



ASHESI UNIVERSITY COLLEGE

**THE IMPACT OF TOTAL QUALITY MANAGEMENT ON
EMPLOYEE RELATIONS AND HOW THIS AFFECTS JOB
SATISFACTION**

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2012

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SATISFACTION**

By

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Thesis submitted to the Department of Business Administration

Ashesi University College

In partial fulfilment of Bachelor of Science Degree in Business
Administration

MAY 2012

Declaration Page

I hereby declare that this thesis is the result of my own original work and that no part of it has been presented for another degree in this university or elsewhere.

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Date: 12th April, 2012.

I hereby declare that the preparation and presentation of the thesis were supervised in accordance with the guidelines on supervision of thesis laid down by Ashesi University College.

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Supervisor's Name: Mr. Andrew Nunekpeku

Date: April, 2012.

Acknowledgements

The successful completion of this work was made possible through the help of my supervisor, Mr. Andrew Nunekpeku. I cannot but express my profound gratitude to him for painstakingly going through the work, to trim the rough edges by drawing attention to obscurities, ambiguities and inconsistencies of thought, and finally offering constructive criticisms. Special thanks to Dr Esi Ansah, for wholeheartedly giving me useful advice when I needed it most.

I extend my profound thanks to Rose, Mavis and Anna, for the constant encouragement in producing this work. To AJ, you have been there throughout the frustrations. Thanks for always being the one who re-assured me that I can and would finish this. To Okyeame and Fiifi, both of the 2009 Class, I could not have done it without you both. To my friends Janice, Anne-Marie, Nana Serwaa, Sonia, Wendy, Maureen and Michael, I say thank you.

To my mother, Patricia, for giving me the opportunity to experience this education. I appreciate you a lot. Finally, to my thesis partner, Karen Mimi Sam, *w)gbenaa*.

Abstract

The concept of quality has been in existence since the concept of Taylorism championed the attainment of quality through inspection (Connor, 1998). A boom of this concept in the nineties brought about the Total Quality Management (TQM) movement, while the creation of the Baldrige award has motivated more firms to adopt the practice of TQM in their operations.

TQM requires the involvement of every employee in the organization. It also involves the use of teamwork for continuous improvement. This paper seeks to investigate how employee involvement and teamwork affects the concept of quality and how this relates to the employee job satisfaction in the Ghanaian context.

The analysis of data from 40 employees in four different companies supported the predictive relationships of Total Quality Management, Teamwork, Employee Involvement and Job Satisfaction. An interview of the operations managers of the four firms were used to validate this data. In an attempt to find the relationship between the said variables, the study established a discrepancy between available literature and what actually exists in the Ghanaian context. In conclusion, TQM success was significantly related to Employee Involvement and Job Satisfaction but not Teamwork.

Keywords: Total Quality Management, Quality, Teamwork, Employee Involvement, Job Satisfaction

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Chapter 1

Introduction

1.1 Total Quality Management

Total Quality Management (TQM) is an integrative philosophy of management for continuously improving the quality of products and processes while maintaining the lowest cost possible, as explained by Ahire et al. (1996). In order to meet or exceed customer expectations, TQM makes the most of the involvement of management workforce, suppliers and even the customers themselves. In today's world, firms are continuously putting in measures to gain a competitive edge over their rivals in a bid to increase their value. Increasing value involves jockeying with competitors, which has taken various forms from carving niches, reducing prices, benchmarking and even engaging in best practices. Even though these methods are helpful, the ability of the firm to effectively manage them is what determines their efficiency.

1.2 Background

Total Quality Management is a huge area of study that includes various principles. Nonetheless, three main principles that resonates are customer focus, continuous improvement and teamwork. TQM emphasizes these three principles to the extent that each principle cannot be used independent of the other. Therefore, in order for TQM to be achieved in any setting, these three principles have to be implemented. However, it is necessary to find out how the integration of these principles affects organizational performance. This is because, in one way or the other, the implementation of TQM related practices does affect the manner in which employees work. A substantial amount of research has been carried out focusing on TQM and related operational outcomes. For example, Deming's research focused on how quality affects the productivity and competitive position of firms (Deming, 1986). Nonetheless, the search of the literature did not show how the adoption of TQM practices affects the human resource of the organization (Morrow, 1997).

1.3 Problem Statement

As identified by Tata et al. (1999), irrespective of the fact that the implementation of TQM has become popular in the western world, not all companies have found it easy to successfully implement and manage this program. While some firms are unable to correlate their organizational context with the kind of TQM programs to be implemented, a few who do so are unable to sustain it. This is partly due to the fact that, these companies fail to assess how the implementation of the program affects employee performance. There is, therefore, the need to find out how TQM is being

utilized in Ghana and how its implementation and use affects the human resource of the organization.

1.4 Objectives

Main Objective

To assess the effect of Total Quality Management on Teamwork, Employee Involvement and Job Satisfaction.

Specific Objectives

- To determine how firms in Ghana use TQM in their processes.
- To determine how employees relate in a TQM environment

1.5 Research Questions

The research questions to be answered in obtaining the objectives are:

- How does TQM affect Teamwork, Employee Involvement and Job Satisfaction.
- How do firms in Ghana use TQM in their processes.
- How do employees relate in a TQM environment

1.6 Hypothesis

A hypothesis is a specific statement of prediction, which describes in concrete terms what the researcher expects to happen in the study (Trochim, 2005). For this particular study, the hypothesis is:

Implementation of Total Quality Management does increase teamwork, employee involvement and job satisfaction of employees.

1.7 Significance of study

The significance of this study is

- To contribute to existing literature in Ghana.
- To provide empirical evidence with reference to how TQM affects work related attitudes such as job satisfaction, teamwork and employee involvement in the Ghanaian context.

1.8 Definition of Concepts

The key terms and concepts in the research have been defined as follows:

1.8.1 Total Quality Management

TQM is a philosophy of management driven by customer needs and expectations and that is committed to continuous improvement of all organizational processes (Connor, 1997). According to Edward Deming, in order for managers to improve effectiveness in their production process, they must make use of statistics to analyze variability in the production process (Robbins and DeCenzo, 1998).

1.8.2 Teamwork

Teamwork can be described as the collaboration among or between managers and non-managers across business functions, and even includes collaborations between and among companies, customers and suppliers (Robbins and DeCenzo, 1998).

1.8.3 Employee Involvement

Employee involvement (EI) is creating an environment in which people have an impact on decisions and actions that affect their jobs (Daily & Bishop, 2003). This kind of environment may include factors such as job enrichment, self-managed work teams, job design and organizational design (Lawler, 1994).

1.8.4 Job Satisfaction

Job satisfaction describes how content an individual is with his or her job. Brief and Weiss (2001) defined this phenomenon as, ‘a pleasurable emotional state resulting from the appraisal of one’s job; an effective reaction to one’s job and an attitude towards one’s job’. The happier an individual is within their job, the more satisfied the person is said to be.

1.9 Outline of Dissertation

Chapter 1: Introduction

This section intends to provide an overview of the various sections of the study and introduce the reader to the study and research inquiry.

Chapter 2: Literature Review

The various streams of literature related to the study will be discussed and reviewed in this section under the following topics:

1. Defining Quality
2. The TQM Concept
3. TQM as a strategic weapon

Chapter 3: Research Methodology

This chapter will detail the step-by-step plan that the researcher used to conduct the research. Methodological issues such as research strategy, sample selection, data collection and data analysis will be addressed in this section. Highlighted in this chapter would be how the questionnaires were designed, the methods used for the selection of the firms in the study as well as the criteria used to select respondents.

Chapter 4: Analysis and discussion of results

Data from the interviews conducted and questionnaires administered would be captured in this section. A summary of the findings would be represented here to give a better insight into the research conducted. Graphs and tables of relevant information will be used to provide a graphical view of the data obtained about definitions, strategies and challenges of quality. Correlations would also be used to establish relationships between TQM and employee relations that may arise from the study.

Chapter 5: Recommendation and Conclusion

Finally, the findings of the research in relation to the literature reviewed will be used to provide recommendations as to how TQM can be used in an organization to gain effective results. Conclusions will then be drawn from the research

Chapter 2

Literature Review

2.1 Introduction

The end of World War II saw America's industries overwhelmed with success, as such, they did not see a need to adopt Dr. Edward Deming's quality philosophy. Dr. Deming, was however sent as an advisor to the Japanese census in 1950, by the MacArthur Government. In a bid to help shattered post war Japan rebuild their industry, Deming introduced his quality philosophy to the Union of Japanese Scientists and Engineers (Kanji, 1990). While Deming suggested the use of statistical information and process control to trace errors, Dr Joseph Juran also stressed the customer's point of view of a product's fitness for use- customer satisfaction.

It took lessons from these two doctors for increase in productivity to be realized in Japan within months. As a result, Japanese companies have captured and dominated markets all over the world (Kanji, 1990). This proves the extent to which quality measures can go a long way to make a firm highly competitive in any industry. The concept of quality has been

in existence since the era of Taylorism, which championed the attaining of quality through inspection (Taylor, 1911). There was however a boom in the TQM movement in the nineties. Lately, this is catching on fast developing nations. Quality is ‘a disciplined way of identifying and solving problems in order to improve performance’ (Deming, 1986).

Total Quality management is to obtain total quality by involving everyone’s daily commitment. The main objective of implementing TQM is to transform the way organizations work. To a large extent, many people have adopted this as they believe it to be a very good thing and have lauded it. According to Mintzberg (1996), it has been observed that the fad of the nineties was a constant emphasis on the need to improve service quality and an equally relentless emphasis on customer satisfaction. Mintzberg’s article describes what this emphasis means for the people who do the work of organizations and what it does to them. Though some school of thought have concluded that, TQM may be difficult to implement, others have even maintained that it is inappropriate for certain organizations due to their organizational structure.

Nonetheless, not many people have admitted to the fact that TQM could actually be costly to the organization and its members. Even more so, there may be situations where the successful implementation of TQM could be less of a benefit and more harmful to the organization. Connor’s (1997) article investigated some of the human dimensions of the TQM movement, and discussed its costs along with its potential benefits.

2.2 Defining Quality

In an attempt to define Quality, Reeves and Bednar (1994) explain that the concept of quality has been contemplated throughout history and continues to be a topic of intense interest today. However, in a quest to search for a definition of quality, various inconsistent outcomes have been yielded. A great proportion of research have attributed quality to value, conformance to specifications, conformance to requirements, fitness for use, loss avoidance and meeting and/or exceeding customer's expectations. They also mentioned the definition of quality from the customer's point of view, stating that "only customers judge quality; all other judgments are essentially irrelevant".

Reeves and Bednar's article attempts to clarify and explicate definitions of quality by

- tracing their history or "roots,"
- examining their strengths and weaknesses, and
- describing the trade-offs inherent in accepting one definition of quality over another.

Reeves and Bednar (1994) acknowledges the various scholars while tracing the roots of different definitions of quality and examining their strengths and weaknesses. They also discuss the changes that occur among variables as a result of using different definitions and suggest several implications for future research about the quality construct. Table 2.1 highlights the strengths and weaknesses of the various quality definitions.

Strengths and weaknesses of Quality Definitions		
Definition	Strengths	Weaknesses
Excellence	Strong marketing and human resource benefits Universally recognizable - mark of uncompromising standards and high achievement	Provides little practical guidance to practitioners Measurement difficulties Attributes of excellence may change dramatically and rapidly Sufficient number of customers must be willing to pay for excellence
Value	Incorporates multiple attributes Focuses attention on a firm's internal efficiency and external effectiveness Allows for comparisons across disparate objects and experiences	Difficulty extracting individual components of value judgment Questionable inclusiveness Quality and value are different constructs
Conformance to Specifications	Facilitates precise measurement Necessary for global strategy Leads to increased efficiency Should force disaggregation of consumer needs Most parsimonious and appropriate definition for some customers	Consumers do not know or care about internal specifications Inappropriate for services Potentially reduces organizational adaptability Specifications may quickly become obsolete in rapidly changing markets Internally focused
Meeting and/or Exceeding Expectations	Evaluates from customer's perspective Applicable across industries Responsive to market changes All-encompassing definition	Most complex definition Difficult to measure Customers may not know expectations Idiosyncratic reactions Pre-purchase attitudes affect subsequent judgments Short-term and long-term evaluations may differ Confusion between customer service and customer satisfaction

Table 2.1: Reeves and Bednar's strengths and weaknesses of Quality Definitions

Research conducted for the profit impact of market strategy (PIMS) program has led to the conclusion that “in the long run, the most important single factor affecting a business unit’s performance is the quality of its products and services, relative to those of competitors” (Reeves and Bednar, 1994). Finally, Reeves and Bednar (1994), conclude that there is no universal definition of quality as it has multiple definitions resulting in an unsuccessful search for a global definition. Nonetheless, it is their belief that different definitions of quality are appropriate for different circumstances.

2.3 The TQM Concept

The quality movement has one core idea - goods and services must achieve the highest attainable quality, nothing else will do. Connor (1997) in his paper highlights the fact that, in order to attain the highest quality, ‘we must first understand the implications of maximizing organizational quality and its assumptions’. He further states that, ‘as with most human enterprises, the quality movement is not easily captured in a few clever phrases. It is multidimensional in concept and multicultural in both its origins and applications. This simply proves that attaining quality involves a lot of work and every employee’s involvement.

Connor’s article is divided into three parts. Firstly, he talks about what quality teaches us. According to him, quality teaches us to ‘do it perfectly’ (1997). His argument is that, even ninety nine percent is not good enough because for large figures, a one percent defect would mean a whole lot. Secondly, he discusses what quality reminds us. People want to experience meaning in and from their work and teams are key to organizational effec-

tiveness. It was evident that, employees who experience meaningfulness from their work tend to exhibit less absenteeism and turnover because they are more likely to enjoy higher work motivation and job satisfaction (Connor, 1997). Consequently, they do high quality work. In relation to working in teams, it is noted that individual contributions to accomplishing organizational purposes are enhanced through sustained co-operations with others. This makes teams a key success factor to goal accomplishment.

Finally, he makes mention of the human costs. Indeed, the article argues that the human costs of TQM are a direct consequence of middle managers' egos and fears, employee motivations, trivial employee participation, and the coercive nature of team structures.

In conclusion, Connor's article acknowledges TQM's potential benefits but admonishes its adherents not to ignore its potential costs. According to Connor (1997), these human costs of TQM have not received attention because most TQM enthusiasts really do not care about the people who do the work. Their main focus is on customers, process improvement, cycle time, performance, but people are only means to an end. Even though in many firms, TQM does its best to improve productivity, these gains come at a price. The price paid depends in large part on how TQM is implemented. Nonetheless, the human side of TQM has to be acknowledged and managers have to understand that they create value only as long as they give the service provider and front-line workers the wherewithal to do their jobs. It is therefore necessary to adopt ideal human resource strategies to support TQM.

On the other hand, Williams (2000) explains that, TQM is not a specific tool, rather, it is an integrated organization-wide strategy for improving product and service quality. It is characterized by customer focus and satisfaction, continuous improvement and teamwork.

Customer focus should be a firm's goal to concentrate on meeting customers' needs at all levels of the firm, while the firm's goal is to provide products and services that meet or exceed customers expectations (customer satisfaction). Customer focus is a necessity as the ultimate user of a good or service is the customer. This implies that in order to maintain customer satisfaction, at least, the exact needs of the customer has to be met.

Continuous improvement deals with the firm's ongoing commitment to constantly assess and improve the processes and procedures used to create products and services. In the manufacturing industry for instance, this is done by reducing the variation of a product. The less a product tends to vary from the quality standard, the higher the quality of the product. It is however important to periodically ask for feedback in order to achieve continuous improvement as this is a means of finding out what needs improvement.

Teamwork is described as the collaboration between managers and non-managers across business functions, and between companies, customers and suppliers (Robbins and DeCenzo, 1998). In effect, quality is improved when every individual in the firm works with other employees and has the responsibility and authority to make improvement and solve problems, no matter how small. Other key players such as suppliers and distributors may be part of the firm's team as they also contribute greatly to how the service or

good is delivered to the customer (horizontal integration). All three mutually reinforcing principles aid a firm in achieving Total Quality Management.

In *Fundamentals of Management*, Robbins and DeCenzo (1998) ask the question: ‘Are Continuous Improvement and Quality Control the same thing?’ This study identified that they are not. Continuous improvement as explained before, is described as a comprehensive, customer-focused program to continuously improve the quality of the firms processes, products and services. Whereas quality is described as ‘a disciplined way of identifying and solving problems in order to improve performance’ (Deming, 1986).

Quality control deals with ensuring that what is produced meets some pre-established standard. Therefore, quality control refers to monitoring quality, in terms of weight, strength, consistency, colour, taste, reliability, finish or any other characteristics to ensure that a product or service meets some pre-established standard. This implies that quality control may be needed at more than one point in the production process - from the receipt of inputs, to work in process to the final product. Assessment at all these points serve as a quality control measure and aid in early detection of defective parts or processes in order to reduce or re-work.

This proves that continuous improvement and quality control are different. Whereas continuous improvement pays attention to preventing mistakes, quality control emphasizes identifying mistakes that have already occurred. Therefore, the two take place at different stages in the production process.

2.3.1 Evolution of TQM

During the first industrial revolution, mass production was encouraged; quality shifted to quantity at high speed, consequently destroying employee skills and craftsmanship. Employees were no longer responsible for the quality of their work and firms appointed quality inspectors to eliminate defective goods. It has been implied that the present quality revolution through the process of Total Quality Management has created the Second Industrial Revolution for the survival of the fittest (Morrow, 1997). It is necessary because in this dynamic world, it is important to seek continuous improvement to methods and processes in order to improve products and services.

Kanji's article (1990), describes the concept and basic approach to total quality management. His paper explained and examined quality in the context of continuous customer satisfaction and total quality management by involving every employee's commitment to achieving quality at minimum cost. Different stages of total quality management in practice are suggested and various techniques to implement these are also discussed. To develop the total quality management process the organization has to be guided through the seven basic rules of action and is given by the following principles and actions as outlined in Table 2.2.

Total Quality Management is now used to describe the quality revolution taking place in both private and the public sectors. TQM is a philosophy of management driven by customer needs and expectations and that is committed to continuous improvement of all organizational processes. According to Edward Deming, in order for managers to improve effectiveness in their production process, they must make use of statistics to analyze variability

Principles	Actions
The approach	Management-led
The scope	Company wide
The scale	Everyone is responsible for quality
The philosophy	Prevention not detection
The standard	Right the first time
The control	Cost of quality
The theme	Continuous improvement

Table 2.2: Adapted from TQM: the 2nd industrial revolution (Kanji, 1990)

in the production process (Robbins and DeCenzo, 1998). In effect, a well-managed organization, according to him, is one in which statistical control has reduced variability and increased uniformity of a product or service.

Uniformity in turn, results in lower costs, higher quality and predictable quantity of output. This is a means of achieving what the Chinese call *kaizen* - a term for continuous improvement. Today, TQM is more widely used beyond its traditional definition of customer needs and expectations to include every individual involved with the organization in anyway (This is discussed in the subsection below).

2.3.2 Components of Total Quality Management

1. **Intense focus on customer-** Customers include not only outsiders who buy the organization's products or services but also internal customers (such as shipping or accounts payable personnel) who interact with and serve others in the organization.
2. **Concern for continuous improvement** - TQM is a commitment to never being satisfied. Very good is not good enough. Quality can always be improved.

3. **Improvement in the quality of everything the organization does** - TQM uses a very broad definition of quality. It is related not only to the final product but also to how the organization handles deliveries, how rapidly it responds to enquiries and the like.
4. **Accurate measurement**- TQM uses statistical techniques to measure every critical variable in the organization's operations. These are compared against standards, or benchmarks, to identify problems, trace them to their roots and eliminate their causes.
5. **Empowerment of employees** - TQM involves the people on the line in the improvement process. Teams are widely used in TQM programs as empowerment vehicles for finding and solving problems.

With the use of TQM, the Chinese demonstrated that it was indeed possible to make high quality products and also have the lowest costs, contrary to the earlier management theories, which suggested that low costs were the only means of achieving increased productivity. Taking a look at a classic case of what could go wrong when driving down costs is the sole focus, is the US auto-mobile industry. The seventies and eighties saw products from companies such as General Motors and Ford rejected by the car-buying public. It was identified that by factoring in costs of rejects, rework and expensive controls to identify problems, the US manufacturers were less productive than many of their competitors (Robbins and DeCenzo, 1998). This implies that the importance of TQM and the implementation of its basic components such as quality control groups, process improvement, teamwork, improved supplier relations and listening to the needs and wants of customers should not be under-emphasized.

2.3.3 Implementation of TQM

Yeh (2003) in his article indicated the fact that a successful TQM implementation requires the engagement of employees in extra-role behaviors. The focus of the paper was to identify and examine some critical variables embedded in the organizational system that may enhance or hinder the participation of employees in TQM activities. This is in effect, to determine the human factors that contribute to a sustainable TQM implementation.

Three factors that most strongly predicted employees' practices of TQM were: a standardized organizational structure, interpersonal support of the organization, and employees' self-efficacy (Yeh, 2003). This emphasizes Juran's assertion that a successful TQM implementation requires cultural changes in an organization. However, a quality culture is the ultimate goal.

With reference to the article, the four major dimensions that needs consideration in sustaining a quality culture as proposed by Schneider et al. (1996) are: the nature of work, the nature of hierarchy, the nature of interpersonal relationships, and the focus on support and rewards.

Morrow focuses on three TQM principles; customer focus, continuous improvement and teamwork (Morrow, 1997). He highlights the integration of these principles into an organization and the improved quality of organizational performance associated with that. Morrow (1997) further argues that, enough research has been done focusing on TQM and related operational outcomes. Nonetheless, not much has been discussed about how the adoption of TQM practices affects the human resource of the organization. A number of people in the industry have sought to operationalize TQM

principles, practices and techniques, including Saraph et al. (1989). Their work identified 8 critical factors of quality management:

- The role of management leadership and quality policy
- The role of the quality department
- Training
- Product/Service design
- Supplier quality management
- Process management
- Quality Data reporting
- Employee relations

Morrow (1997) mentions that even though contextual variable such as industry classification and organizational size may affect the relevance and adoption of specific TQM practices, understanding what is meant by customer focus, continuous improvement and teamwork from the point of view of the employees, may provide a more valid and useful method of measuring progress in TQM implementation.

Team Work

Employees do not work in a vacuum, thus the need to inculcate teamwork into them. This value is integral to TQM as it fosters collaboration between employees and facilitates participation by all employees to solve problems quickly (Morrow, 1997).

A central characteristic of TQM is the use of teams. This is because, it is an efficient way for the various TQM processes and techniques to catch on and be applied in the firm. All such techniques and processes require high levels of communication and contact, response, adaption, and coordination. Thus, they require an environment where teams can share ideas and implement improvements that other employees suggest in order to strive for the best.

According to Robbins and Cenzo (1998), teams such as quality circles help in the achievement of TQM goals. Quality circles are work teams composed of about eight to ten employees and supervisors who share an area of responsibility. Their task is to meet regularly to discuss quality problems, investigate the causes of the problems, recommend solutions and take corrective actions. Even though they assume responsibility for solving quality problems, rarely, however, are they given the authority to unilaterally implement any of the suggestions. Instead, they make suggestions to management who make the final decisions. Nonetheless, they play an important part to the achievement of quality in a firm making them central to TQM.

Employee Involvement

TQM emphasizes customer satisfaction, employee involvement and continuous quality improvement. Nonetheless, each of these must be used together in order for its application and implementation to function effectively. However, according to Lawler (1994), although both employee involvement (EI) and TQM stress involvement, training and skills development, it is important to note that some differences do exist between the two. TQM places emphasis on work processes and customer outcomes while employee involvement pays more attention to work design and business units for better busi-

ness involvement and employee motivation (Daily and Bishop, 2003).

What was of interest to the study conducted by Daily and Bishop (2003) was the fact that within the TQM framework, four elements have been noted as critical factors in EI development. These factors are management support, teamwork, training and rewards. There is, however, a lack of empirical evidence to explain the relationship between the factors and successful EI programs. The purpose of this particular study, was to address the void by determining the role of TQM and workforce factors in predicting and explaining EI success.

A structural model hypothesizing relationships among Total Quality Management (TQM) workforce factors, Employee Involvement (EI), and two outcome variables, empowerment and organizational commitment was tested. The analysis of data from 169 employees in two facilities supported the predictive relationships of teamwork, training, management support, and rewards with EI program success. ‘As hypothesized, teamwork manifested a pivotal role among the critical factors predicting EI success. In addition, EI success was significantly related to the two outcome variables’ (Daily and Bishop, 2003).

Firstly, by manipulating important TQM work factors, it may be possible to control employee beliefs about EI success. Also, EI success may lead to other organizationally valued outcomes. What this means is that, it is imperative for firms to achieve a more lean and more resourceful organization by implementing successful employee involvement schemes in order to remain on a competitive edge.

Job Satisfaction

Job satisfaction has been defined as, ‘a pleasurable emotional state resulting from the appraisal of one’s job; an effective reaction to one’s job and an attitude towards one’s job’ (Brief & Weiss, 2001). This phenomenon describes how content an individual is with his or her job. The happier an individual is within their job, the more satisfied the person is said to be.

The management style and culture of the firm, employee involvement, empowerment and autonomous work position, all tend to be influences on job satisfaction. This implies that all these factors can affect an individual’s satisfaction of their job. Employees tend to be satisfied with their jobs when they enjoy the role they play in their job. This is why it is necessary to find out to what extent employee involvement affects job satisfaction of employees in Ghana.

2.3.4 ISO 9000

Quality products usually possess three characteristics: reliability, serviceability and durability while quality services implies: reliability, tangibles, responsiveness, assurance and empathy. In a bid to ensure that their products and services meet these set requirements, some firms have done their best to get the ISO 9000 certification. ISO 9000 is a series of five international standards for achieving consistency in quality management and quality assurance (Williams, 2000).

The ISO 9000 certification is usually awarded after a quality audit from an accredited third party. This certification ensures that companies document the steps they take to create and improve quality (Williams, 2000). Com-

panies who truly cherish their customers and wish to give them the best in terms of quality definitely would go in for the ISO 9000. Nonetheless, this would not only allow them to give off their best to the customers but would also boost the firm's reputation as a firm associated with high quality goods and services.

As quality pioneers, Edward Deming and Joseph Juran helped Japan to get on track with the quality commitment. Evidently, the Malcom Baldrige National Quality Awards shows the growing commitment to the quality revolution in the United States. The list of award criteria below plainly indicates the extent to which firms have to be committed to this revolution:

- Top executives incorporate quality values into day-to-day management
- The firms work with suppliers to improve quality of their goods and/or services
- The firm trains workers in quality techniques and implements systems ensuring high quality products
- The firm's products are as good as or better than those of its competitors.
- The firm meets customer needs and wants, and gets customer satisfaction ratings equal to or better than those of competitors
- The firm's quality system yields concrete results such as increased market share and lower product-cycle times.

The above listed criteria clearly defines that quality commitment is used to control the whole value-chain of a firm to prevent any irregularities. This

emphasizes Philip Crosby's idea of *Getting it right the first time* (Crosby, 1979). In order to achieve this though, Crosby (1979) developed a popular quality program based on what he calls the four absolutes of management for total quality control:

1. Quality means conformance to standards: this, workers can only achieve so long as they are aware of the expectations they are to meet.
2. Quality comes from defect prevention, not defect correction: it takes leadership, training and discipline to get to this point.
3. Quality as a performance standard must mean defect-free work: perfect work becomes the only acceptable quality standard.
4. Quality saves money: cost of rework is eliminated when things are done right the first time.

2.4 TQM as a strategic weapon

Sometimes, it is easy to think that once the quality commitment is present in a firm, productivity and profits increase. However, the various definitions of quality that have been given by various scholars sends a clear link between delivering quality goods and services and exhibiting a competitive advantage in one's industry - this link is customer service. Clients and customers are indeed an important aspect of external customers (ultimate consumer of goods and services produced), it is necessary for employees to serve their internal customers (someone who uses or depends on the work of another person or group within the same firm) with care.

At Hewlett-Packard for example, employees have been made to accept themselves as both customers and suppliers. An employee assembling circuit boards has a person making chips as his supplier and a person who puts boards into finished components as his customer. This provides accountability for results to one's co-workers, not just one's supervisors. This shows the extent to which employee involvement is extremely necessary in order to achieve quality commitment. 'It can be in a form of quality circles which is a group of employees working to solve quality problems. It also shows that real customer service lies at the heart of efforts to create competitive advantage for firms' (Schermerhorn, 1999) . Going the extra mile to ensure that customers enjoy positive experiences with a firm's goods or services can cause them to return, build loyalty and refer other people to the firms. This is the firm's first step of achieving competitive advantage as customer service adds value to the customers' experience.

Management approach to quality operations are committed to meeting customer's needs-on time, the first time and all the time. This can be achieved by finding out what they want, where they want it and when they want it. By doing these things, a firm is assured of producing high quality products at low cost production and delivered on time to customer. Indeed, the environmental pressure is on all managers to help firms achieve productivity while meeting customer's quality standards (Schermerhorn, 1999).

Recently, more firms are using TQM as a way to build a competitive advantage. A company's ability to satisfy a customer's need for quality, could be a way for it to differentiate itself from the competition and attract and maintain a loyal customer base, just as it is done at Hewlett-Packard.

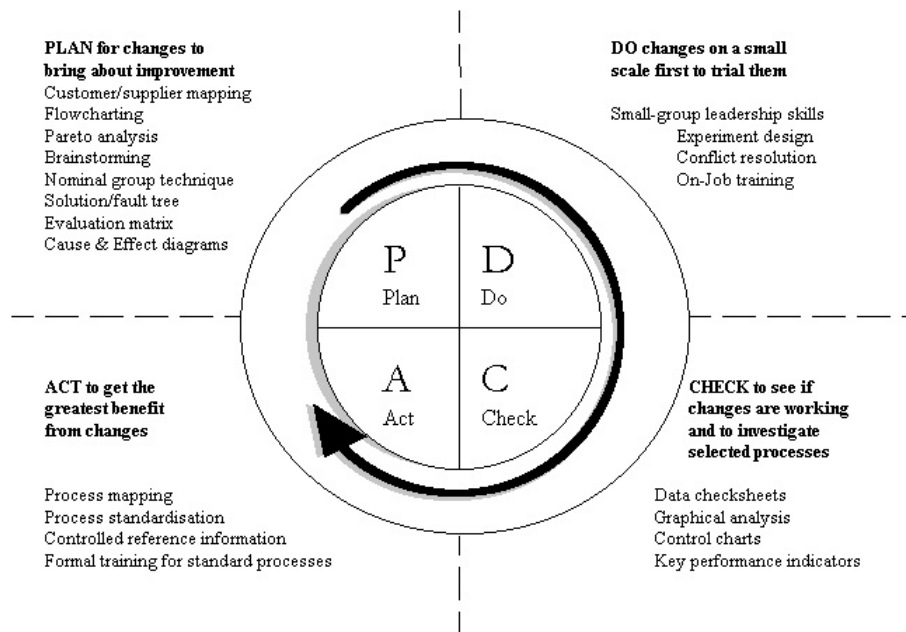


Figure 2.1: The Plan-Do-Check-Act Cycle.

Furthermore, constant improvement in the quality and reliability of a firm's goods or services can result in a competitive advantage that would be highly impossible for people to imitate. The logic behind this is simple. Product innovation can easily be copied by rivals, so leave little or no opportunity for sustained competitive advantage. Nonetheless, incremental improvement, which is integral in TQM, becomes an integral part of a firm's operations and can develop into a considerable cumulative advantage for the firm. The search for a never-ending improvement requires a circular approach as indicated in the plan-do-check-act cycle (see Fig 2.1) developed by Dr. Walter Shewhart (Deming, 1986).

Management plans a change, implements it, checks the results, and depending on the outcome, acts to standardize the change or begin the cycle of

improvement again with new information. The cycle tends to treat all organization's processes as being in a constant state of improvement. Indeed, TQM is necessary for an organization to compete effectively.

2.5 Conclusion

In Schermerhorn's own words, 'Perhaps, no productivity theme today is stronger than Total Quality' (Schermerhorn, 1999). The tastes of modern-day consumers have somehow shifted. More than ever, people expect quality products and good customer care as great value in exchange for their monies. This has left organizations who fail to meet these needs succumb to the pressures of intense global competition while struggling in this highly competitive environment (Schermerhorn, 1999). Compliance to total quality management (TQM) is indeed a necessity as firms feel this pressure to serve their customers better and increase productivity in the process.

TQM is managing with a firm-wide commitment to continuous improvement and totally meeting customer needs. Being a comprehensive approach to continuous quality improvement, it is necessary that it is led by top management and supported throughout a firm - both as a top-down approach and a bottom-up desire. This includes the efforts of every individual so that it can penetrate to all aspects of a firm's operations. To compete in today's global economy, firms are increasingly expected to meet ISO certification standards of quality. The emergence of various infrastructure has eventually been used to facilitate and sustain quality improvement in many firms (Cole, 1998). Quality commitment can therefore be recognized as a hallmark of any firm that intends to manage its productivity while delivering the best of quality to its customer base.

In conclusion, a company's ability to respond to the requirements of customers actually depends on its internal operations and is based on its people. This should include both internal and external customers. Seeking feedback from customers and working on the problem areas helps improve output and maintain long-lasting relationships with customers (Morrow, 1997). Nonetheless, in order to get the best out of TQM implementation, employee involvement, quality circles, training, and suggestion programs should be combined with the widespread use of statistical quality control tools. This would enable a firm use its employees to yield small, incremental improvements. Also, there is a need to foster a culture of teamwork and employee involvement in the firm. When employees are allowed to work in teams and given the responsibility to make decisions in their line of duty, no matter how small, they tend to be more satisfied with their jobs. Nothing can therefore be achieved without people and when adopting Total Quality Management in a firm, it is essential first and foremost to motivate its employees.

Chapter 3

Research Methodology

3.1 Introduction

Having reviewed the literature in Chapter two, this chapter will focus on the various methods used to conduct this research. According to Kumar (2011), research methodology is important to every research as it shows the plan that the researcher intends to use to conduct his research. Figure 3.1 below shows the graphical presentation of the issues to be addressed in the research methodology of this study.

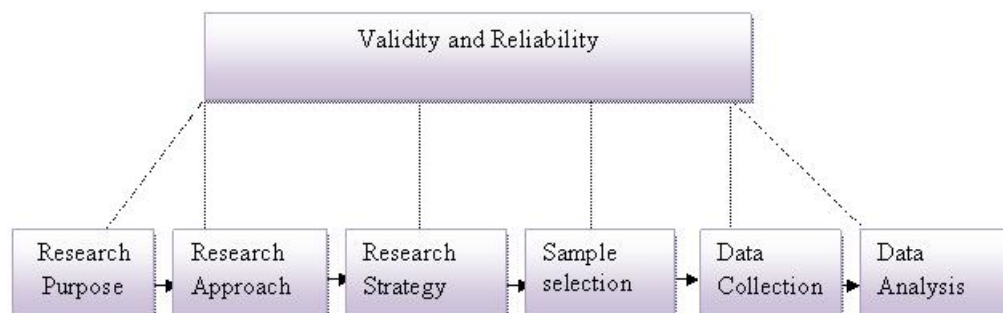


Figure 3.1: Graphical presentation of methodology. Adapted from Foster (1998)

3.2 Research Purpose

The purpose of this research is to find out the impact of TQM on teamwork, employee involvement and how this affects the job satisfaction of employees in a firm. This research would be exploratory and descriptive as it intends to explore what exists in the Ghanaian context and describe this to the reader.

3.3 Research Approach

Both qualitative and quantitative methodologies were used for this research. Qualitative research tends to employ the use of data from interviews, documents and participant observation in order to gain some understanding of social phenomena. For this study, some of the interview questions and questionnaires were structured in this manner. Their less specific and precise manner was used to acquire varied responses from respondents, while preventing them from being confined to pre-determined options. Quantitative approach to research, on the other hand, is more structured and formalized. They have been tested for their validity and reliability and can be explicitly defined and recognized (Kumar, 2011). Some of the questions on the interviews and questionnaires were also structured in this manner. They were characterized by the study variables: teamwork, employee involvement and job satisfaction. This research employed both approaches, so as to give both a qualitative and quantitative view of the various variables to be studied.

3.4 Research Strategy

Yin (1994) ascertains that, the research strategy explains how the researcher collects and analyses data gathered. However, the research strategy depends on the research purpose. Given the fact that this study was exploratory and

descriptive, it made use of in-depth interviews of operation managers of firms who have proven to have some knowledge on TQM. Also, questionnaires were administered to some employees of these same firms. This enabled the research, not to only get the views of the managers, which might be biased, but to get the views of factory hands as well (Bogdan et al., 1982).

3.5 Sample Selection

For the purpose of this study, the operation managers of Kogmens, Darko Farms, Furnart and ATL were interviewed. This was done by purposive sampling. The primary consideration in this method is the judgment of the researcher as to who best provides the information to achieve the objectives of the study (Kumar, 2011). It is a non-probability sampling technique which seemed fit for this kind of study.

Also, ten employees from these firms were given questionnaires to fill. The selection of the employees was also done by an accidental sampling technique. This procedure employs no systematic techniques to choose respondents or units of samples. The sample units are those people who accidentally come into contact with the researcher (Sarantakos, 2005). This non-probability sampling technique was chosen based on the anticipation that the researcher may not be able to meet all employees during the visit to the firms. Nonetheless, the employees chosen were based on their departments. This was to help the study acquire an unbiased view from the employees.

3.6 Data Collection

Primary Data collection methods include

- Questionnaires
- Interviews
- Observation and
- Documents

For the purpose of this study, in-depth interviews and questionnaires were used. Open-ended questions were used to acquire as much detail as possible from the operations managers. The open-ended questions were used to prevent the people from being confined by the structure of pre-arranged questions. The closed-ended questions were used get the respondents to provide an answer from a group of selected choices. This was further used to communicate similar meanings and themes across the firms.

3.7 Data analysis

Statistical Package for the Social Sciences (SPSS) was used in coming up with the statistical analysis for this study with the collected data drawn from the interviews and questionnaires. This was be done by creating a coded data capture file in excel which was transfered into SPSS once the collation of the data was done. The data from the questionnaires and interviews were then extracted into SPSS. The data was then cleaned up for validation. The data analysis was then done. SPSS is a statistical software packages that covers a broad range of statistical procedures (Kirkpatrick and Feeney, 2003). It therefore enabled the researcher to summarize data (e.g., compute means and standard deviations), determine whether there are significant differences between groups (e.g., t-tests, ANOVA), examine relationships among variables (e.g., correlation), and graph results (e.g., bar charts, pie

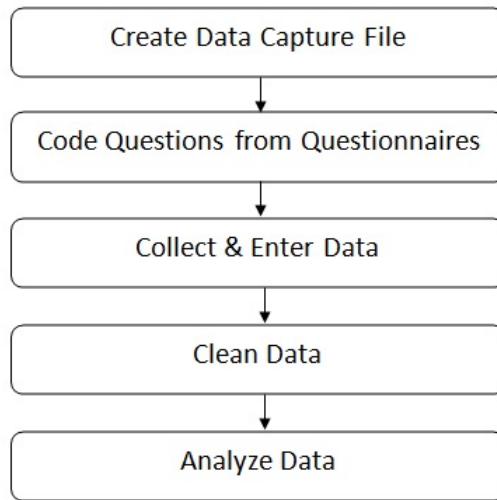


Figure 3.2: Plan for Data Analysis.

charts). The final data was displayed in texts, tables and graphs. The procedure that was followed for the data analysis can be seen in Figure 3.2. In-depth discussion of the data analysis is presented in the next chapter.

3.8 Limitation

In conducting this study, a number of challenges were encountered as highlighted below:

First of all, there was a time constraint that prevented the study from administering more questionnaires to the line workers at the various companies visited. This constraint arose as a result of the amount of time it took to negotiate with the companies to allow the study with their firm.

Furthermore, there was a difficulty in getting some of the firms to give information about their operations. In Ghana generally, firms are reluctant to give information to outsiders for fear of the information being used against

them and for security reasons. The situation would have been different if Ghanaian firms regularly publish reviews about their firms. This further reduced the number of companies that could have been chosen for this study.

There was also limited data on how TQM has been used in firms in the Ghanaian context. So the researcher had to learn and understand TQM as well as the possible existing measures that could exist in the various firms to be able to communicate to the employees in the same language in order to gain information.

In spite of these difficulties, the study made the best use of the data acquired to answer the research questions that were presented in the first chapter.

3.9 Summary and Conclusion

This research would be explorative and descriptive and so both qualitative and quantitative methodologies would be used for this research approach. It would make use of in-depth interviews of operation managers of firms who have proven to have some knowledge on TQM. Also, interviews would be conducted with randomly selected employees of these same firms. The data collected would be collated in texts, tables and graphs to make it easy for a lay person to understand. Also, SPSS would be used to aid the analysis of the data.

Chapter 4

Analysis and discussion of results

4.1 Introduction

The purpose of this chapter is to present and discuss the findings of this research. It presents the data obtained from the study in response to the specified research questions and objectives outlined in chapter one. This section is divided into two parts. The first part presents a qualitative analysis of the data which represents the findings of the in-depth interviews. The second part on the other hand, covers the presentation and thorough discussion of the findings of the questionnaires administered to the various operation managers of the three companies that were chosen for the study. This represents the quantitative research phase.

4.1.1 Company Profiles

On the whole, four small-medium enterprises were chosen for this research. These companies were chosen on the basis of them being among the four

main manufacturing sectors in Ghana. According to Akay and Yuksel (2009), the four main manufacturing sectors in Ghana are food processing and bakery (food-bakery), textile and garments (textile-garment), wood products and furniture (wood-furniture), and metal products and machinery (metal-machinery). Based on this ascertainment as well as the ease of access to information, these four firms were chosen to allow a cross industry analysis of the firms:

- Kogmens Limited (Aluminium Company)
- Darko Farms
- Furnart Furniture Works
- Akosombo Textiles Limited

Kogmens Limited are manufacturers of coloured and plain aluminium, galvanized and aluzinic roofing sheets. The roofing sheets they manufacture include: single panel, circular and general merchant. Darko Farms, one of the largest poultry-processing companies in Ghana is located in Akropong, Kumasi. The farm is an agro-industrial complex with a highly integrated network of production units.

Furnart Furniture Works is a furniture manufacturer that makes use of high quality wood and high level of production procedures to make their finished products. The wood they use for the manufacturing of their products is kiln-dried to extract as much moisture as possible in order to ensure durability of the finished product. Akosombo Textiles Limited (ATL) a textiles company in Ghana. The firm's mission is to clearly establish its position as the leading textiles company in Ghana, and to distribute excellent quality, fashionable but reasonably priced textiles in Ghana and beyond.

4.2 Findings

4.2.1 Operations Managers

The study found out that there were significant differences in the way each firm defined quality. In manufacturing, where the products were mostly ordered before production, quality is defined as conformance to specifications, while in the food processing firm, where the products were made in large quantities and distributed, quality was defined as excellence: keeping that particular top-notch standard at all times. In the wood processing firm however, it was more about durability, as that was the factor that kept old clients coming back and new or prospective clients interested in their products. Table 4.1 summarizes how each firm defined quality, the strategies each used to ensure quality and the challenges they had with ensuring quality in their respective firms.

Defining Quality

From the interviews conducted, it was evident that Furnart and Kogmens defined quality as conformance to specifications. This definition of quality facilitates precise measurement and leads to increased efficiency, as explained by Reeves and Bednar (1994). With reference to the industries in which these two firms find themselves in, wood processing and metal works, respectively, it is necessary to produce goods that meet the exact request of the customer. Therefore, this definition tends to be a good fit. Nonetheless, Furnart goes further to include durability in their definition. According to them, this definition of quality is to position them favourably in the minds of their customers and to keep customers coming back. In effect, this definition of quality tends to be a great marketing strategy for their firm.

Quality in Ghanaian Firms			
Company	Define Quality	Strategies	Challenges
Kogmens	Conformance to specifications Meeting or exceeding customer expectations	Product design Process Management	Product design
Darko Farms	Excellence	Quality Policies Process Management Training Supplier Quality management Quality Data reporting	Resistance to change by people
Furnart	Conformance to specifications Durability	Process management Product design Supplier Quality management	Resistance to change by people Education level
Akosombo Textiles Limited	Excellence Value	Quality Policies Process Management Training Supplier Quality management	Process design Resistance to change by people

Table 4.1: Firms Summary of Quality Definitions, Strategies and Challenges

Darko Farms and Akosombo Textiles Limited on the other hand, defined quality as excellence. This definition of quality denotes a universally recognizable mark of uncompromising standards and high achievement, making it a strong marketing benefit to the firm (Reeves and Bednar, 1994). It is believed that these two firms use excellence due to the fact that their products are exported outside the boundaries of Ghana.

Strategies Used To Ensure Quality

In ensuring quality, one theme that re-occurred and was common with all the four firms was, process management. This highlighted the fact that process management is indeed a critical factor of quality management, as

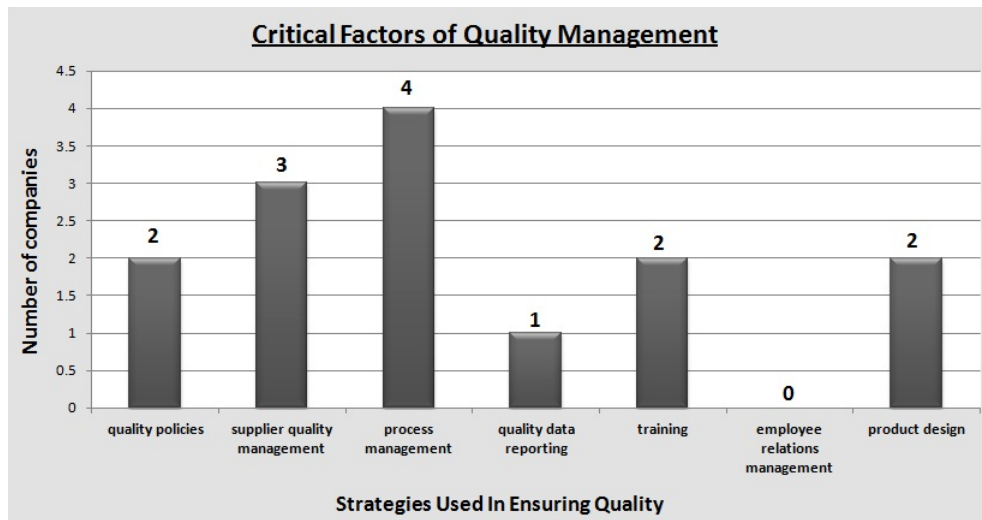


Figure 4.1: The critical factors used by firms to ensure quality in Ghana

concluded by Saraph et al. (1989). The second most used strategy is the supplier quality management. The reason why three out of the four firms use it is because, they believe that the raw materials they get from the suppliers affects the finished product they churn out to the customer. Therefore, there is a need to manage suppliers to make sure that the goods received from them are of high quality. Nonetheless, this study identified that, none of the firms use Employee Relations Management as strategy for ensuring quality. Given the fact that literature suggests that it is one of the critical factors, it was anticipated that at least one firm would use it, but it turned out otherwise. Figure 4.1 summarizes these results.

Challenges

The main challenge experienced by three out of the four companies is resistance to change by people. This goes a long way to justify the fact that people do not like change and that the implementation of quality management practices may cause people to feel insecure about their jobs.

Communication of Quality To Employees

All the firms under study openly communicate their commitment to quality either through their vision or mission statements. Nonetheless, Darko Farms and ATL go a step further to engage their employees in training activities. These training activities are a platform for them to continually remind their staff about their commitment to quality and how each staff member has a role to play in order for them to achieve this.

According to the operations managers of Kogmens, Furnart and ATL, their staff had a good understanding of what quality is. However, the operations manager of Darko Farms maintained that his staff had a very good understanding of quality. This is because, in their kind of industries, there is no room for mistakes and any little mistake could be deadly for both the poultry they keep and their consumers.

How Employees Work

In Kogmens and ATL, employees work in groups most of the time. Kogmens is an aluminium works company with a lot of very heavy equipment and machinery. Therefore they work in groups to help each other with their work. Furthermore, working individually could be tiring and stressful, so there is a need to work in groups.

In Furnart and Darko Farms however, employees work individually. In Furnart, it is believed that putting employees in groups does not always help bring out the best in them, as opposed to if they worked individually. For example, there could be a situation where it might take a group the same amount of time as it might take an individual to finish a furniture set.

In Darko Farms, there exist a vast amount of automated machinery in the slaughtering plant. Employees are assigned to machines and equipments, so they work individually. However, when it comes to production and giving of feed to the poultry, employees work in groups.

With the exception of Furnart, employees in the other firms have the opportunity to move around into other departments to work. This is not possible in Furnart because the people employed there come with particular skills for particular roles: carpentry, spraying and upholstery. Therefore, it is impossible to move them around. It is for this reason also, that they do not train their employees.

Satisfaction Measurement

Furnart and ATL use appraisals to measure customer satisfaction. Darko Farms does an evaluation of their employees annually. On the otherhand, Kogmens does not have any structured way of measuring employee satisfaction. However, as a sort of motivation, they give employees scraps, which they sell and get money from. Also, when a clients comes to pick up his goods without a loader, employees are allowed to help load the goods into the car for a small fee, which they are allowed to keep.

4.2.2 Line Workers

As much as the study intended to find the views of the line workers. It also sought to find out if the perceptions of the operations managers and use that as a means of validating the responses given by the line workers. The results of the study is seen in the ensuring sections.

Descriptives					
	Company	N	Mean	Minimum	Maximum
Excellence	Kogmens	10	3.30	2	4
	Darko Farms	10	4.50	4	5
	Fumart	10	4.00	3	5
	ATL	10	4.20	4	5
	Total	40	4.00	2	5
Value to customers	Kogmens	10	4.20	3	5
	Darko Farms	10	4.40	4	5
	Fumart	10	4.20	3	5
	ATL	10	4.60	3	5
	Total	40	4.35	3	5
Comformance to Specifications	Kogmens	10	4.90	4	5
	Darko Farms	10	4.00	1	5
	Fumart	10	4.90	4	5
	ATL	10	4.40	3	5
	Total	40	4.55	1	5
Meeting and/or exceeding expectations	Kogmens	10	3.70	3	5
	Darko Farms	10	3.30	2	4
	Fumart	10	4.40	4	5
	ATL	10	4.00	3	5
	Total	40	3.85	2	5
Other, please specify	Kogmens	10	9.00	9	9
	Darko Farms	10	9.00	9	9
	Fumart	10	9.00	9	9
	ATL	10	9.00	9	9
	Total	40	9.00	9	9

Figure 4.2: Explanation of Quality by Line Workers

Explanation of Quality

From Figure 4.2, it is evident that, across the industries under study, Darko Farms ranked the highest in defining quality as excellence. This can be seen from the fact that the farm recorded the highest mean of 4.5 for excellence. This is also in line with the answer provided by the operations manager at Darko Farms. The fact that the responses from both operations manager and line workers tally, further confirms that Darko Farms does well to communicate its commitment to quality to its employees.

The figure further shows that with a mean of 4.6, employees at ATL define quality as value to customers. Comparing this to the response of the operations manager (see Table 4.1), employees of ATL saw quality more as providing value to customers than excellence.

Both Kogmens and Furnart described quality as conformance to specifications with a high recorded mean of 4.9 each. This is evidently in line with what the operations managers of both firms said. This also proved that in an industry where customers make orders before production is made, it is important to have every employee understand that in order to satisfy a customer, there must be a conformance to the specifications provided by the customer.

Finally, Furnart recorded a mean of 4.4 making it the firm amongst the four that viewed meeting and/or exceeding customer expectations high in terms of defining quality. This confirmed the fact that, in spite of the need to conform to specifications, there is also a need to meet and/or exceed customer expectations. This serves as a marketing tool for the firm and increases positive word-of-mouth about the firm and this can cause an increase in patronage of their products.

Ensuring Quality in One's Own Small Way

From the study conducted, it was evident that majority of the Darko Farms employees attended training as a means of ensuring quality in their own small way. This can be seen from the high mean of 4.9 recorded for the firm, see Figure 4.3. ATL employees ranked the second highest in ensuring quality in their own small way by attending training, with a mean of 4.3. These responses tally well with the responses given by the operations managers of both firms (see Table 4.1).

By observing Figure 4.3, the study ascertained that majority of ATL em-

Descriptives					
	Company	N	Mean	Minimum	Maximum
Attending training	Kogmens	10	2.20	1	3
	Darko Farms	10	4.90	4	5
	Furnart	10	1.50	1	2
	ATL	10	4.30	4	5
	Total	40	3.22	1	5
Inspection	Kogmens	10	3.20	2	4
	Darko Farms	10	4.40	3	5
	Furnart	10	3.10	1	5
	ATL	10	4.70	3	5
	Total	40	3.85	1	5
Doing a job to precision	Kogmens	10	4.70	3	5
	Darko Farms	10	3.10	2	5
	Furnart	10	4.90	4	5
	ATL	10	3.60	3	5
	Total	40	4.08	2	5
Adherence to standards	Kogmens	10	4.30	3	5
	Darko Farms	10	5.00	5	5
	Furnart	10	4.10	3	5
	ATL	10	4.70	4	5
	Total	40	4.52	3	5
Other, please specify	Kogmens	10	9.00	9	9
	Darko Farms	10	9.00	9	9
	Furnart	10	9.00	9	9
	ATL	10	9.00	9	9
	Total	40	9.00	9	9

Figure 4.3: How Line Workers Ensure Quality In Their Own Small Way

employees inspected their products as a means of ensuring quality in their own small way. This was drawn from the mean of 4.7 recorded for the firm. However, quite a number of employees from Darko Farms also inspect their finished work as a means of ensuring quality in their own small way (mean for Darko Farms is 4.4).

Contrary to this, employees of Furnart saw doing their jobs to precision as the way by which they are ensuring quality in their firm. This can be seen by the mean of 4.9 that was recorded in Figure 4.3. Nonetheless, Kogmens registered a mean of 4.7 making its employees the second highest to use doing their jobs to precision as a means of ensuring quality.

With respect to Adherence to Standards, Darko Farms employees topped with a mean of 5.0, while ATL followed with a mean of 4.7. This showed

Descriptives					
	Company	N	Mean	Minimum	Maximum
Process Design	Kogmens	10	4.10	3	5
	Darko Farms	10	4.50	3	5
	Furnart	10	4.00	2	5
	ATL	10	4.30	3	5
	Total	40	4.22	2	5
Product Design	Kogmens	10	3.80	3	5
	Darko Farms	10	3.70	3	5
	Furnart	10	3.90	3	5
	ATL	10	4.30	3	5
	Total	40	3.92	3	5
Resistance to change by people	Kogmens	10	2.20	1	5
	Darko Farms	10	3.40	1	5
	Furnart	10	2.70	1	5
	ATL	10	3.30	1	5
	Total	40	2.90	1	5
Access to Information	Kogmens	10	2.00	1	3
	Darko Farms	10	1.60	1	3
	Furnart	10	2.10	1	4
	ATL	10	3.50	1	5
	Total	40	2.30	1	5
Other, please specify	Kogmens	10	9.00	9	9
	Darko Farms	10	9.00	9	9
	Furnart	10	9.00	9	9
	ATL	10	9.00	9	9
	Total	40	9.00	9	9

Figure 4.4: Challenges Line Workers Face in Ensuring Quality

that a good percentage of the employees in both firms did their best to adhere to standards, as a means of ensuring quality in their own small way.

Challenges in Ensuring Quality

An observation of Figure 4.4 shows that employees at Darko Farms see process design and resistance to change by people as challenges in ensuring quality, with a high mean of 4.5 and 3.4 respectively, while ATL employees feel that product design and access to information are challenges in their firm. This is seen with means of 4.3 and 3.5 respectively. These responses are evidently different from the responses provided by the operations managers of both firms (compare with Table 4.1).

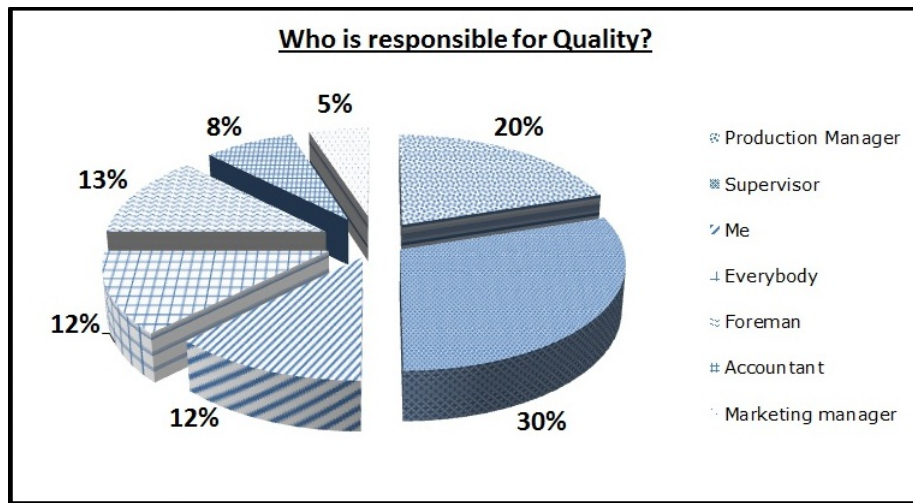


Figure 4.5: Who is responsible for Quality

At Furnart and Kogmens, employees believe that process design is a challenge, as these recorded means of 4.0 and 4.1 accordingly. These figures were chosen based on the fact that the various means were weighted in all the categories.

Standards in Ghanaian Companies

From the study conducted, all respondents of the various firms acknowledged that, there were standards that they adhere to. Each of them also maintained that they checked their work before sending it to the next stage. However, when the question of who was responsible for quality was asked, 12% pointed to themselves, while another 12% said, it was everyone's duty (see Figure 4.5). This reveals that, of all the employees under study, only 24% of them understood that the commitment to quality should be a collective one, as suggested by literature. Interestingly, it was 80 percent of the Darko Farms employees that answered that it was either them or everybody who was responsible for quality. A summary of this can be seen in Figure 4.5.

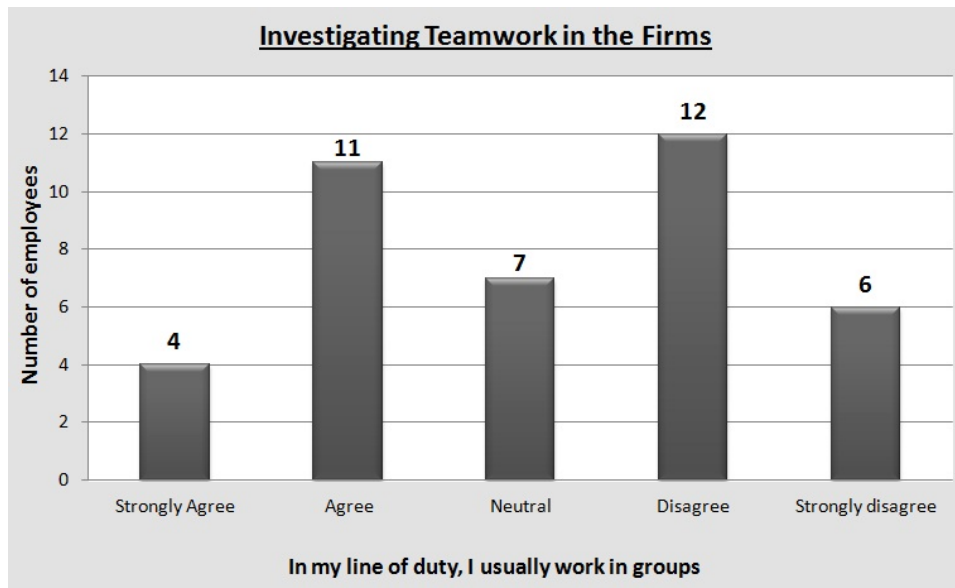


Figure 4.6: Impact of TQM on Teamwork

4.2.3 TQM and Employee Relations

TQM and Teamwork

As a result of investigating the effects of TQM on teamwork in the Ghanaian context, the study found no significant impact. From Figure 4.6, it is evident that teamwork is not affected by the existence of Total Quality Management in the firms under investigation. Rather, employees tend to work in their designated roles, be it in teams or not, even though the firms followed the principles and strategies of TQM. From the figure, 45% of the sample used did not work in groups, in their line of duty, while 37.5% said they did. The remaining indicated that sometimes they did work in groups, however, this was not frequent enough for them to indicate that they do.



Figure 4.7: Impact of TQM on Employee Involvement

TQM and Employee Involvement

Investigations however proved that Total Quality Management had an effect on employee involvement. As seen in Figure 4.7, 28 out of the 40 employees used in this study, believe that they are a part of the firm, their reason being that they feel involved in the affairs of the firm. This 70% of the sample size believe that, their being involved is as a result of the fact that they have the responsibility and authority to make minor decisions in their line of duty. Thus, creating an environment which empowers employees and gives them the opportunity to impact on decisions and actions that affect their jobs, causes them (the employees) to be actively involved in the firm, and increases organizational commitment (Daily and Bishop, 2003).

4.2.4 Teamwork and Job Satisfaction

The Pearson Correlation was used to investigate whether there is a relationship between teamwork and job satisfaction. This measures the linear

Correlations			
		In my line of duty, I usually work in groups	If you had an opportunity, would you change anything about your job?
In my line of duty, I usually work in groups	Pearson Correlation	1	-.179
	Sig. (2-tailed)		.270
	N	40	40
If you had an opportunity, would you change anything about your job?	Pearson Correlation	-.179	1
	Sig. (2-tailed)	.270	
	N	40	40

Figure 4.8: Relationship Between Teamwork and Job Satisfaction

association between two scale variables. From Figure 4.8, the correlation coefficient reported, -0.179, was negative and not significantly different from zero. This insignificance was supported by the p value of 0.270. With reference to the fact that correlation is significant at the 0.01 level, it is evident that there is no correlation in the two variables under study. This further suggests that working in groups does not have an effect on job satisfaction.

4.2.5 Employee Involvement and Job Satisfaction

This study saw a connection between employee involvement and employees belief of being a part of a firm. The study then sought to find out how employee involvement relates to job satisfaction. From the figure 4.9, a positive relationship of 0.511 is seen. In simple terms, as one variable increases, the other also increases. This indicates a significant and fairly strong positive correlation between employee involvement and job satisfaction, since correlation is significant at the 0.01 level (2-tail). Therefore, it is evident that employee involvement does have an impact on how satisfied an employee is with his job.

Correlations			
		I believe I am a part of the firm	If you had an opportunity, would you change anything about your job?
I believe I am a part of the firm	Pearson Correlation	1	.511**
	Sig. (2-tailed)		.001
	N	40	40
If you had an opportunity, would you change anything about your job?	Pearson Correlation	.511**	1
	Sig. (2-tailed)	.001	
	N	40	40

** . Correlation is significant at the 0.01 level (2-tailed).

Figure 4.9: Relationship Between Employee Relation and Job Satisfaction

4.3 Conclusion

This study has proven that, Total Quality Management has no direct effect on whether or not employees work in teams. Nonetheless, it has an effect on how involved employees are with their work. TQM gives employees the kind of responsibility that allows them to feel a part of the firm irrespective of whether they work in teams or not.

In conclusion, even though it has been proven that contextual variables such as industry classification and organizational size may affect the relevance and adoption of specific TQM practices, understanding what is meant by customer focus, continuous improvement and teamwork from the point of view of the employees, may provide a more valid and useful method of measuring progress in TQM implementation (Morrow, 1997). This has been evident in the way Darko Farms operates as well as their subsequent success in the industry in which they operate.

Chapter 5

Recommendations and Conclusions

This is the final chapter of the dissertation. This chapter would recommend some changes to the firms used for the study, based on the problems that were identified. This is to help the firms restructure their Quality Management strategies in order to gain the most out of its implementation.

5.1 Recommendations

Based on the problems that were identified during this study, the following recommendations were made:

TQM needs some amount of supervision as a check and balance to work. Therefore, it would be advisable for firms who have implemented TQM to allocate some amount of time and money for supervision. It is almost impossible to see the effects of the implementation of TQM if one does not have any form of checks and balances to see if it is actually working. This can be done by means of supervision. The supervision also puts employees on

their toes and makes them adept to using the TQM strategies and adhering by the quality policies at all times, as seen with Darko Farms.

Another suggestion is to use employee feedback as a means of getting employees involved in decision making of the firm. This is because, when employees can vividly see their suggestions being put into the firm's action plan, they feel needed and enjoy work more, which may further increase service quality. The employees tend to be more involved in their jobs as they feel they are an integral part of the organization. Employee moral then tends to increase, as workers are motivated by extra responsibility and involvement in decisions of TQM. Employees begin to develop a commitment to the organization rather than looking at it as just their employer.

5.2 Conclusion

This study has been able to successfully look at the impact of TQM on employee relations and how this affects job satisfaction of employees in the Ghanaian context. On the whole, having a knowledge of the quality standards of one's firm allows employees to be involved in their jobs and leads to job satisfaction. However, teamwork does not have a direct relationship with job satisfaction in our context.

TQM does not actually create profit for the organizations, but if implemented properly, it may identify costly processes and cost-saving measures. Once fully implemented, the only expense of TQM is the cost of routine operations. The benefits of Total Quality Management include process and product improvement, cost-saving, customer satisfaction and organizational development.

In conclusion, Total Quality Management is a system of continuous improvement that involves all workers in a business from upper management to production line workers. It is a culture, which when properly implemented and infused into a company's practices would not only go a long way to ensure higher productivity while decreasing cost, but will improve the firm's reputation and also increase employee morale. In order to achieve high performance with the implementation of TQM, focus on leadership, benchmarking, total employee involvement, strategic quality and a highly quality vision works best. As much as TQM gives some short term benefits, majority of its advantages tend to be long-term and the tangible benefits come into effect only after it is running smoothly. Total Quality Management is not just a fad, it is here to stay.

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Appendix A

Appendix

Appendix A:



INTERVIEW QUESTIONS FOR OPERATIONS MANAGERS
TOPIC: An Assessment of TQM in a Ghanaian Company

1. How would you define quality?

- | | | | |
|------------|--------------------------|---------------------------------------|--------------------------|
| Excellence | <input type="checkbox"/> | Conformance to specifications | <input type="checkbox"/> |
| Value | <input type="checkbox"/> | Meeting and/or exceeding expectations | <input type="checkbox"/> |
| Other..... | | | |

2. What are some of the strategies used to ensure quality?

- | | | | |
|------------------------|--------------------------|-------------------------------|--------------------------|
| Quality Policies | <input type="checkbox"/> | Supplier Quality Management | <input type="checkbox"/> |
| Process Management | <input type="checkbox"/> | Quality data reporting | <input type="checkbox"/> |
| Training | <input type="checkbox"/> | Employee relations management | <input type="checkbox"/> |
| Product/Service design | <input type="checkbox"/> | | |
| Other..... | | | |

3. What are the challenges with ensuring quality?

- | | | | |
|----------------|--------------------------|--------------------------------|--------------------------|
| Process Design | <input type="checkbox"/> | Resistance to change by People | <input type="checkbox"/> |
| Product Design | <input type="checkbox"/> | Access to Information | <input type="checkbox"/> |
| Other..... | | | |

4. In what way has the company visibly shown a commitment to quality?

- | | |
|--------------------------|--------------------------|
| Mission/Vision Statement | <input type="checkbox"/> |
| Benchmarking | <input type="checkbox"/> |
| Investment into quality | <input type="checkbox"/> |

5. In what ways does the company communicate its quest for quality to the employees?

- | | |
|-------------------|--------------------------|
| Mission statement | <input type="checkbox"/> |
| Training | <input type="checkbox"/> |

6. How well do you think the employees have understood quality?

- | | | | | | | | | | |
|-----------|--------------------------|------|--------------------------|----------|--------------------------|------|--------------------------|-----------|--------------------------|
| Very good | <input type="checkbox"/> | Good | <input type="checkbox"/> | Moderate | <input type="checkbox"/> | Poor | <input type="checkbox"/> | Very Poor | <input type="checkbox"/> |
|-----------|--------------------------|------|--------------------------|----------|--------------------------|------|--------------------------|-----------|--------------------------|

7. Do employees work in groups⁵⁸ / teams? Yes ☐ / No ☐

8. Are there opportunities for employees to move into other departments? Yes ☐ / No ☐

9. What do you use to measure employee satisfaction?

.....

.....

.....

Appendix B:



QUESTIONNAIRES FOR EMPLOYEES/LINE WORKERS

This questionnaire is intended to help the researcher to learn more about operation activities in firms in Ghana. All information received would be kept confidential and used only for academic purposes. Thank you for your participation.

Understanding Quality

Please rate the extent to which the following apply, on the scale of 1 to 5 with 1=strongly disagree; 2=disagree; 3=neutral; 4=agree; 5=strongly agree

1. Using the table below, please indicate how you would explain quality.

No.		1	2	3	4	5
a.	Excellence					
b.	Value to customers					
c.	Conformance to specifications					
d.	Meeting and/or exceeding expectations					
e.	Other, please specify					

2. Using the table below, please indicate how you would ensure quality in your own small way.

No.		1	2	3	4	5
a.	Attending Training					
b.	Inspection					
c.	Doing a job to precision					
d.	Adherence to standards					
e.	Other, please specify					

3. What are some of the challenges you face in ensuring quality?

No.		1	2	3	4	5
a.	Process Design					
b.	Product Design					
c.	Resistance to change by People					
d.	Access to Information					
e.	Other, please specify					

4. Are there any standards you adhere to? Yes ☐ / No ☐

5. Who is responsible for quality?

6. Do you check your work before sending it to the next stage? Yes ☐ / No ☐

7. How do you ensure that the work you do is done to high quality?

.....
.....
.....
.....

Please rate the extent to which the following apply to you, on the scale of 1 to 5 with 1=strongly disagree; 2=disagree; 3=neutral; 4=agree; 5=strongly agree

Teamwork and employee involvement

No.	Statement	1	2	3	4	5
8.	In my line of duty, I usually work in a group					
9.	I prefer to work in groups					
10.	I believe I am a part of the firm					

Job Satisfaction

11. If you had an opportunity, would you change anything about your job? Yes ☐ / No ☐

If yes, please specify.....
.....
.....
.....

12. Would you recommend your firm to other people, if they want a job? Yes ☐ / No ☐

Please specify why.....
.....
.....