ONTINUOUS QUALITY IMPROVEMENT CLIMATE SURVEY: A CASE OF COLGATE-PALMOLIVE KENYA.

MUSAU, JACKSON MUEMA

A management research project submitted in partial fulfillment of the requirements for the award of Master of Business Administration (MBA) degree, School of Business , University of Nairobi.

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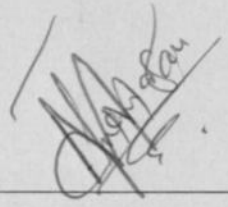
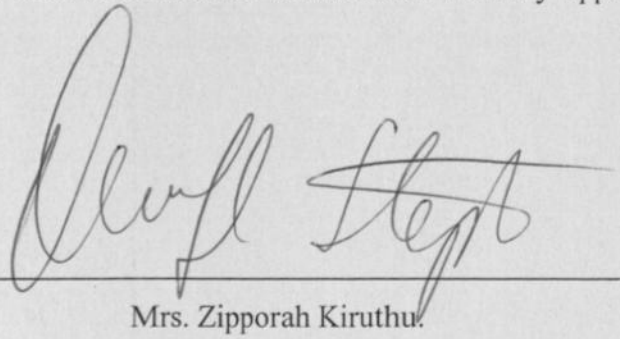
DECLARATION

This research project is my original work and has not been presented for any degree in this university or any other institution of higher learning.



Musau, Jackson Muema

This research project has been submitted for examination with my approval as a University Supervisor.



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Date: 20/11/2006

DEDICATION

This work is dedicated to my beloved wife, Magdalene, my two sons, Collins and Linus and my parents, Mr & Mrs. Julius Musau Muambi for their love and support.

ACKNOWLEDGEMENTS

I would like to express my heartfelt gratitude to my esteemed Supervisor, Mrs. Zipporah Kiruthu for her constructive criticisms, encouragement, guidance, suggestions and comments during my study period.

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ABSTRACT

CQI climate survey used in this study is a very important diagnostic tool which helps in assessing the level of readiness and progress with CQI implementation. The purpose of conducting CQI Climate Survey was to assess the prevailing continuous quality improvement (CQI) climate at Colgate-Palmolive Kenya.

The study found out that Colgate-Palmolive Kenya did not have internal customer focus, the driving forces of processes are least known, there was low understanding of external customer requirements and statistical tools and techniques. As well, there were no forums to address challenges.

As per recommendations, management needs to use employee focus groups to identify specific improvements that are needed. Training department and supervisors need to be more effective with basic management skills. Management as well needs to improve the results of process dimension by developing policies and resources for employees to routinely learn about best practices and technological improvements that are related to their work areas.

As pertains external customer requirements, management needs to start by improving how leaders define, communicate, and demonstrate their commitment to meet external customers' needs and wants through strategic plans and decisions, adopting policies to train, encourage, and empower employees.

Use of statistical tools and techniques needed to be improved through identifying measurements for the key processes in each department and training employees to routinely gather and review the results.

As well, forums to address work challenges need to be formed. This will help employees air their grievances freely without fear of victimization. Finally, all quality manuals and other relevant documentation need to be availed to all workers after they are send from the Headquarter. This is a form of sharing information for better processes.

TABLE OF CONTENTS

CCI - Commitment to Continuous Improvement.

CCP – Critical control points.

CEO – Chief executive officer.

cGMP – Current good manufacturing practices.

CQI – Continuous quality improvements.

DIS – Drafts international standards.

EIA – Energy Information Administration.

GMP – Good manufacturing practices.

HACCP – Hazard analysis and control points.

ISO – International standards organization.

JIT – Just in time.

NASA – National aeronautics and space administration.

NASS – National agricultural statistics services.

PC – Process control.

SPC – Statistical quality control.

TQM – Total quality management.

UPS – United parcel services of America.

USA – United states of America.

WHO – World health organization.

CHAPTER ONE

INTRODUCTION

1.0 Background of the study

Total Quality Management (TQM) is considered to be an important management philosophy, which sustains organizations in their efforts towards quality improvement and satisfied customers. TQM seeks to integrate functional areas across an organization to increase customer satisfaction and achieve continuous quality improvement (CQI) (Juran & Gryna, 1993). It combines quality –oriented culture with intensive use of management and statistical tools to design and deliver quality products to customers (Juran, 1988). It is an approach to improve competitiveness, efficiency and flexibility in the whole organization (Aquayo & Berry, 1995).

The organization as total system will be affected by quality strategies and policies, which is managed by processes rather than functions. Management participation is vital, since it's the link between quality planning and overall business strategy. In this way, associated relationships with suppliers and other external agents are promoted. Before TQM implementation, upper management must first determine the organization's common purpose or focus. This focus sets the stage for the implementation process. Focus consists of three elements: the vision, the mission statement, and values of the organization. The vision is where the organization wants to be in the future. It reflects the organization's continuous quest for quality excellence and its pursuit to fulfill customer quality expectations. Top management creates the vision, but the entire organization must embrace it for it to have meaning. The mission statement describes the organization's basic purpose and expected results. Values guide the organization's conduct. They describe ways of communicating within the organization, guide relationships with customers, and generally establish ground rules for how the organization will operate. Once an organization determines its focus, it must begin empowering its employees (Berry, 1995).

According to Quality guru, Juran, J (1998) some of prerequisites of TQM in an organization include internal customer focus, teamwork, employee empowerment and fulfillment, use of

statistical tools and techniques measure process performance, understanding external customer requirements, process management and change management for CQI.

1.1 CQI Climate survey

Schneider and Reichers (1983) define Organizational Climate as "an approach to understanding phenomena that rests on employee perceptions that are descriptive of organizational or subsystem events, practices and procedures that, in the aggregate, are useful in characterizing organizations or subsystems." Simply stated, assessing organizational climate requires that the unit of analysis be employees' perceptions in the aggregate, not the perceptions of the individual.

Interest in organizational climate began as early as the 1930's and has been increasing since mid-1960's. The literary findings on organizational climate are diverse and define organizational climate as related to the following: perceived organizational support (Eisenberger and Huntington, 1986); the structure of the organization (Payne and Pugh, 1976); and, the degree of similarity between the organization's expectations and the employee's expectations (Glick, 1985).

Essential to the understanding and the measurement of organizational climate is the acceptance that measuring one outcome such as service or CQI requires assessing the perceptions of events, practices, and procedures related to that one outcome. Consequently, organizational climate surveys consist of several questions related to a single outcome/topic of interest (Schneider and Reichers, 1983).

1.2 Application of CQI climate survey for successful TQM implementation.

Application of CQI climate survey has helped organizations over the years to improve performance. For example, several federal agencies of America were relying heavily on numerical objectives. Managers never knew and were not involved in the processes to understand the issues, and set examples for their subordinates to follow. In addition, evaluation using organized performance appraisals, merit ratings, or annual reviews of performance sometimes resulted in rankings, forced quotas, and many grading categories that acted to create competition, and led to breakdown of teamwork within the federal agencies. Besides, Federal

agencies' management never acted to ensure employees believe the organization will give priority to long-term improvement over short-term gains. In fact, when an organization has no consistency of purpose, the workers are unsure as to their continued evolvement in the organization. An organization must have a constantly pursued long-range plan that promises attention to quality (Bonoma & Zaltman, 1981).

Many Federal agencies, in this case started to conduct climate surveys to facilitate an understanding of their organization's climate and to target opportunities for improvement. National agricultural statistics services (NASS) as an example conducted Organizational Climate Surveys in 1982, 1983, 1990, and 1993, primarily to assess employee perceptions of their working conditions (Beckler and Messer, 1997). Other examples of Organizational Climate Surveys in Federal statistical agencies include the Bureau of Economic Affairs' 1995 Diversity Climate Assessment Survey; the National Center for Health Statistics' 1994 Management Needs Assessment Survey; and Energy Information Administration's (EIA) 1994 and 1995 Organizational Climate Surveys. Additionally, EIA was at the forefront in conducting customer surveys, having contacted customers over the past three years by telephone, mail-in response cards as well as by Internet (Bonoma & Zaltman, 1981).

Other organizations which have benefited in organizational climate survey include, Indianapolis Department of Public Works. This department started a TQM process that was modeled after the Florida Power and Light (Qualtec) process. All department employees were involved (approximately 900 people). The process has recently been updated to meet their needs. The result of their Climate survey process has improved employee morale (www.indygov.org/eGov/City/DPW/.)

Motorola has a successfully working TQM process. Motorola's fundamental objective (everyone's overriding responsibility) is Total Customer Satisfaction. They have won the Baldrige award and are corporate leaders in TQM. They will tell you that implementing TQM was a sound business decision and a matter of survival for them. They as well, require a working TQM process of all contractors doing work for them (www.motorola.com/).

In Bechtel, TQM was started in 1987 and has recently been reorganized into CCI (an acronym for Commitment to Continuous Improvement). The initiatives for their TQM process were obtained from their customers by using a organizational climate survey questionnaire. They use Baldrige criteria to measure success in the CCI process. They do not seek the award, just the benefits of the process. Bechtel's facilitator has worked under the Deming philosophy for four years and has told top management that he does not want to go back to the old way of doing business; neither do their customers nor their employees (www.bechtel.com/).

Besides, since TQM is organization specific as in the cases above, the need to assess Continuous quality improvement through CQI Climate survey in Colgate-Palmolive Kenya is no less than any industry.

1.3 Colgate-Palmolive Kenya

Colgate - Palmolive started its operations in 1806. It was a brainchild of Henry W. Colgate who opened up a starch, soap, and candle factory on Dutch Street in New York City under the name of " William Colgate & Company." In the 1840s the firm began selling individual bars in uniform weights. In 1857, William Colgate died and the company was reorganized as "Colgate & Company" under the management of Samuel Colgate, his son. In 1872, Colgate introduced *Cashmere Bouquet*, a perfumed soap. In 1873, the firm introduced its first toothpaste, an aromatic toothpaste sold in jars. In 1908 they initiated selling toothpaste in tubes (http://ourcolgate.win.colpal.com/).

In the Western United States, the B.J. Johnson Company was making a soap entirely of palm and olive oil. The soap was popular enough to rename their company as Palmolive. A Kansas based soap manufacturer known as the Peet Brothers merged with Palmolive to become Palmolive-Peet. In 1928, Palmolive-Peet joined the Colgate Company to create the Colgate-Palmolive-Peet Company. In 1953 "Peet" was dropped from the title, leaving only "Colgate-Palmolive Company". Today, the Palmolive equity is sold in over 88 countries of which Kenya is one of them. Colgate –Palmolive Kenya started manufacturing in 1965. Its products include oral care, personal care, household care and hard surface care products (http://ourcolgate.win.colpal.com/).

Colgate-Palmolive Plc, (based in New York) came up with ways to implement CQI in all subsidiaries worldwide as part of business Planning to strength subsidiary capabilities to meet the needs of consumers, the profession and customers in support of 2010 "Winning on the Ground" goals. These include 'chairman's-you-can- make-a-difference' which was developed to assist in both continuous quality improvement and innovations. Besides, good manufacturing practices (1990) and Quality standards programs (1998) were launched to help implement CQI. To strengthen this, Colgate's mission statement calls for all employees to deliver competitive advantage as full business partners through the execution of supply chain strategies that are integral to superior global performance by exceeding consumer, customer, shareholders and other partners' expectations. In 2005 Colgate's Business mandates were set and communicated by Colgate-Palmolive Plc, Vice-president (operations) to strengthen as well the quest for quality in all subsidiaries. These business mandates include getting closer to the customer, driving innovation, protecting employees, products and assets, reducing cost through globalization and right sourcing and developing the employees and organization to deliver business results (http://ourcolgate.win.colpal.com/).

Colgate-Palmolive Kenya tried to use these approaches without significance impact on continuous quality improvement. This made Colgate-Palmolive Kenya to received criticisms during 2003, 2004 and 2005 corporate quality audits because of poor CQI implementation. Chairman's-you-can-make a difference program was developed to motivate workers to innovate ideas and improve quality through rewards but its fruits were not fully realized. It claimed that it has implemented good manufacturing practices but there is no tangible evidence of any quality management system's approach which had been applied to ensure successful CQI implementation. Besides, Quality standards program are yet to be implemented since its inception in 1998.

Therefore, there is need to assess the prevailing CQI climate in Colgate-Palmolive Kenya as a subsidiary of Colgate-Palmolive Plc to get the general view of how employees view internal customer focus, external customer requirements, driving forces of process improvements and use

of statistical tools to measure process performance. This will help reduce large costs of operations and improve quality.

1.4 Statement of the problem

In manufacturing, TQM activities primarily involve simplification of production processes and improved customer service through greater empowerment of individual employees and correspondingly less bureaucracy (McLaughlin, 1990). TQM is an organization–wide effort to improve quality through changes in structure, practices, systems and above all attitudes (Dale & Cooper, 1992). TQM is being sought by many organizations involved fast moving consumer goods to increase customer satisfaction and continuously improve quality (Crosby, P 1979). This shows that TQM is a proven management style used successfully for decades in all organizations around the world. In fact, TQM is not an end in itself; but means to an organizational end (John, 1993). The way TQM is implemented and the appropriateness of the approach adopted have major implications for the way employees experience change and the perceptions of the outcome. This means those employees' perceptions, needs, and concerns need be assessed through CQI climate survey to achieve a successful TQM implementation.

Colgate-Palmolive Kenya tried to implement CQI using good manufacturing practices and chairman's-you-can-make-a-difference approaches without a significance impact. This made Colgate-Palmolive Kenya to receive criticisms during 2003, 2004 and 2005 corporate quality audits because of poor CQI implementation. Chairman's-you-can-make a difference program was developed to motivate workers to innovate ideas and improve quality through rewards but its fruits were not fully realized. Colgate-Palmolive Kenya also claimed that it had implemented good manufacturing practices but there is no tangible evidence of any quality management system's approach which had been applied to ensure successful CQI implementation. Besides, Quality standards program are yet to be implemented since its inception in 1998(http://ourcolgate.win.colpal.com/).

Studies have been carried on TQM implementation in several institutions in Kenya. Odero (2000) sought to establish the existence of non-quality situations in the training process at Kabete Technical Training College. She identified the root causes of poor examination performance in Diploma courses and came up with TQM based suggested improvements. Omufira (2001) sought to establish the extent of TQM implementation in construction industry. Miyumo (2003) carried out a study on change management practices in TQM implementation: A survey of ISO 9000 certified firms in Kenya.

However, no CQI climate survey had been done in Kenya to help in implementation of Continuous Quality Improvement within a manufacturing firm. According to Harrington (1995), 'all organizations need to be assessed through CQI Climate survey for a steady growth and improvement'. It does keep organizations focused on business goals and priorities. In 1990's CQI emerged as a key issue of organizational design (Lillrank et al., 1998).

It is against this background that the study sought to assess the prevailing CQI climate in Colgate-Palmolive Kenya with a view of creating a conducive environment for CQI implementation.

In order to research this issue, the study answered the following questions:-

1. Did Colgate – Palmolive Kenya have a focus on internal customer satisfaction?
2. Did Colgate-Palmolive Kenya employees know what is required of their external customers?
3. What drove process improvements within Colgate-Palmolive Kenya?
4. Did Colgate-Palmolive Kenya employees know how to use statistical tools and techniques to measure process performance?

1.5 Objectives of the study

The general objective of this study was to assess the prevailing CQI climate in Colgate-Palmolive Kenya with a view of creating a conducive environment for CQI implementation.

Subject to this overall objective were specific objectives as follows:-

1. To determine whether there was internal customer focus within Colgate-Palmolive Kenya.
2. To determine whether Colgate – Palmolive Kenya employees know what was required of external customers.
3. To assess driving forces behind process improvements within Colgate-Palmolive Kenya.
4. To determine whether statistical tools and techniques were used within Colgate-Palmolive Kenya in measuring process performance?

1.6 Importance of the study

The study will help Colgate-Palmolive Kenya leaders to know their roles and authority during change initiatives. It will enable them to reduce the level of bureaucratic controls that limit adoption of best practices and evidenced-based improvements as well as identify and remove impediments to cross-functional communication and problem solving. In addition, leaders will be able to form employee focus groups to identify specific improvements that are needed. Supervisors will also be trained in process management and improvement techniques and leaders will be able to share key organizational performance measurements with all employees and teaching them how their work processes link to the organizational performance outcomes.

The study will also help employees identify and reduce the level of fear and blame for mistakes and acquire basic management skills which will enable them to be effective in conflict resolutions, communication styles, and problem solving techniques.

Other organizations can benchmark and improve on their human resources policies and practices in case of a high level of employee engagement (Low turnover rates). It will also enable them to

understand how the leaders define, communicate and demonstrate their commitment to meet internal and external customer's requirements through strategic plans and decisions as well reduce costs of operations.

With regard to academia, the study will help to improve on administrative and support functions which affect what happens in the classroom and enhance Student-Lecturer relationship.

CHAPTER TWO

LITERATURE REVIEW

2.0 Definition of Total Quality Management.

Recent research has shown that TQM is a management style based upon producing quality service as defined by the customer. TQM is defined as a quality-centered, customer-focused, fact-based, team-driven, senior-management-led process to achieve an organization's strategic imperative through continuous process improvement. TQM principles are also known as total quality improvement, world class quality, continuous quality improvement, total service quality, and total quality leadership (Navy Personnel Research and Development Center, 1992).

The word "total" in TQM means that everyone in the organization must be involved in the continuous improvement effort, the word "quality" shows a concern for customer satisfaction, and the word "management" refers to the people and processes needed to achieve the quality (Johnson, 1993).

TQM seeks to integrate functional areas across an organization to increase customer satisfaction and achieve continuous improvement (Crosby, 1979; Ishikawa, 1985, Felgenbaum, 1991; Juran & Gryna, 1993). It combines quality –oriented culture with intensive use of management and statistical tools to design and deliver quality products to customers (Juran, 1988; Aquayo, 1990 & Berry, 1995). It is an approach to improve competitiveness, efficiency and flexibility in the whole organization.

TQM requires an organizational transformation-a totally new and different way of thinking and behaving. This transformation is not easy to achieve; it is not for the weak or the statistically untrained. At first glance, many TQM techniques may seem simple and based on common sense, but they must be understood and used correctly for it to function properly. Knowing the history of TQM may help in understanding its techniques (Saylor, 1996).

2.1 Historical perspective.

TQM was developed in the mid 1940s by Dr. W. Edward Deming who at the time was an advisor in sampling at the Bureau of Census and later became a professor of statistics at the New York University Graduate School of Business Administration. He had little success convincing American businesses to adopt TQM but his management methods did gain success in Japan (Aragon, 1993).

After World War II, General MacArthur took 200 scientists and specialists, including Dr. Deming, to Japan to help rebuild the country. While working on the Japanese census, Dr. Deming was invited by the Japanese Union of Scientists and Engineers to give lectures on his statistical quality techniques. One of the attendees was a past professor to many of Japan's CEOs. After attending the lectures, the professor told his CEO students that, if they wanted to turn Japan's economy around in five years, they should attend Dr. Deming's lectures on using statistics to achieve quality at a reduced cost. Many of the CEOs took the professor's advice and attended the lectures. Eventually, many Japanese manufacturing companies adopted Dr. Deming's theories and were able to produce quality products at reduced costs (Bennis & Nanus, 1985).

Joseph Juran followed Deming to Japan where his name was just as illustrious as that of Deming. While Deming centered upon statistical tools, Juran centered upon the role of employees in quality management. In addition Juran published *The Quality Control Handbook* in 1950 which became the standard reference book on quality world-wide (Favreau & Gillespie, 1978).

Another of the TQM gurus is Phillip Crosby, who developed a framework for TQM. His focus was on zero defects, or get it right the first time. Crosby defined quality as conformance to the requirements, which the company itself has established for its products, based directly on its customers' needs (Favreau & Gillespie, 1978).

The fourth guru associated with TQM was Kaoru Ishikawa who initiated Company-wide Quality Control that started in Japan during the period 1955-1960, following the visits of Deming and

Juran. Ishikawa saw the Company-wide Quality Control as implying that quality did not only mean the quality of product, but also of after sales service, quality of management, the company itself and the human life. Ishikawa's biggest contributions were in simplifying statistical techniques for quality control and inventing quality circles. In addition, he created the cause-and-effect diagram (the Ishikawa diagram or the fishbone diagram) (Favreau & Gillespie, 1978).

While the Japanese business world was concentrating on producing quality products, businesses in the United States were more concerned with producing large quantities of products. Their emphasis on quantity at the expense of quality let the Japanese, with their inexpensive, high quality products, gain a substantial foothold in American markets (Cartin, 1993). As a result, American corporations were in a near panic as the Japanese were selling products in the United States for less than American companies could produce them. At the time, National Broadcasting Corporation aired a special television report, "If Japan Can, Why Can't We?" that explored reasons why the Americans were not competitive, such as: low labor costs in Japan, burdensome government regulation, conflict between labor and management, and the Japanese work ethic (Fellers , 1992).

In the 1970s and 1980s, many American companies, including Ford, IBM, and Xerox, began adopting Dr Deming's principles of TQM. This gradually led to their regaining some of the markets previously lost to the Japanese. TQM gained its prominence in the private sector, in recent years as well as in public organizations (Coleman, 1997).

2.2 Prerequisites of TQM.

According to Juran (1998) TQM prerequisites include internal customer focus, teamwork, employee empowerment and fulfillment, understanding external customer requirements, process management, use of statistical tools in process performance measurement and change management for continuous improvement.

2.2.1 Internal customer focus

Internal Customer service is a major focus of many successful companies to achieve business success. In apparent defiance of accepted wisdom, some internal customer-focused companies even place employees in the top spot on their organizational charts. Leaders in those companies share the philosophy of former UPS CEO Nelson, K (1995), who said, "Employee satisfaction equals customer satisfaction at UPS."

Internal customer focus is a key ingredient in TQM. However, Lewis (1989) points out that emphasizing focus is one thing; delivering it is another. In fact, he considers that emphasizing focus is not the most appropriate approach to adopt.

Thus management policies that enhance internal customer-based focus often prove to be a firm's best marketing strategy. Christopher, et al. (1991) go further than this to describe a new synthesis between quality, customer service and marketing. They argue that quality is also a key linkage in the exchange relationship between the organization and its employees as customers. They maintain that 'unless management can bring these activities together with new forms of collaboration and cross-functional coordination, there can be no sustainable competitive advantage.'

Just as customer service leads to customer satisfaction, internal customer service leads to employee satisfaction. Internal customer service is the service we provide to fellow employees and other departments within our own organizations, as well as our suppliers and anyone else with whom we work to get our jobs done (Nelson, K 1995).

To achieve legendary internal customer service one has to weaken the tendency to build territorial walls and adopt ways of creating forums to share information, practice proactive information-sharing and create, or contribute to, an environment in which status is accorded to those who share freely and not to build walls (Nelson, K 1995).

Competitive advantage is achieved by organization which needs to know who its internal customers are, what they expect and how well its performance from the customer's point of view is (Nelson, K 1995).

The concept of internal customer is significant as it dramatically makes the case that an organization cannot meet the needs of its external customers if each output passed within the company is deficient. For example, if each handoff within the organization is less than 100%, the resultant output will always fall short of customer expectation (Nelson, K 1995).

2.2.2 Teamwork

Teamwork is seen through formation of small groups of interdependent individuals that take responsibility for their organizational outcomes (Sundstorm et al., 1982). Teamwork practices place overall accountability for quality on the team, thus alleviating the potential for individual blame, and allowing greater sharing of information and cooperation within the work group to improve its functioning continuously (Shapiro, C 1995).

Teams and teamwork can be used to minimize the duplication of effort and certain related interdependent tasks can be performed concurrently rather than in a time-consuming serial fashion. Further, working in teams can be instrumental in employee developing comprehensive and in-depth views of organizational issues and situations through the pooling of knowledge. Positive synergy resulting from good teamwork can be an important ingredient in maximizing the contributions of individual employee (Murphy & Heberling, 1996).

2.2.3 Employee Empowerment

One of the most frequently referenced definitions of employee empowerment is that offered by Conger and Kanungo (1988). They define empowerment as a process of enhancing feelings of self-efficacy among organizational members through the identification of conditions that foster powerlessness, and through their removal by both formal organizational practices and informal techniques of proving efficacy information. This definition implies strengthening the effort-to-

performance expectancy or increasing employee feeling of self-efficacy. According to Conger and Kanungo (1998), the effect of empowerment is the initiation and persistence of behavior by empowered employees to accomplish task objectives. This definition is rooted in management theory of power and authority delegation that gives an employee the right to control and use organizational resources to bring about desired organizational outcomes.

Thomas and Velthouse (1990), however, argued that the concept of empowerment is much more complex and could not be fully explained in a one dimensional construct such as self-efficacy. They therefore define empowerment as an intrinsic task motivation that manifests itself in four cognitions (*meaningfulness, competence, impact and choice or self-determination*), reflecting an individual's orientation to his or her work roles. By intrinsic task motivation, they mean, a positively valued experiences that an individual derives directly from a task that produces motivation and satisfaction.

Meaningfulness is the value of the task goal or purpose in relation to the individual's own ideals or standards, and *competence* is the degree to which a person can perform task activities skillfully. *Impact,* on the other hand, is the degree to which behavior is seen as making a difference in terms of accomplishing the purpose of the task, while *choice or self-determination* is the causal responsibility for a person's actions. It reflects independence in the initiation and continuation of work behavior and processes (Deci, Connell, and Ryan, 1989).

Employee empowerment literature identifies contextual factors and strategies that promote and support empowerment. For example, Burke (1986) suggests that a way to empower employees is to express confidence in them together with establishing realistic high performance expectations for them. Block (1987) adds the creation of opportunities for employees to participate in decision making, and giving employees autonomy from bureaucratic constraints as empowerment strategies. Comparatively, Benis and Nanus (1985) suggest the setting of performance objectives for employees that are challenging and inspiring and also, Oldham (1976), Kanter (1979), Strauss (1977), Hackman and Oldham (1975) suggest performance-based reward systems and enriched jobs that provide autonomy and control, task identity, opportunities for career

advancement and task meaningfulness as ways to empower employees. At the organizational level, however, McClelland (1975) and House (1988) suggest that empowerment could be achieved through employee selection and training programs designed to provide required technical skills together with a culture which encourages self-determination and collaboration instead of competition.

A practical and process oriented definition of empowerment was offered by Bowen and Lawler (1992). They define employee empowerment as sharing with front-line employees, information about an organization's performance, information about rewards based on the organization's performance, knowledge that enables employees to understand and contribute to organizational performance, and giving employees the power to make decisions that influence organizational direction and performance. According to Zemke and Schaaf (1989), employee empowerment means turning the front-line loose, and encouraging and rewarding employees to exercise initiative and imagination.

Empowering the workforce involves giving employees a degree of control over the organization's operation. When empowered, employees feel they are an active part of the organization's decision-making process and they have an organizational sense of "family". Once empowered, employees begin to take pride and ownership in their work, which may lead to improvement in their job performance, which then may increase overall organizational quality. As employees become more involved in the organization, they become self-motivated and do not require as much direct praise or monitoring from managers. As a part of the empowerment process, employees are permitted more management participation (Zemke and Schaaf ,1989).

2.2.4 Employee fulfillment

Anderson et al. (1994a, p. 480) defined employee fulfillment as "exemplified by job satisfaction, job commitment, and pride of workmanship." However, Anderson et al. (1995) and Rungtusanatham et al. (1998) used three and two items, respectively, which seemed to measure only pride of workmanship.

The structural exploration items in their study measured the level of information sharing and employee adaptation, which are expected to result in job satisfaction and commitment The lack of support for employee fulfillment in earlier studies may be attributable to the lack of a metric that correlates well with job satisfaction or job commitment. Future work should explore more complete operationalizations of this key construct (Robbins et al., 2002).

With respect to the relationship between employee fulfillment and business performance, it was found out that, significant relationships between structural exploration and both financial performance and customer satisfaction. Anderson et al. (1995) also found a strong relationship between employee fulfillment and customer satisfaction. Rungtusanatham et al. (1998) did not, but attributed the problem to the culture in the Italian manufacturing plants in his study.

Employee fulfillment is manifested by increase of efficiency at work due to a motivated workforce. Fulfilled employees will take on responsibilities and show initiatives. This is realized through development of training, allowing participation and teamwork. The three important factors will lead to an increase in worker job satisfaction and performance (Rungtusanatham et al., 1998).

2.2.5 Understanding external customer requirements.

Drucker (1954) stated that the only reasons for business to be in business were to innovate and satisfy customers at a profit. Kotler (1967) launched the new marketing concept, which stated that corporate profit came out of satisfying customer needs through integrated marketing activities. Profit did not come out of sales volume alone, which was the old marketing concept. Towards the end of the 1970s Grönroos presented the service marketing concept (Grönroos, 1979), which held some distinct differences from the traditional product marketing concept. During the 1980s a group of Scandinavian marketing researchers realized that the service marketing concept was valid and relevant for business-to-business marketing, in particular when studying buyer and seller relationships. What today is called relationship marketing as understood and defined by the Nordic School of Thought is fundamentally different from the traditional 4P marketing paradigm (Grönroos, 1989, 1994, 1996, 1997, Gummesson, 1987,

Storbacka, et al, 1994, Holmlund, 1996). This rationale emerged as a new paradigm within marketing.

Numerous studies have proven that satisfied customers relate their positive experience to three people, whereas dissatisfied customers tell eleven to thirteen people about their negative experience (Kotler et.al. 1999).

Understanding the customer expectations is often referred to as listening to the voice of the customer and requires identification of a whole set of product/service characteristics that the customer needs, his/her level of expectations, relative importance, and satisfaction derived (Kotler et.al. 1999).

To become a master of customer understanding, you have to increase both the quality and quantity of your processes. Three important strategies to focus on include, developing strong links to both the core and the fringes of your market, use ethnography (the application of principles of anthropology to study the behavior of customers to gain new insights) and include customers and customer knowledge throughout the design process (Kotler et.al. 1999).

2.2.6 Process management

Process management can trace its roots back to the early days of industrial engineering and quality management (quality control and quality engineering). The earliest focus was on streamlining factory processes to increase productivity. However, process management concepts are now used in all types of organizations to improve process baselines (safety, quality, cycle time, productivity, on-time delivery, etc.), as well as to improve financial and operational results.

Frederick Taylor (1911) published *The Principles of Scientific Management.* Some of his ideas are the predecessors for modern industrial engineering tools and concepts that are used to reduce cycle time and/or improve productivity. Frank and Lillian Gilbreth also used time and motion studies to improve processes and to increase productivity by evaluating how much time it took to

do each task within a process, and the best way to do each task (the motions involved). Their work and personal lives were publicized in the book, *Cheaper by the Dozen.*

One of the world's leading experts on improving the manufacturing process, Shingo, S (1989), created with Taiichi, O (1989), many of the features of just-in-time (JIT) manufacturing methods, systems, and processes that constitute the Toyota Production System. Much of Shingo's work is documented in books he has written, such as *A Study of the Toyota Production System from an Industrial Engineering Viewpoint* (1989).

Process management is a way in which an individual, a group, a project, or an organization thinks about, and manages, its work activities. It is based on the following *process management premise*: *The quality of the product is governed primarily by the quality of the process used* (Shingo, S et al., 1989).

Most organizations today do not manage the process, but instead manage their products. This is the classical American management style documented and described in many books. Based on the process management premise, however, process management can be said to be fundamentally different from *product management* in that customer satisfaction is more than just meeting requirements specifications; it is focusing on finding ways to delight the customer. Based on process management, suppliers know who their customers are (internal or external) and what they need and practices are documented and understood by those performing the work. In addition, people have the skills needed to do their tasks successfully and are committed to following the process because they know it will get them through good times and bad (Shingo, S et al., 1989).

Work is completed when the defined exit conditions have been met, not when there is no more money or time and process and product measures are taken to compare quality, schedule, and cost (actuals) to estimates. Corrective actions focus on process problems and process solutions,

not on blaming people, the environment, or the tools process changes are managed and controlled (Shingo, S et al., 1989).

2.2.7 Statistical process control tools and techniques.

Statistical process control, or SPC, is a fundamental approach to quality control and improvement that is based on objective data and analysis. The origin of PC dates back to the 1920s and 1930s at the Western Electric Company and Bell Telephone Laboratories. Walter Shewhart (1891-1967) recognized that variation in a production process can be understood and controlled through the use of statistical methods. He pioneered the use of statistical methods as a tool to manage and control production. Over the next several decades, these tools were taught to engineers and production personnel throughout American industry. The need for higher-quality production to support the defense industry during World War II gave a boost to the use of SPC (Chaudhry and Higbie, 1990).

One of Shewhart's disciples, Deming, W. E (1900-1993), was a strong advocate of SPC and trained many engineers in the concept during the war years. However, he was never able to convince upper management in the U.S. of SPC's benefits and importance. When Deming was invited to train Japanese engineers in statistical methods after the war, he realized that quality improvement efforts could never be sustained without top management support. It was not difficult for him to gain the attention of every level of worker-from maintenance to CEO, since Japan was rebuilding from complete devastation. The Japanese were eager to learn and apply new tools that would help them rebuild their economy. And the rest, as they say, is history. Statistical methods, combined with strong programs in human resources and a focus on continuous quality improvement to better respond to customer needs, enabled Japanese companies to emerge as powerful global competitors within only a few decades (Chaudhry and Higbie, 1990).

When Deming's contributions to Japan became recognized in America around 1980, the modern quality movement began. Many major corporations began to experiment with quality improvement techniques, such as statistical process control. Ford Motor Company and other U.S.

automobile manufacturers began to require their suppliers to show statistical evidence of the quality of their products as part of their Q 101 Quality System Standard. Ford insisted that statistical process control be used as an integral part of suppliers' processes to assure quality and provide accurate information for continuous quality and productivity improvement (Chaudhry and Higbie, 1990).

Quantitative methods and statistical tools provide workers and managers with the tools needed to quantify variation, identify causes, and find solutions to reduce or remove unwanted variation, and monitor progress objectively. Statistical process control can help to achieve these goals when it is part of a total problem-solving effort. Simply going through the motions and providing data because the boss or customer wants it will not help to improve operations or better satisfy customers. Teamwork and participation play an important organizational role (James, R. E 2006).

The term Total Quality Management is currently undergoing a transition from a traditional to a more advanced interpretation. The traditional belief that companies' quality departments own quality (Hoerl, 1998) seems to be disappearing. A trend from what Juran calls the "little q" to what he terms the "Big Q" has been noted (Hoerl, 1998).

In the broader "Big Q" framework the traditional assumption that statistical quality control and improvement methods involve only the use of control charts is too narrow. Modern statistical quality control and improvement include all statistical methods (simple and complex) used to improve manufacturing as well as non-manufacturing processes (Hoerl, 1998).

In order to improve quality in all sectors of economy, it is important to realize that every process generates information that can be used for its improvement. No organization, be it public or private, manufacturing or service, should neglect the opportunity to take a close look at accumulated data as part of the operations. With this data it is possible to discover hidden

patterns in process deficiencies, form different hypothesis as to what might be the reasons for deficiencies (Hoerl, 1998).

TQM requires constant statistical measurement of quality to monitor performance. All members of an organization must become proficient in the use of statistics to the level required by their position or job. This means an organization must conduct extensive statistical training for all employees. Statistics is the science of collecting, organizing and interpreting numerical and non-numerical facts, which we call data. The collection and study of data are important in the work of many professions, so that training in the science of statistics is valuable preparation for variety of careers , for example economists and financial advisors, businessmen, engineers and farmers. Knowledge of probability and statistical methods also are useful for informatics' specialists of various fields such as data mining, knowledge discovery, neural network, fuzzy system and so on. Whatever else it may be, statistics is, first and foremost, a collection of tools used for converting raw data into information to help decision makers in their works (Hoerl, 1998).

When objective decisions are to be made, statistical methods should be used based on any objective information in the form of data collected about a product or process. Statistical techniques such as control charts, process capability indices and design of experiments have been used in the manufacturing industry for many years. There are a number of practical and managerial issues related to the application of statistical techniques in studies aimed at improving process and product quality. The focus should always be on continuous quality improvement using statistical techniques (Hoerl, 1998).

The success of a business depends upon the quality of the decisions it makes at each customer contact. Such decisions must reflect the business strategy, the interests of the customer, his or her value and risk to the business. In addition, because of growing customer expectations and increasing competition, businesses are under pressure to provide personalized customer service within mass market cost levels (Hoerl, 1998).

Decisions about customer interactions must take into account each customer's likely behavior. At each individual contact with the customer the business must consider the relative likelihood of the customer responding to an offer, taking his or her patronage elsewhere or causing some loss to the business. The business that can determine and implement a personalized management strategy for each customer has the means of ensuring that the most suitable decisions are made in accordance with its overall objectives (Hoerl, 1998).

2.2.8 Change management

TQM is a change in an organization's culture i.e a change of its norms, values, and belief systems and about how organizations function. It is a change in an organization's political system: decision making processes and power bases. For substantive change to occur, changes in these three dimensions must be aligned: TQM as a technological change will not be successful unless cultural and political dimensions are attended to as well (Tichey, 1983).

Many (Hyde, 1992; Chaudron, 1992) have noted that TQM results in a radical change in the culture and the way of work in an organization. A fundamental factor is leadership, including philosophy, style, and behavior. These must be congruent as they are presented by a leader. Many so called enlightened leaders of today espouse a participative style which is not, in fact, practiced to any appreciable degree. Any manager serious about embarking on a culture change such as TQM should reflect seriously on how she or he feels and behaves regarding these factors. For many managers, a personal program of leadership development (Bennis, 1989) may be a prerequisite to effective functioning as an internal change agent advocating TQM.

2.3 TQM implementation approaches.

There are several approaches which are be used to implement TQM. They include six sigma, good manufacturing practices, Hazard analysis and critical control points program, learning organization and International standards organization (ISO) programs or what's known as international organization standardization.

2.3.1 Six sigma.

Six Sigma is a highly structured, rigorous, and disciplined methodology that utilizes data and statistical analysis to measure and improve an organization's operational performance, practices, and systems. It is a disciplined process that focuses on developing and delivering near-perfect products and services, including information technology (http://www.perotsystems.com/government/Process_Improvement_SixSigma.pdf).

The Six Sigma approach measures how many "defects" there are in a process, then aims to systematically determine how to eliminate them, getting as close to "zero defects" as possible. To achieve Six Sigma quality, a process must produce no more than 3.4 defects per million opportunities (unit of output?). This means an organization needs to be nearly flawless in executing its key processes (http://www.perotsystems.com/government/Process_Improvement_SixSigma.pdf).

Since the 1920's the word 'sigma' has been used by mathematicians and engineers as a symbol for a unit of measurement in product quality variation. (Note it's sigma with a small's' because in this context sigma is a generic unit of measurement (Chapman, A. 2005).

In the mid-1980's engineers in Motorola Inc in the USA used 'Six Sigma' an informal name for an in-house initiative for reducing defects in production processes, because it represented a suitably high level of quality. Note here it's Sigma with a big 'S' because in this context Six Sigma is a 'branded' name for Motorola's initiative (Chapman, A. 2005).

The increased measurement scale to parts per million, described as 'defects per million', which prompted the use the 'six sigma' terminology and adoption of the capitalized 'Six Sigma' branded name, given that six sigma was deemed to equate to 3.4 parts - or defects - per million (Chapman, A.).

In the late-1980's following the success of the above initiative, Motorola extended the Six Sigma methods to its critical business processes, and significantly Six Sigma became a formalized in-house 'branded' name for a performance improvement methodology, i.e., beyond purely 'defect reduction', in Motorola Inc (Chapman, A., 2005).

In 1991 Motorola certified its first 'Black Belt' Six Sigma experts, which indicates the beginnings of the formalization of the accredited training of Six Sigma methods(Allan Chapman , 2005)..

In 1991 also, Allied Signal, (a large avionics company which merged with Honeywell in 1999), adopted the Six Sigma methods, and claimed significant improvements and cost savings within six months. It seems that Allied Signal's new CEO Lawrence Bossidy learned of Motorola's work with Six Sigma and so approached Motorola's CEO Bob Galvin to learn how it could be used in Allied Signal (Chapman, A. 2005).

In 1995, General Electric's CEO Jack Welch (Welch knew Bossidy since Bossidy once worked for Welch at GE, and Welch was impressed by Bossidy's achievements using Six Sigma) decided to implement Six Sigma in GE, and by 1998 GE claimed that Six Sigma had generated over three-quarters of a billion dollars of cost savings(Chapman, A. 2005).

By the mid-1990's Six Sigma had developed into a transferable 'branded' corporate management initiative and methodology, notably in General Electric and other large manufacturing corporations, but also in organizations outside the manufacturing sector (Chapman, A., 2005).

By the year 2000, Six Sigma was effectively established as an industry in its own right, involving the training, consultancy and implementation of Six Sigma methodology in all sorts of organizations around the world (Chapman, A. 2005).

That is to say, in a little over ten years, Six Sigma quickly became not only a hugely popular methodology used by many corporations for quality and process improvement, Six Sigma also

became the subject of many and various training and consultancy products and services around which developed very many Six Sigma support organizations(Chapman, A., 2005).

2.3.2 Good manufacturing practices

WHO defines Good Manufacturing Practices (GMP) as "that part of quality assurance which ensures that products are consistently produced and controlled to the quality standards appropriate to their intended use and as required by the marketing authorization?" GMP covers all aspects of the manufacturing process: defined manufacturing process; validated critical manufacturing steps; suitable premises, storage, transport; qualified and trained production and quality control personnel; adequate laboratory facilities; approved written procedures and instructions; records to show all steps of defined procedures have been taken; full traceability of a product through batch records and distribution records; and systems for recall and investigation of complaints (Gillian, C. L et al., 1997).

GMP regulations address issues including recordkeeping, personnel qualifications, sanitation, cleanliness, equipment verification, process validation, and complaint handling. Most GMP requirements are very general and open-ended, allowing each manufacturer to decide individually how to best implement the necessary controls. This provides much flexibility, but also requires that the manufacturer interpret the requirements in a manner which makes sense for each individual business (Junker, E. 1997).

GMP is also sometimes referred to as "cGMP". The "c" stands for "current," reminding manufacturers that they must employ technologies and systems which are up-to-date in order to comply with the regulation. Systems and equipment used to prevent contamination, mix-ups, and errors, which may have been "top-of-the-line" 20 years ago, may be less than adequate by today's standards (Junker, E. 1997).

One step in the GMP Lifestyle is to reinforce what is learned in training. This falls on the managers and supervisors in a plant. Therefore, it is important that managers and supervisors be involved in training, so that they can support it through reinforcement (Junker, E. 1997).

The other step is to audit to ensure that your efforts have provided adequate controls by auditing. Audits fall in the following three categories: personal, whereby every individual does a self-check to make sure that he/she is complying with all appropriate standards; internal audit, which should be performed by the quality assurance department as required by GMP, and external audits, which can consist of an legal audit agency, a consultant checking your compliance status, or you performing a supplier audit (Junker, E. 1997).

Finally, the results of audits will help you to know if you need to modify your standards of performance. No procedures should be changed without appropriate change control and approval from quality assurance. The glue that sticks the whole process together is commitment. Commitment to GMP and quality is critical at all levels of the organization, starting with top management. If you foster commitment, use this process you will help you make GMP a Lifestyle, Not Just a Regulation in the company. You will then improve the overall performance of your workforce, as well as your compliance to regulations (Junker, E. 1997).

2.3.3 Hazard analysis and control point monitoring.

HACCP is a system that relies on process controls to minimize food safety risks in the food processing industry. The acronym HACCP stands for 'Hazard Analysis Critical Control Point' (pronounced 'hás•sip'). It is useful to think of HACCP as a preventative food safety system, and not a traditional quality control inspection system. HACCP is not 'zero risk' and does not eliminate the possibility of a hazard getting into the food product. Rather, HACCP attempts to decrease that possibility to an acceptable level (Howard, B. 2001).

HACCP grew out of collaboration between NASA, the Pillsbury Company and the US Army Natick Laboratories. The objective was to provide a zero-defect food supply for the astronauts.

Testing the end product was recognized as ineffective for this purpose. Derived from a quality assurance system called "Failure Mode Analysis," the system focused on "Critical Control Points" in processing that, properly monitored, could assure a safe end product (Howard, B. 2001).

The CCP concept was introduced publicly at a National Conference on Food Protection in Denver in 1971; the report of the conference barely mentions Hazard Analysis. The merging of Hazard Analysis and risk assessment came later. Although cost was no object at that time in the space program, it soon became clear to the food industry that the HACCP system was a cheaper approach to food safety at the same time that it offered better results. Food processors in the U.S. and Europe were applying HACCP from within during the 1980s (Howard, B. 2001).

In 1985, a subcommittee of the National Academy of Sciences' Committee on Food Protection suggested that HACCP be required by regulation (Howard, B. 2001).

HACCP is not a stand-alone program and prior to its full implementation, the necessary prerequisite programs must be in place. Prerequisite programs are practices and/or conditions needed prior to and during HACCP which are an essential part of the overall food safety plan. Typical prerequisite programs include Good Manufacturing Practices (GMPs), raw material control programs, vendor certifications, standard operating procedures (SOPs), and recall and trace back procedures (Goodrich, R. M. et al. 2005).

2.3.4 Learning organization

The concept of the learning organization and detailed procedures for its development have been available for some considerable time through populist sources such as Senge (1990) and Senge *et al.* (1994), but also through a wealth of academic articles and books. Unfortunately progress still remains painfully slow, e.g. Hitt (1996). Garvin's comments (1993) are as topical as ever: "... despite the encouraging signs, the topic (building a learning organization) in large part remains murky, confused, and difficult to penetrate". In this same vein we contend that with absent

capability and disposition for an organization to measure its progress, further headway in substantive wide-scale learning organization development is seriously jeopardized. Goh and Richards (1997) argue that learning organization implementation has been hindered by the lack of a measurable approach. A review of the literature supports this view, providing only very few examples of progress assessment (Leitch *et al.*, 1996; Gardiner and Whiting, 1997); there is a similar lack in even the measurement of learning activity (Allen et al. 1997).

Learning activity can be simply measured by the extent and types (adaptive and generative) of learning going on in the organization This is the best approach to assessing progress toward learning organization ideals. However, the issue of assessment of learning is itself problematic. Pondering the issue of assessment reveals a puzzle. If the "learning organization" is achievable, in some respect it should be measurable; however, the issue of what constitutes "learning" or "organizational learning" needs to be problematic. The question of what we mean by "learning" in the context of the learning organization is an epistemological issue (Gardier et al., 1997).

Understanding of how a learning organization might structure behavioral change, several assessment approaches which are practical and consistent with the tenets of field theory can be used. These approaches include approach based in a three "field" system (focus, will, capability) for modeling performance, where performance is driven by the general business or learning organization outcomes desired (Smith, 1993; Smith, 1997) and an approach based on a model of organizations as "energies" of consciousness (Tosey, 1994).

2.3.5 ISO Program.

ISO is a network of the national standards institutes of 148 countries, on the basis of one member per country, with a Central Secretariat in Geneva, Switzerland, that coordinates the system. ISO is a non-governmental organization: its members are not, as is the case in the United Nations system, delegations of national governments. Nevertheless, ISO occupies a special position between the public and private sectors. This is because, on the one hand, many of its member institutes are part of the governmental structure of their countries, or are mandated by their

government. On the other hand, other members have their roots uniquely in the private sector, having been set up by national partnerships of industry associations (Tony, 2000).

Therefore, ISO is able to act as a bridging organization in which a consensus can be reached on solutions that meet both the requirements of business and the broader needs of society, such as the needs of stakeholder groups like consumers and users. ISO started publishing standards in the 50s, and international trade (the global economy) exploded. By the 80s the problem was no longer a lack of specifications to define products, but some company's inability to make the product to meet the specification. So ISO 9000 was developed to establish a minimum standard for Quality Management Systems which would ensure that product shipped conformed to the specifications (hopefully ISO standards) agreed to by the buyer and seller. With global trade came global competition and price pressure. It is inefficient for a company to send a representative to a foreign land to check up on a quality management system for a minimum purchase. And despite the best efforts of the Quality Gurus Juran and Deming (and others), companies were not doing a good job staying with quality programs. These two circumstances lead to the decision to establish registration to ISO 9000 (Tony, 2000).

ISO 9000 is a series of 5 standards include ISO 9000 a guideline for use of the ISO 9000 standards , ISO 9001 Quality Management Systems for Manufacturing, Design and Development , ISO 9002 Quality Management System for Manufacturing (no design) , ISO 9003 Quality Management System for Final Inspection and ISO 9004 Guide to continuous Improvement (Tony , 2000).

Frequently people are concerned with which standard to chose; 9001, 9002, 9003. The selection is simple, use the one which fits. Design and Development mean you are design responsible. The customer wants a solution to a problem; you design, develop, and make it. If so, you are 9001. However, if the customer is responsible for the design, even though you might help and offer comments, then you are 9002. Basically no one is 9003 any more; it is going away in 2000. The ISO standards are "consensus" standards which are developed by technical committees (with

members to represent USA), and published as Draft International Standards (DIS) which are then approved by 2/3 of the 127 member ISO countries and become ISO standards (Tony , 2000).

ISO 9000 was first published in 1987, and about 90,000 companies were registered to it. Then in 1994 the standard was revised to the current version. The changes were minor and pretty much to clarify what was there, not to make changes. Another 150,000 companies registered to the 94 revision, and the others "upgraded." A new version was published 12/13/00. Organizations registered to the '94 version will have to transition to the '00 version in 3 years, or by 12/13/03. And yes, TC 176 is busy on a new ISO 9001:2006. Registration to ISO 9000 means hiring an accredited registration firm to come and audit your organization to the appropriate ISO 9000 standard. Upon successfully completing the audit, and closing any open nonconformance, the registrar's committee decides to enter you in their list of registered companies and issue a certificate to attest to that. It's like getting married. The signing of the registry is the crucial act, the marriage certificate merely indicates what you did (Tony, 2000).

2.4 CQI Climate survey.

By definition a Climate Survey is a Problem-Opportunity Assessment Survey which examines the clarity of goals and missions in an organization. It examines if and how organization members are given the opportunity to develop their talents. The survey takes stock of the organization's management style, including if and how moral or intellectual strength is encouraged and displayed by the group. The survey in an organization looks at the extent of inter-department and intra-department cooperation, communication and commitment is achieved. It asks if everyone in the organization understands why they do what they do and how does their effort fit in with what is done in other departments (Bonoma & Zaltman, 1981).

It is a TQM tool which is meant to measure the employees' perceptions such as internal customer focus, common understanding of external customer requirements, use of statistical tools for measuring process performances and process management during the course of implementing the concepts of continuous quality improvement (CQI) (Bonoma & Zaltman, 1981).

Unlike a financial statement that tells in numbers what has happened in the past, a Climate Survey examines people's perceptions of the present. By understanding how the organization is doing presently, gives management the information to recognize how well its intentions are being understood and implemented. This speaks to the future (Bonoma & Zaltman, 1981).

The concept of organizational climate survey is usually attributed to Lewin (1951) with his field theory motivation.

The concept became popular in the industrial and organizational literature particularly in the 1960's and 1970's with the book of Litwin and Stringer (1968) and the two major reviews of Forehand and Gilmer (1964) and James and Jones (1974). The topic remains one not only of considerable theoretical speculation and research (La Follette, 1975; Qualls & Puto 1989, Kozlewski & Doherty 1989), but also disagreement (Jackofsky & Slocum, 1988; Payne, 1990).

Attempting to define or operationalize the concept, many researchers quote Forehand and Gilmer (1984) who noted: "Organizational Climate is the set of characteristics that describe an organization and that (a) distinguish one organization from another (b) are relatively enduring over a period of time and (c) influence the behavior of people in the organization."

However, the concept proved ambiguous, nebulous and controversial. The main problems in the conceptual clarification concern whether climate should be conceived of in terms of the objective (physical or structural) features of the organization or the subjective (perceptual) reactions to the organization. Hence Guion (1973) argued that a perceived climate concerned both the attributes of an organization and those of the perceiving individual and that as most often conceived climate was simply an alternative label for affective responses to organization, like job satisfaction. James and Jones (1974) suggested the psychological climate be used to emphasize the fact that it is the aggregated cognitive interpretations of an organizational work-force which arise from experience in the organization and provide a representation of the meaning inherent in the organizational features, events and processes (Schneider,1983 ; Kozlowski and Farr, 1988).

An important but related issue concerns the amount of consensus within an organization concerning the perceived climate. Pace and Stern (1958) suggested a two-third agreement but Guion (1973) has argued that it should be 90% for the concept of climate to be invoked. Payne (1990) has argued that the concept of organizational climate is invalid because people in different parts of the organization have radically different perceptions of the organization (hence the perception is not shared) and that where perceptions are consensually shared, in small groups, they are not representatives of the climate of the whole organization. Thus for Payne (1990) it is possible to have departmental but not organizational climates.

Climate may be conceived of as an independent variable, as for instance in the work of Campbell, Dunnette, Lawler and Weick (1970), it is assumed that organizational climate itself directly influences (causes) various work outcomes both positive like productivity, satisfaction, and motivation, and negative like absenteeism, turnover and accidents. Other have considered climate a dependent outcome variable that is the result, and not the cause of, organizational structure and process. In this sense climate may be a useful index of organization's health but not a causative factor of it. Climate as a moderator variable in that climate may be the indirect link between two organizational outcomes. Thus climate is also seen as a moderator variable between job satisfaction and productivity. Various untested but heuristically satisfying models consider climate as one of a number of powerful moderator variables (Litween and Stringer, 1968). Finally, some researchers believe that climate is epiphenomenal, neither a direct cause or effect variable but one that emerges in some form in all organizations with no influence on it.

There are many models which use the concept of climate (Litwin and Stringer, 1968, Bonoma and Zaltman, 1981) but very few specify the exact relationship between climate and other organizational processes. Few researcher and model builders have acknowledged that the climate may be both an independent and dependent variable simultaneously. Few studies have tested any longitudinal path-analytic models to find out what major factors influence climate and which are influenced by it; thus this seems an important and relevant theoretical and empirical avenue to pursue.

There are numerous ways of measuring organizational climate. The first is categorical, which attempt to classify organizations into pre-existing theoretical types. The second is dimensional, which is thought to capture or fully describe the organizational climate (Bonoma & Zaltman, 1981).

The first or categorical approach has not been very popular or successful. Examples of this approach can be seen in the work of Ginsberg (1978), who described three basic climates (inception, post-entrepreneurial and bureaucratic) and Halpin and Croft (1962) who felt climates could be categorized as either open autonomous, controlled, familiar, paternal or closed. Although this approach has attracted a certain amount of research (Hall 1971) its limitation are those of all typologies -- lack of fine discriminability, inappropriate categories, and most importantly the idea that organizational climates are multi-dimensional and should be measured on various salient albeit related, dimensions.

A number of dimensional organizational climate measures exist. Litwin and Stringer's (1968) 50 items Organization Climate Questionnaire is designed to measure nine characteristics reflecting the degree of organizational emphasis on Structure, Responsibility, Reward, Risk Warmth Support, Standard, Conflict and Identity.

Several additional measures have often been utilized in psychological/organizational research. For example, House and Rizzo (1972) developed the Organization Description Questionnaire. Taylor and Bowers (1972) popularized the University of Michigan Survey of Organizations. The survey has 22 items designed to measure organizational climate. Similarly, Payne and Pheysey (1971) offered a Business Organization Climate Index which is a refinement of Stens's (1967) Organizational Climate Index. Other Measures were also developed by Jones and James (1979), Halpin and Croft (1963) and Pritchard and Kurasick (1973).

Climate survey is intended to produce a measure that is comprehensive particularly as it could be used as a before and after measure to evaluate the efficacy of certain subject measures of

structural variables and that "social structures are designed to produce certain patterns of behaviour and belief". This measure is concerned exclusively with personal belief and behaviours which inevitably reflect the organizational structure. It would be impossible in devising a sensitive and comprehensive measure completely to separate the two hence the term Employee Perception Questionnaire (Bonoma & Zaltman, 1981).

2.4.1 Organizational climate Survey Benefits

In CQI climate survey employee opinions matters. Their suggestions, their criticisms, and their perceptions are taken and changes made based on those suggestions. As well, employee's opinions on key performance improvement behaviors are assessed, including team building, empowerment, work facilitation, and customer service. Climate survey also pinpoints real and potential trouble spots and the nature of the trouble (departments, employee positions, etc.) before it surfaces in grievances, turnover, absenteeism, or negative financial performance. It helps at the full organizational level, within individual departments, and with individual managers in diagnosing developmental needs, while helping to create the readiness to accept and use different behaviors (Bonoma & Zaltman, 1981).

Managers are often unaware when organizational systems create frustration, and reward inappropriate behavior as well as inefficient and ineffective performance. CQI climate survey can be used in this area as diagnostic tool to look for systemic problems. It also helps to identify which departments and services can handle experimental and/or expanded activities, and build on your strengths (Bonoma & Zaltman, 1981).

It is difficult and dangerous to take action based on rumor and innuendo and climate survey can help to find out, in a measurable and quantifiable form, how the average employee feels, including those who usually don't speak up (Bonoma & Zaltman, 1981).

2.5 Business improvement initiatives through CQI climate survey.

Application of CQI climate survey has helped several organizations to improve performance. For example, several federal agencies of America were relying heavily on numerical objectives. Managers never knew and were not involved in the processes to understand the issues, and set examples for their subordinates to follow. In addition, evaluation using organized performance appraisals, merit ratings, or annual reviews of performance sometimes resulted in rankings, forced quotas, and many grading categories that acted to create competition, and led to breakdown of teamwork within the federal agencies. Besides, Federal agencies' management never acted to ensure employees believe the organization will give priority to long-term improvement over short-term gains. In fact, when an organization has no consistency of purpose, the workers are unsure as to their continued evolvement in the organization. An organization must have a constantly pursued long-range plan that promises attention to quality (Bonoma & Zaltman, 1981).

Many Federal agencies, in this case started to conduct climate surveys to facilitate an understanding of their organization's climate and to target opportunities for improvement. National agricultural statistics services (NASS) as an example conducted Organizational Climate Surveys in 1982, 1983, 1990, and 1993, primarily to assess employee perceptions of their working conditions (Beckler and Messer, 1997). Other examples of Organizational Climate Surveys in Federal statistical agencies include the Bureau of Economic Affairs' 1995 Diversity Climate Assessment Survey; the National Center for Health Statistics' 1994 Management Needs Assessment Survey; and Energy Information Administration's (EIA) 1994 and 1995 Organizational Climate Surveys. Additionally, EIA was at the forefront in conducting customer surveys, having contacted customers over the past three years by telephone, mail-in response cards as well as by Internet (Bonoma & Zaltman, 1981).

Other organizations which have benefited in organizational climate survey include, Indianapolis Department of Public Works. This department started a TQM process that was modeled after the Florida Power and Light (Qualtec) process. All department employees were involved (approximately 900 people). The process has recently been updated to meet their needs. The

result of their Climate survey process has improved employee morale (www.indygov.org/eGov/City/DPW/.)

Motorola has a successfully working TQM process. Motorola's fundamental objective (everyone's overriding responsibility) is Total Customer Satisfaction. They have won the Baldrige award and are corporate leaders in TQM. They will tell you that implementing TQM was a sound business decision and a matter of survival for them. They as well, require a working TQM process of all contractors doing work for them (www.motorola.com/).

In Bechtel, TQM was started in 1987 and has recently been reorganized into CCI (an acronym for Commitment to Continuous Improvement). The initiatives for their TQM process were obtained from their customers by using a organizational climate survey questionnaire. They use Baldrige criteria to measure success in the CCI process. They do not seek the award, just the benefits of the process. Bechtel's facilitator has worked under the Deming philosophy for four years and has told top management that he does not want to go back to the old way of doing business; neither do their customers nor their employees. Since TQM is organization specific as in the cases above, the need to assess Continuous quality improvement through CQI Climate survey in Colgate-Palmolive Kenya is no less than any industry (www.bechtel.com/).

2.6 CQI studies carried out in Kenya.

Studies have been carried on TQM implementation in several institutions in Kenya. Odero (2000) sought to establish the existence of non-quality situations in the training process at Kabete Technical Training College. The purpose of this study was to establish the existence of non-quality situations in the training process at Kabete TTI and identify the root causes of poor performance in diploma examinations and come up with TQM based suggested improvements.

Non-quality situations were identified in the internal examinations handling. The manner in which stage and terminal examinations were being handled from typing to administration, laid them open to abuse. Consequently, cases of examination leakages were common in the institute. These had the potential of giving misleading feedback on the students' ability. As a result remedial cases that would have been revealed and appropriately rectified before final examinations remained undetected.

From the analysis of the findings and views of the lecturers, it was concluded that 'people' were the main cause of poor performance in diploma examinations followed by 'materials'.

It therefore becomes evident that in order to improve performance of diploma students in national examinations Kabete TTI must streamline and strengthen the 'people' category which includes effective leadership of the principal, the lecturers, students and support staff. These people should work as a team towards a common goal of ensuring that all students who enter the institute got out qualified and delighted.

Omufira (2001) sought to establish the extent of TQM implementation in construction industry. The foregoing analysis showed that members of construction industry have heard about the TQM ideology and some of them are indeed practicing it given that they are ISO certified (ISO 9001).

The general conclusion was that poor or lack of TQM implementation was a major drawback. Several factors came out clearly from the study as contributing to the state of affairs. They include, communication channels were not clear, non-involvement of construction workers in the setting of goals to their work is evident from the information gathered; the construction workers being important players in TQM implementation were not involved in decision making. Lack of motivation was evident from the neutral stand point adopted by some respondents regarding TQM related activities and the definition of quality especially among the consultants and contractors was varied implying that it may be difficult to agree on what quality is in the construction process. This explains the different definitions checked by respondents.

Miyumo (2003) carried out a study on change management practices in TQM implementation: A survey of ISO 9000 certified firms in Kenya. The study established that implementation of TQM is a change process that result in the significant changes in organizational structure, culture and processes. Change management concepts are very much applied by Kenyan firms during TQM implementation.

The study results indicate that the most important factors for a successful TQM implementation in Kenya are; early involvement of people being affected by changes, commitment/buy in of senior management , appropriate training and coaching for people involved, commitment/buy in of middle management and vocal and visible support of senior management creating an open communication and collaboration atmosphere aligning company procedures and systems to support the initiative, appropriate resources and management systems establishing a shared and motivating vision, communicating and explaining the changes involved with the implementation and that TQM should evolve from organization's strategic plan. These results support those advocated by change writers including Goldsmith and Clutterbuck (1885) , Kanter (1984) , kotter (1996) and Kanter et al. (1992).

The study also established that there are also no significant differences in the change management practices in TQM implementation between local, foreign and jointly owned firms.

However, no CQI climate survey has been done in Kenya to help in implementation of Continuous Quality Improvement within a manufacturing firm. According to Harrington (1995), 'all organizations need to be assessed through CQI Climate survey for a steady growth and improvement'. It does keep organizations focused on business goals and priorities (Lillrank et al., 1998).

CHAPTER THREE

RESEARCH METHODOLOGY

3.0 Research Design

A case study research design was used for assessing CQI climate that prevails within Colgate – Palmolive Kenya and determine whether it is conducive for CQI implementation. This type of research design was chosen because it describes characteristics of behavior or condition and is the most appropriate for studying a subject in details and brings up its unique issues.

3.1 Population

The target population was Colgate –Palmolive Kenya employees who were 110 out of which 43 held management positions and 67 were subordinate staff. The organization was chosen for research because it had a number of TQM approaches which had been implemented without yielding significant results.

3.2 Data Collection

Primary data was collected by use of structured questionnaire (See Appendix 2). There were five parts in the questionnaire. Part A was designed to collect bio-data and parts B to G with open and structured questions were designed to collect data pertaining to internal customer focus, driving process improvements, and understanding of external customer requirements and use of statistical tools in measuring process performance respectively. Secondary data was obtained from senior management. This included the documents and records from Colgate – Palmolive Plc.

3.3 Data Analysis

The primary purpose of conducting this CQI climate survey was to collect data that would help answer important research questions. Once collected, the data was collated, organized, summarized, and described. Summary measures such as means were calculated and tables and graphs created that illustrate important findings. Such activities are appropriate, necessary, and important but not sufficient to allow conclusions to be drawn from CQI climate survey data to be

collected. In this case, the quantitative data were obtained from responses presented on a likert scale which needed to be analyzed in order to provide a complete picture of the prevailing CQI climate of Colgate-Palmolive Kenya. First, items in the survey were grouped together to create scales (composite measures) for all parts in the questionnare.

Analysis of the opened ended questions was done to describe and summarize the mass of words that were generated through. This was to allow the researcher to identify opinions or suggestions between various themes that were identified.

CHAPTER FOUR

Research Findings

4.0 Introduction

The response rate achieved was 92% i.e. 101 employees responded to the questionnare. The counts were compiled manually hen entered directly into the worksheet. Each statement in the questionnare was rated using likert scale and average rating obtained.

4.1 Data Summary

4.1.1 Survey results tally

SURVEY ITEMS	SURVEY RESULTS TALLY							
Likert Scale	Strongly disagree (5)	Disagree (4)	Neutral (3)	Agree (2)	Strongly agree (1)	No. of respondents	No response	Likert scale Average Rating
Internal Customer focus	548	319	169	99	76	1212	108	3.959
	43%	28%	14%	9%	5%	72%	18&	Approx 4.
Driving process improvements	294	282	48	68	15	707	63	4.092
	42%	40%	7%	10%	2%	81%	19%	Approx 4
Understanding external customer requirements	116	193	115	37	44	505	45	3.594
	28%	29%	27%	7%	9%	57%	43%	Approx 4
Use of	119	63	110	38	74	404	36	3.285

statistical tools in measuring process performance	27%	26%	69%	21%	18%	53%	47%	Approx. 3
Challenges	101	0	0	0	0	101	9	5.000
	100%	0%	0%	0%	0%	100%	0%	5
Secondary data	266	199	79	55	209	808	72	3.590
	33%	25%	10%	7%	26%	58%	42%	Approx. 4

SOURCE: Research Data

In relation to internal customer focus, the total counts of disagree (both strongly disagree and disagree) was 867. This makes 72% of the total counts which indicated that there was no internal customer focus in Colgate-Palmolive Kenya. Neutral achieved 169 counts which make up 14% whereas total counts of agree (both strongly agree and agree) were 175 which make up 23% of the total counts. Average likert scale rating which was achieved is 4. 85% said that they didn't know what is expected of them at work.

Same percentage of counts indicated there were no enough materials and equipment to do proper work. 39% remained neutral on whether employees receive praises from their bosses. This showed that the employees never wanted to reveal what's happening. Besides, there was no teamwork and workers were not encouraged to apply better methods. As well, the study revealed lack of caring values and respect and when something went blame game took centre stage. Departmental work plan was also affected.

Total counts of disagree (both strongly disagree and disagree) achieved as per driving process improvements was 576. This made 81% of the total counts which indicated that there were no drivers of process improvements in C-P Kenya. Neutral achieved 48 which made 7% of the total counts whereas total counts of agree (both strongly agree and agree) was 83 which was 12% of the total. The average likert scale rating which was achieved is 4.092. It was revealed that some departments didn't have operating procedures. This can be proved by 55% disagree on Standard operating procedures. As well, blaming, poor work assignments, lack of documentation, lack of application of new skills and de-motivation were some of the issues revealed and known to hinder process improvements.

Total counts of disagree (both strongly disagree and disagree) achieved as per understanding external customer requirements was 309. This make up 57% of the total counts which indicated that employees didn't understand the requirements of the external customers. 115 remained neutral which was 27% of the total counts whereas total agree (both strongly agree and agree) was 81.This was equivalent to 16% of the total counts. The average likert scale rating which was achieved is 2.7 which is approximately 3. The study revealed that employees were neither involved in customer complaints nor in corrective actions.

Total counts of disagree (both strongly disagree and disagree) achieved as per use of statistical tools in measuring performance is 299. This was equivalent to 63% of the total counts. 63 counts remained neutral which was equivalent to 13% whereas total agree

(both strongly agree and agree) counts were 112 which made up 24% of the total. The average likert scale rating which was achieved is 3.285 which is approximately 3. The study revealed that application of quality tools and techniques was the work of the managers.

Total counts of disagree (both strongly disagree and disagree) achieved as challenges was 101. This make up 100% of the total counts which indicated that employees didn't have forums to address challenges. The average likert scale rating which was achieved is 5.

Total counts of disagree (both strongly disagree and disagree) achieved as secondary data were 808 which made up of the 58% of the total. 33% of counts mostly from managers indicated that quality documents and manuals were received in C-P Kenya. The study indicated that the documents were received from C-P inc but didn't find their way to the subordinates from managers offices.

4.1.2 Activities that make up continuous quality improvements

NUMBER	ACTIVITIES	COUNTS	PERCENTAGES
1.	GMP	15	14.85%
2.	Quality standards	23	22.77%
3.	MSI Reports	1	0.99%
4.	Validations	9	8.91%
5.	Don't know	53	52.28%

SOURCE: Research data

The total number of those never knew the activities of continuous quality improvements were 53 compared to 48 who mentioned various programs. This was equivalent to 52% of the total respondents. Quality standards and GMP achieved the highest percentages in the

ratings. MSI and validations were not well known according the study. It can be concluded that, employees were not involved application of quality tools and techniques.

4.1.3 Meetings to discuss issues pertaining to CQI.

NUMBER	NUMBER OF MEETING TIMES	COUNTS	%
1.	0 times	95	94.06%
2.	1 – 2 times	1	0.99%
3.	3 times	3	2.97%
4.	4 and above	2	1.98%

SOURCE: Research data

94% of the employees agreed that there were no continuous quality improvement meetings. 5% in total was received from managers who often meet to discuss quality improvements. This is an indication that managers didn't involve employees in quality issues.

4.1.4 Meetings with external customers.

NUMBER	NUMBER OF MEETING TIMES	COUNTS	%
1.	0 times	84	84
2.	1 time	0	0
3.	2 times	0	0
4.	3 times	17	17
5.	4 times	0	0

SOURCE: Research data

The total percentage of those employees who said they didn't meet was 84%. 17% was obtained from managers especially in sales and marketing who often meet the external customers. This is an indication that managers didn't involve employees in fulfilling external customer requirements.

4.1.5 Tools applied in workstations.

NUMBER	TOOLS	COUNTS	%
1.	Graphs/Histograms	38	38
2.	MSI Ratings	2	2
3.	V Look up	1	1
4.	Regression analysis	1	1
5.	Process capability	1	1
6.	On shelf quality rating	3	3
7.	SPSS	1	1
8.	Quality ratings	3	3
9.	Don't know	54	54

SOURCE: Research data

The tools which received highest percentages were graphs/histogram. They are mostly applied by managers. 54% of the employees said that they didn't apply quality tools in their work stations. This is an indication that employee involvement was lacking in C-P Kenya.

4.1.6 Challenges faced.

The Challenges employees faced include, raw materials variances, lack of motivation, suspicions, meeting unrealistic deadlines, enforcing hygiene requirements, focusing on

products other than people, lack of teamwork, old equipment, lack of employee satisfaction, lack of employee involvement and empowerment, lack of communication, uncertainties. This is an indication that TQM needs re-visiting by the senior managers.

4.1.7 List of things managers need to give priority

NUMBER	LIST IN ORDER OF PRIORITY	COUNTS	%
1.	Trainings	33	32.67
2.	Internal customer focus	15	14.85
3.	Employee empowerment & involvement	13	12.87
4.	Improvement on communication.	10	9.90
5.	Form quality teams	9	8.91
6.	Promotions	5	4.95
7.	Work on motivations	5	4.95
8.	Buy new equipment	3	2.97
9.	Value employees equally	3	2.97
10.	Remove biasness at work.	2	1.98
11.	External customer focus	2	1.98
12.	Improve on tools and techniques	1	0.99

SOURCE: Research data

Training, internal customer focus, employee empowerment and involvement and communication were given a lot of weight by the employees. Managers need to adopt them in TQM implementation.

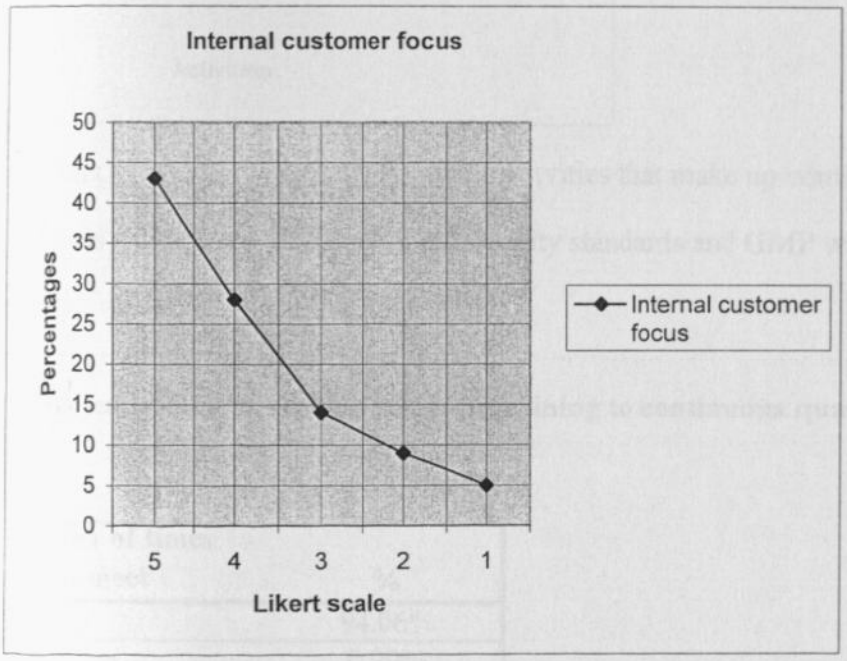
CHAPTER FIVE

Findings, Conclusions, recommendations and Limitations

5.0 Summary of findings.

5.1 Internal customer focus

Likert scale	5	4	3	2	1
Internal customer focus	43	28	14	9	5



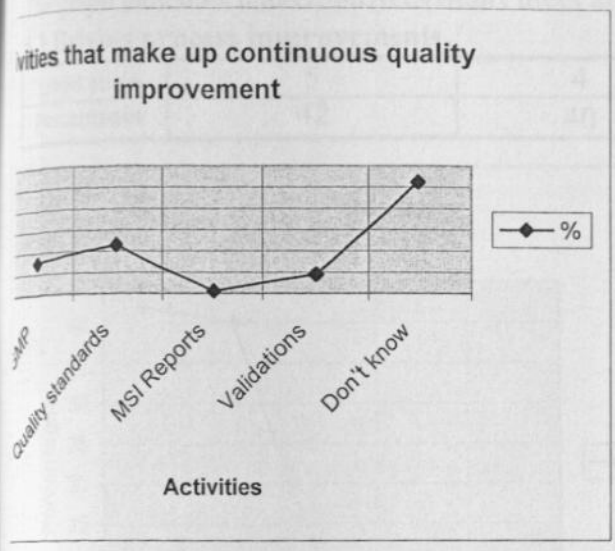
Source : Research data.

The highest score in internal cusomer focus was obtained under strongly disagree. It was 43% followed by 28% of disagree. Therefore , total disagree was 71% hence no internal customer focus In Colgate - Palmolive Kenya.

13. List of activities that make up continuous quality improvement in Colgate - Palmolive Kenya.

#	Activities	%
1	GMP	14.85%
2	Quality standards	22.77%
3	MSI Reports	0.99%
4	Validations	8.91%
5	Don't know	52.28%

Source : Research data.



: workers didn't know anything about the actvities that make up continuous quality

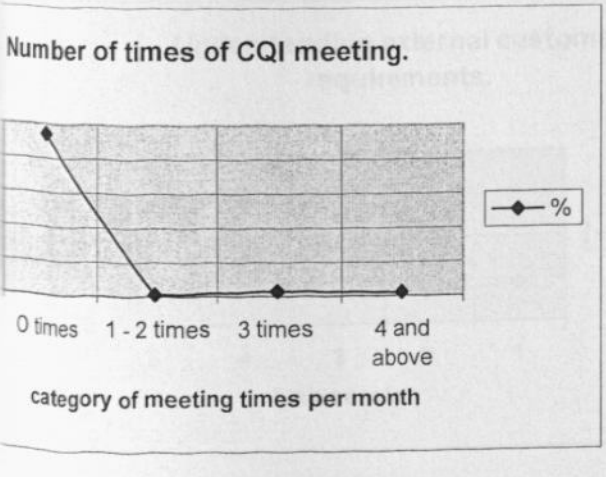
.The ones which were well known are Quality standards and GMP which achieved 23'

ctively.

f times teams meet to discuss issues pertaining to continuous quality

Number of times people meet	%
0 times	94.06%
1 - 2 times	0.99%
3 times	2.97%
4 and above	1.98%

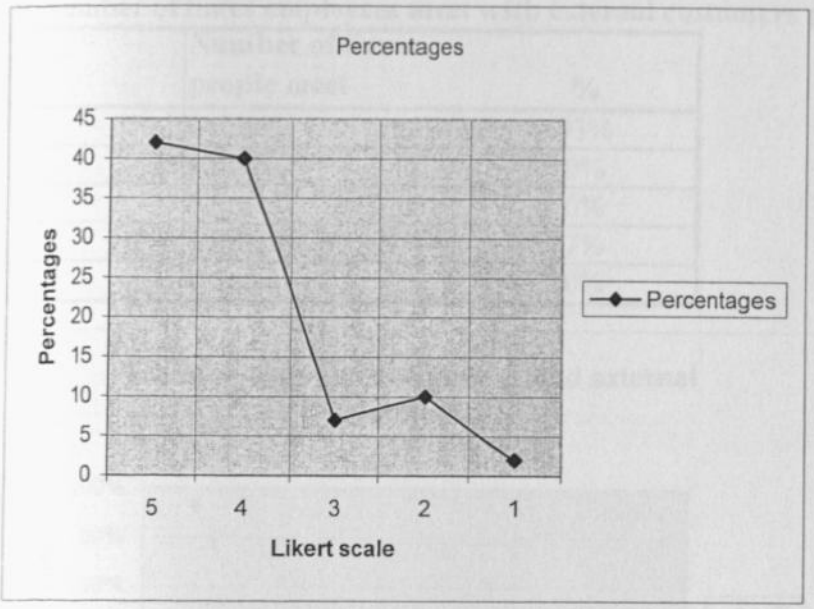
Source : Research data.



The graph indicates that employees didn't meet apart from meetings held by senior managers.

5.2 Driving process improvements.

Likert scale	5	4	3	2	1
Percentages	42	40	7	10	2

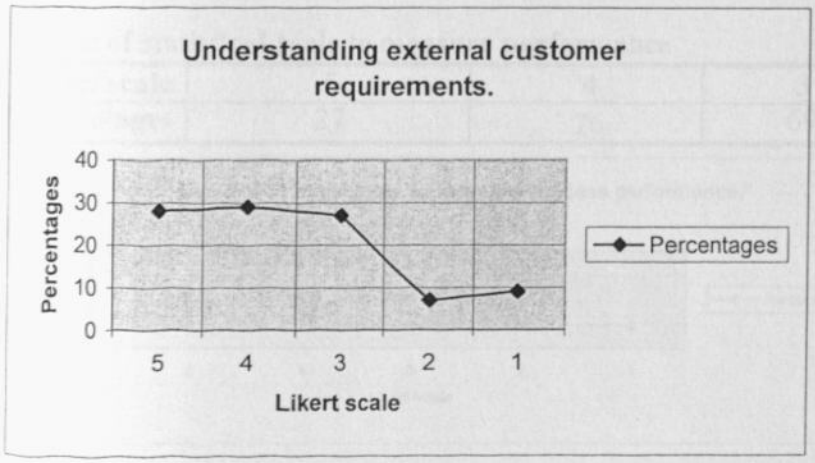


Source : Research data.

It can be concluded that from the graph Colgate - Palmolive Kenya needs to work on the process improvements since 82% disagreed that there were well organized drivers of process improvements.

5.3 Understanding external customer requirements.

Likert scale	5	4	3	2	1
Percentages	28	29	27	7	9



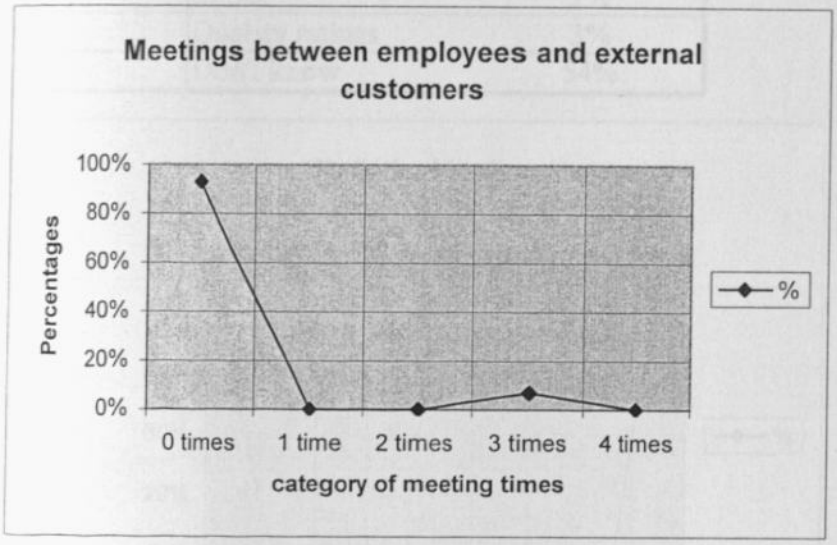
Source : Research data.

External requirements seemed be known by the line , middle and senior managers.33% remained neutral on the matter.

6. Number of times employees meet with external customers per year.

#	Number of times people meet	%
1	0 times	93%
2	1 time	0%
3	2 times	0%
4	3 times	7%
5	4 times	0%

Source : Research data.

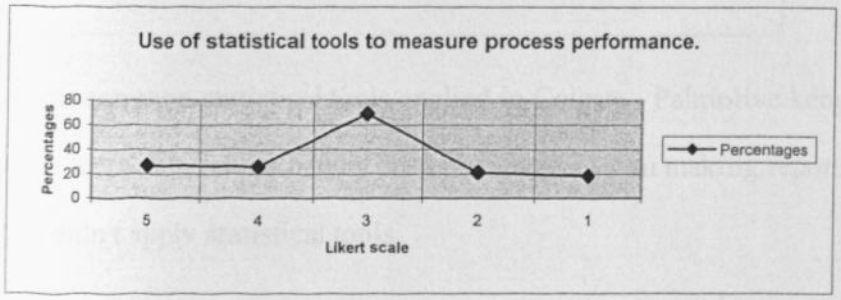


7% in the graph represents meetings between senior managers and external customers.

The rest of the employees didn't meet them.

5.4 Use of statistical tools to measure performance

Likert scale	5	4	3	2	1
Percentages	27	26	69	21	18



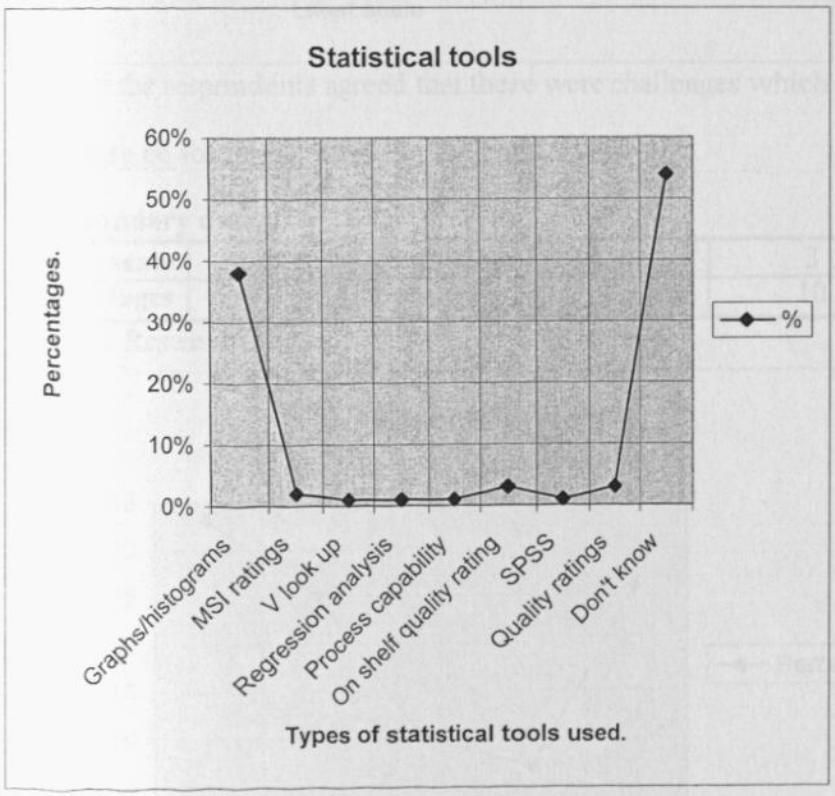
Source : Research data.

Surprisnlgy 69% of the people remained neutral. Only 40% of employees who make up the college graduates said that they know how to apply quality statistical tools.

5. Response on List of statistical tools applied in workstations.

#	Activities	%
1	Graphs/histograms	38%
2	MSI ratings	2%
3	V look up	1%
4	Regression analysis	1%
5	Process capability	1%
6	On shelf quality rating	3%
7	SPSS	1%
8	Quality ratings	3%
9	Don't know	54%

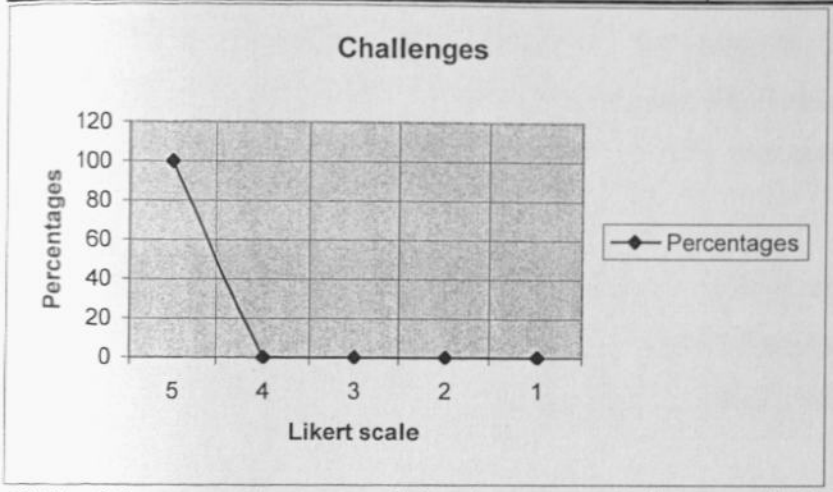
Source : Research data.



The most common statistical tools applied in Colgate - Palmolive kenya were graphs/histograms. The rest seemed to be applied by senior managers when making reports. However, majority (54%) didn't apply statistical tools.

5.5 Challenges

Likert scale	5	4	3	2	1
Percentages	100	0	0	0	0



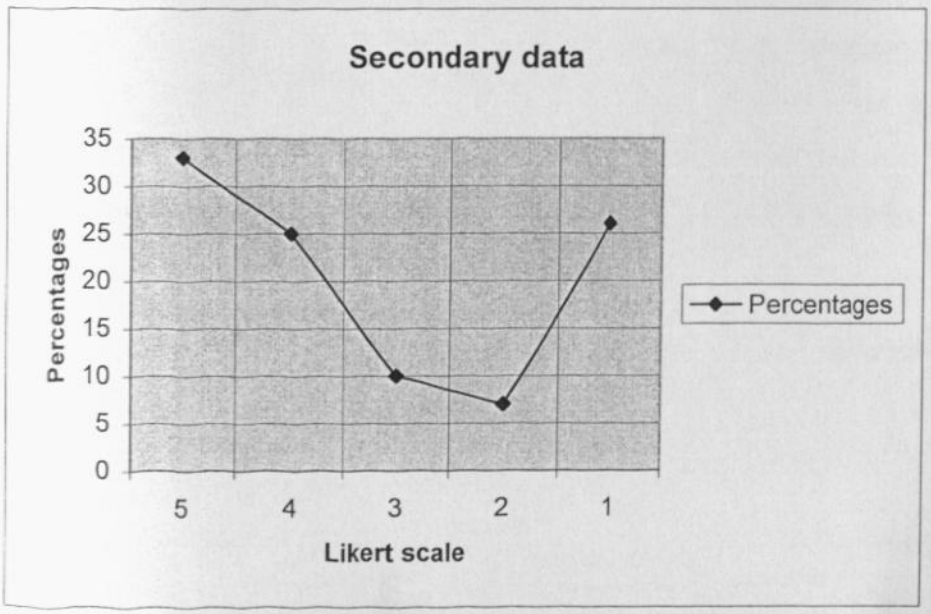
Source : Research data.

100% of the respondents agreed that there were challenges which they faced at work place. Howevei there were no forums to address such challenges.

5.6 Secondary data

Likert scale	5	4	3	2	1
Percentages	33	25	10	7	26

Source : Research data.



The graph shows that managers received quality manuals and other necessary documents but didn't share with employees.

5.7 Conclusions

5.7.1 Internal customer focus.

With 71% total disagree; it is a fact that there was no internal customer focus in Colgate-Palmolive Kenya. The company did not place the employees in the top spot on their organizational chart. Leaders in this company didn't share the philosophy of former UPS CEO Nelson, K (1995), who said, "Employee satisfaction equals customer satisfaction."

85% of employees said that they didn't know what is expected of them at work. As well, 85% of employees said that they were using outdated machines to do job. Besides, they were faced with challenges of dealing with unthankful bosses who don't even encourage or motivate them to work.

Teamwork among employees was lacking hence their opinions were not taken serious at the work place. As well, no opportunities to learn new things and the managers were found not to care at all.

Blame game with poor planned jobs was rampart in all workstations according to the outcome of the study. When told to list one of the activities that make up continuous quality improvement, 53% of the employees said that they didn't know. This was an indication that, there was no flow of information to the workers through trainings.

In addition, 95% of the employees said that they didn't have continuous quality meetings in their departments.

In conclusion, there were no management policies that enhance internal customer-based focus. To achieve a better legendary internal customer service Colgate-Palmolive Kenya need to weaken the tendency to build territorial walls and adopt ways of creating forums to share

information, practice proactive information-sharing and create, or contribute to, an environment in which status is accorded to those who share freely and not to build walls.

The concept of internal customer is significant as it dramatically makes the case that an organization cannot meet the needs of its external customers if each output passed within the company is deficient. For example, if each handoff within the organization is less than 100%, the resultant output will always fall short of customer expectation (Nelson, K 1995).

5.7.2 Driving process improvements.

Process management is a way in which an individual, a group, a project, or an organization thinks about, and manages, its work activities. It is based on the following *process management premise*: *The quality of the product is governed primarily by the quality of the process used* (Shingo, S et al., 1989).

81% of the employees said that driving aspects of process improvements were lacking in Colgate-Palmolive Kenya. 75% of the workers said that they didn't understand all processes in their workstation. 55% didn't have standard operating procedures at their work stations meaning they relied on what they were told to do. 83% of the employees said that they blamed each other when mistakes happen in their workstations. Corrective actions didn't focus on process problems and process solutions, but on blaming people. Poor planning of work and lack of documentation and motivation characterized most of the workstations according to the outcome of the study.

5.7.3 Understanding external customer requirements.

57% of employees said that they didn't understand external customer requirements. The 16% of the employees who understood the expectations of the external customers were drawn from sales and marketing and the senior managers. Ever since they started working in Colgate-Palmolive Kenya, 75% said that they have not had opportunity to meet their external customers. They also said they didn't know whether customer complaints are received and if

they were, they were not involved in corrective actions. They also said that they didn't know whether expectations of the external customers were met.

84% of the employees said that they have not met their external customers ever since were employed.

5.7.4 Use of statistical tools to measure process performance.

53% of the employees said that they didn't apply quality tools and techniques anywhere. 75% said they didn't know how to measure the quality of their work. 55% didn't review the quality of their work and 45% didn't study the cause of a problem before making changes. 51% said that they didn't use any information from others to improve their work.

Quantitative methods and statistical tools provide workers and managers with the tools needed to quantify variation, identify causes, and find solutions to reduce or remove unwanted variation, and monitor progress objectively. Statistical process control can help to achieve these goals when it is part of a total problem-solving effort.

Besides, the most known quality tools among Colgate – Palmolive Kenya was graphs/histograms which achieved 38%. Those who didn't know about these tools made up 54%.

5.7.5 Challenges

100% of the respondents said that they were faced with challenges at work but they didn't have forums to address them. Some of the challenges employees face include, raw materials variances, lack of motivation, suspicions, meeting unrealistic deadlines, enforcing hygiene requirements, focusing on products other than people, lack of teamwork, old equipment, lack of employee satisfaction, lack of employee involvement and empowerment , lack of communication , uncertainties. This showed that the whole idea of TQM needed to be re-visited by the senior management.

The priority (of things management needs to do) which received the highest percentage was training followed by focus on the internal customers. This showed that Colgate – Palmolive Kenya required to emphasize training so much in day to day basis.

5.7.6 Secondary data

58% of employees said that Colgate-Palmolive Kenya did not have all quality documents but 33% of employees especially from management group said they had them. This showed that the quality manuals and other documents are sent by headquarter but they didn't find there way from offices to the subordinates.

5.8 Recommendations

From the above conclusion, it is obvious that Colgate-Palmolive Kenya needs to re-assess its TQM principles. This is because for an organization to achieve competitive advantage it has to have all prerequisites of TQM working hand in hand.

5.8.1 Internal customer focus.

There is need too achieve legendary internal customer satisfaction in Colgate-Palmolive Kenya The management needs to destroy the territorial walls and adopt ways of creating forums to share information, practice proactive information-sharing and create, or contribute to, an environment in which status is accorded to those who share freely.

Employees also need to be motivated increase productivity and empower and involve them in every level of decision making.

The employees need to be trained various aspects of TQM to know what is expected of them at their workstations. They also need to be provided with the latest technology to make them productive. Teamwork to forge cooperation among employees should be encouraged. They

also need to be motivated through rewards and their opinions concerned during decision making.

Other strategies that need to be adopted strategies include, use of employee focus groups to identify specific improvements that are needed, benchmark human resource policies and practices of other facilities that have a high level of employee engagement (low turnover rates), identify and remove impediments to cross-functional communication and problem solving, training department and supervisors to be more effective with basic management skills, conflict resolution, employee evaluation techniques, communication styles, and problem solving techniques.

5.8.2 Driving process improvements

Management needs to have its focus on the processes instead of the products. It is the processes which make up the products and not vice versa. Quality of products is always guaranteed through processes. Therefore, re-engineering of processes is required. Employees require knowing all processes in their workstations. Standard operating procedures need to be written and distributed to all workstations to help employees when performing their duties. Employees require to be trained to help them review their processes in case of mistakes before starting to blame each other. Work in all departments needs to be well planned and documented. This will help especially during quality audits.

Other strategies to adopt to improve the results of this dimension include, training supervisors on process management and improvement techniques, developing policies and resources for employees to routinely learn about best practices and technological improvements that are related to their work areas, and provide opportunities to join professional and para-professional associations that help support improvement and growth.

5.8.3 Understanding external customer requirements.

The requirements and expectations of the external customers need to be communicated in the whole organization using very clear terms. Employees also need to be involved during corrective actions of customer complaints.

Employees also require meeting their external customers several times in a year. Other strategies that need to be adopted to improve the results for this dimension include, improving how leaders define, communicate, and demonstrate their commitment to meet external customers' needs and wants through strategic plans and decisions, adopting policies to train, encourage, and empower employees to respond promptly and appropriately to customer issues and training employees in basic problem solving techniques and hospitality skills.

5.8.4 Use of statistical tools to measure process performance.

Use of quality tools and techniques need to be popularized among Colgate-Palmolive Kenya employees. This will them measure the quality of their work and review it before making any changes. The same tools and techniques will also help them compare the quality of their work with others.

Other strategies to adopt to improve this dimension include, identifying measurements for the key processes in each department and training employees to routinely gather and review the results, training supervisors and employees on how to analyze the measurements and initiate improvement actions when appropriate and sharing key organizational performance measurements with all employees and teaching them how their work processes link to the organizational performance outcomes.

5.8.5 Challenges

Forums to address any work challenges need to be formed. This will help employees air their grievances freely without fear of victimization. Out of these forums management will note down what needs to be given priority during implementations.

5.8.6 Secondary data

All quality manuals and other relevant documentation need to be availed to all workers after they are send from the headquarter. This is a form of sharing information for better processes.

5.9 Limitations of study

This research was faced with two different groups of employees. Those well educated and those with limited knowledge. It was evident that employees who were well educated and those who had limited knowledge had different perspectives on their department, thus prompting dissimilar views of the climate survey. In addition, the survey did not include casual employees and focused on only permanent personnel.

Besides, there were no previous survey results and especially on individual level. The ability to compare respondents' scores on the present survey to their previous scores, as well as the ability to examine job level differences, would add strength to the present findings.

There was also a "disconnect" between what leaders think and what employees perceive. This made researcher to conclude using perceptions of the employees as required in a climate survey.

The researcher could not carry out the climate survey in all subsidiaries of Colgate-Palmolive Plc. This was due to time and financial constraints.

6.0 Suggestions for further research.

There are many models which use the concept of climate survey but very few specify the exact relationship between organizational climate and other organizational processes. Few research and model builders have acknowledged that the climate may be both an independent and dependent variable simultaneously. Few studies have tested any longitudinal path-analytic models to find out what major factors influence climate and which are influenced by it; thus this seems an important and relevant theoretical and empirical avenue to pursue.

Besides, a specific opportunity exists to further advance the body of knowledge about organizational climate and job satisfaction. It would be helpful and interesting to know if similar relationships between measures of organizational climate and job satisfaction exist for others who work in all Kenyan manufacturing industries. It would also be helpful to know if administrators in these organizations are satisfied with their organizations and jobs as directors.

REFERENCES

Aragon et al (1993) . 'Evaluating the Deming Management Model of Total Quality in Services', Decision Sciences, Page 1.

Aguayo & Berg (1995) "The Dynamics of Continuous Improvement: Aligning Organizational Attributes and Activities for Quality and Productivity". International Journal of Quality Science, Vol.1, no. 1, pp.19-47.

Bechtel. 2005. Bechtel website. http://www.bechtel.com/). (Accessed on 12th Aug 2005).

Becker and Messer (1997). Toward the measure of organizational practices: Scale development and validation. Journal of Applied Psychology, 56, 388-396.

Bennis and Nanus (1985). *Making TQM work: Quality tools for human service organizations*. New York: Springer Publishing Company.

Chapman, A. (2005) Six Sigma training, History and definitions. Available from < URL: http//www.businessballs.com website. (Accessed on 17th August 2006).

Bonoma & Zaltman (1981) Organizational Climate: A review of theory and research. Psychological Bulletin, 12, 1096-1112.

Chase et al., (2004), Operations management for competitive advantage. 10th edition, Dehli, TATA McGraw Hill Publishing Co. Ltd.

Chaundry and Higbie (1990). The application of TQM tools in a strategic business plan. *Center for Quality of Management Journal,* 8 (3).

Colgate–Palmolive Plc. 2006. OurColgate.comwebsite. http://ourcolgate.win.colpal.com/. (Accessed on 14th August 2006).

Conger and Kanungo (1989). Integration of climate and leadership: Examination of neglected issue. Journal of Applied Psychology.

Connell and Ryan (1989). "Conducting Quality survey." Concordia University, Page 1 – 29.

Corlett, D.A. (1998). HACCP User's Manual. Aspen Publishers, Inc. Gaithersburg, MD.

Eisenberger and Huntington (1986) A comparison of Halpin and Groft's Organizational Climate and Likert and Likert's Organizational systems. Administrative Science Quaterly, 16,586-396.

Favreau and Gillespie (1978) Psychological climate: Dimensions and relationships of individual and aggregated work environment perception. Organizational Behaviour and Human Performance, 23, 201-250.

FDA. 2001. HACCP: A State-of-the-Art Approach to Food Safety. FDA/CFSAN Website. http://www.cfsan.fda.gov/~lrd/bghaccp.html (Accessed 17th August 2006).

Glick, R. (1985). A note on organizational climate. Organizational Behaviour and Human Performance, 9,120-125.

Ginberg, L. (1978). Answer, Business Process Reengineering & Management. Journal, Vol. 1, No. 3, pp.31-49.

Gronroos et al. (1979). Relationship of age and seniority with career variables of engineers and scientists. Journal of Applied Psychology, 56, 388-396.

Hackman & Oldham (1975) "Employee involvement and participation – Human resources sustainability and high involvement management." London school of economics, dept of industrial relations, Page 4.

Hoerl , Boer, H. and James , R.E (2001) "Knowledge and Continuous Innovation": The CIMA Methodology, International Journal of Operations and Production Management, Vol.21, No.4, pp.490-503.

Harrington, H.J (1995) "Continuous Versus Breakthrough Improvement": Finding the Right

Murphy and Heberling (1996) Developing strategic quality management: a research agenda. Journal on total quality management, Vol 13, No. 4, Page 50.

Howard, B. (2001) 7 Principles of HACCP. Association of Food and Drug Officials Website. http://www.afdo.org/afdo/HACCP/Seven-HACCP-Principles.cfm (Accessed 17th August 2006).

Indygov. 2005 Applications of TQM. Indianapolis website. http://www.indygov.org/eGov/City/DPW/. (Accessed on 12th Aug 2005).

Jonas Hansson and Johnson (1993) "Total Quality management: Investigation with focus on small organizations". Department of business administration and social science, Division of quality and environmental management. Page 32.

Kotler, P.: Marketing Management Analysis, Planning, and Control, 9th ed. Prentice Hall Inc., Englewood Cliffs, NJ, 1967.

Kozlowski, S, & Farr, J (1988). An integrative model of updating and performance. Human Performance, 1, 5-29.

La Follette, W. (1975. Field theory in the Social Sciences. New York: Harper.

Lillrank et al (1998). The organizational climate of schools. Chicago: U of C Press.

Litwin G & Stringer, R (1968) Motivation and organizational Climate. Boston HUP

Malin Brännback (1999), 'The Concept of Customer-Orientation and Its Implication for Competence Development, Turku School of Economics and Business Administration, Department of Marketing. Technical report No. 1, Page 3.

Mark Z. Tabladillo and Gillan (1997). "Quality Management Climate Assessment in Healthcare." Georgia Institute of Technology. Page 40.

Martin, L. (1993). "Total Quality Management: The New Managerial Wave." *Administration in Social Work*. 17(2), 115.

Miyumo, R.M (2003), Change management practices in TQM implementation: A survey of ISO 9000 certified firms in Kenya, Unpublished MBA Project, University Of Nairobi.

Motorola . 2005. Six Sigma. Motorola website. http://www.motorola.com/. (Accessed on 12th Aug 2005).

Mortimore, S. and Wallace, C. (2001). HACCP. Blackwell Science Ltd. London, UK.

Muchinsky, P. (1977). Organizational communication: Relationship to organizational Climate and job satisfaction. Academy of Management Journal 20,592,607.

Odero, E.A.A., (2000) A TQM approach to examination performance in Diploma courses in Technical Training Institutions. A case of Kabete T.T.I, Unpublished MBA Project, University Of Nairobi.

Omufira, A.N (2001) The extent of TQM implementation in the construction industry; A case study of the Kenyan Building industry, Unpublished MBA Project, University Of Nairobi.

Pacem, C & Stern G (1958) An approach to the measurement of the psychological characteristics of college environments. Journal of Educational Psychology 49, 269-277.

Payne, R, (1990) Madness in our method. A comment on Jackofsky and Slocum's paper. A longititudinal study of climates. Journal of Organizational Behaviour, 11, 77-80

Payne, R & Pugh, D (1976). CG Stern's organizational climate index Organizational Behavour and Human Performance 18, 45-62.

Perosystems 2006. perotsystems.com website.
http://www.perotsystems.com/government/Process_Improvement_SixSigma.pdf.
(Accessed on 17th August 2006).

Pollock, R. (October 23, 2003). *Online Resources About: Quality Management & Performance Excellence.*

Qualls, W & Puto, C (1989) Organizational climate and decision framing. Journal of Marketing Research 26,179-192.

Robbins et al (2002) "The effects of continuous improvement and Innovation management practice on small to medium Enterprise (sme) performance." European Australian cooperation centre, faculty of economics and commerce, university of Melbourne, Page 3 -4.

Saylor, Mark (2005) "Quality as Gospel", Modern Healthcare, 01607480, 5/2/2005, Vol. 35, Issue 18.

Shapiro, C (1995). "Total Quality Management journal." TKD Tutorage, Vol 1, No. 1, Page 1 – 14.

Schneider B (1983) Interactional psychology and organizational behaviour. In L Cummings & B Staw (Eds), Research in organizational behaviour. Greenwich, CT: JAI Press.

Schneider, B (1983) Work climates: An interactionist perspective. In N. Feimer & E Geller (Eds), Environmental psychology: Directions and perspectives. New York: Praeger.

Schneider and Reichers (1983) A longitudinal study of climates. Journal of Organizational Behaviour. 9, 319-334.

Schein E (1990). Organizational Culture. American Psychologist 45,109-119.

Thomas and Velthouse (1990) Organizational Commitment, Job Redesign, Employee Empowerment and Intent to Quit Among Survivors of Restructuring and Downsizing. Institute of Behavioral and Applied Management, North Carolina A&T State University.

USDA/FSIS. 2005. Pathogen Reduction & HACCP Implementation Website.http://www.fsis.usda.gov/Frame/FrameRedirect.asp?main=http://www.fsis.usda.gov/oa/haccp/hidguide.htm (Accessed 17th August 2006).

APPENDICES

Appendix 1: Introduction letter

Dear Sir/Madam,

This questionnaire is designed to help carry out continuous improvement climate survey at Colgate-Palmolive Kenya for the purpose of measuring the perceptions of employees in areas that are fundamental to success of implementing the concepts of continuous quality improvement and of making changes in its culture.

I wish to request that you respond to the questions sincerely, also I wish to assure you that your responses will be held on confidence. It's only I, the researcher, and the project supervisor who will have access to the information given. I will ensure that upon request, the summary of the results is mailed to you after the information collected is duly analyzed.

I wish to thank you very much not only for your valuable time but also cooperation. My appreciation goes to you and your organization in helping me in my research endeavors.

Yours sincerely,

.....	.....
Musau, Jackson Muema.	Mrs. Zipporah Kiruthu.
(Student)	Lecturer/Supervisor
	Department of Management Science.

Appendix 2: Questionnaire Part A - G

Part A : General information.

1. Name (optional).....
2. Sex.....Female ( ) Male ( ).
3. Number of years worked in the department
    a. Less than 1 year ( )
    b. 1 year ( )
    c. 1 to 4 years ( )
    d. 5 to 10 years ( )
    e. 11 to 15 years ( )
    f. 16 to 20 years ( )
    g. 21 to 25 years ( )
    h. 26 to 30 years ( )
    i. 31 to 35 years ( )
    j. More than 35 years ( )

Note: Parts B to G have Likert scale with ratings shown below. Fill in appropriately spaces provided in the table.

1. **Strongly agree**
2. **Agree**
3. **Neutral**
4. **Disagree**
5. **Strongly disagree**

Part B: Internal customer focus.

No.	Questionnare	Likert scale				
1.		1	2	3	4	5
2.	I have been trained on my job and I know what is expected of me.					
3.	I have the materials to do the work well.					
4.	I have the equipment to do the work well.					
5.	In the last seven days, I have received praise from your boss for good work done.					
6.	I'm always encouraged to apply skills acquired through training.					

7.	All information required to do my job is always available.					
8.	Other employees cooperate with me to work as a team.					
9.	I'm encouraged to work with other staff in other departments to solve problems.					
10.	My supervisor respects my opinion.					
11.	I always have opportunities to learn new things that will help me improve my work.					
12.	I know what is meant by Continuous Quality improvement.					
13.	Leaders in this facility care about me.					

14. List one activity that make up Continuous quality improvement in Colgate-Palmolive Kenya.....
.....

15. We meet (0 time, 1–2 times, 3 times, 4 and above times) per month with my team to discuss issues pertaining to Continuous Quality Improvement. TICK APPROPRIATELY.

Questionnaire Part C: Driving process improvements.

No.	Questionnare	Likert scale				
		1	2	3	4	5
1.	I understand all processes in my workstation.					
2.	I have procedures (SOPs) which I have read and understood and they assist me when carrying out my work.					
3.	When something goes wrong, I always look at the way I do my work rather than blame people.					
4.	Work assignments are well planned in my department.					
5.	Work in my department is always documented.					
6.	I'm encouraged to apply better methods when doing my work after learning about them.					
7.	I'm always motivated to find ways to improve the way I do my work.					

Questionnaire Part D: Understanding external customer requirements.

No.	Questionnare	Likert scale				
		1	2	3	4	5
1.	I know who our external customers are.					
2.	We receive customer complaints.					
3.	I'm always involved of the corrective actions taken to address customer complaints.					
4.	I know the expectations of our external customers.					
5.	All the expectations of our external customers are met.					

6. I have meet external customers (0 times, 1time, 2 times, 3 times, 4 times) in a year. TICK APPROPRIATELY.

Questionnaire Part E: Use of statistical tools in measuring process performance.

No.	Questionnare	Likert scale				
		1	2	3	4	5
1.	I know how to measure the quality of my work.					
2.	I know how to analyze (review) the quality of my work to see if changes are needed.					
3.	I usually study the cause of problems before making a change.					
4.	I use information from others to help me improve the way I do my work.					

5. List one of the statistical quality tools you apply in your workstation.

.....

.....

.....

.....

Questionnare Part F: Challenges

No.	Questionnare	Likert scale				
		1	2	3	4	5
1.	We have a forum to address the challenges.					

2. Explain some the challenges you face at your work place.....

.....

.....

.....

.....

3. State one priority you would like management to do to improve the quality of your work.....

.....

.....

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.....

Questionnare Part G: Gathering of secondary data from Colgate-Palmolive Kenya management.

No.	Questionnare	Likert scale				
		1	2	3	4	5
1.	Colgate-Palmolive Kenya has the latest CQI records.					
2.	Colgate-Palmolive Kenya has a documented evidence of quality trainings.					
3.	Colgate-Palmolive Kenya has documented evidence of good manufacturing practices implementation.					
4.	Colgate-Palmolive Kenya receives information from Colgate-Palmolive Plc frequently of what is required in CQI implementation					
5.	Colgate-Palmolive Kenya has documented evidence of customer					

1.	Colgate-Palmolive Kenya has documented evidence of customer complaints and the handling procedure.					
2.	Colgate-Palmolive Kenya has standard operating procedures in all workstations.					
3.	Colgate-Palmolive Kenya has minutes of meetings with external customers.					
4.	No findings during the previous quality audits.					

Thank you for taking time to fill out this questionnaire.

Appendix 3 Biodata.

There are 110 employees at Colgate-Palmolive Kenya. 15 female employees and 95 male employees. Manufacturing has 4 ladies, sales none, marketing 6, and 5 from finance and administration.

Number of employees in each category of years worked.

#	Category of years worked	Number of employees
1.	< 1year	8
2.	1 year	2
3.	1 – 4 years	3
4.	5 – 10 years	10
5.	11 – 15 years	32
6.	16 – 20 years	18
7.	21 – 25 years	22
8.	26 – 30 years	12
9.	31 – 35 years	0
10.	> 35 years	3

SOURCE: Research data.

Many employees have stayed in Colgate – Palmolive Kenya between 5 years to 30 years.