative to quality.

Furthermore, the need to educate and train employees of the firm in order to create a change in behavior and attitude aimed at enhancing abilities of such employees in undertaking their duties is emphasized.

The various gurus also argued that it is necessary for firms to recognize and reward employees for their varied roles directed at improving quality within a firms' processes.

In order to prevent defects among products, rather than inspection after the event, the gurus agreed that it is critical for firms to put in place a control mechanism within the various processes, thereby leading to improvement of quality systems and product design.

From the suppliers to customers, quality is admitted to be a systematic firm-wide activity, which must inculcate such varied activities such as purchasing, design, engineering, marketing, manufacturing, inspection, shipping, accounting, installation and servicing in order to arrive at an effective and efficient quality system

2.3 Elements of Total Quality Management

There are several elements of TQM but with few clear definitions (Hansson, 2003). Whiles Dale et al (2001) describes TQM as an umbrella of concepts and ideas in various contexts related to the quality field; Hansson (2003) also describes TQM as a mutual collaboration of all individuals in an organization and associated business processes, in order to produce goods and services, which meet, and exceed the needs and anticipation of customers. Sila and Ebrahimpour (2002), argued that TQM definitions sought to address such factors as customer focus and satisfaction, employee training, leadership and top management commitment, teamwork, employee involvement, continuous improvement and innovation, quality information and performance measurement most frequently. The International Organization for Standardization (ISO) further defined TQM as a set of coordinated activities aimed at the control and directing of the organization towards quality.

2.3.1 Top Management Commitment

Top management commitment is vital in the implementation of TQM. Chrusciel and Field (2003) defined top management commitment as an active and visible support or commitment from the management of the organization, often in the form of a champion for the application. Top management commitment is seen as a critical factor for performance excellence in an organizational change strategy (Ciptono, 2008).

It is argued that strong commitment from top management is vital. This therefore means that, leadership is very critical in implementing TQM system.

2.3.2 Customer Focus

TQM value also emphasizes on customer focus in implementing the TQM system. Customer focus can be defined as the degree to which a firm continuously satisfies customer needs and expectations (Karani and Bichanga, 2012). A successful firm recognizes the need to put the customer first in every decision made. The key to quality management is maintaining a close relationship with the customer in order to fully determine the customer's needs, as well as to receive feedback on the extent to which those needs are being met. The customer should be closely involved in the product design and development process with input at every stage so that there is less likelihood of quality problems once full production begins.

2.3.3 Employee Participation

Employee participation or involvement is the process of empowering the members of the organization to make decisions and to solve problems appropriate to their levels in the organization (Sangeeta and Banwe, 2004). Employee participation can therefore be the degree to which employees in a firm engage in various quality management activities. By personally participating in quality management activities, employees acquire new knowledge, see the benefits of the quality disciplines and obtain a sense of accomplishment by solving quality problems. Employee participation is exemplified by things such as teamwork, employee suggestions, and employee commitment. A remarkable characteristic of employee participation is teamwork (e.g., crossfunctional teams and within-functional teams). The aim of a team is to improve the input and output of any stage. A team may well be composed of people from different staff areas, everyone having a chance to contribute ideas, plans, and figures.

2.3.4 Process Control and Continuous Improvement

Process control and continuous improvement allow individuals involved in the day-today operations to change and improve processes and work flows as they see fit. Traditional systems operated on the assumption that once a firm achieved a certain level of quality, it was successful and needed no further improvements (Zhang et al.,

1999). However, the more experience the organization gains in applying this technique, the more gradual the improvement will be (Balbastre and Moreno Luzo'n, 2003). Process management focuses on managing the manufacturing process so that it operates as expected, without breakdowns, missing materials, fixtures and tools. Zhan (2000) further stated that, good process management also involves precisely defining and documenting process management procedures, with instructions for machine operation and set-up posted at each work station, in order to minimize the likelihood of operator error. Balbastre and Moreno Luzo'n (2003) emphasized that, the focus of continuous improvement is closely linked to process management and have two clearly defined objectives. That is, there is a controlled variability of processes in order to ensure conformity in the execution of a pre-established design, thereby achieving homogeneity and a lack of errors or waste. On the other hand, it enables improvement in the processes because it allows us to understand them better as it employs a large variety of techniques, such as applied statistics techniques and others like PDCA (Plan, Do, Check, Act), and the Ishikawa Diagram.

2.3.5 Education and Training

Education and training forms a vital part of TQM. Education and training are some of the key elements of total quality in which many people are involved (Russell and Taylor, 2011). Therefore, the success of the implementation depends directly on how well they have been done. Education and training are one of the most important elements in a successful implementation of total quality management (Zhang et al., 1999) and further argued that education and training are an integral and essential part of the TQM initiative. Investment in education and training is vitally important for TQM success.

2.3.6 Supplier-Producer Quality Management

Supplier quality management is defined as the set of supplier related quality management practices for improving supplier' quality of products and services (Karani and Bichanga, 2012). This is exemplified by firm-supplier partnership, product quality as the criterion for supplier selection, communication with suppliers, and understanding of supplier performance and supplier quality audit (Zhang, 2000). The Malcolm Baldrige Quality Award also recognizes the importance of supplier quality. Many authors advocate that firms must establish supply chain partnerships to motivate suppliers to provide materials needed to meet customer expectations (Lau and Idris 2001; Thiagarajan et al. 2001). Supplier partnership is a means of developing relationships with suppliers to ensure that they understand the customer's specific requirements and needs. Further, reducing the number of suppliers provides better control and fosters a mutually beneficial climate of continuous improvement (Quality Management and Training Newsletter, 2010).

2.4 Empirical Review of Relevant Literature

Our next business below is to review some relevant academic literatures of TQM gurus and their contributions to the study area. These show how critical the subject matter has become.

2.4.1 Developing a TQM Quality Management Method Model

Zhang (2000) conducted a research on developing a TQM quality management method model. He conducted an extensive review of total quality management literature, the external environment (i.e social, legal-political, technological and economic) and internal environment (i.e Leadership, People, Strategy and Policy, Processes, Suppliers and Customers) affecting an organization's quality performance and the eleven primary elements of TQM were identified. Based on the primary TQM elements, a TQM quality management method model was developed._The model described the primary quality management methods, which may be used to assess an organization's present strengths and weaknesses with regard to its use of quality management methods. This model can also assist an organization to decide which quality management method to implement. He also reviewed international Quality Awards, such as the Deming Prize in Japan, the European Quality Award in Europe and the Malcolm Baldrige National Quality Award in the United States of America (Ghobadian and Woo, 1996).

The aims of the award schemes he identified were; to increase awareness of the importance of quality management, encourage systematic self-assessment, stimulate sharing and dissemination information, promote understanding of quality excellence requirements and stimulate organizations to introduce a quality management improvement process. The eleven elements of TQM identified were (1) Leadership; (2) Supplier quality management; (3) Vision and plan statement; (4) Evaluation; (5) Process control and improvement; (6) Product design; (7) Quality system improvement; (8) Employee participation; (9) Recognition and reward; (10) Education and training; and (11) Customer focus.

Comments

The researcher failed to provide the kind of external environment, which should be formed inorder to encourage an organization to implement total quality management. In this paper, the TQM quality management method model was developed but not tested in a practicable environment like a manufacturing firm. There was a short fall in the kind of quality management methods that are commonly used by an organization. In addition, he did not provide which kinds of quality management methods that are more important than others in terms of improving organizational quality performance.

2.4.2 Analysis of Total Quality Management Practices in Manufacturing and Service SectorsBy Faisal Talib, Zillur Rahman, and M.N. Qureshi

University Polytechnic, Faculty of Engineering and Technology, Aligarh Muslim University, Aligarh, U.P., India

Quality gurus such_asJuran, Deming and Crosby have advocated various methodologies for business success and singled out some quality practices. These practices have a positive impact on_business performance in both manufacturing and service sectors.

This paper attempts to identify the TQM practices in two different sectors and examines the difference between them by analysing their commonalities with respect to their implementation as applicable to both the sectors. The methodology adopted was critically examining the literature on TQM practices followed by manufacturing and service sectors. Altogether, 30 published research studies (15 research studies on TQM practices in the manufacturing_industries and 15 on the service industries) were identified that focused on TQM principles and practices used by them. The findings showed no significant difference_in the level of most TQM practices and broadly the same group of identified TQM practices do exist and are applicable to both sectors, except few differences that were_found and were presented in the study. The study showed that six out of nine TQM practices_identified are similar and_common in both manufacturing and service industries. They are top management commitment; _customer focus and satisfaction; human resource management; training and education; _employee involvement; and supplier_management.

The plausible explanation for this result is the higher score of frequency of occurrences of these practices in the two sectors. The results can provide guidance for service managers and quality practitioners aiming to implement TQM.

Comments

The study was only limited to 15 reviews each in a particular sector. This could develop inconsistent results in his findings. Further research must be developed by studying how different sectors in different jurisdictions formulate and implement TQM policies. The researcher did not focused on how his findings in each sector can be used to build improvement programs to influence positively business development.

2.4.3 Pillars of TQM Implementation in Manufacturing Organization- An Empirical Study By Ariful Islam, Shahjalal University of Science and Technology, Sylhet andAnwarulHaque, Ahsunullah University of Science and Technology, Dhaka

This paper deals with the implementation_issues of TQM in manufacturing organizations.

A comprehensive_framework for TQM implementation was developed that engaged essential pillars, and their associated factors. The aim of the research was to examine the feasibility of the proposed framework initially developed based on the literature review and authors' experience working in the manufacturing organizations.

The developed framework was verified in the practical settings in Ready Made Garments (RMG) Industry in Bangladesh.

In the empirical investigation, 31 export-oriented organizations in the RMG sector were studied. The study was based on the following eight (8) TQM pillars; Creation of quality management Environment, Development of teamwork, Practice of quality control_tools and techniques, Focus on customer, Focus on supplier relationship, Benchmarking, Improvement of processes and Involvement of employees.

The TQM pillars were analysed through descriptive statistics, T-test analysis, the pillars ranked to reveal the level of importance accorded to them, and finally status correlation between pillars.

Judging the results of their T-test analysis, they concluded that Pillar 5, focus of supplier relationship, places itself at the top rank among all pillars. P6 is in the bottom rank and the others pillars are in between the ranking scale. Their research shows that the organizations chooses closer supplier relationship as the top ranked pillar for TQM implementation, while they identified benchmarking as the bottom ranked pillar. The work proposed that TQM implementation should be successful if it stands on eight TQM pillars. The pillars he indicated should not be isolated they need to be bonded together for better cohesion. Once the implementation becomes_successful, an organization can achieve its ultimate goal through TQM, which is to supply the quality product or service to its customers.

Comments

The findings implied that the following TQM pillars; creation of quality management environment, development of teamwork, practice of quality control tools and techniques, closer supplier relationship and customer focus are the main pillar of TQM implementation. Majority of the proposed factors associated to the pillars were significantly apparent in the studied organizations. As a whole the study validated the proposed framework for TQM implementation but was only limited to RGM industry.

2.4.4 Implementation of TQM in Manufacturing Industries in the Kingdom of Saudi Arabia

By Anisur Rahman, Griffith School of Engineering, Griffith University**and Muhammad T. Attar,** Gold Coast Campus, QLD 4222, Australia

The objective_of this study_was to investigate the current level of implementation, prospects and barriers in_implementing TQM in manufacturing industries_in the Kingdom of Saudi Arabia (KSA). A survey questionnaire was developed and distributed to different manufacturing companies. This_research article presents the survey result on_current quality control practices within the manufacturing companies in the Western region of Saudi_Arabia to assess the potentiality of implementing TQM systems in order to improve the customer satisfactions through employee_participation and continual improvement process.

About 100 manufacturing companies, those who were applying quality program in their business were selected initially in the study. Out of the 100 manufacturing industries 76 (76%) responded.

The_collected data were then analysed using Statistical software such as SPSS. _Upon analysis, _it was revealed that many companies in the western region of the KSA have a low-level_awareness of TQM implementation and its benefits. _This was because of emphasis on only one aspect of quality_program ISO 9000 QMS. _The result of the survey pointed out some of the major difficulties of implementation of ISO 9000QMS such as increase in the_amountof_paperwork, difficulties in controlling too many suppliers/subcontractors, and understanding different terminologies used in the standards and need for full time quality managers.

Comments

This investigation was conducted only in the Western region of the KSA. To obtain a better and more representative result, a further investigation must be conducted throughout the KSA in the future.

2.4.5 Total Quality Management in Manufacturing Industry of Pakistan: A Case of Cement Industry

By M. Noman Malik and Huma Hayat Khan

The researchers pointed out that, in Asian countries, the principle of Total Quality Management (TQM) and the respective code of conduct to implement are still yet to be matured. The gap between philosophies, which have been there for the last three to four decades, it creates a lot of interest to researchers to develop and designed instruments to bridge the gap. Especially, in Pakistan underlying principle of TQM is on initial level where awareness and a chunk of implementation is under process and specifically Pakistan's cement industry started exporting and increased their compatibility gradually with international standard.

The main purpose of this research paper was to study_the working methods of cement companies by considering TQM as important part in their organization. The data obtained from this_survey will be useful in calculating_total quality management of cement companies. _By references, the result of this research can also be_applicable to other organizations with minor changes depending on culture and per requirement of organizations to be more professional in industry.

The researchers analysed three (3) cement companies, which are very renown in Pakistan. They claimed reason for taking these organizations were the geographically dispersion as they are from different regions of Pakistan. A questionnaire based on 10 critical factors, which indicates the quality management as a comprehensive measure of integrated TQM implementation was presented to the organizations which are composed as follows; Organizational commitment, Human Resources management, Supplier Integration, Quality Policy, Product Design, Role of Quality Department, Quality Information Systems, Technology Utilization, and Operating Procedures and Training.

Each respondents were asked to rate the performance with respect to quality of the organization unit as against the established factors. _These performances were arranged to get a single value of quality performance against each factor for three companies. Organizational commitment, Human Resources management and Supplier Integration were the lead factors in the analysis.

Comments

The major limitation of this study was the small sample size due to the large questionnaire as instrument, this study was only applied in Cement industry organizations and it can be further extended to multiple organizations as well as multiple industries.

2.5 Summary Of Literature Review

Total quality management appears to be a concept, which is difficult to summarize inshort definition, it must be evaluated at every stage in a continued process.T. R. Stuelpnagel, 1989 as quoted in my opening remark says that TQM process has to improve upon to meet the challenges of the current industrialization boom. I think this is what researches and TQM experts should focus on.

A brief review of total quality management literature from quality gurus, quality award models, and other researches for the manufacturing industry were conducted in this chapter. It is clear that, employing some primary elements of TQM appears to be a workable solution for the manufacturing sector.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter discusses the research methodology adopted for this study to achieve the research aim and objectives. The chapter discusses the research design, types and sources of data, sampling methods, techniques of data collection and data management and analysis. It provides detailed explanations to the methods used and how they were suitable in carrying out this research.

3.2 Study Design

The descriptive and exploratory research design was adopted to enable the researcher find out and understand issues relating to the development of a TQM model for the beverage industry in Ghana. In addition a quantitative approach is adopted for the study through the use of questionnaires. Questionnaires were used for gathering data through soliciting for the opinions of respondents on the issue at hand.

3.3 Population and Sample Size of Study

Population refers to entire group or aggregate of people or elements with one or more common characteristics (McNeill, 2005). Population is also the larger group which a researcher wishes to generalize; it includes defined class of people, and events (Sharp et al, 2002). Creswell (2009) also defines population as the sum aggregate or totality of the phenomenon of interest to the researcher. The target population of this study

was the workers of Kasapreko Company Limited, Ghana. Data from the human resource department of the company revealed a total workforce of approximately 300. In this regard, the population for the study was 300.

3.4 Sampling Techniques

Sampling is concerned with the selection of a subset of individual elements within a population. This study used random sampling techniques. With regard to the Kasapreko Company Limited, the study used stratified random sampling. This involved dividing the population into different strata based on their functions and randomly selecting samples from each strata. This was done to ensure uniformity in data collection and ensured a fair representation of all categories of workers. For the purpose of this study, the workers were grouped into different strata using the various departments as the basis. The selection of the respondents was also based on their availability and willingness to participate in the study. A total of 70 respondents were selected for the study.

3.4 Research Instrument

In line with the purpose of this study, primary data was largely depended upon. The collection of primary data became obvious since there was the need to gather the views of different respondents within Kasapreko Company Limited's set-up who had different set of skills, attitude and behavior all driving towards the goal of massive realization of its TQM strategies. In this regard, the researcher employed the use of structured questionnaires as a means of gathering relevant data from respondents. The questionnaires comprised of closed ended questions and Likert type questions and partitioned into separate parts based on the objectives. The researcher personally

distributed to the questionnaires to the respondents and took them back once they were done completing them.

Secondary information was sourced through literature search from textbooks, internet, newspapers, as well as international and domestic journals to provide the theoretical framework for the study.

3.4 Data Analysis and Presentation

The data collected was checked and edited to eliminate potential errors that would limit the reliability of the research results. This involved checking the completeness and accuracy as well as consistency of the answers provided in the questionnaire. Afterwards, the questions were coded and then entered into the Statistical Package for Social Science (SPSS) software version 20 for data analysis. The data were analyzed with descriptive statistics using frequencies and percentages.

The results of the data analysis were interpreted and discussed to arrive at the findings. The discussion of the findings was in the form of comprehensive statements and analytical descriptions based on the primary data as well as secondary information from the review of related literature to address the research objectives. Microsoft excel 2010 was used to visually present and describe the results of the analysis through graphs and frequency tables.

CHAPTER FOUR

DATA ANALYSIS AND PRESENTATION

4.1 Introduction

In this chapter, the results of the data analysis from the questionnaire survey are provided. For the purpose of this research, questionnaires were distributed to a total of 70 respondents. However, a total of 54 were duly completed and used for carrying out the analysis accordingly. This represented a response rate of 77%. The results of the analysis have been discussed under the following themes: profile of the respondents; TQM processes undertaken by Kasapreko Company Limited; TQM challenges faced by Kasapreko Company Limited; and development of a TQM implementation model for the beverage industry.

4.2 Profile of Respondents

In an attempt to establish a deeper understanding of the background of the respondents, this section describes the characteristics of the respondents that were involved in the survey. Four main characteristics were of paramount interest namely: gender, age, years working experience and their position in the company.

In terms of gender, the respondents for this study comprised both males and females as shown in Figure 4.1.



Figure 4.1: Gender of Respondents

Source: Field survey, 2018

From Figure 4.1, it is noticeable that males made up the majority of the respondents comprising 67%.Females comprised 33% of the respondents. Males outnumbering their female counterparts is typical in many manufacturing and beverage firms in Ghana.

The age distribution of the respondents is presented in Table 4.1

Age	Frequency	Percent
25 - 35 years	18	33.3
36 - 45 years	23	42.6
Above 45 years	13	24.1
Total	54	100.0

 Table 4.1: Age Distribution of Respondents

Source: Field survey, 2018

It is observed in Table 4.1 that the respondents' ages ranged from 25 years to over 45 years. Majority of the respondents (42.6%) however were within the age bracket of 36-45 years. Also, 33% of them were within the age bracket of 25-35 years while 24% of the respondents were over the age of 45 years.

The next characteristics was the position of the respondents in the company. Their responses are shown in Table 4.2.

Position	Frequency	Percent
Manager	5	9.3
Assistant Manager	8	14.8
Supervisor	16	29.6
Assistant Supervisor	12	22.2
Operative Officer	13	24.1
Total	54	100.0

 Table 4.2: Position of Respondents

Source: Field survey, 2018

From Table 4.2, it is noticeable that 9.3% and 14.8% of the respondents were managers and assistant managers respectively. Also, supervisors and assistant supervisors comprised 29.6% and 22.2% respectively. Operative officers comprised 24.1% of the respondents.

The last detail of the respondents profile was their years of working experience at Kasapreko Company Limited. Their responses are presented in Figure 4.2.



Figure 4.2: Years of Working Experience

Source: Field survey, 2018

From Figure 4.2, majority of the respondents (46.3%) have 6-15 years working experience with the company. Another 38.9% of them have below 5 years of working experience with the company. The remaining 4.8% have more than 16 years working experience with the company.

4.3 TQM Processes in Kasapreko Company Limited

This section of the analysis presents the results on the TQM processes that are undertaken by the Kasapreko Company Limited based on the responses from the respondents. In the first place, an analysis of the TQM policy is provided. In this regard, the respondents were asked to indicate their awareness of the Total Quality Management Policy in the Company. From the analysis, all the respondents indicated that they were aware of the Total Quality management policy of the company. This finding suggested that there is adequate knowledge of employees of the company of the quality management policy. This is not surprising as quality management is of extreme importance to the company.

The statements regarding the processes of TQM as experienced in the Kasapreko Company Limited, have been examined under different broad groups. In this regard, the respondents were asked to rate their extent of agreement on some specific statements under the broad groupings using a five-point Likert scale with 1 representing strongly disagree, through to 5 representing strongly agree. The data was analyzed using frequency distributions and then ranked using a Relative Agreement Index (RAI) developed for each statement. The RAI values ranged from 0-1. This means that the higher the RAI value; closer to 1, the stronger the agreement on that statement and consequently its significance. The results of the analysis are shown in the following Tables.

Table 4.3Effectiveness	of TQM Policy
------------------------	---------------

Statements	1	2	3	4	5	Total	Weighting	RAI	Rank
Policies have clearly defined	6	6	12	15	15	54	189	0.700	1 st
scope									
Company's TQM policies are	6	13	6	14	15	54	181	0.670	2 nd
consistent with workplace									
operation's objectives									
TQM Policies are consistent	6	11	11	11	15	54	180	0.667	3 rd
with other operational policies.									
TQM policies have clearly	6	11	12	13	12	54	176	0.652	4 th
defined responsibilities for all									
different departments									
Management, in consultation	6	11	12	14	11	54	175	0.648	5 th
with employees, sets TQM									
policies.									
There is clear channel for	11	11	6	13	13	54	168	0.622	6 th
feedback into policy decision									
between management and									
workers (eg open forum on									
policies)									

1=Strongly disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=strongly agree **Source: Field survey, 2018** The first group of statements on the processes of TQM undertaken by the company regarded the effectiveness of the TQM policy. It is noticeable from Table 4.3 that the responses varied among the respondents. However, for all the statements, majority of the respondents expressed some form of agreement. This implies that TQM policies are very effective in the company. The RAI values ranged from 0.700 to 0.622. In terms of ranking, the statements that "Policies have clearly defined scope" and "Company's TQM policies are consistent with workplace operation's objectives" were highly rated with RAI values of 0.700 and 0.670. This was followed by the statements that "TQM Policies are consistent with other operational policies" and "TQM policies have clearly defined responsibilities for all different departments". By implication, this finding suggests that the effectiveness of TQM policy stems from clearly defining policy scope; making policy consistent with workplace and operational objectives as well as clearly defining responsibilities for all different departments.

Statements	1	2	3	4	5	Total	Weighting	RAI	Rank
TQM polices are available and	6	12	6	16	14	54	182	0.674	1^{st}
accessible to all workers									
TQM policies come in a	6	12	6	17	13	54	181	0.670	2^{nd}
written form									
TQM Inductions are conducted	6	11	11	14	12	54	177	0.656	3 rd
for all workers									
Policies are verbally	6	11	12	13	12	54	176	0.652	4 th
communicated									

Table 4.4 Communication of TQM Policy in the Company

1=Strongly disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=strongly agree **Source: Field survey, 2018**

From Table 4.4, the responses on the statements on communication of TQM in the company also showed notable variations. The statements had relatively high RAI values ranging from 0.674 to 0.652. It is noticeable that majority of the respondents expressed agreement to the various statements. The statement that "TQM polices are available and accessible to all workers" was the highest rated. This implies that the communication process of the TQM policy was accessible to all workers.

Statements	1	2	3	4	5	Total	Weighting	RAI	Rank
The terms used in the policies	6	12	6	16	14	54	182	0.674	1 st
are flexible, understandable									
and user friendly									
TQM policies at work allows	6	12	12	12	12	54	174	0.644	2 nd
for brain storming on work									
methods									
People are always rewarded for	6	11	13	13	11	54	174	0.644	3 rd
new ideas									
Policies are current and include	6	13	12	12	11	54	171	0.633	4 th
anticipated future issues.									

 Table 4.5 Innovation, Flexibility and Creativity of TQM Policy in the Company

1=Strongly disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=strongly agree

Source: Field survey, 2018

In Table 4.5, the responses from the respondents were varied. However, it is noticeable that the range of RAI values were 0.674 and 0.633. This indicates that majority of the respondents generally were in agreement of the statements. The implication of this finding is that TQM processes at the Kasapreko Company Limited embraced innovation, flexibility and creativity.

Table 4.6:TQM	Policy	Management	in	the	Company
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Statements	1	2	3	4	5	Total	Weighting	RAI	Rank
Policies have date of issue and	9	12	6	12	15	54	174	0.644	1 st
revision									
Executive has long term	7	12	11	14	10	54	170	0.630	2 nd
strategy to achieve the policy									
objectives									
Policies have definite	11	9	9	12	13	54	169	0.626	3 rd
document title									
The Quality policy is dated and	8	13	12	9	12	54	166	0.615	4 th
signed by the senior executive									
of workplace									
The company has a senior	9	12	12	9	12	54	165	0.611	5 th
management member									
responsible for TQM									
Policies have stated	12	9	9	12	12	54	165	0.611	5 th
accountability of Senior									
management team									
Company has a training	9	12	12	10	11	54	164	0.607	7 th
program for staff									

1=Strongly disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=strongly agree **Source: Field survey, 2018** This group of statements on the processes of TQM undertaken by the company regarded the management of TQM policy. It is noticeable from Table 4.3 that the responses varied among the respondents. However, for all the statements, majority of the respondents expressed some form of agreement. This implies that TQM policies are adequately managed in the company. The RAI values ranged from 0.644 to 0.607. In terms of ranking, the statements that "Policies have date of issue and revision" was the most highly rated with RAI values of 0.644. This was followed by the statements that "Executive has long term strategy to achieve the policy objectives" and "Policies have definite document title" with RAI of 0.630 and 0.626 respectively.

Statements	1	2	3	4	5	Total	Weighting	RAI	Rank
Company has a budget for	4	6	9	16	19	54	202	0.748	1 st
TQM issues									
Company has a senior	7	7	5	17	18	54	194	0.719	2nd
management member									
responsible for TQM									
management									
Monitoring and	8	9	6	15	16	54	184	0.681	
Assessment of the policy									
Company has good	9	10	8	14	13	54	174	0.644	
administrative structures									
and capability for TQM									
policies									

 Table 4.7Resources for TQM Process in the Company

1=Strongly disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=strongly agree **Source: Field survey, 2018**

It is noted that TQM requires both human and financial resources to thrive. With respect to the Kasapreko Company, the statements on resources for TQM processes varied among the respondents. However, generally, majority of the respondents agreed. This was evident through the relatively high RAI values that ranged from 0.748 to 0.644. The statements that "Company has a budget for TQM issues" and "Company has a senior management member responsible for TQM management" were highly rated with respective RAI values of 0.748 and 0.719. By implication, Kasapreko Company devoted adequate resources to its TQM issues.

Overall, the analysis of the data on the process of TQM at the Kasapreko Company Limited revealed that TQM is predominantly used. The analysis showed that majority of therespondents expressed some form of agreement to the statements. As a follow-up to the TQM processes, the respondents were asked to indicate how the company rates some identified aspects of business results. The rating followed a five point Likert scale with 1 representing "not a priority", through to 5 representing high priority. The data was analyzed using frequency distributions and then ranked using a Relative Priority Index (RPI) developed for each business aspect. The RPI values ranged from 0-1. This means that the higher the RPI value; closer to 1, the higher the priority on that business aspect and consequently its significance. The result of this analysis is shown inTable 4.8.

BUSINESS RESULT	1	2	3	4	5	Total	Weighting	RPI	Rank
Increase Revenue	0	0	0	14	40	54	256	0.948	1 st
Increasing workers competency	0	0	3	17	34	54	247	0.915	2 nd
Reduction of number of customer complaints	0	0	0	18	35	53	247	0.915	2 nd
Provision of TQM control tools	0	0	0	24	30	54	246	0.911	4 th
Reduction of product defects	0	0	4	25	25	54	237	0.878	5 th
Usage and improvement of technology	0	0	10	16	28	54	234	0.867	6 th
Monitoring of TQM performance	0	0	9	19	26	54	233	0.863	7 th
Supplier and distributors satisfaction	0	0	8	27	19	54	227	0.841	8 th
Workers motivation to adhere to TQM	0	0	20	14	20	54	216	0.800	9 th

 Table 4.8 Rating of Company's Business Aspects

Source: Field survey, 2018

It can be observed that all the aspects had relatively very high relative priority index values. These index values ranged from 0.948 to 0.800. This implies that all these aspect of business are very highly prioritized in the company. This is not surprising as the prioritization of all these business aspects are enshrined in the TQM policy. In terms of ranking the various business results of TQM processes, "Increase Revenue" was ranked with an index of 0.948.

"Increasing workers competency" and "Reduction of number of customer complaints" were both ranked as the second business result of the TQM processes. These statements had an RPI of 0.915. These were followed by "Provision of TQM control tools",

¹⁼Not a priority, 2=Low priority, 3=Neutral, 4=Moderate priority, 5=High priority

"Reduction of product defects", "Usage and improvement of technology", "Monitoring of TQM performance", "Supplier and distributors satisfaction" and "workers motivation to adhere to TQM". These high ratings for all the business results indicates that TQM is an all-inclusive management process.

4.4 TQM Challenges Faced by Kasapreko Company Limited

In this section of the analysis, challenges to good TQM implementation are examined. In this regard, the respondents were asked to indicate their extent of agreement on some identified challenges to good TQM implementation. The rating followed a five point Likert scale with 1 representing "strongly disagree", through to 5 representing strongly agree. The data was analyzed using frequency distributions and then ranked using a Relative Agreement Index (RAI) developed for each challenge. The RAI values ranged from 0-1. This means that the higher the RAI value; closer to 1, the stronger the agreement on that challenge and consequently its significance. The result of this analysis is shown in Table 4.8.

Table 4.8 Rating of Challenges to TQM implementation

CHALLENGES	1	2	3	4	5	Total	Weighting	RAI	Rank
AFFECTING POLICY									

IMPLEMENTATION									
Lack of committed and	0	0	3	16	35	54	248	0.919	1^{st}
skilled implementing									
officials									
Poor Coordination and	0	0	3	18	33	54	246	0.911	2 nd
communication									
No Incentives and sanctions	0	0	4	20	30	54	242	0.896	3 rd
The required combination of	0	0	4	20	30	54	242	0.896	3 rd
resources is not available									
Policies are only spoken of	0	3	4	20	27	54	233	0.863	5 th
when there is a problem									
Lack of clear and logical	0	0	4	30	20	54	232	0.859	6 th
consistent objectives									
Poor fit with local	0	4	7	12	31	54	232	0.859	6 th
organizational priorities									
Inadequate Time	0	3	7	19	25	54	228	0.844	8 th
Divergent views due to	0	4	10	10	30	54	228	0.844	8 th
insufficient consultation									
No proper feedback	0	0	15	19	20	54	221	0.819	10 th
mechanism									
Lack of participation of	0	4	10	20	20	54	218	0.807	11 th
stakeholders									
Misunderstanding and	0	4	12	18	20	54	216	0.800	12 th

disagreement on objectives									
Lack support and training	0	9	8	17	20	54	210	0.778	13 th
for managers and front-line									
staff									
No clear lines of	0	5	15	20	14	54	205	0.759	13 th
accountability									
Translation of policy into	0	6	14	20	14	54	204	0.756	14 th
administrative directives									
Organizational machinery	0	8	16	11	19	54	203	0.752	15 th
Policies not based on valid	0	4	20	20	10	54	198	0.733	16 th
causal theories and effect									
No freedom for those on the	0	4	20	20	10	54	198	0.733	16 th
ground to innovate and adapt									
policy to local conditions;									

1=Strongly disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=strongly agree

Source: Field survey, 2018

It can be observed that all the challenges had relatively very high relative agreement index values (greater than 0.700). This implies that all these challenges are very significant in the implementation of TQM. In terms of ranking, the challenges of "Lack of committed and skilled implementing officials" and "Poor Coordination and communication" were the highly rated with RAI values of 0.919 and 0.911. These were followed by the challenges of "No Incentives and sanctions" and "The required combination of resources is not available". Overall the identified challenges of good TQM implementation were all significant as majority of the respondents generally expressed agreement. This implies that the development of TQM should be checked against potential challenges.

4.5 Development of a TQM Implementation Model for the Beverage Industry

This section of the analysis presents a proposed model for the implementation of TQM in the beverage industry. TQM implementation is a never-ending exercise and a very challenging task that calls for continuous improvement.

In this regard, the TQM at the Kasapreko Company Limited was explored. it is hoped that the framework will assist firms in the beverage industries to improve the quality of their products and companies at large by the implementation of TQM in their companies.

The TQM model is built upon six core factors that form the foundation for integrating the key performance requirements within the quality framework. These are Process Management, Continuous Improvement, Employees' Satisfaction/Empowerment, Supplier Chain Management, Customer Focus, Management /Leadership and Training. Furthermore, the proposed framework is built using the process of the TQM implementation of the Kasapreko Company Limited. Figure 4.3 illustrates a diagram of the proposed model.



Figure 4.3 TQM Model

The proposed framework is based on six criteria. Three basic criteria needed for a successful implementation of TQM Framework are Process Management, Leadership Commitment, and Customer Focus. They are the triangular pillars on which TQM derives its support.

Process Management is at the top of the triangle indicating that without process management the framework will fail. Customer Focus and Management are the Human Resources who play their role effectively in managing all necessary processes. The Customers include the Internal and External Customers. Any one of these criteria that fails leads to a failure of TQM. Continuous Improvement, Training, and Supplier Management are the connectors to the main pillars for an effective and efficient TQM Implementation in the Ghanaian beverage Industry.

As in the case of the Kasapreko TQM, the implementation of this TQM framework stems from clearly defining policy scope; making policy consistent with workplace and operational objectives as well as clearly defining responsibilities for all different departments within the firms of the beverage industry.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter deals with the summary of findings, conclusions, and recommendations made based on the findings from the study. As part of the summary of findings, an indepth recap of the objectives of the research is presented in line with the three main thematic issues of study in this research. The conclusions and recommendations follow suit.

5.2 Summary of Findings

The aim of this study was to explore the implementation of TQM in Kasapreko Company Limited. Specifically, the study addressed the following objectives:

- 1. To explore the TQM processes undertaken by Kasapreko Company Limited.
- 2. To determine the TQM challenges faced by Kasapreko Company Limited
- To develop a TQM implementation model for the beverage industry based on Kasapreko Company Limited

The following subsections provide a summary of the findings based on thematic sub sections in line with research objectives.

5.2.1TQM Processes in Kasapreko Company Limited

From the analysis, all the respondents indicated that they were aware of the Total Quality management policy of the company. In addition, it was found out that TQM policies are very effective in the company considering the RAI values ranged from 0.700 to 0.622. In

terms of ranking, the statements that "Policies have clearly defined scope" and "Company's TQM policies are consistent with workplace operation's objectives" were highly rated with RAI values of 0.700 and 0.670. By implication, this finding suggested that the effectiveness of TQM policy stems from clearly defining policy scope; making policy consistent with workplace and operational objectives as well as clearly defining responsibilities for all different departments. In terms of ranking the business results of TQM processes, "Increase Revenue" was ranked first with an index of 0.948. "Increasing workers competency" and "Reduction of number of customer complaints" were both ranked as the second business result of the TQM processes with an RPI of 0.915.

5.2.2 TQM Challenges Faced by Kasapreko Company Limited

Overall the identified challenges of good TQM implementation were all significant as majority of the respondents generally expressed agreement. In terms of ranking, the challenges of "Lack of committed and skilled implementing officials" and "Poor Coordination and communication" were the highly rated with RAI values of 0.919 and 0.911. These were followed by the challenges of "No Incentives and sanctions" and "The required combination of resources is not available".

5.3 Conclusion

The aim of this study was to explore the implementation of TQM in Kasapreko Company Limited. The study has shown that TQM policies were very effective in the company. A major implication of this was that the effectiveness of TQM policy stems from clearly defining policy scope; making policy consistent with workplace and operational objectives as well as clearly defining responsibilities for all different departments. Overall, the study concludes that, the processes of TQM positively influence business performance.

5.4 Recommendations

Based on the results of the study, the following recommendations are suggested to enhance TQM implementation and practices in the Ghanaian beverage industry:

- 1. In the first place, successful implementation of TQM in the beverage can be achieved through developing effective total quality management system, persistence, and positive hands on leadership.
- 2. The study recommends the regular education and training of employees within the firms of the beverage industry. This would help empower them and enable them work efficiently. Regular training and education will enable them to better understand and implement quality strategies as well as improve upon their motivation to excel on their job.
- In addition, the study recommends effective management support and commitment to quality management within various firms in the beverage industry. Management of these firms should develop quality manual and see to its

implementation, set objectives and provide requisite training for all of the employees in the firms.

- 4. Management should make available adequate funds and other resources to their quality management departments to enable them achieve the quality objectives.
- Management members should include the quality management agenda in all their decision making activities.
- 6. The study recommends that government should be consistent in policy making regarding quality management and agencies responsible for ensuring quality in the beverage industry such as standards authority and food and drugs authority should be strengthened.

5.5 Suggestions for Further Research

This study has explored TQM implementation in the KASAPREKO COMPANY LIMITED and provided a framework for TQM implementation in the beverage industry. Further research can be conducted to examine the effectiveness of this framework in other firms of the beverage industry.

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APPENDIX

Research Questionnaire

KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY, KUMASI

INSTITUTE OF DISTANCE LEARNING (IDL)

MASTER OF SCIENCE PROJECT MANAGEMENT RESEARCH QUESTIONNAIRE - BY

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(PG1145617)

INTRODUCTION

Studies in developing countries have shown that, there is a lack of TQM awareness generally in the manufacturing industry. Some attribute this problem to human and administrative lapses.

With the need to compete in a global market increasingly becoming the norm, local protectionist laws are no longer been effective and the fear of losing markets to other manufacturing firms on the basis of quality is prompting local Ghanaian firms, yet a few to inculcate quality into their system so as to enhance their firm's efficiency and competitiveness.

TOPIC

THE DEVELOPMENT OF TOTAL QUALITY MANAGEMENT MODEL FOR THE BEVERAGE INDUSTRY BASED ON KASAPREKO COMPANY LIMITED'S EXPERIENCE.

AIM

The aim of this research is to study the Total Quality Management policy in Kasapreko and model a theoretical framework for developing TQM policies.

DECLARATION

I shall be grateful of your assistance by providing answers to the questionnaire in this research, which is to collect data for academic purposes only. All information will remain confidential and all data will be reported only in a consolidated format.

Please answer by checking the box which corresponds to your response

A. DEMORGRAPHIC BACKGROUND

Please tick [v] where appropriate and provide brief answers where

necessary.

- 1. Gender
 - []Male []Female
- 2. Age
 - [] Below 25 years
 - [] 25 35 years
 - [] 36 45 years
 - [] Above 45 years
- 3. State your position in the company.
 - [] Manager [] Ass Supervisor
 - [] Ass. Manager [] Officer
 - [] Supervisor [] Operative Officer
- 4. How many years of working experience do you have?
 - [] Below 5 years
 - [] 6 15 years
 - [] 16 years and above
- 5. Are you aware of the Quality Management Policy in the Company?

Yes 🗆 No 🗆

6. In your opinion, to what extent do you agree with the following statements in relation to your company's TQM policies, using the scale below as a guide?

3-neutral

	EFFECTIVENESS OF POLICY	1	2	3	4	5
	JOINED –UP					
1.	Policies have clearly defined scope					
2.	Company's TQM policies are consistent with workplace operation's objectives					
3.	TQM Policies are consistent with other operational policies.					
4.	TQM policies have clearly defined responsibilities for all different departments					
	NCLUSIVE					
5	INCLUSIVE Company TOM policies are set by only management					
5.	Management in consultation with employees, sets TOM					
0.	policies.					
7.	There is clear channel for feedback into policy decision between management and workers (eg open forum on policies)					
0	COMMUNICATION TOM polices are evolubility and accessibility to all workers					
0. 0	TOM policies come in a written form					
9.	TOM Is dusting any sea desited for all readens					
10.	I QM Inductions are conducted for all workers					
11.	Policies are verbally communicated					
	INNOVATION ELEXIBLE AND CREATIVE					
12	TOM policies at work allows for brain storming on work					
12.	methods					
13.	People are always rewarded for new ideas					
14.	Policies are current and include anticipated future issues.					
15.	The terms used in the policies are flexible, understandable and user friendly					
				1		
1.0	EVIDENCE AND LEGAL BASED					
16.	The TQM policies address real needs of the workplace					
17.	TQM policies are adopted from other companies					
18.	There is proper documentation for TQM policies					
19.	People /worker are invited to share TQM experiences and expertise at work					
20.	TQM policies meet relevant local legal/award requirements					
21.	Policy looks at other international laws.					

22.	Policies restrict workers from enjoying their rights.			
	MANAGEMENT			
23.	The company has a senior management member responsible for			
	TQM			

1-Not at all true, 2-Rarely true, 3-Sometimes true, 4-Mostly true, 5 - Almost always true

24.	The Quality policy is dated and signed by the senior executive			
	of workplace			
25.	Policies have stated accountability of Senior management team			
26.	Executive has long term strategy to achieve the policy			
	objectives			
27.	Company has a training program for staff			
28.	Policies have definite document title			
29.	Policies have date of issue and revision			
	RESOURCES			
30.	Company has a budget for TQM issues			
31.	Company has a senior management member responsible for			
	TQM management			
32.	Monitoring and Assessment of the policy			
33.	Company has good administrative structures and capability for			
	TQM policies			
				T
	EVALUATION			
34.	Policies are always effective in dealing with work related			
	problems			
35.	Policy outcomes are measurable			

7. On a scale of 1-5 how does the company rate the following?

• 1 - Not a priority • 2 – Low priority • 3 – Neutral • 4 – Moderate Priority • 5 – High priority

	BUSINESS RESULT	1	2	3	4	5
1	Increase Revenue					
2	Reduction of product defects					
3	Provision of TQM control tools					
4	Usage and improvement of technology					
5	Monitoring of TQM performance					
6	Increasing workers competency					
7	Reduction of number of customer complaints					
8	Supplier and distributors satisfaction					
9	Workers motivation to adhere to TQM					

8. Indicate by agreeing or disagree which factors affect or prevent your company from developing TQM policies

1 – Strongly disagree • 2 – Disagree • 3 – Neutral • 4 – Agree • 5 – Strongly agree

	FACTORS AFFECTING POLICY FORMULATION	1	2	3	4	5
1.	Lack of comprehensive national Legislation on TQM					
2.	Consultation between management and other interest					
	group					
3.	Cost of formulation					
4.	Culture of the employees					
5.	Economic conditions					
6.	Administrative knowledge					
7.	Policy aligned with existing policy					
8.	Poor records of defects investigation					
9.	Poor basic and applied research					
10.	Supplier materials quality					
11.	Unfriendly tax regime					
12.	No expertise in the industry to assist in policy					
	implementation					
13.	TQM policy always conflicts with company's objectives					
14.	Most client lack knowledge on TQM					
15.	Loss of competitive advantage due to increase cost of					
	policy implementations					
16.	Lack of Customer feedback					

17.	Lack of national policy framework on TQM			
18.	Lack of accurate information or statistics for policy			
	developers to base on			
19.	Poor participation by stakeholders			
20.	Low levels of TQM awareness among stakeholders			

9. Is the company ISO certified?

Yes \Box No \Box

- 10. Indicate in your opinion, challenges that affect good implementation of TQM in the company
- •1 Strongly disagree 2 Disagree 3 Neutral 4 Agree 5 Strongly agree

	FACTORS AFFECTING POLICY	1	2	3	4	5
	IMPLEMENTAION					
1.	Lack of clear and logical consistent objectives					
2.	No Incentives and sanctions					
3.	Lack of committed and skilled implementing officials					
4.	Inadequate support from trade union					
5.	Inadequate Time					
6.	The required combination of resources is not available					
7.	Poor Coordination and communication					
8.	No proper feedback mechanism					
9.	Organizational machinery					
10.	Translation of policy into administrative directives					
11.	Policies are only spoken of when there is a problem					
12.	Lack support and training for managers and front-line staff					
13.	No clear lines of accountability					
14.	No freedom for those on the ground to innovate and adapt policy to local conditions;					
15.	Misunderstanding and disagreement on objectives					
16.	Lack of participation of stakeholders					
17.	Poor fit with local organizational priorities					
18.	Divergent views due to insufficient consultation					
19.						

THANK YOU FOR YOUR CONTRIBUTION TOWARDS THIS STUDY