ST. MARY'S UNIVERSITY COLLEGE
FACULTY OF BUSINESS
DEPARTMENT OF MANAGEMENT

The Need for Implementation of Total Quality Management: the Case of Brana Printing Enterprise [BPE]

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BY
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ST. MARY'S UNIVERSITY COLLEGE

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FACULTY OF BUSINESS

DEPARTMENT OF MANAGEMENT

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CHAPTER ONE

INTRODUCTION

1.1. Background of the Enterprise

Initially the enterprise Established in 1986 for the purpose of military publication. The printing press with backward printing machines shifted from military schools to Addis Ababa but has not served as a commercial printing business and hadn't had market share until it was established under the name of "Brana Printing Press" in 1994. In spite of its establishment, it hasn't had significant market share in to the local market. Because of that it remained to serve the government institutions by printing some confidential publications.**(Brana,2003;5)**

In 2005 Brana printing Enterprise reestablished under industry sector of the Ministry of National Defense and located around wollo safer (current location). Apart from serving the Ministry of National Defense to fulfill the needs of publication, to some extent entered to the local market. In spite of that, the status of its capacity in terms of working force, equipment and management, hasn't enable it to perform actual competition.**(Brana,2003;5)**.

Ministry of National Defense of the Federal Democratic Republic of Ethiopia (FDRE) has committed to conduct institutional transformation in all its sectors main departments during the above periods. As part of the industry sector Brana printing enterprise also has commenced to get in to the track of transformation. During those periods the enterprise has changed some of its backward equipments, its quality control systems, management systems and the skills of its employees. As a result that its printing capacity has been significantly increased from 8000 -64000 pages/hour. Further more, not only the pages but its printing quality also has been improved. The printing enterprise transfer it self from printing military documents, training manuals to printing posters, magazines, brochures, calendars news papers, books, invitation cards, business cards etc. now it is in the field of competition. Despite its existence in to the local market, the status of its Quality control system is not up the required standard. Since the current situation requires its intensive competitiveness to survive in to the market, the enterprise should find the only way to survive in to this competitive world. That is implementing total quality management as required. This study has been conducted to show the right way of implementation of TQM by proceeding from the previous research ideas. Dessie (Takele January, 2010)

1.2. Background of the Study

Before the philosophy of total quality management arises, the concept of quality has existed for many years in different meanings. Its meaning has been changed through time at the result of development of customers need and wants. Manufacturing and service organizations have tailored themselves towards quality to meet their customers need. Since the early twenty century organization or companies have been inviting experts and scholars for conducting research on quality. *Stoner.J and others, 1996; 98)*

The first concept of quality management was inspection. It focuses on identifying the defected product to ensure that they met specification. Inspection has been practiced until 1940s. Since then, the concept of quality management has changed to the new approach that of quality control. This approach focused on statistical sampling techniques to evaluate quality of product and also quality control chart. (*Stoner.J and others, 1996; 98)*

Scholars haven't windup their study, rather they proceeded to come up with the best way of quality management and in 1960s they came up with broader concept of quality management, quality assurance which enables quality being viewed as important issue that encompassed the entire organization apart from the production process. Researchers have realized that all functions of the organization were responsible for product quality. That is why they recognized that poor quality of product can negatively affect the organization in terms of incurring significant cost. In spite of the tremendous progress of quality management the above mentioned three quality concepts have not consider customer preference. They were reactive. *Hannagan, (2002: 183)*

The intense competition reached to the climax has required organizations to think about further proactive concept of quality management. Since 1970s, organizations in every line of business have been focusing on improving quality continuously so as to gain their competitive advantage and conducted intensives studies in all level of their functions.

As we have seen above the quality movement has passed through three phases such as inspection, quality control and quality assurance has reached to the new concept known as Total Quality Management (TQM). This concept more boarder than the previous approach's of quality management as indicated in its comprehensive definitions as follows.

"TQM is a management approach for an organization, centered on quality, based on the participation of all its members and aiming at long term success through customer

satisfaction and benefits to all members of the organization and to society. "at large. (*http;//Wikipedia.org Retrieved at December 6, 2010)*

Many organizations all over the world have tried to use TQM to achieve increased, competitiveness and improved financial results. Companies in our country conduct research to survive in to the market. The intention of this research also is to examine the problem of Brana printing enterprise and suggest strategies for the implementation of the new quality control approach. It is known that Brana has been existed for the last 20 years by practicing traditional quality management like inspection and statistical quality control system. The enterprise doesn't significantly implement the new quality management concept TQM. Why? The enterprise requires further research to come to through the pipe line of institutional transformation in terms of total quality management (TQM). TQM is crucial issue for the enterprise because it counters intensive competition from hundreds of competitors in current national situation. That's why the researcher has conducted this research .

1.3.   Statement of the Problem

Despite the existence of Brana Printing enterprise in to the market for a long time, couldn't perform competencies in terms of quality. In other words, the enterprise was not competent enough locally and globally because of different reasons. The above mentioned deficiencies observed by the researcher himself while he has been following the publications process of indoctrination and public relations center every year. This department is one of major internal customers of the enterprise. Apart from the researcher's observations, he has been discussing about the fate of the enterprise with some of employees and members of management. of Brana printing enterprise.

> ➢ According to the researcher's observations and the findings of some researches conducted previously the enterprise requires intensive institutional transformation in terms of the ingredients of total quality management. It is known that the free market economic policy of the country leads to the emergence of competition between printing enterprises. This brings a greet challenge to these enterprises in meeting the requirement for product and satisfying the need of their customers to exist in the industry. The challenge justifies the importance of providing quality products and services. Sables, (2008:45) This has to be applied by examining the following major problems and come up with the best solutions:

- ➢ Absence of clear TQM policy

Because of the absence of clearly stated TQM police, the enterprise unable to show significance improvement in terms of quality product and services. As indicated in literature review quality can be considered in terms of Conformance to specification, Value for price paid, Fitness for use, Support service. The enterprise couldn't fulfill aggregately the above requirements of quality.

- ➢ Existing Management system doesn't consider TQM as vital part of the system (lack of strategic commitment).

Through my observation the student researcher realized that TQM is not recognized as a system. That is why the enterprise lacks effectiveness and efficiency in achieving its objectives as required.

- ➢ Employees are not empowered in decision making regarding quality.
- The enterprise

Poor recognition and importance of employee's contribution affected the production of good quality products consistently. The employees are not considering them selves as a vital force of quality. They think that quality is not their primary concern. Rather they are considering quality control as fault finding instrument of the management.

- ➢ There is lack of technological advancement (Technology transfer)

This deficiency brought about to the enterprise some shortcomings such as inability of producing more within the shortest time with less wastage, poor innovation, technological transfer and productivity.

- ➢ There is no recognition that quality is responsibility of all from top to bottom.

This has to be recognized so as to bring about team sprit. With the absence of team sprit the enterprise couldn't be competent in the printing industry because it lacks coherence in achieving its objectives.

- ➢ Ignorance about that quality is endless effort.

The management of focuses on the performance of routine production processes rather than thinking about continuous improvement of the enterprise. Because of this the quality of the enterprise's product remains inconsistent.

- ➢ Lack of appropriate team work.

The same is true here that lack of team work might bring about the problem of poor sprit.

- ➢ The quality management of the enterprise is not customer focused.

The major problem that the enterprise encountered is customer's dissatisfaction.

1.4.   Research Questions

To address the above major problems the study should ultimately answer the following questions:

- ➢ How the traditional quality management system can be replaced by TQM by strategic commitment?
- ➢ What should be the mechanism to enhance employee's involvement?
- ➢ What would be the tactics to enhance participation of all in implementation of TQM?
- ➢ What is the way to bring about technological advancement?
- ➢ What should be the tactics does the enterprise follow to met customer preferences or Expectations? And to be competent in to the market.
- ➢ What should be the role of management to gain competitive advantage?
- ➢ Haw can the enterprise manage procurement so as to have quality material?
- ➢ How can the enterprise perform continuous improvement

1.5.   Objectives of the Study

1.5.1. General objective

The main objective of the study is by diagnosing and the problems of quality management in the enterprise identifying the posible solutions that have to be recommended for the implementation of TQM.

1.5.2. Specific Objectives

The following specific objectives are derived from the above general objective.

- ➢ Create understanding of the necessity of managerial commitment for the implementation of TQM.
- ➢ Develop understanding about the need of employees involvement in decision making of quality issues
- ➢ Identifying the reasons behind that TQM is the responsibility of all members of the enterprise
- ➢ To identify the ways how the enterprise implement TQM by meting customer expectations and preferences
- ➢ To present conceptual reasons that advocate TQM to be recognized as system in the organization and indicate the role of management

> ➤ Identify the relevancies of quality materials and technological advancement in implementing TQM.

> ➤ Present the importance of continuous improvement of quality.

> ➤ Create fertile ground for further research

1.6.   Significance of the Study

The study will contribute significant importance to the internal and external population and institute in terms of theory and practice of the subject matter. The following significances expected from the result of the study:

> ➤ It will reinforce the prior researches conducted on the subject matter and will be the fertile ground for further study.

> ➤ It plays a paramount role to perform the overall institutional transformation of Brana printing enterprise and Ministry of Defense at large

> ➤ It brings about employees' participation and satisfaction

> ➤ It helps Brana Printing Enterprise to reinforce the BPR process.

> ➤ Managers of the enterprise will be significantly benefited from the study.

1.7.   Delimitation of the Study

The scope of the study covered the four Production sections and three departments in the management sections. The study focused only quality issues. This study covers from the establishment of Brana printing enterprise to current year.

1.8   Limitations

The enterprise might have confidential documents. So, there are military confidential documents that are exempted to be disclosed. Despite the presence of confidential information, doesn't have significant effect on this research.

1.9.   Definition of Terms

> ❖ **Total quality management**

is a management approach for an organization, centered on quality, based on the participation of all its members and aiming at long term success through customer satisfaction and benefits to all members of the organization and to society at large.(**www.managementparadise.com** *Retrieve date December 6, 2010)*

❖ **Technology transfer**

"Technology transfer is the process of sharing of skills, knowledge, technologies, method of manufacturing and facilities among governments and other institutions to ensure that scientific and technological developments are accessible to a wider rang of users who can. **(WWW. Google. come.et/search, retrieved at 4/28/2010)**

❖ **Institutional transformation:**

"A process of bringing fundamental, intensive and far reaching changes to the core concepts and values on which an institution is founded." (**WWW. Business dictionary.com, retrieved at 4/28/2010**)

1.10. Research Design and Method

1.10.1. Research Design

The research conducted by describing the historical back ground of the enterprise and by exploring what the real deficiencies to implement TQM. So, the researcher prefered to follow descriptive and exploratory way of research design.

1.10.2. Population and Sampling Technique

The population of the study included the management staff and the employees of production department. Generally there are 275 employees. To determine the sample size stratified random sampling technique is used. It was suitable to get different strata from the enterprise's production sections such as pre printing, printing and binding or finishing. So, off 275 employees 75 of them (30%) are sample size to fill the questionnaires that represents the whole population of the study. This amount divided for each of strata proportionally Each stratum has the amount in accordance with its proportional percent. Thus preprinting section 29 (10.5%), printing section 51(19%), binding section 99 (36%) employees and the administrative departments including management staff have 95 (34.5%) employees. This was the best sampling technique since it realized appropriate representation of the whole population of the study.

1.10.3. Types of Data Collected

Two basic types of data were used, primary and secondary data. Primary data includes information from respondents, which were collected through questionnaire, interview, observation, and it was

assumed that this data would provide original information to the study. On the other side, secondary data was obtained from related literature, it includes different kinds of published and unpublished books, journal, internets and other relevant available materials.

1.10.4. Methods of Data Collection

the researcher used different the following data collection tools.

- ➢ Document analysis
- ➢ questionnaires
- ➢ interview
- ➢ observation

The rationale behind selecting these methods is triangulation. The response of the questionnaire is cross examined by interview. More over both the responses of questionnaire and interview cross checked by the observation of the researcher.

1.10.5. Data Analysis Method

Data has been analyzed both quantitatively and qualitatively. The information that came from interview was described in qualitative analysis. Also the facts that have been captured by the observation of the researcher analyzed in qualitative manner. Where as the information gathered by the questionnaires analyzed quantitatively by using friquency and percentile.

1.11. Organization of the Study

The study is consisting of four chapters. The first chapter contains the elements of the study that are incorporated in the introductory part such as background of the study and the enterprise, statement of the problem research questions, research of design and methodology. The second chapter is part of related literature. This chapter been discussed the findings of different researches conducted by prominent scholars

Chapter three focuses on the current situations of the enterprise by analyzing the collected data through different data collection methods. The chapter indicates the interpretation of the collected data and shows the ultimate way to come up with solutions against the entire problems of the enterprise. This is followed by chapter four in which the summary and conclusion of with the relevant recommendations will be presented. The study in its final section presents the references and appendix.

CHAPTER TWO
REVIEW OF RELATED LITERATURE

2.1. Introduction

In 1440, German inventor Johannes Gutenberg invented a printing press process that, with refinements and increased mechanization, remained the principal means of printing until the late 20th century. The inventor's method of printing from movable type, including the use of metal molds and alloys, a special press, and oil-based inks, allowed for the first time the mass production of printed books.This is true in the printing industry as in other manufacturing sectors. A printing company that `specializes` in the manufacturing of labels, for example, will deal with distributors from all over the world. Also, the customer will have a choice of buying from manufacturers in any country. Competition is extremely fierce and companies have to find ways to distinguish their products and services from those of their competitors. (*http;//Wikipedia.org Retrieved at December 6, 2010)*

This competition has led to a new philosophy of work, and radical changes in many organizations. First, printing companies realize that the delivery of products and services has to be fast and right the first time (There is no room in today's market for costly manufacturing mistakes; customers have too many suppliers from which to choose on a global scale.

Second, every person in the organization has to think about how to please the `customer`, even if their job does not involve working directly with those who buy the company's products and services.

Third, printing companies have to offer the best product and service at a competitive price. This means that they must make the `best` use of each and every employee of any age with the `right` skills and experience. In today's work force, everyone has to know how to act in the best interests of the company – from the front-line customer services representative to the person who operates the printing machinery. `Workers` are being asked to take more responsibility for their work and to make decisions that they would not have had the power or the knowledge to make. A well trained work-force will be the `winners` in this global trading environment**. *Stoner.J and others, 1996. 104)*

As other business companies in printing enterprises Total Quality Management views meeting customer's needs as the most important goal a company can achieve. Adherents try to structure their research and development efforts, design and engineering capabilities and marketing and sales around the idea of delivering products customers need and want, sometimes even before customers know what those products should be.

Total Quality Management says that companies that do not learn how to satisfy their customers and anticipate their needs will not stay in business That is why Printing companies of the world give significant emphasis that, businesses with `trained` people involved at every level and give them more control over their jobs tend to be the ones providing top-quality service today in a global trading environment. In fact, empowering employees is a printing company trend that users in a significant role for `service specialists`, to work as a `team` with other areas of the business for success.

Customers perceive the quality of a company through the actions of its employees. In the printing industry, the only way to survive is with `trained` people of any age with the right attitude and a passion to be successful. Together with investment into a Management Information System, Technology and Implementation of Total Quality Management will lead to a positive cash flow and a `bottom-line` increase. Hanngan (2002, 98-119)

2.2.   What is Quality?

Before reviewing the concept of TQM, it is better to assessing what quality means. As universally appealing, the term quality is complex concept and defined differently In other words there is no a single definition of quality. (***Stoner. T and etal. 1991, 56)***

Different pioneers have given definition for quality and justified that quality is precise and measurable variables. Different in quality determines the difference in quantity. That is why all scholars conclude that quality determines the survival and success of the all organization. In today's competitive environment of the world, ignoring the quality issue is tantamount to corporate suicide. (***Speech of President of Hewlett Packard, Fortune, 1985 : 3)***

Quality is continually meeting agreed customer needs or it takes to satisfy the customer of simply fitness for purpose. As originated from quality control of J.M. Juran. Other scholars who researched the quality concept define us "Conformance to requirements or specification and reliability as test of quality As mentioned above there is no universal definition of

quality. Some people as juran and Corsby view quality as performance to standard, some other pioneers view it as meeting the customer's needs etc. Let us see the most common definition of quality.

(***Hannagan.T,(2002.182)***

Conformance to specification

"It measures how wills the product or service meet the target and tolerance are determined by its designers. For example my department ordered brochure to be printed. Its size should be 60x20cm which has six segments. If the printing enterprise prints 50x20 brochure, the product of the enterprise doesn't conform to my department's specifications. So, my department might refuse to accept the publication because of dissatisfaction in terms of quality. ***Hannagan.T, 2002, 115)***

Fitness for use

It focuses on how the product will perform its intended function or use. For example an institution has an interest to publish a calendar and orders a printing enterprise to publish a calendar. The printing press prints the calendar with out public national holydays and celebrations. In this case the printing press didn't fulfil the intended interest of its customer because one of the use of the calendar is having all public and national holydays and celebrations and using it accordingly. In other words the printed calendar is not qualified for the intended purpose or use ***Hannagan.T, (2002,95)***

Value for price paid

It is a definition of quality that consumers often use for product or services usefulness. This might be definition that is related to economic interest of the customer .It is price based. If some body has a desire to write and publish book in order to have income, he should have to have book which its printing quality enables the author to have market value. It is a return the price he paid.

Support service

Support services provided are often how the quality of the product or services is judged. Apart from the product and services quality is considerable in terms of people, process and organizational environment associated with the entire product and services. The same is true in the printing enterprises. Unless the reception and delivery processes are satisfactory, it is difficult to accept that the quality of the product is perfect.

Beyond the above mentioned common definitions of quality, we can look for other various meanings of quality such as functionality, volubility, durability, serviceability, aesthetic and other perceived quality. To sum up, the definition of quality, we can say quality is an aggregate requirement of customers in all aspects present and in the future and which customer can buy it. (*Hannagan.T,(2002.119)*

2.3.   Total Quality Management

Based on the analysis of the concept and meaning of quality as indicated above, let's assess what experts and scholars view total quality management (TQM) or let's analyze what the literature Says about TQM. To commence the analysis on TQM the researcher prefers to start from the meaning or definition of total quality management.

2.3.1. Definition of TQM

Like the meaning of quality, there is no one and the same definition of TQM. Despite its different meanings all scholars argue that to implement TQM, organizations should have an internal understanding of TQM and realize its value.

TQM is multidimensional and complex term. As mentioned in chapter one total quality management consists of three major requirements or sub terms. Theses terms defined below. *(http;//Wikipedia.org, Retrieved at December 6, 2010)*

Total:

Participation of everyone, an institution- wide process: "TQM requires continuing improvement and getting things right first time. Since most quality solution are outside the control of any one individual or function, this need team work and maintenance of good relationships." *(http;//Wikipedia.org, Retrieved at December 6, 2010)*

Quality:

Meeting customer requirements exactly: "TQM requires customer- agreed specifications which allow the supplier to measure performance and customer satisfaction. Individuals and teams need to use quality tools and systems to facilitate measurement and problem solving." *(http;//Wikipedia.org, Retrieved at December 6, 2010)*

Management:

Enabling conditions for total quality: "TQM requires leadership and total commitment from senior management to quality goals. They must ensure that an appropriate infrastructure exists to support a holistic and not a compartmentalized approach to institutional management." *(http;//Wikipedia.org, Retrieved at December 6, 2010)*

To come up with aggregate definition TQM is a management approach for an organization, centered on quality based on participation of all its members aiming long term success through customer satisfaction, and benefit to all members of the organization and to society. To look the broader meaning of the TQM, we can review the literature of deferent scholars. in support of their argument and on analyzing the various TQM definitions available in literature, TQM can be classified under the following broad headings *(http;//Wikipedia.org, Retrievedon December 6, 2010)*

- ➢ TQM as a culture
- ➢ TQM as a management and institutional- wide process
- ➢ TQM as a management philosophy and guiding principles
- ➢ TQM as a strategy
- ➢ TQM as a system

Various versions of definitions of TQM can be found in the literature to validate the five heading under which TQM can be classified, of which only a few are given below, namely:

TQM as a culture

- ➢ "TQM is the culture of an institution committed to customer satisfaction through continuous improvement." The two researchers also use the following definition: "TQM is a corporate culture characterized by increased customer satisfaction through continuous improvements, in which all employees in the firm actively participate in TQM as a continuous management process that aims at quality improvement in all processes and activities in institutions. The ultimate goal of TQM is to established management system and institution culture that ensure customer satisfaction (both internal and external) and never- ending continuous improvement of all institutional processes. *(http;//Wikipedia.org, Retrieved at December 6, 2010)*
- ➢ Participation."
- ➢ "TQM means that the institution's culture is defined by and supports the constant attainment of customer satisfaction through an integrated system of tool, techniques

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and training. This involves the continuous improvement of institutional processes, resulting in high quality products and services."

TQM as a management and institutional-wide process

➢ TQM as a management process and institutional- wide process to instill a culture of continuous improvement in an institution to ensure that the institution consistently meets and exceeds customer requirements.

TQM as a management philosophy and guiding principles

➢ TQM is a management philosophy, which seeks continuous improvement in the quality of all processes, people, products and services of an institution. Continuous improvement can be achieved through internal and external quality improvements.

➢ TQM as integrated management philosophy and set of practices that emphasize continuous improvement, meeting customers' requirements, reducing rework, long-range thinking , increased employee involvement and teamwork, process redesign , competitive benchmarking, team- based problem-solving, constant measurement of results and closer relationships with suppliers.

TQM as a strategy

➢ TQM is an integrated, systematic, institution-wide strategy for improving product and service quality.

➢ TQM is strategic issue " … a strategy for improving institutional performance through the commitment of all employees to fully satisfying agreed customers requirements at the lowest overall cost through the continuous improvement of products and services, business processes and the people involved." *(http;//Wikipedia.org, Retrieved at December 6, 2010)*

TQM as a system

➢ TQM is a total system approach (not a separate area or program) and an integral part of high level strategy; it works horizontal and vertically across all functions and departments , involves all employees, top to bottom, and extends backward and forward to include the supply chain and the customer chain.

➢ TQM is a management system in continuous change, which comprises values, , techniques and tools and that the overall goal of the system is increased customer satisfaction with decreasing resources. *(http;//Wikipedia.org, Retrieved at December 6, 2010)*

A common definition of TQM however is needed to prevent confusion among organizations and help to resolve any arguments, which may arise from time to time within and between departments in institution. Based on the above-mentioned analysis of TQM definitions by different scholars the following definition of TQM was developed for this research, namely:

"TQM is a strategy and process to manage institutions as an integrated system of principles, methods and best practices that provide a framework for institutions to strive for excellence in everything they do under the leadership and commitment of Top management, supported by education and training, open communication, change management, regular self assessment, support structure, system and resources , which empower employees through investing in them to improve their performance as teams to deliver continuously improved quality product and services. Through this approach a corporate TQM culture will be established, to satisfy and exceed agreed internal and external customer requirements at the lowest overall cost to increase institutional performance in all areas such as service results, financial results, marketing results, operational results, society results, customer results and employee results to obtain world-class quality."

The above different definitions evolve around the main ingredients of TQM namely

- ➢ Strategic commitment
- ➢ Employee involvement
- ➢ Technology
- ➢ Customer
- ➢ Material.
- ➢ Continuous improvement of methods of process John J. (2008, 174.)

2.3.2. Historical Progresses from Quality to Total Quality

Before total quality management came as a system in the business organizations, quality management existed as traditional quality control practices for along time. For example in the early 20th century quality management existed as "inspection of product. Its purpose was ensuring that the products met specifications. (This is proactive) In the 1940s, during world war two, quality became more statistical in nature. Statistical sampling techniques were used to evaluate quality, and quality control charts were used to monitor the production process. In the 1960s, with the help of so-called "quality gurus," the concept took on a broader meaning. Quality began to be viewed as some thing that encompassed the entire organization, not only the production process but, the term used for today's new concepts of quality is total quality

management (TQM). We can see that the old concept is reactive, designed to correct quality problem after they occur. The new concept is proactive, designed to build quality into the product and process design. as a system..   According to Oakland (quoted by Pycraft, Singh & Phihlela 2000), TQM is a philosophy , a way of thinking and working that is concerned with meting the needs and expectations of customers. TQM applies to all parts, department and sections of the institution and further, it is the responsibility of people in an institution. TQM can be viewed as a logical extension of the way in which quality–related practice has progr essed(*ACCA, 1998 :337)*

Originally quality was achieved by inspection-screening out defects before customers noticed them. **The quality control (QC**) concept developed amore systematic approach to not only detecting, but also treating quality problem. **Quality assurance (QA)** widened the responsibility for quality to include functions other than direct operations of an institution. It also made increasing use of more sophisticated statistical quality techniques The following figure indicates the evolution of quality control system (*Hannagan.T,2002: 198)*

Figure 2.1: TQM: natural extension of earlier approaches to quality management

Paradigm shift through time

Phase one
Quality of Product

> **Inspection**
> - Error detection
> - Rectification

Phase two
Quality of Institution

> **Quality control**
> - Statistical Methods
> - Process Performance
> - Quality Standards

> **Quality Assurance**
> - Quality systems
> - Quality costing
> - Problem Solving
> - Quality Planning

Phase three
Quality of life

> **Total Quality Management**
> - Whole Institution Involved
> - Quality Strategy
> - Team work
> - Stuff empowerment
> - Involves Customers and Suppliers

(Dale, 2003: 57)

Specifically TQM can be seen as being concerned with the following.

> ➤ Meeting the needs and expectations of customers;

> ➤ Covering all part of the institution ;

> ➤ Including every person in the institution;

- ➢ Examining all costs which are related to quality;
- ➢ Developing the system and procedures which support quality and improvement; and
- ➢ Developing a continuous process of improvement.

According to the evolutionary development of the quality concept can be regarded as a continuum consisting of three different stages/ phases in the development of quality; each one separated by a substantial paradigm shift in the thinking approach of quality, namely 1. quality of product 2. Quality of institution and 3. Quality of life. In the context of Brana Printing Enterprise I observed that the enterprise's management most likely follows the traditional way of quality control system. This indicates that the enterprise requires intensive research that facilitates for the implementation of TQM.

TQM is no only concerned with achieving certain levels of competitiveness and applying and developing new techniques, concepts and technologies, but also with a change in attitudes and behaviors in order to conduct business in accordance with the requirements set by customers. The management of quality is therefore the responsibility of each person within the institution and not just that of management. A historical review of TQM based on the prescription of the quality gurus is necessary to achieve an intense understanding and transformation toward TQM:, (***Hannagan.T, 2002: 183***)

2.3.3. TQM as Views of Its Founders

Many of the recognized quality gurus did not actually use the term TQM, although their work has subsequently been recognized as being relevant and something quoted as referring to TQM. TQM is an extension of the traditional approach to quality although the origins of TQM go back to the 1940s and 1950s, as indicated in the historical progress of quality concepts Feigenbam first used the term formally in 1957. More recently, TQM has been developed through a number of widely recognized approaches put forwards by several ''quality gurus'' such as Crosby, Deming, Feigenbaum, Juran and Ishikawa. The emphasis placed on various aspects of TQM varies among the authorities, but the general thrust of their arguments is similar. Therefore, to understand the origins of TQM, it is important to understand the contribution from these quality pioneers

(**John J,** *2003: 175)*

W. Edwards Deming

Deming, a prominent consultant, teacher and author on the subject of quality, is one of the best-known early pioneers, who are credited with popularizing quality control in Japan in the early 1950s. His philosophy emphasizes the systematic nature of institutions, the importance of leadership, and the need to reduce variation in institutional processes, but he maintains that an institution must adopt the fourteen points of his system at all levels Deming believes that quality is to be built into the product at all stage in order to achieve a high level of excellence. Deming included the management dimensions of planning, organizing and controlling, and focused on the responsibility of management to achieve quality, as well as the need for setting goals. Deming developed what is known as the Deming chain reaction; as quality improves, costs will decrease and productivity will increase, resulting in more jobs, greater market share and long-term survival. Although it is the worker who will ultimately produce quality products, Deming stresses worker pride and satisfaction rather than the establishment of quantifiable goals (*ACCA, 1998 :338),)*

Deming maintains that his 14 points apply anywhere, to small institution as well as large ones, to the service industry as well as to manufacturing. He also stressed that it is the system of work that determines how work is performed and it is only managers that can create the system. Deming summarized his foundation work in quality by identifying 14 point for institutions to follow, namely:

➢ Create constancy of purpose toward improvement of product and service with the aim to become competitive and to stay in business, and to provide jobs.

➢ Adopt the new philosophy of quality and do not tolerate commonly accepted levels of errors and defects.

➢ Stop depending on mass inspection to improve quality. Eliminate the need for inspection on a mass basis by building quality into the product in the first place.

➢ End the practice of awarding business and choose suppliers based on price. Minimize total cost by working with a single supplier.

➢ Constantly improve the system of production and service by continually improving test methods and identification of problems, from the very first planning stages right up to distribution to customer, and thus constantly decrease costs.

➢ Adopt modern methods of training-on-the-job by teaching employees the best method of achieving quality in their jobs and the use of tools such as statistical quality control.

- Adopt and institute leadership. The aim of supervision should be to help people and machines to do a better job.
- Drive out fear, so that everyone may work effectively for the institution. No one can perform unless he or she feel secure.
- Break down barriers between department and staff areas. Create teams of members coming from all areas and sectors of the institution to prevent and solve problem
- Eliminate slogans and exhortations for the workforce asking for zero defects and new levels of productivity.
- Eliminate work standards (quotas) for the workforce and substitute it with leadership. Eliminate management by objectives; eliminate management by number, numerical goals. Substitute leadership.
- Remove barriers that rod people of the pride of workmanship. Eliminate the annual rating or merit system.
- Institute a vigorous program of education and self-improvement for everyone.
- Put everybody in the institution to work to accomplish the transformation. The transformation is every body's job.

The cornerstone of Deming's philosophy is based on statistical process control, which must be implemented where corrective action can be successfully instituted. Top management involvement is a key requirement with proper delegation of quality responsibilities at all levels in an institution. The recognition of training and leadership skills is vital in adopting Deming's philosophy with continuous improvement never ending(*ACCA, 1998 :335)*

Deming's idea reinforced by Juran's Philosophy known as juran's Trilogy which consists three quality elements. This shows that both scholars have some common ideas that contribute essential points for the development of the new concept of quality (TQM)

Joseph M. Juran

Juran, Joseph M.specializing in managing for quality. The Juran Trilogy (a trademark of the Juran institute, Ins) identifies three areas for quality transformation within an institution, namely:

- Quality planning (developing the production and processes required to meet customer needs).
- Quality control (meeting product and process goals).

- ➢ Quality improvement (achieving unprecedented levels of performance).

From the above quality areas Juran derived around ten steps. Juran often uses his ''Trilogy'' to explain the approach required to manage quality improvement (Juran 1986:21)., namely

- ➢ Build awareness for the need and opportunity for improvement.
- ➢ Set goals for improvement.
- ➢ Organize people to reach the goal.
- ➢ Provide training through out the institution.
- ➢ Carry out projects to solve problems.
- ➢ Report progress.
- ➢ Give recognition.
- ➢ Communicate result.
- ➢ Keep score and assess overall progress.
- ➢ Maintain momentum by making annual improvement part of the regular systems and processes of the institution.

Juran has extended his principles to consider business processes, and has recently developed a concept entitled managing business process quality, which is a technique for executing cross-functional quality improvement*. (Dale, 2003: 57)*

Armand Feigenbaum

According to ACCA text book Feigenbaum is the vanguard quality guru or pioneer who used the term ''total quality control' in 1940s. Since then the idea has come to mean an approach to quality that is institution-wide involving all aspects of the control or management of quality. The activities from a quality standpoint, or the job of quality control as Feigenbaum calls it, can be grouped into four categories: ***new design control, incoming material control, product control and special process studies.*** To be successful, these activities require the cooperation of all the institutional departments with responsibilities clearly defined using elaborate matrices. Feigenbaum augments his total quality control theory to a concept of a total quality system which not only recognizes the importance of the four quality activities working individually, but also how well they are required to work together. The total quality system is seem as the foundation of total quality control providing the proper channels for proper channels for product quality related activities to flow. (***ACCA,1998:335***)

Feigenbaum developed the approach that the responsibility for quality extended well beyond the manufacturing department. He also developed the concept that quality could not be achieved if products were poorly designed, inefficiently distributed, incorrectly marketed and improperly serviced and supported. Feigenbaum's approach to quality is a whole approach and was largely credited with the concept of total quality control Feigenbaum's book, total quality control, can be considered as a model for a quality management system. Feigenbaum's philosophy, however, can be reduced to four simple steps *ACCA,1998:331)*Setting a quality standard.

> ➤ Appraising conformance to these standards.
> ➤ Acting when standards are exceeded
> ➤ Planning for improvements in the standard

Feigenbaum's total approach to quality is a major strength in eliminating uncoordinated quality activities. The emphasis on management and human participation is seen as strengths in generating motivation and creativity, which are absent from Deming and Juran's approaches.

Phllip B. Crosby

"Absolutes" are the five Crosby's fundamental principles known as his quality philosophy that are focusing on cost reduction through quality improvement and stressed on those both high and low-end products can have high quality. Those Absolutes are listed below

> ➤ Quality has to be defined as conformance to requirements not as goodness
> ➤ The system for causing quality is prevention, not appraisal.
> ➤ The performance standard for quality must be zero defects of non that are close enough.
> ➤ The measurement of quality is the process of non-conformance, not indexes.
> ➤ There is no such thing as a quality problem.

Crosby stresses motivation and planning and does not dwell on statistical process control and the problem- solving techniques of Deming and Juran. Crosby's 14 points are action for institutions to help them implement TQM. Crosby takes a very pragmatic approach in making each of these points value producing for the institutions that practice them. Crosby's 14 points are*; (Dale,2003:.52)*

- ➢ Management commitment – Top management must be convinced of the need for quality and must clearly communicate this to the entire institution by written policy.
- ➢ Quality improvement teams- Form a team composed of department heads to oversee improvement in their departments and in the institution as a whole.
- ➢ Quality measurement – Establish measurement appropriate to every activity in order to identify areas in need of improvement.
- ➢ Cost of quality- Estimate the costs of quality in order to identify areas where improvement would be profitable.
- ➢ Quality awareness- Raise quality awareness among employees.
- ➢ Corrective action – Take corrective action because of steps 3 and 4.
- ➢ Zero defect planning and zero defect day (error- free work days)- Form a committee to plan a program appropriate to the institution and its culture.
- ➢ Supervisor training – All levels of management must be trained in how to implement their part of the quality improvement plan.
- ➢ Employee education – Define the type of training all employees need in order to carry out their role in the quality improvement process. All levels of management must be trained in how to implement their part of the quality improvement program.
- ➢ Goal setting – Establish improvement goals for individuals and their groups.
- ➢ Error cause removes – Employees should be encouraged to inform management of any problem that prevent them form performing error-free work.
- ➢ Recognition –Give public, non-financial appreciation to those who meet their quality goals or perform outstandingly.
- ➢ Quality councils –composed of quality professionals and team chairpersons, quality councils should meet regularly to share experiences, problem and ideas.
- ➢ Do it all over again – Repeat steps 1 to 13 in order to emphasize the never- ending process of quality improvement.

Crosby's approach is easier to grasp than those of Deming, Juran and Feigenbaum, for he traits quality problems as tangible issues to be solved and rejects the idea that problems are persistent and unsolvable. The strong management and goal orientation of his zero defect approach can lead workers to become disenchanted as most problems are systemic rather than worker create. The Crosby approach emphasizes the ongoing management of quality, but the fourteen points do not have the same among of emphasis on the principles of

breakthrough and control or handling variation with statistical process control that is found with Deming and Juran. (*ACCA 1998: 335*)

Karou Ishikawa

Ishikawa, a pioneer in quality control activities in Japan, bases his work on that Deming, Juran and Feignbaum. says that Ishikawa has been credited with originating the concept of quality circles and cause-and-effect diagram ishikawa published many works, includes ' ' what is total quality control ? The Japanese way, quality control circles at work, and Guide to quality control.'' Ishikawa claimed that there had been a period of over-emphasis on statistical quality control (in Japan) , and as a result, people disliked quality control. They saw it as something unpleasant because they were give complex and difficult tools rather than simple ones. Furthermore, the resulting standardization of products and processes and the creation of rigid specification of standards became a burden that not only made change difficult, but made people feel bound by regulations. Ishikawa saw worker participation as the key to the successful implementation of TQM. Quality circles, he believed, were an important vehicle to achieve this Ishikawa took the concepts proposed by people like Deming and Juran and brought them to the level of the common worker (*ACCA, 1998: 337*)

Need for Total Quality Management instead of Traditional Mechanisms

Businesses of a half-decade ago laughed at the pioneers of a total quality management system. The basic idea of a **total quality management** system is to improve performance at all levels and all aspects of a business to maintain competitiveness in the market and gain customer satisfaction. There are many facets encompassed in a total quality management model, which is probably why the pioneers were ridiculed. But over time the total quality concept has emerged and proved it is what businesses of today need. Traditional methods were needed and worked effectively in an era where employees took orders and manufacturing and production were the driving force of a business. With globalization and e-business on the frontier needs have changed, thus the need for total quality management to be implemented in all businesses of the new era.   Momaya(2001.373-382)

As companies venture beyond domestic borders and into the international arena total quality is a key to their success. The concept of globalization is to offer quality products at a competitive price to external customers. Without a quality product a company would not be competitive in printing markets. Since customer satisfaction is a key element to the TQM model, it is important to understand what quality means to the various cultures of the global

arena.

"Traditional…measured process performance in defective parts per hundred produced…with total quality the same measurement is thought of in parts per million" (Univ. of Phoenix, p. 20). In the latter 70's management saw the need for total quality over the traditional method. Today TQM is a large part of an organizations success and is extended beyond the production or manufacturing aspect of a company. Over time continued pressure on quality products will force businesses to adopt certifications proving they are adhering to the total quality concept. This will ultimately be a good thing for businesses because it will divide the successful from the unsuccessful. Momaya(2001.373-382)

Continuous improvement and TQM

Continuous improvement means a constant striving to provide better service and a higher quality product. It requires a constant reassessment of current procedures and establishment of new goals for their betterment. To achieve continuous improvement, all employees need to recognize that everything about their organization--individual jobs, cross functional processes, etc.--must be examined and improved in a deliberate, patient and never-ending manner. When this attitude is present, the products and services that internal and external customers receive will continue to improve, as well. John. (2008, 175)

TQM is mainly concerned with continuous improvement in all work, from high level strategic planning and decision-making, to detailed execution of work elements on the shop floor. It stems from the belief that mistakes can be avoided and defects can be prevented. It leads to continuously improving results, in all aspects of work, as a result of continuously improving capabilities, people, processes, and technology and machine capabilities. Continuous improvement must deal not only with improving results, but more importantly with improving capabilities to produce better results in the future. The five major areas of focus for capability improvement are demand generation, supply generation, technology, operations and people capability. www.KNOL BETA.com *Retrieved at July 6, 2010*

Widespread employee participation in local decision making is central to the logic of TQM. Employees must be empowered to be flexible and make decisions if customers are to be satisfied. They must be able to take action to prevent and solve problems, and be committed to the organization. But do employees really care whether improvements are made? Experience has shown that they are deeply concerned. They know, better than anyone else,

that barriers stand in the way of doing a good job. And when their job performance is hampered, they are denied the opportunity to do their best work. Performance and quality problems frequently result from barriers--unnecessary paperwork, needless layers of management, an obsession with control and conformity --rather than from personnel who are unwilling to work hard.

Feedback meetings are a useful vehicle for soliciting suggestions from employees about areas that need improvement, with discussions focused on how to upgrade procedures. A general measure of TQM's success is the extent to which personnel speak their minds and volunteer to lead or participate in plan of action teams, which focus on specific problems in more detail.

Initially, not all employees will participate. After all, they have seen similar quality programs come and go, and, in the past, their efforts have been wasted. Therefore, it is critical that management demonstrate its commitment to TQM by educating all employees and implementing their ideas. In other words, by trusting them and empower them in implementing TQM

And the process is continuous: as certain problems are solved and the staff works together to implement solutions, new teams are being formed to address new areas of concern. In other words, TQM is a management philosophy that one embraces forever. www.ownershipassociates.com Retrieved at December 6, 2010.

The Need for Training and TQM

Practitioners of Total Quality Management aim their efforts at getting the best from the current form of management being used, by utilizing quality and management tools. The objective is to optimize the potential of the business by reducing wasteful practices. It is a method by which management and employees join together for the common goal of improving services, production and goods of the company. Practicing TQM means quality is eventually expected to become a priority in all the areas of operation of the company. This approach to management originated in the 1950s and now (due to the positive effect it has had on the business world), it has steadily become popular. One proof of the continuous acceptance of TQM is that Total Quality Management Training schools have been set up and are now training professionals in TQM steadily. TQM training schools center their efforts on the eight key elements of TQM, which can be divided into four main groups. The four main

groups are I. Foundation (under which fall the elements of Ethics, Integrity, and Trust); II. Building Bricks (which is concerned with the Training, Teamwork, and Leadership elements); III. Binding Mortar (that talks about the Communication element); and lastly, IV. Roof (which revolves around the Recognition element.) **www.theartofservice.com Retrieved at December 6, 2010**

Ethics, integrity and trust make up the basic foundation of TQM. These three things move together so that one cannot be effective without the other. The three project the character of the organization (as represented by the managers.) The Bricks are made up of training, teamwork and leadership which are then laid one on top of the other, over the foundation. Proper training and teamwork plus effective leadership are three inseparable trios necessary to be present for a company to achieve true Total Quality Management. The third factor is named Binding Mortar, and this refers to communication between the management and the employees in both upward ways and downward ways. This binds the Foundation and the Bricks together if clear understanding has been achieved. Recognition is the Roof and is the ultimate factor that will feed the self esteem of the employees (or the team.) It is essential especially for employees who strive to receive recognition. **www.theartofservice.com Retrieved at December 6, 2010**

TQM AND ADDRESSING CUSTOMER NEED/CUSTOMER SATISFACTION

the ultimate goal of TQM is to please customers. Meeting or exceeding customer requirements means shifting emphasis from the short-term to the long-term, from the product to the customers-listening to them, adapting to their needs. TQM teaches that customer satisfaction is not only a measure of quality; it is a whole new approach to doing business. TQM has popularized a different way of thinking about organizational structure, workflow, and relations among departments and employees. The new idea is often characterizes as the customer chain: the final user of a company's product - the consumer in the showroom - is not an employee's only customer. Everyone in the organization who is affected by a given person's work is also that person's "customer". Pleasing these "internal" customers is fundamental to satisfying the final "external" customer. Building the customer chain also has profound implications for the organization as a whole, flattening out the hierarchy, re-designing work, sharing information, shifting responsibility, and empowering employees. **Hanngan (2002 98-119)**

TQM is not easy to implement, it will take a few months before the entire program is up and running. In order for it to work effectively, you need to have strong mangers. The managers are in charge of boosting employee morale about the new system and getting them excited for a change. This is not an easy task for anyone, especially because employees tend to resist changes. Implementing TQM is a great way to boost employee satisfaction. Since the entire process focuses on reducing waste and improving products, customers will receive a higher-quality product for the same price or for a lower cost. This will help to boost their trust in your company as you produce high-quality products unlike your competitors that may be focused on earning more money from them. **Hanngan (2002 98-119)**

One of the biggest parts of TQM is customer satisfaction. The products are made to order which means the products they receive will be as fresh as possible (which makes many customers hold your company to a higher level of trust). Ensuring your customers are always happy with their products is not an easy task, but it is possible. Use customer surveys to find out what the common customer complaints are. You not only need to find out if you meeting their expectations, but you need to find out if you are satisfying your customers needs. While customer needs and customer satisfaction seems like the same thing, they are actually 2 very different things. One goal is focused on producing a product and pricing it appropriately. When the customer buys the product, they will set an expectation on it based on its price. If it meets their price expectations, you have satisfied customer satisfaction. Now, the trick is satisfying their needs, which means you are satisfying the paying customer.

As you implement TQM, you will see that your customers are divided into 2 unique categories; you're paying customers and your next-level customers. The paying customer is the person that buys the product with a specific need in mind with the hope that the product will satisfy their needs. The next-level customers are the people that have someone else buy the product and they use it.

To satisfy customer needs and wants, make a list of all the different types of customers you have. You may have employees that are customers, which is a great way to get some instant feedback. Once you have a list of all your customers, you can create different product goals for them. Determine some of the reasons why these individuals may be using your product and why they continue to use your product over and over again. Use your employees to test your products and find out what would make the employees happier with the product. Employees are put into a unique position because they want to suggest things that will make

them satisfied as an employee (to get a raise) and to keep them satisfied as a customer. This is a great way to increase their responsibility within the company and to find out first-hand information from your customers. **Hanngan (2002 98-119)**

TQM and the Role of Management

Implementing a total quality management system has become the preferred approach for improving quality and productivity in organizations. TQM, which has been adopted by leading industrial companies, is a participative system empowering all employees to take responsibility for improving quality within the organization. Instead of using traditional bureaucratic rule enforcement, TQM calls for a change in the corporate culture, where the new work climate has the following characteristics: The TQM approach involves more than simply meeting traditional rejection rate standards. The end result of TQM is the efficient and effective use of all organizational processes in providing consistent quality at a competitive price. The TQM philosophy is a long-term endeavor that links people and processes in a system that alters the corporate culture to become one where quality is the core aspect of business strategy. **Leslie (1992, 255)**

In cultivating the TQM philosophy, strategy implementation must involve a focused effort on the part of every employee within the organization. It cannot be applied successfully on a piecemeal basis. TQM requires that management, and eventually every member of the organization, commit to the need for continual improvement in the way work is accomplished. Business plans, strategies, and management actions require continual rethinking in order to develop a culture that reinforces the TQM perspective. The challenge is to develop a robust culture where the idea of quality improvement is not only widely understood across departments, but becomes a fundamental, deep-seated value within each function area as well.

To be successful, a TQM system must be wholeheartedly accepted by top management, who, in turn, must convey their commitment to all organizational members. The policy for implementation and maintenance of the TQM system should be set forth in writing and incorporated into the organization's mission and goals statements. The key elements of senior management's role in implementing TQM are: Institutionalizing the TQM structure as established by stated goals and formal policies and procedures; and providing leadership as demonstrated by top management's explicit expectations and behavior in everyday activities.

As previously mentioned, it is essential that top management set organizational priorities and goals of the organization. The process of setting goals and allocating authority, responsibility, and resources must be continued throughout every level in the organization. The intent is to have every employee's work support the organizational priorities and to have each person know what to do, in measurable terms, to accomplish the goals. In addition, progress must be monitored **Leslie (1992, 285)**

CHAPTER THREE

DATA PRESENTATION, ANALYSIS AND INTERPRETATION

3.1. Introduction

As indicated in the introductory part of this study, the data analysis focused on different data collection methods such as interview, questionnaires, references of previous researches and documents of the enterprise and physical observation. Of those methods the interview was held with three top managers of the enterprise and with head of quality control section. The interview consisted of 13 questions that are helpful to assess the status of the enterprise to implement total quality management (TQM). All the managers who were interviewed by the researcher him self responded clearly.

Also the questionnaires that have 17 closed ended questions were distributed to 75 employees who are selected from the 275 total population of the printing enterprise. These 75 employees randomly selected from four sections according to their proportional number stratified random sampling technique are required. The sections are administration, preprinting, printing and binding that have sample sizes 26, 8, 14 and 27 respectively. Of those distributed questionnaires 68 of them (91%) returned with their proper responses three of the forms of the questionnaires returned back to the researcher with no responses (blank). four of the questioners remained un returned. The returned blank forms and the unreturned questionnaire forms are considered by the study as reflections of the negative attitude of the employees.

Regarding observation and review of previous researches the researcher found them they were promising to assess whether implementation of TQM in Brana printing enterprise is needed or not and were the path to come up with important findings of the study. As clearly mentioned above the researcher tried his best to collect adequate information to examine the short comings of the enterprise for the implementation of total quality management and come up with recommendations. The researcher wouldn't conclude that this data presentation is final and exhausted rather it would be in put for further research. The data presentation forwarded as follows.

3.2. Analysis of the Data obtained from Interviews

The researcher intentionally prepared for all interviewees the same scheduled interview consisted of 13 questions. The questions cover about quality system, strategic or management commitment, awareness of employees on total quality management, customer satisfaction and

participation, supplier participation, quality group, technology and competitors of the enterprise.

The first category of the interview questions forwarded to the interviewees were those questions asking whether the Brana printing enterprise has quality control and total quality management system or not.

> Do you have TQM system or written policy?

> What is the existing quality control system?

The respondent from technical and production department responded that the enterprise tried to establish quality control system under the frame work of national quality standard system but, not satisfactory. Also he responded that in spit of the existence quality group in the enterprise there should be skilled experts who are aware of quality matters so as to implement total quality management system. And the respondent emphasized in his response apart from awareness, total quality management requires the improvement of quality inputs and technologically advanced machineries.

Another respondent from marketing department agreed that there is quality control system which its ultimate function is inspection. Whereas his response regarding total quality management system is different from the response of the earlier one. Why these respondents answered different answers for the same question since they are managers of the same enterprise?

Let us see the third manager's answers for the same questions. He is from the human resource department. "There is quality control system. It is the system delimited from inspection of purchasing of input up to product process inspection." This answer is justified by the second question which asks whether total quality management system exists in Brana printing enterprise or not. The respondent answer was clear. "TQM never established. The controlling system which the enterprise still uses is inspection based controlling system."

The interviewee from quality section agreed that the inspection quality control system existed but, he is confused to respond about TQM. He said " we can not say that TQM is fully implemented but at structure level there is main section which is designated to implement it" Here the researcher observed that there is confusion between quality control system and total quality management system. From the different responses of the mangers, there is vital point which helps for the finding of the study.

The second category of the interview questions focused on strategic commitment of the enterprise for the implementation of total quality management. The following are the interview questions.

➢ Are you committed to implement TQM? Or if there is Intentional plan?

The technical and production manager replied for the above interview questions as follows "the management has strong and firm stand to strengthen the overall quality controlling system in order to be competent in printing market. For that we have plan to enhance the skill and knowledge of experts and all employees by delivering significant education about quality. All respondents from the other departments forwarded the same responses for the above questions. What the researcher observed from their responses is there are intentions to be committed for the implementation of total quality management but they require specific tailored training in TQM. Then who is responsible? They say nothing. Eventually, the other category of the interview was concerned about awareness of the employees about quality, and TQM.

➢ To what extent the employees are aware of quality?
➢ What would be their participation for the implementation of TQM?
➢ Compare to your competitors, is your enterprise profitable? Are employees and members of management satisfied with its profitability?

 The technical and production manger didn't deny that there is lack of awareness among employees and members of management. In his answer he emphasized that the employees of the enterprise are still trapped by traditional quality controlling system and the circumstance requires the endless effort of all community of the enterprise so as to create awareness on quality and TQM. Regarding profitability of the enterprise and employee satisfaction, the manager stated that despite it's profitability doesn't satisfy employees and members of the management as required because of the above mentioned poor quality management system.

On the other hand the marketing manager responded differently. In the case of the first question the interviewee answered with out doubt that employees are aware of quality. For the second question also he responded the same answer. Are quality and total quality management the same concepts? In the case of the third interview the response of the marketing manger was very optimistic. He responded that his enterprise is better than the competitors and the employees are satisfied on that

the human resource manager agrees with the production manger's answers. He said "In spit of the repeated discussions held to create the awareness of employees in quality and TQM, there is still wide gap of awareness in terms of quality matters. It requires us efforts to enhance awareness of all employees." Also he stressed that even though his enterprise is well organized, it requires further improvement.

Head of quality group also believes that there is improvement on awareness creation. In the case of the second question the interviewee responded as if the employees participate in quality matters but didn't mention his opinion from the TQM point of view. He answered the third interview by assuring that the enterprise improved its profitability and still the enterprise continuously improve its productivity to survive in to the printing market.

With regard to the relationship between customer and quality and customer satisfaction on the enterprise's products the interview raised the following two questions.

➢ How much the quality focused on customers?

➢ Are the customers fully satisfied on the products of the printing enterprise?

For the above questions the mangers responded somehow the same answers. All are agreed that the enterprise tries to satisfy its customers by producing quality product but, it has drawbacks regarding speed. All the interviewees were in doubt that the enterprise delivers its products by the right time as the customer requires. Their responses signify that the printing enterprise satisfies its customers partially. Can we talk about Total quality management with partial satisfaction of customer? As indicated in literature customers should be satisfied fully then we can talk about TQM.

The last category of the interview was focused on supplier's role on quality, responsibility of quality group, technological standard and competitor's role in quality. The questions are

➢ What is the technological capacity of the enterprise?

➢ What are the responsibilities of the quality group of the enterprise

➢ To improve the supply of raw materials do you have good relationship with your suppliers?

➢ Are there competitors from whom your enterprise shares experience?

All interviewees responded similar answers. According to their responses now a day the technical capacity and machineries of the printing enterprise are improved but are not enough. Still the existing technological capacity requires more improvement to be competent in terms of quality. In the case of the responsibilities of quality group of the enterprise, all

respondents justified that the responsibilities of the group are not beyond quality controlling and inspection. It is not tailored for TQM rather focused on traditional quality control system. What the researcher observed from the interviewees' answers about suppliers is that the bargaining power is under the hands of the suppliers because there are no many suppliers in the country. So, it is difficult for the enterprise to work with foreign suppliers for quality of the product. Regarding competitors the respondents mentioned few companies from whom the enterprise share experience as a bench mark.

3.3.   Analysis of the Data obtained from Structured Questionnaires

The second data collection technique the researcher used is questionnaires. As mentioned in the introduction the questionnaires contained 17 questions and five questions of Characteristics of Respondents grouped in to six major issues. They are Characteristics of Respondents, Issues Related to Quality Policy and System, Employees Awareness and Knowledge , Issues Related to Customers Satisfaction and Requirement, Issues Related to Management Commitment and improvement and Suppliers and Materials.

The questionnaires responded by 68 respondents from 75 distributed questionnaires that is 91% of the sample size. The respondents randomly selected from four sections of the enterprise proportionally. The data presented as follows.

3.3.1. Characteristics of the Respondents

Table 3.3.1: Respondent Educational Background

No.	Issue	Response							
		Admin		**Pre Print**		**Print**		**Binding**	
	Educational background	No	%	No	%	No	%	No	%
1	1-8 grade	-	-	-	-	-	-	-	-
	7-12 grade	6	24	3	37.5	7	50	13	61.9
	College	19	76	5	62.5	7	50	8	38.1
	Total	**25**	**100**	**8**	**100**	**14**	**100**	**21**	**100**
2	Sex								
	Male	16	64	7	87.5	12	85.7	11	52.4
	Female	9	36	1	12.5	2	14.3	10	47.6
	Total	**25**	**100**	**8**	**100**	**14**	**100**	**21**	**100**
3	Age								
	18-25	1	4	1	13	3	21	7	33
	26-50	21	84	7	87	11	79	14	67
	Above 50	3	12	-		-		-	
	Total	**25**	**100**	**8**	**100**	**14**	**100**	**21**	**100**
4	Experience								
	0-10	6	24	5	62.5	9	64.2	13	62
	11-25	14	56	3	37	4	28.5	8	38
	Above 25	5	20	-	-	1	7.3	-	
	Total	**25**	**100**	**8**	**100**	**14**	**100**	**21**	**100**

Source: Questionnaire, 2011

From the above table we can observe that 39 of the respondents are college graduates which mean 57%. The rest 29 (43%) of respondents have not completed higher education Those lower class education level respondents have detail knowledge and experience about the job they are doing, so they are able to see the printing quality problems by relating to their knowledge and job experience. The other educated groups can see the printing quality problems professionally and they also have a good view to identify the enterprise's problem. Regarding the issue of total quality management both group have no significant differences in terms of awareness. This fact has been realized by interview and observation. In the case of age 56 (82%) of the respondents are above 26 years old. Whereas 13 (18%) of them 25 years old and below. From this data we can observed that most of the respondents are matured in

terms of age. This has impact on the experience of the employees. The collected data of experience indicated that 35 (52%) of the respondents have experiences of more than 10 year and above. This shows that most of the employees have enough knowledge about the printing enterprise.

3.3.2. Issues Related to Quality Policy and System

Table 3.3.2: Total Quality management Policy and system

No	Issues	Response							
		Admin		**Pre Print**		**Print**		**Binding**	
	Does the enterprise have clearly defined TQM policy?	**No**	**%**	**No**	**%**	**No**	**%**	**No**	**%**
1	Yes	16	64	2	27.25	6	42.9	15	71.4
	No	0	-	1	12.5	1	7.1	5	23.8
	Have No information	9	36	5	60.25	7	50	1	4.8
	Total	**25**	**100**	**8**	**100**	**14**	**100**	**21**	**100**
2	Does the enterprise have clearly stated quality Management system?								
	Yes	22	88	4	50	12	85.7	18	85.7
	No	3	12	4	50	2	14.3	3	14.3
	Have No information	-	-	-	-	-	-	-	-
	Total	**25**	**100**	**8**	**100**	**14**	**100**	**21**	**100**
3	Does the enterprise have written and approved Procedure for all printing activities?								
	Yes	18	72	6	75	9	64.3	18	85.7
	No	6	24	2	25	4	28.5	2	9.5
	Have No information	1	6	-	-	1	7.2	1	4.8
	Total	**25**	**100**	**8**	**100**	**14**	**100**	**21**	**100**

Source: Questionnaire, 2011

Table 3.2 refers to the whether the enterprise has clearly stated total quality management policy, and system and written procedure. The responses summarized as follows.

From the response given to the first question we can see that 64% of the respondents of administration section, 27% of the Pre-printing employees, 42% of printing section respondents and 71% of binding section employees believe that the enterprise has clearly defined total quality management (TQM) policy, on the other hand 0%, 13%, 7.% and 24%

of the respondents the sections respectively responded that the enterprise has no policy. Where as 36%, 60% 50% and 5% of the employees of the sections respectively responded that they have no information from this data it can be observed that most of the administration and binding section respondents agreed that TQM policy exists. Insignificant number of the respondents does not agree the existence of the policy. However, this few number with the large number of those who have no information might be an indicator that enterprise has no clearly stated TQM policy. To justify the student researcher tried to see if there if this policy but didn't find official document written as TQM policy which defines the commitment of the enterprise to deliver products that satisfy the requirements of the customers and other stakeholders through the application and continuous improvement of quality management system. This also justified by cross examined through interview.

From responses to the second question we can observe that from 25 respondents 22 (88%) of them administration section, from Preprinting section 0ut of 8 respondents 4 (50%) 0f them, from printing section 0ff 14 respondents 12 (86%) of them and from binding section out of 21employees 18 (86%) of the respondents responded the existence of clearly stated quality management system. The rest 12%, 50%, 14% and 14% of respondents from listed sections respectively don't agree with the existence of written quality management system. In this item there is no response which is having no information." The same is true here that in spite of the fact that the largest proportion of the respondents testified the existence of clearly stated quality management system, the interview conducted by the researcher and his observation the absence of officially written document.

In the case of third question still the researcher observed majority of the respondents from all sections responded that the enterprise has defined written procedure for all printing processes.72% respondents from administration section, 75% of respondents from preprinting section, 65% of them from printing, and 86% of respondents from binding justified the existence of written schedule. On the other hand 24%, 25% 29% and 10% of respondents respectively assured with their responses the absence of written schedule of the printing enterprise. Insignificant number of respondents responded that they don't have an idea.

3.3.3. Issues concerning Employee's Awareness and Knowledge about TQM

Table3.3.3: Employees Awareness and Knowledge

No	Issues	Response							
		Admin		Pre Print		Print		Binding	
	Do you aware of total quality management (TQM?)	No	%	No	%	No	%	No	%
1	Yes	12	48	3	37.5	5	35.7	8	38
	No	13	52	5	62.5	9	64.3	13	62
	Have no information	-	-	-	-	-	-	-	-
	Total	**25**	**100**	**8**	**100**	**14**	**100**	**21**	**100**
	Have you ever taken specific training on quality matters?								
2	Yes	9	36	8	100	2	14.3	4	19.5
	No	16	64	-	-	12	85.7	17	80.5
	Have no information	-	-	-	-	-	-	-	-
	Total	**25**	**100**	**8**	**100**	**14**	**100**	**21**	**100**
	Does the enterprise allow you to participate in decision making regarding quality objectives								
3	Yes	8	32	1	12.5	5	35.7	4	19
	No	17	68	7	87.5	9	64.3	17	81
	Have no information	-	-	-	-	-	-	-	-
	Total	**25**	**100**	**8**	**100**	**14**	**100**	**21**	**100**

Source: Questionnaire, 2011

On the above Table 3.3., also incorporated three items that are concerned about employee's awareness and training. What observed is that, most of the respondents responded they are not aware of total quality management. Those respondents who have no idea of TQM cover 59%. Of these 52% respondents from administration, 63% from preprinting, 64% from printing and 62% respondents don't know what TQM is. Here the researcher keeps in mind one point by taking from previous table and asks "how could exist 59% of employees who are not aware of TQM in to the enterprise which has clearly stated total quality management?" Only 41% of the whole respondents assured that they know about the term TQM. Do they have detail Knowledge? The student researcher doesn't think they have because didn't find justifications while he was interviewing and visiting the enterprise's documents that they have got specific training on TQM.

Item 2 also related with knowledge. The observation of this item indicates that 66% of the respondents have never taken special training on quality matters. This result justified the observation over the previous item. With out intensive training we can't expect awareness. Despite the existence of 34% of observation of respondents who responded that they took training on quality matters, we couldn't be optimistic that the enterprise is committed to train its employees. This fact justified by cross examining through interview.

Using question number three, the researcher intended to assess whether the management of the enterprise give room to all employees for participation on quality objectives. 74% of the respondents answered that they are not allowed to participate in decision making of quality objectives of the enterprise. In the other hand 22% of respondents responded positively. From the above data presentation we can com up with the conclusion whether that the enterprise is committed for the implementation of TQM or not. No one can implement total quality management with out employee's participation. Unless the enterprise recognizes that quality is the responsibility of all members of the company, can not implement TQM.

3.3.4. Issues Related to Customers Satisfaction and Requirement

Table 3.3.4: Customer Satisfaction and Requirement

No.	Issues	Response							
		Admin		Pre Print		Print		Binding	
	Do the customers actively participate in quality matters of the enterprise?	No	%	No	%	No	%	No	%
1	Yes	5	20	-	-	1	7	4	19
	No	4	16	1	12.5	-	-	1	9
	Have no information	16	64	7	87.5	13	93	16	72
	Total	**25**	**100**	**8**	**100**	**14**	**100**	**21**	**100**
	Does the enterprise conduct customer's satisfaction Survey every year?								
2	Yes	15	60	6	75	14	100	16	76
	No	7	28	1	12.5	-	-	5	24
	Have no information	3	12	1	12.5	-	-	-	-
	Total	**25**	**100**	**8**	**100**	**14**	**100**	**21**	**100**
	Is there any mechanism that the enterprise receives Customer's feed back every time?								
3	Yes	15	60	5	62.5	14	100	17	80.9
	No	7	28	2	25	-	-	4	19.1
	Have no information	3	12	1	12.5	-	-	-	-
	Total	**25**	**100**	**8**	**100**	**14**	**100**	**21**	**100**
	Are quality related compliant of customers treated with top priority								
4	Yes	19	76	8	100	13	92.8	16	76
	No	5	20	-	-	1	7.2	4	19.1
	Have no information	1	4	-	-	-	-	1	4.9
	Total	**25**	**100**	**8**	**100**	**14**	**100**	**21**	**100**

Source: Questionnaire, 2011

From issue '1' Table 3.4 above, only 5 (20%) of the administration section respondents responded that customers actively participate in quality issues of the enterprise. Where as from the section of Preprinting no one of the respondents agrees with the first issue. In the case of printing section only one respondent (7%) out of 14 agreed that customers participate

in quality matters. Out of 21 respondents of binding section only 4 of them (19%) responded positively. 4 (16%), 1 (12%), 0 (0%) and 1 (9%) of respondents respectively disagreed with the issue of customer participation. 72% of the respondents of all sections responded that they have no information,. This data signified that most of the respondents are in doubt that customers are allowed to participate in quality of the enterprise. In the second issue most of the respondents of all sections (75%) agreed the existence of annual customer satisfaction survey. 19% 0f respondents disagree the existence of customer survey practice. The rest 6% of the respondents have no idea about the issue.

In the case of feedback of customer also 75% of respondents assure that there is a mechanism for customer feedback. Whereas 16% of the respondents agree the absence of mechanism for feedback. The rest of the respondents which means 9% reflected with their response that they have no information.

The fourth issue is concerned about customer compliant. It asks whether the enterprise give top priority for customer compliant or not. 82% of the respondents from all sections agreed that the enterprise give top priority for customer complaints. Only 9% of the respondents said no. 8% of them have no idea. From this table of data we can recognize that the enterprise has good practice to fulfill the interest of its customers but, regarding participation of customer in quality issues of the enterprise we can not be sure that they have room to participate. The enterprise has an event which is going to be held annually. On this event the enterprise awards its loyal customers .As far as the observation of the student researcher concerned, the company doesn't have discussion or consultation program with regard to quality matters beyond awarding certain customers. In spite of the agreement of most of respondents that the enterprise gathers feedback and conducts customers survey, the student researcher didn't find documents that indicate the participation of customers in quality issues.

3.3.5. Issues Related to Management Commitment and improvement

Table 3.3.5: Management Commitment

No.	Issues	Response							
		Admin		Pre Print		Print		Binding	
1	Is the management of the enterprise committed for the implementation of TQM?	No	%	No	%	No	%	No	%
	Yes	21	84	3	37.5	11	78.6	18	85.7
	No	3	12	3	37.5	2	14.3	3	14.3
	Have no information	1	4	2	25	1	7.1	-	-
	Total	**25**	**100**	**8**	**100**	**14**	**100**	**21**	**100**
2	Does the enterprise have quality team that is designated for responsibility of key quality concerns?								
	Yes	21	84	7	87.5	12	85.7	18	85.7
	No	3	12	1	12.5	2	14.3	3	14.3
	Have no information	1	4	-	-	-	-	-	-
	Total	**25**	**100**	**8**	**100**	**14**	**100**	**21**	**100**
3	Do you think that the enterprise is committed for the continuous improvement of quality?								
	Yes	3	12	-	-	2	14	3	14
	No	21	84	8	100	12	86	18	86
	Have no information	1	4	-	-	-	-	-	-
	Total	**25**	**100**	**8**	**100**	**14**	**100**	**21**	**100**

Source: Questionnaire, 2011

Issues asked in Table 3.5 above, are focused on the strategic commitment for the implementation of TQM, quality group and continuous improvement of product processing. As we discussed in the review of literature there are requirements that the above issues need to fulfill. In this regard the respondents' sentiment observed as follows. In the case of the first issue 77% of the respondents believe that the management is committed to implement TQM. Only 16% of the respondents disagree, where as the rest of the respondents declared that they don't know.

When we come to the second issue that of quality group, 85% of the respondents advocate the existence of quality group. On the other hand 13% of the respondents disagreed and 2% of them have no idea.

The third issue concerns about continuous improvement of methods of product process. In this issue asked whether the enterprise committed for that or not. Most of the respondents of all sections (87%) witnessed the absence of commitment of the enterprise to enhance continuous improvement. The few of the respondents (11%) of the respondents said that there is commitment to conduct continuous improvement in the product process. the rest of them (2%) answered they have no information. From the above data we can observe that the enterprise lacks some vital ingredients of TQM. So as to implement the enterprise should significantly fulfill what the TQM implementation requires.

Table 3.3.6: Suppliers and Materials

No.	Issues	Response							
		Admin		**Pre Print**		**Print**		**Binding**	
	Does the enterprise have reliable suppliers?	**No**	**%**	**No**	**%**	**No**	**%**	**No**	**%**
1	Yes	14	56	6	75	11	78.6	13	62
	No	8	32	1	12.5	2	14.3	7	33.1
	Have no information	3	12	1	12.5	1	7.1	1	4.9
	Total	**25**	**100**	**8**	**100**	**14**	**100**	**21**	**100**
2	Are the suppliers concerned for the quality of the enterprise's product?								
	Yes	13	52	4	50	8	57.1	12	57.4
	No	8	32	2	25	4	28.6	7	33.1
	Have no information	4	16	2	25	2	14.3	2	9.5
	Total	**25**	**100**	**8**	**100**	**14**	**100**	**21**	**100**
3	Does the enterprise have requirements regarding material Purchasing?								
	Yes	21	84	7	87.5	12	85.7	17	81
	No	1	4	1	12.5	-	-	3	14.2
	Have no information	3	12	-	-	2	14.3	1	4.8
	Total	**25**	**100**	**8**	**100**	**14**	**100**	**21**	**100**
4	Does the enterprise purchases materials that have Consistent quality?								
	Yes	7	28	5	62.5	7	50	8	38
	No	15	60	2	25	6	42.9	13	62
	Have no information	3	12	1	12.5	1	7.1	-	-
	Total	**25**	**100**	**8**	**100**	**14**	**100**	**21**	**100**

Source: Questionnaire, 2011

As indicated in issue '1' in Table 3.6, 63% of respondents from all sections responded that the enterprise has reliable suppliers on the other hand 26% of respondents reply negative. The rest 11% of respondent expressed they know nothing. What we observe from this data is most of the respondents accept the presence of reliable suppliers but, there are also significant number of respondents that disagree on that and that don't know whether there are reliable suppliers or not.

In the case of the second issue. 54% of respondents agreed that the suppliers advocate for the quality of the enterprise's products where as 31% of the respondents reply that the suppliers are not concerned for the quality of the product of the enterprises. The rest 15% of the respondents responded that they have no information. In this issue also 46% of the respondents don't agreed or don't know. So how this significant number of respondents against the concern of supplier if there is mutual interest between the suppliers and the enterprise?

In issue '3' asked whether the enterprise has requirements for material purchasing or not. 87% of the respondents witnessed that the enterprise has requirements for material purchasing; where as 7% of respondents reply that they believe there are no requirements and 6% of the respondents have no idea or they have no information. If the enterprise has requirements for material purchasing there should be quality material consistently. The next issue is concerned about quality material supply.

As we observe from the table3.3.6 40% of respondents agreed that the enterprise is provided consistently quality material, On the other hand 53% of the respondents disagreed that the printing enterprise purchases materials that have consistent quality. The rest 7% of respondents expressed that they have no information. From this data we can observe that the enterprise lacks a system to deal with suppliers so as to be provided with quality material. Because including those responded that they have no information 60% of the respondents are negative.

3.4. Observation

The information of the study is obtained by visiting the physical situation of the printing enterprise, documents the researcher has repeatedly visited the printing complexes of the enterprise. He observed what looks like the location of the factory and what capacities the enterprise does it have.

As observed by the researcher the enterprise displayed its vision, mission, objectives and values in the compound.
From the above observed vision, mission and values of the enterprise it is possible imagine that there is fertile ground for the implementation of TQM because there are some substances

in the components that are incorporated in the vision, mission and values of the enterprise. Generally the points that are incorporated in the vision, mission, and values recognize the need for quality so as to satisfy customers. This encourages the implementation of TQM in the enterprise.

The researcher intended to cross check by his observation whether the policies, written procedures of production processes, requirements for purchasing raw material and manuals of quality control. Finally, the researcher found no official documents; rather he found some unofficial written papers that are temporally used as working manuals. Especially the quality group is using unendorsed manual which help the quality inspectors to inspect the quality of printed materials. This document incorporate the methods of raw materials inspection, quality inspection, sample inspection, and purchasing sample inspection

The researcher also visited the quality group members. Quality workers that are assigned in each section of the production process namely preprinting, printing and binding but they don't have significant knowledge in quality as the head of quality group testified to the researcher. They are working as quality inspectors traditionally (by experiences). From this observation the researcher realized that the member of quality group themselves require further training in quality matters.

The other vital observation of the researcher was focusing on the layout of the factory of the enterprise. The layout of the production processes includes three vital sections. They are
> Preprinting;- consisting of typing and designing computers without adequate backup and data base system, Computer to plate (CTP) and camera and striping.
> Printing;- consisting of different old offset machines and modern four color printing machines
> Binding finishing; - consisting of collecting, cutting, folding, sewing machines. The lay out illustrated as follows
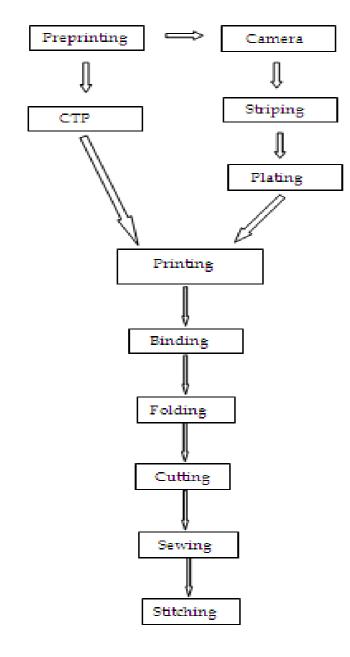
Figure 3.1: Lay out of the production process

```
  Preprinting  ⟹   Camera
       ⇩              ⇩
     CTP          Striping
        ⟍             ⇩
         ⟍         Plating
          ⟍          ⟋
           ⟍        ⟋
            Printing
               ⇩
            Binding
               ⇩
            Folding
               ⇩
            Cutting
               ⇩
            Sewing
               ⇩
            Stitching
```

Source: Observation**,** 2011

In the above layout of the production process the researcher observed both back ward modern printing machines. Some of the work processes require more time to finish the job because of the backwardness of the machines. Whereas in some parts of the printing process the time of the processes came down because there are modern machines which perform three works once in a single process. Despite the existence of some modern machines in the enterprise the observation of the researcher illustrated that most of the machines in the printing factory are machines. Because of that the enterprise requires technological advancement so as to produce quality publications within short period of time. With that the delivery time can fulfill the requirements that the customers requiring.

Eventually the researcher had got an opportunity to take part of the celebration of the so called "Customers day" In this celebration the researcher observed that the enterprise awards its loyal customers every year. This experience enables the enterprise to use its customer as force for the implementation of total quality management because the literature advocates the involvement of customers as an effective ingredient of implementation of TQM but, the researcher observed that the enterprise doesn't utilize the customers day beyond awarding them. This fact is also reflected in the interviews and questionnaires.

CHAPTER FOUR
SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

This chapter contains the findings, conclusions and recommendations based on the data analyzed in Chapter Three.

4.1. Summary

The study covered four important chapters to come up with the right conclusion and recommendations. In the introductory chapter the study assessed the historical back ground of the enterprise to illustrate its place in printing industry in terms of printing business and quality practices The researcher realized from the background of the enterprise that the enterprise had no a significant place in printing industry or printing market. The chapter was the initial point to materialize the subject matter of the study (The need of implementation of total Quality management TQM in Brana Printing Enterprise)

The second chapter assessed what quality is, the concepts of total quality management and its requirements for its implementation. The chapter helps us to grasp clear understanding of quality and TQM. Not only understanding of the subject matter but, also we have learnt from the chapter what benefits implementing TQM. The researcher can take the points of different rationalization of TQM concepts that are considered as a crucial instrument of institutional transformation. as a summary of the review of literature.. By discussing the needs of employee's participation, management role, continuous improvement, customer satisfaction training,historical evolution and development of TQM, It indicated what the subject matter valid for this study. Different points that are forwarded as a guideline by different quality gurus forwarded are also presented in this chapter.

From the above points that are presented in Literature review we can come up with the conclusion why TQM is needed such as improving the institution and its employees, benefits for all communities, significant enhancement of quality management standards and international quality standards etc.

The vital part of this study is briefly discussed in the proceeding chapter next to review of literature where the data about the enterprise presented and interpreted. According to the

findings from the presentation and interpretation of the data, the enterprise is required to implement total quality management to be competent in to the printing market.

In the above data that are collected with different data collection methods the researcher assessed important pointes that lead him to the right conclusion and recommendations. In the interview Raised 13 questions for four management members and the respondent answered differently their own opinions. Their different answers signified to the researcher the absence of total quality management as a system. Even there are controversial issues regarding quality control system of the enterprise. As we have discussed in the literature review, quality comes from the aggregate effort of the whole community of the enterprise. If quality control recognized as a system in the enterprise, there should not be disagreement between managers regarding questions of quality matters.

The study also analyzed the responses questionnaires. The Questionnaires covered the data presentation classified in to 6 major issues namely Characteristics of Respondents, Issues Related to Quality Policy and System, Employees Awareness and Knowledge, Issues Related to Customers Satisfaction and Requirement and Issues Related to Management Commitment and improvement Suppliers and Materials. Of 275 respondents 68 of them fully responded and their responses interpreted in the chapter. From the above data presentation and interpretation the researcher came up with the following findings that led him to the conclusion and recommendation

➢ There is bias between quality control system and total quality management system. The bias came from the absence of knowledge about TQM in all level of employees in terms of educational back ground.

➢ There are intentions to be committed for the implementation of total quality management but, they require specific tailored training in TQM.

➢ There is lack of awareness about TQM among employees and members of management.

➢ The current quality level of the production of the enterprise doesn't satisfy employees and members of the management as required.

➢ According to the responses of respondents in both interview and questionnaires the printing enterprise satisfies its customers partially but the concept of TQM requires full satisfaction of customers.

- The responsibilities of the quality group are not beyond quality inspection and Its members have no Knowledge and skill of quality
- The existing technological capacity requires more improvement to be competent in terms of quality.
- The employees of the enterprise are not allowed to participate in decision making in term of quality matters and they also are not dedicated to be part of quality management they thought it is quality group's affairs.
- There is no sign of interaction between suppliers and the enterprise for the quality of product.

4.2. Conclusions

According to the summary of the study we have learnt from the literature what quality and total quality management means. And from the study conducted by applying three major types of data collecting techniques the researcher found that the enterprise needed to implement total quality management Because TQM is a way of life for the enterprise. In other words it is a corner stone or pillar to survive in this intensive competitive world. As we have seen in the literature review total quality management is or must be the responsibility of every body (from the gate to top management) but the study justified that this hasn't performed in Brana printing enterprise for the last many years. Generally what the researcher intended to conclude based the above findings are listed below:

1. The enterprise has not established clearly stated total quality management policy
2. The enterprise hasn't developed the awareness of employees about quality and TQM.
3. There is no an indication of written document in the enterprise which justifies that quality control is recognized as a system
4. Despite the enterprise has tried to handle customers by creating event like customs day has not utilized it to work together for the continuous improvement of product in terms of quality
5. The enterprise doesn't have reliable suppliers that are concerned for the quality of printing products
6. There is no the commitment of strategic management.
7. No specific training has been conducted in the enterprise since the establishment of the enterprise.

8. There is no proper quality group that is designated to the quality of the enterprise's product.

9. The employees of the enterprise are not empowered and allowed to participate in decision making in quality issues.

10. The status of the capability of the enterprise in terms of technology and quality material is still backward.

4.3. Recommendations

Based on the above findings and conclusion that came out from studies conducted by the researcher as indicated in the respective chapters, the researcher would like to forward the following recommendations. And hope the management of the enterprise will think over it to implement total quality management as a vital component of management for the survival of the enterprise in to the printing industry. This will be the tuning point of the institutional transformation in the history of the enterprise.

1. First off all the management of the enterprise should be committed to organize Intensive training on quality and total quality management for all employees and member of management.

2. The enterprise specially The Ministry of National Defense should think the implementation of total quality management at strategic level (there should be Strategic commitment).

3. There should be frame work that enables the enterprise to tackle quality problems and to fully recognize the implementation of total quality management. So establishing clearly stated TQM policy is recommended.

4. Total quality management is not responsibility of certain group. It is recommended creating environment where all employees are involved in decision making on all quality matters.

5. Maintain the mechanism of relationship with customers (Customers day) and use it as an instrument which enable the enterprise to satisfy the needs and preferences of the customers and so as encourage the participation of them in improving the quality of the printing products of the enterprise.

6. Strengthen the quality group in order to enhance quality control system beyond the traditional inspection train members of quality group in quality issues.

7. Establish intense coordination with metal and industry corporation so as to conduct research and study for technological transfer and enable the enterprise to have technological advancement.

8. Establish requirements of material purchasing and written procedure of procurement of the enterprise.

9. Allow the suppliers to participate in the improvement of quality of product.

10. We have learnt that quality is not endless effort so, the enterprise's management should set a mechanism for the continues improvement of the process of printing production.

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APPENDICES

A. Questionnaire for Employees [English Version]

The Need for Implementation of Total Quality Management: The Case of Brana Printing Enterprise [BPE]

Addis Ababa, 2011

For Employees Use only

Informed Confidentiality and Consent

I am a prospective graduate of St. Mary's University College from the department of Management. I am conducting a research for the partial fulfillment of my B. A. Degree in Management, entitled "The Need for Implementation of Total Quality Management: The Case of Brana Printing Enterprise [BPE]"

The general objective of the research is to assess the causes and consequences of Total Quality Management Practices in your organization and to suggest recommendations that would help to minimize problems.

Since your honest and timely response is valuable for the success of the research, please try to answer the questions frankly with due attention. I assure you that the confidentiality of your information will be respected.

Thank you in advance for your cooperation

Note:

- No need of writing your name since the questionnaire is prepared for academic purpose.
- Please, put a tick mark (√) in the box or circle choices for your answers
- Discuses briefly open ended questions

I. Background Characteristics of Respondents

1. Gender

   ☐ Male   ☐ Female

2. In which age group are you?
   - ○ 18 - 25   ○ 26 - 50
   - ○ Above 50

3. What is your highest educational status?
   - ○ Elementary   ○ High school
   - ○ College Diploma and above

4. For how long have you been working in Brana Printing Enterprise
   - ○ 5 - 10   ○ 11 -25
   - ○ Above25

5. What is your job position in the EELPA? _____

II. Questions Directly Related to the Study

1. Does the enterprise have clearly defined quality policy?

   a, Yes ☐   b, No ☐   c, I have no information ☐

2. Do you aware of total quality management (TQM)?

   a, Yes ☐   b, No ☐   c, I have no information ☐

3. Have you ever taken specific training on quality matters?

   a, Yes ☐   b, No ☐   c, I have no information ☐

4. Does the enterprise allow you to participate in decision making regarding quality objectives?

   a, Yes ☐   b, No ☐   c, I have no information ☐

5. Do the customers actively participate in the achievement of total quality management?

   a, Yes ☐   b, No ☐   c, I have no information ☐

6. Is the management committed for the implementation of TQM ?

   a, Yes ☐   b, No ☐   c, I have no information ☐

7. Does the enterprise conduct a customer satisfaction survey every year?

   a, Yes ☐   b, No ☐   c, I have no information ☐

8. Is there any mechanism that the enterprise receives customer feed back and complaint every time?

   a, Yes ☐   b, No ☐   c, I have no information ☐

9. Does the enterprise have written and approved procedures for all printing activities?

   a, Yes ☐   b, No ☐   c, I have no information ☐

10. Does the enterprise clearly define quality management system?

    a, Yes ☐   b, No ☐   c, I have no information ☐

11. Does the enterprise have quality team that is designated for responsibility of key quality activities?

    a, Yes ☐   b, No ☐   c, I have no information ☐

12. Does the enterprise have reliable suppliers?

a, Yes ☐   b, No ☐   c, I have no information ☐

13. Are the suppliers concerned for the quality of the enterprises product?

a, Yes ☐   b, No ☐   c, I have no information ☐

14. Does the enterprise have requirements regarding material purchasing?

a, Yes ☐   b, No ☐   c, I have no information ☐

15. Does the enterprise purchase materials that keep consistent quality?

a, Yes ☐   b, No ☐   c, I have no information ☐

16. Are quality related complaints of customers treated with top priority?

a, Yes ☐   b, No ☐   c, I have no information ☐

17. Do you think that the enterprise is committed for the continuous improvement?

a, Yes ☐   b, No ☐   c, I have no information ☐

B. Interview Questionnaire TQM Coordinators [English Version]

The Need for Implementation of Total Quality Management: The Case of Brana Printing Enterprise [BPE]

Addis Ababa, 2011

For Managers Use only

1. What is the existing quality control system?

2. Would you describe the TQM awareness status of employees?

3. Do you have TQM system or written policy?

4. If yes/no haw much it focuses on customer?

5. Are employees involved quality matters?

6. To improve the quality of your product, to what extent the machines are technologically advanced?

7. Do you have quality team? What are its duties and responsibilities?

8. Do you work with suppliers so as to improve quality of raw materials?

9. Are you committed to implement TQM? Or if there is Intentional plan?

10. Do you have any benchmark from your competitors? What are the lessons you take from them?

11. Are you satisfied with the profitability of your enterprise as compare to your competitors?

12. Do you think that your customers are satisfied with your product?

Acronyms

MOND   Ministry of National Defense

TQM   Total Quality Management

QC   Quality control

QA   Quality Assurance

QMPs   Quality Management Systems

DECLARATION

I, the undersigned, declare that this senior essay is my original work, prepared under the guidance of Ato **Daniel Meread**. All sources of materials used for the manuscript have been duly acknowledged.

Name: **Mengistu Feleke**

Signature: _____

Place of submissions: St. Mary's University College

                                    Faculty of Business

                                    Department of Management

                                    Addis Ababa

Date of submission: _____

SUBMISSION APPROVAL SHEET

This Senior Research Paper has been submitted to the Department of Management in partial fulfillment for the requirement of BA Degree in Management with my approval as an advisor.

Name: **Daniel Meread**

Signature: _____

Date: _____