AN INVESTIGATION INTO THE RELATIONSHIP BETWEEN SOFT ASPECTS OF TOTAL QUALITY MANAGEMENT PRACTICES AND JOB SATISFACTION IN PRINTING FIRMS: THE CASE OF FIDELITY PRINTERS AND REFINERS (PVT) LTD.

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DECLARATION

I, Remigius Chipfuyamiti, do hereby declare that this dissertation is the result of my own investigation and research, except to the extent indicated in the acknowledgements, references and by my comments included in the body of the report, and that it has not been submitted in part or in full for any other degree to any other university

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ABSTRACT

The purpose of this research is to examine the major people-oriented Total Quality Management (TQM) practices that impact job satisfaction within the printing sector using a major printing company Fidelity Printers and Refiners Pvt. Ltd as a case study. The study also seeks to find out the differences in job satisfaction (if any) between men and women and between young and aged employees as a result of such practices.

Although there is growing literature on the impact of the soft (people-oriented) TQM practices on job satisfaction, such research has not been conducted in Zimbabwe or for the Printing industry. Furthermore, among researchers, their findings have been different and contradicting.

Following a critical literature review on TQM, a set of soft practices were identified which were used as the independent variables. These people-oriented practices are education and training, reward and recognition, empowerment, team work, and involvement from which several hypotheses were formulated.

A questionnaire was designed to collect data from employees and the data was subjected to SPSS analysis. Non-parametric tests were conducted and training and education proved to have the highest influence on job satisfaction while involvement recorded a negative association with job satisfaction. The results revealed that old employees are more satisfied than their young counterparts while there is no statistically significant difference between men and women.

The study objectives were met and the implications of the study are that management ought to review their TQM dimensions consistent with the training needs of employees. Furthermore, particular efforts must be made to improve job satisfaction for young employees.

Key words: Total quality management, people-oriented practices, Fidelity Printers.

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ABBREVIATIONS

ISO- International Standards Organisation

QA- Quality Assurance

QC- Quality Control

MBQA- Malcolm Bridge National Quality Awards

SPSS- Statistical Program for Social Scientists

TQM- Total Quality Management

VIF- Variation Inflation Factor

CHAPTER ONE
INTRODUCTION AND BACKGROUND

1.1 Introduction

The researcher sought to find out the main soft (people oriented)Total Quality Management (TQM) practices that affect job satisfaction of employees at Fidelity Printers and Refiners (Pvt) Ltd with the hope that these can be generalized to the printing industry. Guimaraes (1996), once asked the question that people make TQM work, but does TQM work for the people?

Total Quality Management (TQM) is a key strategy for maintaining competitive advantage and is a way of managing organisations to improve overall effectiveness and performance. The body of literature has examined the relationship between TQM and employees' job satisfaction in various countries and industries. However there is no research that recognises TQM in the context of a Zimbabwean Printing company such as Fidelity Printers and Refiners.

In recent years, the emphases on human issues and involvement of employees have increased within the field of TQM. To be fully successful and self sustaining, TQM requires refashioning of softer practices whose elements consist of dimensions of human resource management (Wilkinson, 1992). Literature on TQM failure emphasises the neglect of the soft side of quality management (Wilkinson, 1992). According to Saraph and Sebastian (1992) as cited in Guimaraes (1996), 50 to 75 % of failure in companies implementing advanced manufacturing technologies is mostly due to neglect of human factors.

Various practices of TQM have been studied including team work, customer focus, reward and recognition, training, management commitment, employee involvement and organisational culture. In many of the studies, descriptive statistics is used to analyse the link between TQM with job satisfaction. The current research quantitatively examined the relationship of empowerment, reward and recognition,

education and training, team work, and employee involvement with job satisfaction using employees of a large printing organization.

This Chapter outlines the rationale for undertaking the research, gives the background of the case company. The problem statement is also highlighted in the Chapter. The aim and main objectives of the study as well as the major research question are detailed. The hypotheses developed from literature review are also listed. Finally, the structure of the entire dissertation is discussed for easy reference by the reader.

1.2　Background to the study

1.2.1 Company background

Fidelity Printers and Refiners (Pvt) is a wholly owned subsidiary of the Reserve Bank of Zimbabwe (RBZ). Established as a banknote printing company for the central bank, the company was incorporated under the Companies Act on 18 December 1978 as Fidelity Printers (Pvt) Ltd. The company was moved to the current site (Msasa) in 1987. At the same site, a Gold Refinery was established to refine gold and other precious metals, resulting in name change to Fidelity Printers and Refiners (Pvt) Ltd.

At inception, the printing division concentrated on printing banknotes and other high security documents such as passports. The growth in other securities product lines resulted in the separation of the department to Banknote Printing and Other Securities Printing in 2004. However due to dollarization, the departments have again been merged into one department as the company seeks to fully commercialise.

Management of the company realized that in today's business environment, markets are changing, products are changing, technology is changing and most importantly, customer demands are changing. What the printing and publishing industry is faced with is a fast changing demand for quality that is forcing the industry to modify unstable processes to make them more stable. Total Quality Management program implementation is therefore vital for manufacturing firms.

In March 2001, the organization was certified to the ISO 9001:1994 by Africert, a South African certifying body with commitment to quality and security in its products and services, continuous improvement of processes, products and processes. The company has therefore more than a decade of practicing Total Quality Management. One of the company's core values is quality and the company strives for continuous quality enhancement. The section below is a SWOT analysis of the company

1.2.1.1 Strengths

1. Satisfied customers – from the company's customer surveys, most of them were generally satisfied with the quality and service from the Company.
2. Technology – the company has a good record of responding to technical change and has modern equipment.
3. Regular customer base- although some customers are volatile, the company has regular customers in form of Government Ministries and departments whose products cannot be printed anywhere else in Zimbabwe other than at the company. An example is the Registrar General (passports)
4. Diverse product range

A satisfied work force is crucial to safe guard the company's strengths. It is crucial to understand if TQM provides satisfaction to employees.

1.2.1.2 Weaknesses

1. Low margins – these are a significant factor in many of the printing industry's other problems such as lack of resources for training.
2. Low levels of training – the company has a poor record on apprenticeships training and expenditure on training. This compounded because of all the colleges in Zimbabwe offering vocational training and technical education, only the Harare Polytechnic offers courses in Printing.
3. Finishing – an important means of adding value to print which is handicapped by low investment and skill levels and less technical innovation than other areas of printing. The low investment in finishing hinders the company from venturing into full scale packaging business.

Absolute aim of an organisation is to turn weaknesses into strengths. This is achieved through people. Embarking on programs like Total Quality Management is important but there is need to understand if this brings morale to the people are crucial in turning weaknesses into strengths.

1.2.1.3 Opportunities

1. Growing print markets – printing business has a positive future in many traditional markets, as well as new ones.
2. Growing demand for print-related products and services – printing accounts for a significant cost of communication and there are opportunities to capture additional value. Also Printing is only one part of a complex communications process and there are many opportunities to take on some of the activities associated with other parts of the process.
3. Untapped corporate sector market
4. Strategic alliances with foreigners - the company has cooperation with renowned banknote printing companies like Giesecke and Devrient of Germany and South African Banknote Company. Strategic alliances can be formed with these companies.

Companies can capitalise on opportunities if they have a satisfied workforce. The study of job satisfaction in a TQM environment helps in understanding how easily a company can tap into the opportunities available.

1.2.1.4 Threats

1. Substitution – printed documents and packaging are vulnerable to substitution. With Information and Communication Technology (ICT), many potential customers are avoiding print. The Times Magazine stopped printing and is now available as a soft copy. This shows the extent to which ICT can be a threat to printing business.
2. Skill shortages –The Company's expertise is concentrated in Banknote printing which has since stopped. There is not much expertise in commercial printing which is generating much of the company's business.

3. Lack of policy support – policy makers often fail to recognise the industry's importance and do not take it into account when making decisions. Currently, the Government is working tirelessly to boost the ICT industry (a Ministry has been created) which is a threat to the Printing industry.

4. High input costs –the company pays higher prices for (mostly imported) equipment and raw materials inputs. In some instances, such equipment is bought through agents as some European suppliers have enforced trade restrictions pursued by their Governments. Energy costs are important for printers because machines are high energy consumers. Increases in energy prices would therefore have serious effects.

5. Flooding of Zimbabwe market with cheaper foreign substitute goods of similar quality. A major customer of the company has stopped business with the company because the product offered was available from China at half the local cost to the customer.

To counter the threats, there is need for unity of purpose among employees. Unity of purpose is achieved when employees are satisfied with their jobs. Satisfied employees are innovative. It is therefore crucial to study if employees are satisfied with their jobs after TQM implementation.

1.2.2 Background to the study

With each passing year, printers, prepress companies and binderies find it more difficult to make a profit. Their customers have come to expect higher quality and service at reasonable price. Remakes due to spoilage cost money and time. Southworth and Southwoth (1990) estimate that 15 - 40% of product cost in printing is waste. If the mistake is the printer's, this cannot be charged to the customer. The demand for quality and the need to produce quality products has popularized programs such as Total Quality Management. Many companies have embarked on TQM (with catch phrases such as zero defects and doing the right thing right first time) to try and satisfy their customers. This has also seen the growth of quality literature from practitioners.

Quality practitioners have written much on the idea of TQM philosophies and methods but a limited amount of rigorous research has been done towards identifying the effects of soft TQM practices on employee related attitudes. Although literature on TQM failure points to the neglect of the soft side of quality management where-in Human Resources behaviour and organizational behaviour aspects are not given their deserved emphasis (Wilkinson *et al.*, 1998), the hard or technical aspects have received much attention. According to Yue, Ooi and Keong (2011), sophisticated technology and world class management system will be reduced to nothing without toil of its work force. Devoted and productive workers bring organizational performance which is what all organisations aim for.

Many of the outcomes of TQM such as productivity (Lam, 1996), customer satisfaction and lower manufacturing costs (Yue et al, 2011), greater market share (Garvin, 1993 as cited in Ooi et al., 2007) performance, competitive advantage, and improved quality of goods have been studied. Although there is widespread consensus that TQM is a way of managing organizations to improve quality of products and services, there is less agreement on whether TQM can contribute to the improvement of employee job satisfaction. The present study is important as it serves as an indication of whether employees benefit from organizational transformations led by TQM implementation or it is what Peters (1996) described as the garden looking rosy while the gardener is looking increasingly worried.

1.3 Research problem

While evidence of the relationship between people oriented TQM practices and employees' Job satisfaction has been established in various countries and industries (Guimaraes, 1996; Boseline and Carlopio, 2002; Lam, 1995; Gardner and Carlopio, 1996) there is no existing literature that studies the relationship in the context of the Zimbabwean Printing Industry and yet this may be an important area of understanding employee's job satisfaction.

Of the people oriented TQM practices, there is no consensus among researchers on which ones are positively associated with job satisfaction. For example, while some

authors found no association between job satisfaction and reward and recognition (Ooi, et al, 2007; Jain, 2010), others reported a positive association (Ijaz et al., 2012); Adawiyah and Pramuka, 2012); Chang et al., 2010).

In studies where association between TQM practices and job satisfaction has been established to be either positive or negative, there has been no distinction on the basis of gender or age. The people oriented practices are assumed in literature to have the same effects to both men and women, and to both young and old employees. This may not be the case. Through this research, such assumptions can be affirmed or disputed. Fidelity Printers and Refiners is selected as a case study as it is one of the few manufacturing companies and the only printing company that has embarked on TQM in Zimbabwe.

1.4   Research objectives

Based on the problem statement above, the following are the study objectives:
1. To identify a set of people oriented TQM practices that would prove to be an effective guide in measurement of Job Satisfaction.
2. To explore the relationship between the identified soft TQM practices and job satisfaction.
3. To determine which gender is more satisfied with their jobs as a result of TQM practices.
4. To determine which age group is more satisfied with their job as a result of TQM practices.

1.5 Research questions

In view of the research objectives raised in Section 1.4, the study seeks to answer the following research question -*What are the main people oriented TQM practices that influence job satisfaction within the printing sector in Zimbabwe?*
The minor research questions are as follows:
1. Which people oriented TQM practices are effective in the measurement of job satisfaction?

2. What is the relationship between the identified soft TQM practices and job satisfaction?
3. Which gender is more satisfied with their jobs as a result of TQM practices?
4. Which age group is more satisfied with its job as a result of TQM practices?

1.6 Hypotheses

The following hypotheses were formulated for this research arising from the literature review.

H1: Education and training in TQM positively impacts job satisfaction.

H2: Rewards and recognition impact positively on job satisfaction.

H3: Team work positively impacts job satisfaction.

H4: Employee involvement positively impacts job satisfaction.

H5: Empowerment positively impacts job satisfaction.

H6: Old employees are more satisfied with their jobs than young employees.

H7: Female employees are more satisfied with their jobs than their male counter parts.

1.7 Justification

Job satisfaction is crucial because of well-established association with a range of organizational outcomes such as innovation (Swarnalatha and Sureshkrishma, 2013) and inverse proportion with absenteeism (Scott and Taylor as cited in Morrow, 1997). As job satisfaction is likely to be influenced by aspects of TQM, this research will help companies that embark on TQM to reinforce the practices that give rise to job satisfaction.

The growing literature citing job satisfaction as an outcome of TQM has lured companies to embrace the programme. However, known case studies were conducted in Europe, America or Asia. Since cultures differ, there is need to test this outcome (job satisfaction) using a local case. Zimbabwean companies can take a leaf from results obtained in this research as such results most likely apply to their situations than results obtained from Europe or Asia.

In known cases where job satisfaction has been established as an outcome of TQM, there was no distinction based on gender or age. This research aims to establish which gender or age group is most satisfied under TQM. Companies with majority young or old, male or female employees can draw lessons from this research.

1.9 Scope of research

The research was limited to employees of Fidelity Printers and Refiners (Pvt Ltd) situated in Msasa. Permanent employees (326) of the company as well as management at Msasa branch constituted the population.

1.10 Dissertation structure

The thesis is presented in five chapters beginning with this introductory chapter that justifies the study. The objectives of the study are elucidated together with the major research question so as to guide the study.

The second Chapter critically reviews the existing literature on Total Quality Management, people oriented (soft) practices of TQM and the relationship of such practices to job satisfaction. In so doing, the important independent variables (soft TQM practices) are identified as well as the conceptual frame work for the study is developed.

The third Chapter is a narration and justification of the methodology used to collect and analyse the data. A quantitative methodology was adopted and a case study approach was used. Data was collected from employees of Fidelity and Refiners (Pvt) Ltd. using a questionnaire. Descriptive analyses including statistical methods such as mean value, and standard deviation were employed. This was followed by correlation and regression analyses that were employed to test the hypotheses and answer the major research question.

The fourth Chapter presents the data and analyses that ensued, which led to testing of the hypotheses and establishing the relationship between people oriented TQM practices and job satisfaction.

The final Chapter (Chapter 5) discusses the results and the theoretical and managerial recommendations based on the findings of the research are made. The thesis is then concluded.

1.11 Chapter Summary

This introductory chapter presented the main rationale for conducting this research. The background to the study was highlighted leading to research problem. The research objectives were framed based on the problem statement. The hypotheses to be tested in later chapters have been formulated based on the review of literature. It is hypothesized that each of the TQM practices positively impacts on job satisfaction. Additionally, it is hypothesized that old employees are more satisfied with their jobs than young employees and female employees are more satisfied than their male counter parts. The Chapter concludes with a layout of thesis which is presented in 5 Chapters.

The next Chapter provides a critical review of the existing literature on people oriented Total Quality Management and job satisfaction thereby identifying the gaps in the literature and a conceptualisation of the theoretical framework for the study.

CHAPTER TWO

LITERATURE REVIEW: TOTAL QUALITY MANAGEMENT AND JOB SATISFACTION

2.1 Introduction

The purpose of this Chapter is to review current literature on the topic of discussion with the view to gain greater insight of the subject and establish gaps in the literature. The chapter begins with definitions of quality and total quality management and also shows the link between the two. A point to note in the transformation from quality control to total quality management is the integration of human factors into a system which was once thought of as totally technical and mechanical. Theories that form the basis of TQM are discussed in this chapter as well as the dependent and independent variables. Previous studies on TQM tended to focus on the hard aspect of the subject at the expense of the soft side. This research pays more attention to the soft aspect. The literature review allows the researcher to compile a model which will be used to conduct a comprehensive study of the topic with the research population to answer the research aims and questions. This study argues that employees, as important organizational stakeholders, get job satisfaction from organizational transformations led by TQM implementation in Zimbabwe.

2.2 Definitions of Quality and Total Quality Management

2.2.1 Definitions of quality

In the manufacturing industries, quality is frequently used as a quantitative measure of how well a product meets a specification. This is the traditional view of quality as expressed in quality control is conformity to a specification. Quality is used in the sense of fitness for purpose. This definition is favoured by the International Standards Organization (ISO) in its document 'Quality Vocabulary' where quality is defined as the totality of features and characteristics of a product or service that bear upon its ability to satisfy stated or implied needs. This functionalist definition was originally used by the American quality guru Juran (Bird, 2000).

A non-functionalist definition of quality is satisfaction in ownership, the increase in self-esteem of the customer in owning, for example, designer clothes or a Rolls-Royce car. Generally quality can be summarized as 'meeting the customer requirements (Southworth and Southworth, 1990). Organizations that have developed a reputation for excellence are generally those that have consistently and continually met the requirements of their customers (Delbridge et al., 1992).

2.2.1.1 Linking quality to Total Quality Management: The Quality Hierarchy

The quality hierarchy can be represented in four stages (Dale et al., 1990; Hammet, 2012) shown in Figure 2.1. The first stage in the hierarchy of quality is the inspection of products. This is followed by quality control (QC) to make inspection more efficient and reduce the costs of quality. An example of quality control is statistical process control. These stages serve to find and fix mistakes (Hammet, 2012).
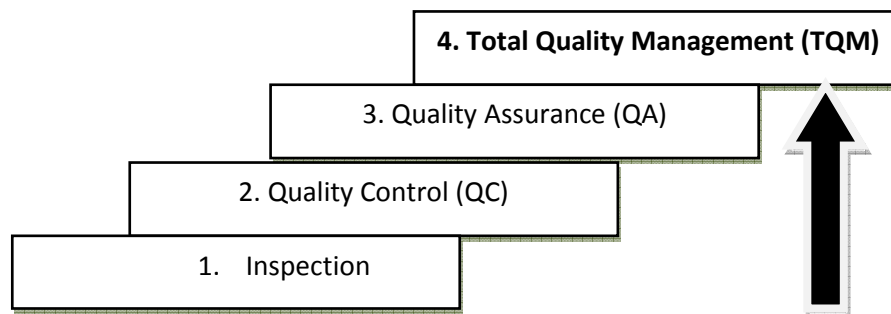
Figure 2.1. The quality hierarchy: from inspection to total quality management

The next higher level (Level 3/ Quality assurance) involves planned and systematic actions that ensure products or services conform to company requirements. Total quality management is the highest level which incorporates quality control and quality assurance activities into companywide systems aimed at satisfying the customer (Hammet, 2012). This is a proactive action designed to stop problems at source (Hammet, 2012).

2.2.2 Definitions of Total Quality Management

There are as many definitions of Total Quality Management (TQM) as there are authors in quality management. Choppin (1995) likened TQM to human traits in that it may be easier to notice in its (TQM) absence, rather than find an exact definition.

According to Choppin (1995) a non-total quality company can be recognized easily. As TQM non implementers become fewer in number, they increasingly suffer similar conditions that batter them into recognizable shapes. Internal tensions are high and usually growing, leading to stronger feelings of recrimination, blame and mistrust. Internally, morale is low, often with glimmering discontent (Choppin 1995). This suggests that total quality management increases staff morale.

TQM can be defined as the agreed company-wide and plant-wide operating work structure, documented in effective, integrated technical and managerial procedures, for guiding the coordinated actions of the people, the machines, and the information of the company and plant in the best and most practical ways to assure customer quality satisfaction at economical costs (Irani, Beskese and Love, 2004). Thus, it can be concluded that TQM itself, is the desired culture of an organisation committed to customer satisfaction through continuous improvement.

TQM is the notion and beliefs of permanent enhancement which set structure and procedure in position to minimally fulfil or even go beyond customers' anticipation (Spanbauer, 1995). TQM is perceived as an unwavering duty for continual advancement using proper records and the utilization of techniques in a problem-solving environment that reflects group activities (Spanbauer, 1995). Zahedi (1995) offers an affirmative description to figure out the wideness of the TQM concept. According to (Zahedi, 1995), TQM is a framework, a collection of thoughts, theory, and techniques, with the intention of fostering quality all over a business in all its facets.

TQM is also viewed as a strategy for improving business performance through the commitment of all employees to fully satisfy agreed customer requirements at the lowest overall cost through the continuous improvement of products and services, business processes and the people involved (Patel, 1995).

According to Patel (1995), increased understanding is obtained from the terms that make up the name TQM. Total refers to organization-wide involvement in continuous improvement. This implies everyone in the organisation is involved in the final product or service (Nhuta, 2012).Quality is total customer satisfaction, be they

internal or external. According to Nhuta (2012), quality signifies conformance to requirements. Management is the organizational leadership in creating and maintaining a TQM environment. According to Adawiyah and Pramuka, (2012)the term *total* denotes the all surrounding characteristics of quality, and the term *management* detaches quality from its solely practical range and simplifies it to take in managerial and behavioral elements of the business.

Alternative opinions in explaining the principles of TQM are proposed by some researchers. TQM is basically a management theory that turned out to be a favoured way for upgrading quality and output (Karia and Assari, 2005). Luthans (1995) posited that TQM is authorizing all staff members to bear duty for upgrading quality within the institution that is participative in nature.

TQM is not a precise conception (Hackman and Wageman, 1995). However it is commonly perceived as an incorporated business plan for enhancing quality of goods and services (Waldman, 1994).TQM refers to the broad set of management and control processes designed to focus an entire organisation and all of its employees on providing products or services that do the best possible job of satisfying customers(Talha, 2004).

TQM has been described as a philosophy of management best captured by its principles, practices and techniques. A model for TQM consists of two main components of TQM philosophy (human aspect), and TQM systems and tools (Khan, 2008). This study focuses on the human component of TQM. TQM cannot exist without a complete acceptance of its philosophy by top management. Once the basic TQM philosophy is accepted, different systems and tools can be initiated to propagate and facilitate a culture based on such a philosophy. The model for TQQM as described by Khan (2008) is represented in Figure 2.2.
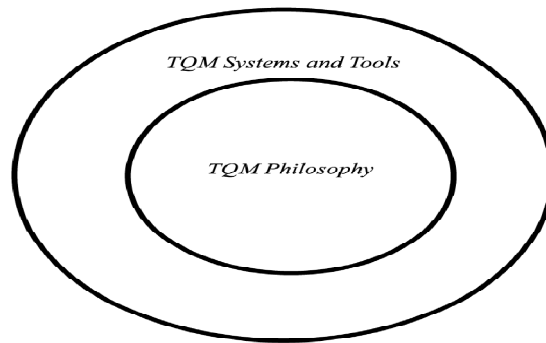
Figure 2.2. *Structure of TQM adapted from Khan (2008)*

TQM philosophy consists of four basic beliefs depicted in Figure 2.3. The beliefs help the organization achieve continual increase of customer satisfaction. Figure 2.3 illustrates the individual components of the TQM philosophy and their inter-relationships.
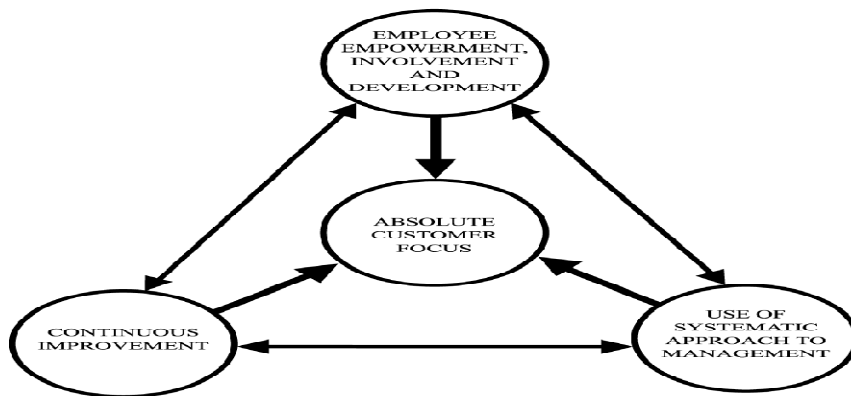
Figure 2.3. *Components of TQM philosophy and their relationships adapted from Khan (2008)*

Various terminologies such as total quality control, total quality leadership, total quality improvement program, continuous quality improvement and total quality service have been used to describe the general concept of TQM but three basic ingredients are constant (Karia and Asaari, 2006). The basic ingredients are quality, customer satisfaction, and continuous improvement. From the these definitions of total quality management, within this dissertation, TQM is viewed as an integrated management philosophy and a set of management practices that focus on managing

the total organisation to provide products or services that satisfy customer needs by utilizing all resources (including people).

2.2.3 TQM Principles

Wilkinson et al., (1995) concur that TQM is based on three fundamental principles of customer orientation, process orientation and continuous improvement.

Customer orientation- quality means meeting customer requirements and the orientation of quality management is to satisfy customers both external and internal. This customer orientation provides a common goal for all organizational activities and members.

Process orientation- the activities performed within an organisation can be broken down to basic processes which are linked in series or quality chains, to form extended process. Each process in the quality chain has a customer, stretching back from the external customer, through various internal customers to the organisation's suppliers

Continuous improvement- satisfying customer requirements involves continuous improvement of products and processes. The most effective means of improvement is to use the people who actually do the job to identify and implement appropriate changes.

The nature of TQM is reflected in the criteria used in the Malcolm Baldrige National Quality Award (MBNQA) where criteria 3 (training) and 8 (human resource management) show that TQM focuses not only on the quality of product but also on the quality of employees. Total Quality Management (TQM) is a systemic business approach to ensure that all activities carried out within an organization happen the way they have been planned in order to improve the organization's effectiveness, efficiency and responsiveness to the defined needs of both internal and external customer.

TQM consists of the 'hard' production aspect (or operation oriented) and the 'soft' or employee related aspect (Wilkinson *et al.*, 1997). According to Wilkinson et al., (1997), hard TQM concentrates on the tools and techniques and the systematic measurement and control of the work process, ensuring conformance to

performance standards and the reduction of variability. Hard TQM is also associated with the BS5750 and ISO9000 series which are systems based approaches to audit the policies and practices of firms.

Soft TQM places more emphasis on people issues such as increasing the customer orientation of the organization, training, team work, employee participation and culture change (Wilkinson *et al.,* 1992 as cited in Wilkinson et al, 1997). Gurus in the TQM literature believe that soft aspects of TQM are critical for the success of an organisation (Juran, 1964; Ishikawa 1985, Deming 1986 as cited in Ijaz et al., 2012). Organizations focusing on soft elements of TQM can outperform their competitors (Ijaz et al., 2012). The investigation into the relationship between total quality management and job satisfaction in printing firms will zero on soft issues of TQM.

2.3 Theories of TQM

While TQM may refer to a set of customer based practices that intend to improve quality and promote process improvement, there are several different theories at work that guide TQM practices.

2.3.1 Deming's Theory

The theory assumes that most problems are systemic and it is management's responsibility to improve the systems so that workers (management and non-management) can do their jobs more effectively. Higher quality leads to higher productivity, which leads to long-term competitive strength. The theory is that improvements in quality lead to lower costs and higher productivity because of less rework, fewer mistakes, fewer delays, and better use of time and materials. With better quality and lower prices, a firm can achieve a greater market share and thus stay in business, more jobs.

Deming's theory of total quality management rests upon fourteen points of management, the system of profound knowledge, and the Shewart Cycle (Plan-Do-Check-Act). Quality is equal to the result of work efforts over the total costs. If a company is to focus on costs, the problem is that costs rise while quality deteriorates. Deming's system of profound knowledge has four points namely,

System Appreciation (an understanding of the way that the company's processes and systems work), Variation Knowledge (an understanding of the variation occurring and the causes of the variation), Knowledge Theory (the understanding of what can be known), and Psychology Knowledge (this is the understanding of human nature).

Psychology helps to understand people, interactions between people and circumstances, interactions between leaders and employees, and any system of management. Managing people requires knowledge of psychology and knowledge of what motivates people. Job satisfaction and the motivation to excel are intrinsic while reward and recognition are extrinsic. Management needs to create the right mix of intrinsic and extrinsic factors to motivate employees. An investigation into the relationship between TQM and job satisfaction gives rise to psychology knowledge. This theory motivated the current research.

By being aware of the different types of knowledge associated with an organization, then quality can be understood as a topic. Quality involves tuning processes using knowledge. The 14 points of Deming's theory of total quality management are available in literature. Of relevance to this research is the requirement to ensure everyone is trained and educated (Point 13).

Ensuring that everyone is trained and educated requires the organisation to institute a vigorous program of education and self improvement. This addresses the need for ongoing and continuous education and self-improvement for the entire organization. The educational investment leads to better motivated employees, keeps the employees up-to-date on the latest techniques and promotes teamwork. Training and retraining provides a mechanism ensures adequate performance as the job responsibilities change. A study of the relationship between TQM and job satisfaction will help approve or disprove that TQM leads to motivated employees.

2.3.2 Crosby's Theory

Crosby is also credited with starting the TQM movement. If one spends money on quality, it is money that is well spent (Juran and Godfrey, 1999). Crosby's theory of

total quality management is based on four absolutes of quality management and a list of fourteen steps to quality improvement.

The four absolutes are:

i. Define quality as adherence to requirements.

ii. Prevention is the best way to ensure quality.

iii. Zero Defects (mistakes) is the performance standard for quality.

iv. Quality is measured by the price of nonconformity.

The fourteen steps to continuous quality improvement encourage commitment, formation of teams, training and the creation of incentives or rewards for employees (Juran and Godfrey, 1999). The theory advocates zero defects which focus on changing the attitude of employees since quality problems are attributed to lack of paying attention to detail. The steps influenced the selection of core practices of TQM in this research.

2.3.3 Juran's Theory

Juran's theory gives rise to the Quality Trilogy. The quality trilogy is made up of quality planning, quality improvement, and quality control. If a quality improvement project is to be successful, then all quality improvement actions must be carefully planned out and controlled. The theory gives ten steps to quality improvement (Juran and Godfrey, 1999). These steps are (1) An awareness of the opportunities and needs for improvement must be created, 2) Improvement goals must be determined, 3)Organization is required for reaching the goals, 4) Training needs to be provided, 5)Initialize projects, 6) Monitor progress, 7)Recognize performance, 8)Report on results, 9) Track achievement of improvements, 10) Repeat (Juran, 1988)

2.3.4 Ishikawa's Theory

The theory looks at quality from a human standpoint and is mainly focused on quality improvement. There are seven basic tools for quality improvement (Juran and Godfrey, 1999). The tools are; Pareto Analysis (to identify the big problems in a process), Cause and Effect Diagrams, Stratification (to analyse how information that has been collected fits together), Check Sheets (to look at how often a problem occurs), Histograms (to monitor variation), Scatter Charts (to demonstrate

relationships between a variety of factors), Process Control Charts (to determine what variations to focus upon) (Doneviski et al., 2009).

The quality control circle is developed from the Ishikawa theory. This theory has emphasis on team work. The cause and effect diagrams help to get to the root cause of problems. For Printing, the cause and effect diagram can be represented as shown in figure 2.4
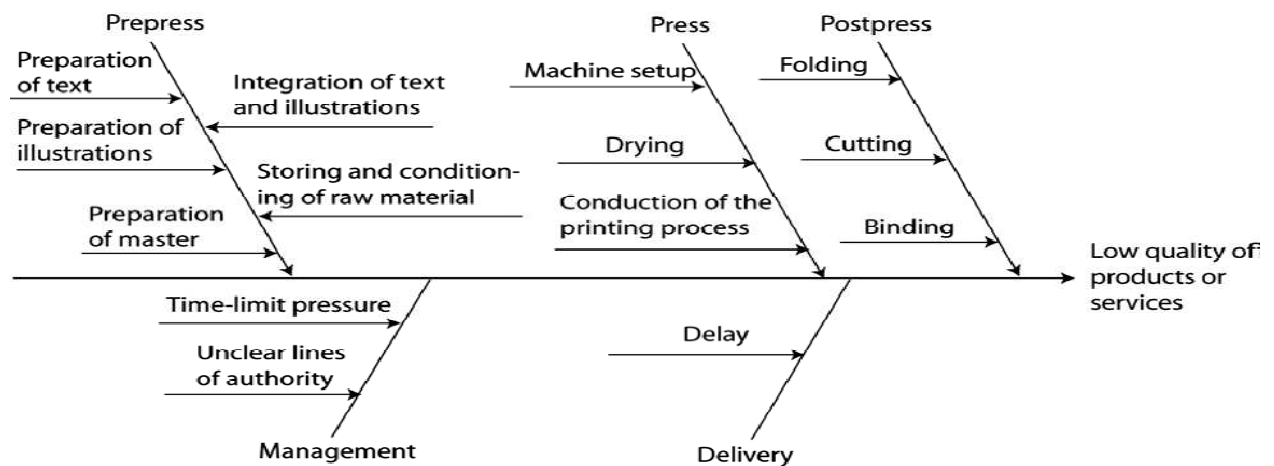
Figure 2.4. Cause-and-effect diagram for the print production. Adapted from Doneviski et al. (2009).

Crosby, Deming, Ishikawa and Juran are considered the most important gurus in the quality movement (Juran and Godfrey, 1999). Deming maintains a contrary position with respect to some of the TQM elements such as zero defects and quality costing. All theories share the need for top management support and importance on customer relationship. Ishikawa's approach is more employee focused than other theories which consider that quality management needs to be guided by management. Employees are an asset for the organization that helps to deliver innovative and quality product or services and contribute in organizational performance.

Effective management of people by creating an environment that provides motivation, increased commitment and satisfaction among the employees is required. Studies reveal that there is an association between TQM practices and

HRM functions (Wilkinson *et al.*, 1998) and also there is a significant relationship among TQM practices and job satisfaction (Guimaraes, 1996; Boselie and Wiele, 2002).

Total Quality Management (TQM) is a key strategy for maintaining competitive strategy and is a way of managing organizations to improve effectiveness and overall performance. Although there is common consensus that Total quality management is helps in managing organizations to enhance customer satisfaction, and quality of products and services, there is less agreement as to whether TQM results in an improvement of employees' working conditions that leads to job satisfaction.

Since the results of TQM programme are usually new policies, new organizational structure, new processes, and new ways of evaluating performance and out puts, these changes will have an effect on organizational culture, employees' daily work and their job satisfaction. Employee training in quality awareness, quality systems, statistical process control, quality circles and other programs enhances the employees' ability to achieve the goal of customer satisfaction but programs do not necessarily enhance the employees' own satisfaction. In addition, when TQM is presented as a radical departure from the organization's past, the initiatives may fail as the cognitive structures of employees constrain their understanding and support of the new initiatives' (Yong and Wilkinson, 1999).

2.3.5 Total Quality Management Outcomes

Researchers differ on the perspectives of TQM outcomes. The perspectives range from the prescriptive to the exploitative models (Glover, 2000). The prescriptive models (Deming, 1986; Ishikawa, 1985; Juran, 1988) assume positive outcomes for the organisation and employees. The benefits to workers are in terms of increased individual discretion and of engendering a more supportive management style.
 At the other extreme are the exploitation models (Sewell and Wilkinson, 1992; Delbridge et al., 1992) which assume that the organisation alone benefits at the expense of increased employee exploitation and control. These polarized models are supplemented by ones which suggest that TQM leads to mixed consequences for

the employees. This model is proposed by Rosenthal et al., (1997). In the mixed consequences model, TQM is neither all good nor all bad (Glover, 2000).This research focuses on job satisfaction as an outcome to implementation of total quality management.

Whereas some authors assert that total quality management as assessed based on the TQM practices bring motivation leading to job satisfaction, others claim that the TQM practices have no good intentions for the employee. According to Adler (1993), although TQM increases productivity and quality as well as improve worker motivation and satisfaction it is an innovative form of Taylorism. In TQM, workers are emblazoned in a seamless and inescapable network of totalitarian power relations epitomized by dictatorial admonitions of "the one right way", "quality is Job number 1", and "quality or else" (Steingard and Fitzgibbons, 1993). There is autocracy in TQM as no opposition to TQM is allowed. A manager who questions TQM will likely be labelled as anti quality and a fly in the ointment (Koch, 2003). Such labelling is career fatal (Koch, 2003). Despite the array of total quality management outcomes, including but not limited to competitive advantage, job performance, productivity, and profitability, this research focuses on employee job satisfaction as an outcome. Job satisfaction was selected because it has been shown to be inversely related to absenteeism (Morrow, 1997) and satisfied workers engage in more job-related pro social behaviours (Organ and Konovsky, 1989 as cited in Morrow, 1997).

2.3.5.1. Job Satisfaction

Job satisfaction is important because of its association with organizational outcomes, such as performance, which leads to innovation (Swarnalatha and Sureshkrishna, 2013). According to Vroom, 1964 as cited in Prajogo and Cooper (2010), job satisfaction and performance is a two folded concept as either job satisfaction effects performance or performance effects job satisfaction. Delivering quality product or services and pleasing the external customer are strongly dependent on internal customer satisfaction and hence internal customer satisfaction is an essential ingredient for the success and growth of a company (Harter et al. 2002).

Job satisfaction is defined as the positive emotional feeling resulting from the perception of one's job as fulfilling or allowing the fulfilment of one's important job values (Locke, 1976). The feeling of people about their jobs and different aspects of their jobs is what constitutes job satisfaction (Spector, 1997). It is the extent to which people like (satisfaction) or dislike (dissatisfaction) their jobs.

Greenberg and Baron (1997) define job satisfaction as the psychological, emotional and evaluative response an individual has towards his /her job. According to Cranny, Smith and Stone (1992), job satisfaction is a multidimensional construct that include overall job satisfaction as well as a range of job satisfaction components. Job satisfaction can thus be identified as a multi faceted construct that captures employees' feelings towards and satisfaction with a spectrum of job elements that are directly and related to the job content (Chand & Chang, 2007 as cited in Yue et al., 2011). A simple definition as provided by McCloskey and McCain (1987) cited in Wadhwa et al., (2011) will be adopted. Job satisfaction is defined as the degree to which employees enjoy their jobs.

The most important values or conditions conducive to job satisfaction are:
1) Mentally challenging work with which the individual can cope successfully, 2) personal interest in the work itself, 3) rewards for performance which are just, informative, and in line with the individual's personal aspirations, 5) working conditions which are compatible with the individual's physical needs and which facilitate the accomplishment of his work goals, 6) high self esteem on the part of the employee (Iversen, 1980).

Researchers agree that soft TQM has an effect on job satisfaction but differ on whether it is a positive or negative effect. TQM has been found to have an important influence on an individual's job satisfaction and produce favourable organizational climates within the working environment (Yue et al., 2011). Research indicates desirable positive impact of the soft TQM principles on job satisfaction (Morrow, 1997; Karia, 1999 as cited in Ooi et al., 2008).

As TQM is a change process, employees react differently to organizational change (Barger and Kirby, 1995). Some view change as an opportunity for self development and in turn bring increased satisfaction. Others may resist even to a minor change hence TQM influences the work-related outcomes (Yue et al., 2011).

People oriented TQM practices such as organizational trust, customer focus, organizational culture and teamwork have significant positive effects on job satisfaction (Ooi et al., 2007; Guimaraes, 1996; Ooi et al., 2008). Although the cited studies were limited to single companies in Malaysia, the studies concurred with studies on private sector companies (Prajogo and Cooper, 2010). In TQM, employees are empowered with increased authority and responsibility, thus allowing them to be innovative in implementing their own solutions to problems, and fostering recognition of the need for cooperation, communication, and teamwork (Bounds, 1995).

In contrast, some scholars claim that TQM does not result in job satisfaction as it creates restrictive uniformity in employee behaviour and the human culture of the organisation by standardization and market driven orientation (Boje and Winsor, 1993 and Kivimaki et al., 1997). TQM is viewed as the resurrection of Taylorism which actually decreases job satisfaction among employees (Kivimaki, et al., 1997; Luthans, 1996 as cited in Ooi et al., 2008).

According to Lam (1995), a TQM program does not enhance all aspects of job satisfaction as it makes work more challenging – there is more of work and it requires greater individual skill and involvement. The findings of a study on middle managers and front-line workers from diverse organizations in Hong Kong were that TQM program does not make work more in motivating and sense of work accomplishment is not felt as a result of TQM (Lam, 1996). Moreover TQM reduce their job autonomy (Lam, 1996). A longitudinal analysis to test the impact of TQM on a health care organization showed no significant positive impact of TQM on job satisfaction (Luthans, 1996).

The above shows no consensus in literature on the impact of TQM on job satisfaction. In addition, most of these researches occurred in industries other than Printing. This research proposes that in Zimbabwe, Total Quality Management leads to job satisfaction.

Some researchers (Lam, 1995; Guimaraes, 1996) have used descriptive statistics (frequencies and means) to conclude findings of the relationship between TQM and job satisfaction. Others have linked one element such as organizational culture (Gray et al., 1994) or two practices such as top management leadership, and employee empowerment (Ugboro and Obeng, 2000) with job satisfaction. The research by Morrow (1997) linked three TQM practices of customer focus, continuous improvement and team work. This research will link five TQM elements to job satisfaction.

2.3.6 Models for the study of relationship between TQM practices and Job Satisfaction

Two models available in literature for the study of the relationship between total quality management and job satisfaction involve use of structural equation modelling (SEM) and multiple regression analysis, combined with co-relational analysis. The link between TQM and job satisfaction can be studied through a model shown in Figure 2.5 (Ooi et al., 2005) where TQM practices such as team work, education and training and empowerment are independent variables and job satisfaction is a dependent variable.
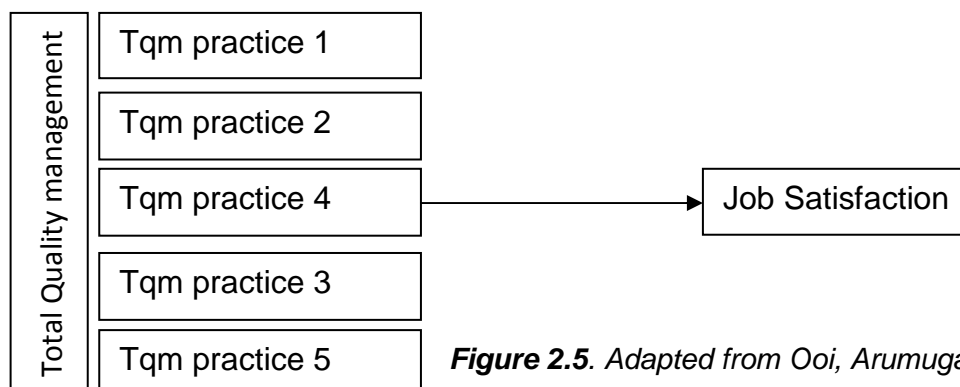
Figure 2.5. Adapted from Ooi, Arumugam and Teh (2008)

Multiple dependent variables such job satisfaction and job involvement can be studied using a model shown in Figure 2.6 (Karia and Asaari, 2006). Soft TQM

practices such as be team work, employee involvement, empowerment, and education and training can be studied.

TQM PRACTISES	WORK RELATED ATTITUDE
Tqm practice 1	Job involvement
Tqm practice 2	**Job satisfaction**
Tqm practice 3	Career justification
Tqm practice 4	Organisational commitment
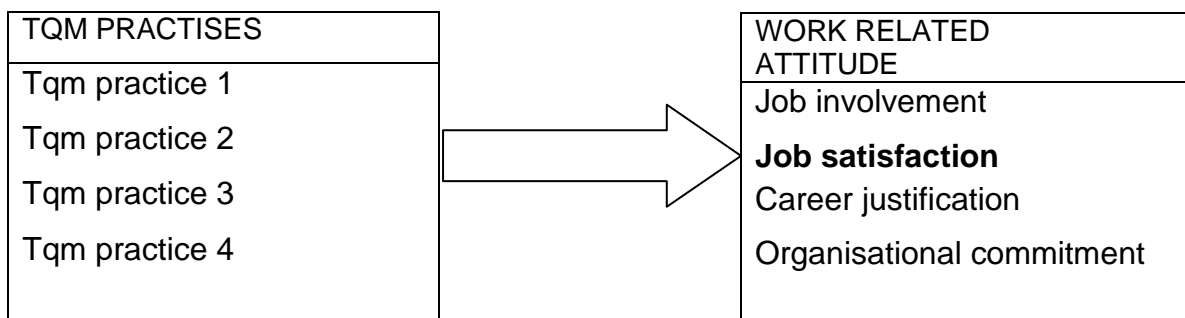
Figure 2.6. *Adapted from Karia and Asaari, 2006*

Yue et al., (2011) analysed the structural, tri-dimensional relationship between TQM, job satisfaction and turn over intentions. The model used is as shown in Figure 2.7
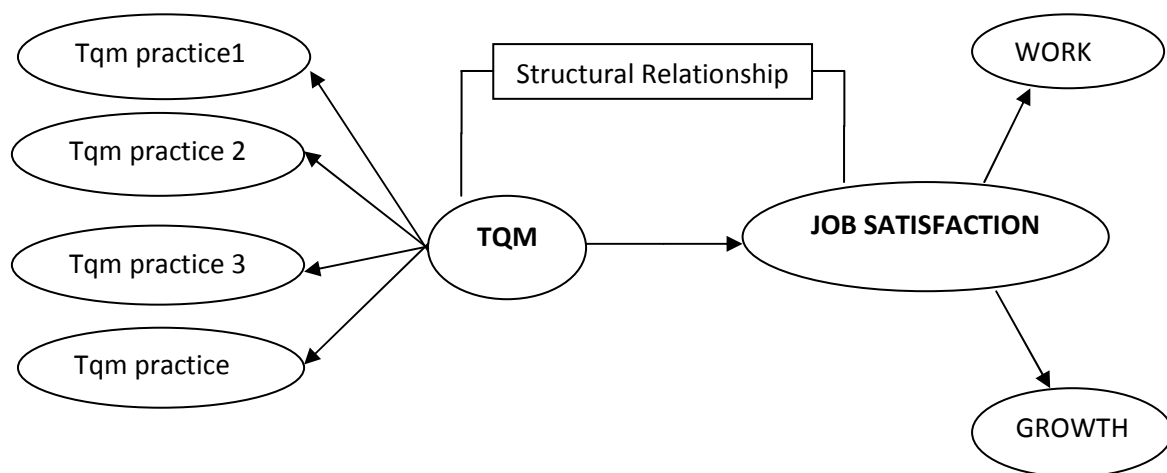
Figure2.7. *Adapted from Yue et al., (2011)*

This model is similar to the model by Prajogo and Cooper (2008) in a study on the effects of people related TQM practices on job satisfaction using structural equation modelling (SEM).

Ijaz et al., (2012) also used structural equation modelling to prove the hypothesis that TQM practices have a positive impact on employee job performance which in turn positively impacts job satisfaction. The model used is simplified below in Figure 2.8.
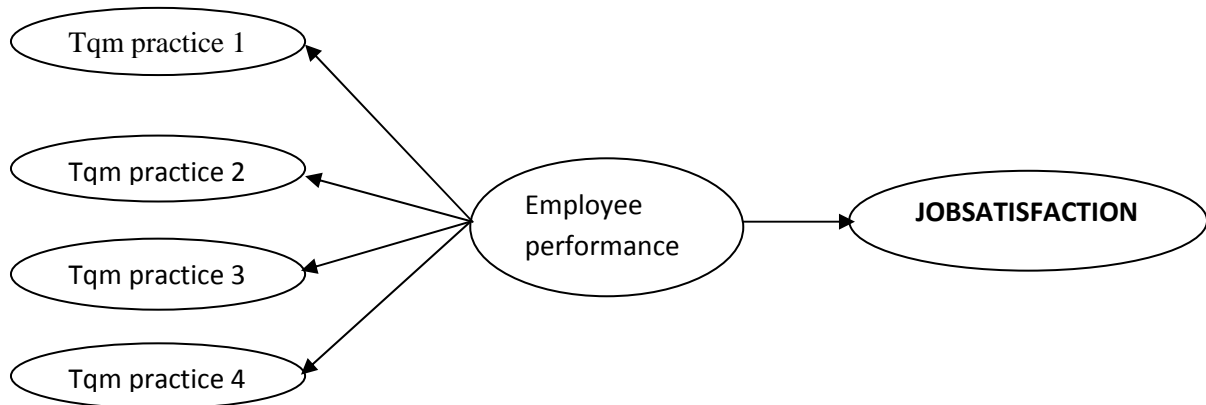
Figure 2.8

In a case study to find if TQM practices can predict employee attitudes, Ooi et al., (2005) used the model shown in figure 2.9
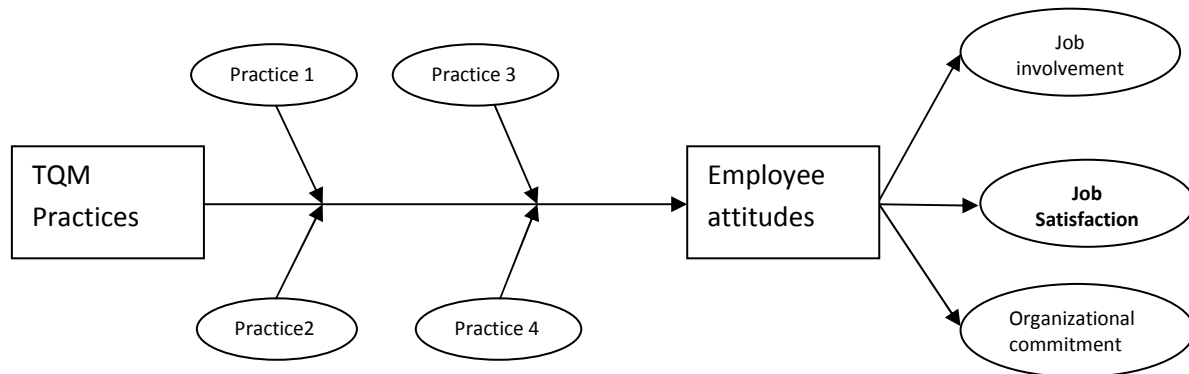
Figure 2.9

This research adopts the model that uses multiple regression analysis and correlation analysis and will use training and education, team work, employee involvement, employee empowerment and reward and recognition.

2.4 Independent Variables

Sebastianelli and Tamimi (2003) listed twenty five most commonly extracted TQM factors from a survey-based research. The soft issues on the list are 1) top management commitment, 2) customer focus, 3) training and education, 4) employee involvement, 5) employee empowerment, 6) employee satisfaction, 7) team work and employee appraisal, and 8) rewards and recognition. According to Goetsch and Davis (1994), there are ten key elements in TQM. Among the key elements are customer focus, team work, education and training and employee

involvement. Dale et al., (1994) identified eight elements. The soft elements are similar to the list provided by Goetsch and Davis (1994) above.

From the researches to show the relationship of TQM with job satisfaction there is no commonality on the core TQM practices. According to Jain (2010), the core TQM practices of TQM which affect employees' satisfaction are team work, organizational culture, reward and recognition, employee empowerment and communication. Yue et al. (2011) list leadership, training and development, employee involvement and team work. Organizational culture is crucial element for successful TQM (Ugboro and Obeng, 2000).

According to Adawiyah and Pramuka (2012), leadership and top management commitment, reward and recognition, education and training, and customer focus are the key soft TQM practices. Ijaz and Irfan (2012) replace customer focus with employee empowerment on the list by Adawiyah and Pramuka (2012). Leadership, education and training, customer focus, team work and organization culture are the core Soft TQM practices (Ooi, Arumugum, Teh and Chong, 2008).

In a research to measure the impact of TQM on job involvement, the researchers used leadership, empowerment, team work, organizational communication, customer focus, reward and recognition, employee involvement, training and development as the TQM practices (Ooi et al., 2007). According to Singh, Geetika and Dubey (2011), and Shenawy et al., (2007), leadership commitment, team work, education and training, reward and recognition, and culture are the main TQM practices. Based on a research by Ooi, Baker, Arumugum, Vellapin and Locke (2007), the most important TQM practice is teamwork. This was the result of a study involving leadership and top management commitment, education and training, customer focus, teamwork, and organization culture as TQM practices. Ooi et al., (2005) assert that top management commitment, customer focus, education and training, organizational culture, employee participation and team are the most important practices in assessing soft TQM.

In a hierarchical model to determine the effect of people related TQM practices on job satisfaction, top management commitment, empowerment, training, involvement, and team work were used as the core TQM practices (Prajogo and Cooper, 2010). In a research to show the effects of total quality management practices on employees' work related attitudes, customer focus, training and education empowerment, team work and continuous improvement, and problem prevention were used as the TQM practices (Karia and Asaari, 2006). The above literature shows that there is no consensus among researchers on which variables are the core TQM practices.

Many people are employed in printing companies through apprenticeship schemes which require no higher qualifications than good GSCE grades. Others rise through improver ship which caters for those with experience without GSCE qualification. Education and training is therefore an important practice in printing. Most machines are operated with a minimum 2 people and up to 8 people (for Web machines). There is also departmental collaboration hence team work is crucial practice.

In any change process, employees want to know 'what's in it for them'. Employees in the printing industry are no exception hence rewards and recognition is important. It is important for employees to participate in key decision making activities. Printing is a skills job. Empowerment provides an environment where workers can increase and develop their skills and knowledge to their fullest potential hence empowerment is an important practice in printing. Education and training, reward and recognition, team work, employee involvement and empowerment are selected as TQM core practices for purposes of this research. The next paragraphs discuss literature on these independent variables.

2.4.1 Education and Training

Training and education is defined as the actions taken by a company in the efforts to stimulate job involvement, facilitate expertise updating, lead the feeling of ownership, welfare and benefits, higher devotions towards the institutions, and strengthen the organization's competitiveness (Acton and Golden, 2002 as cited in Adawiyah and Pramuka, 2012). Employees' knowledge and skills are improved by training and education (Ijaz et al., 2012). Training reflects the company's commitment to help

employees develop their skill which in turn give the employee an opportunity to move forward in their career development (Lawler *et al.*, 1992). The benefits to the employee as stated above are expected to influence employee satisfaction in the work place (Prajogo and Cooper, 2010).

Ooi *et al.,* (2008) differed. Education and training has no significant effect on job satisfaction for production workers. Although education and training is important, it requires long term commitment and the results are not immediately realized (Ooi *et al.,* 2008). Zhang (2000) explained that education and training is more important to intellectuals than to production workers in terms of job satisfaction, hence the low significance on job satisfaction of production workers. In a manufacturing set up with more production workers (as is the case with the case under study), education and training as practiced under TQM may not result in positive impact on job satisfaction. According to Lam (1995), under TQM, employees are trained to produce quality and sometimes this means they are programmed and have little autonomy in how to do work. Less freedom to do a job but greater responsibility for the results of their work impedes job satisfaction.

Hypothesis 1: Education and training in TQM positively impacts job satisfaction.

2.4.2 Reward and Recognition

TQM, a process of continuous improvement and motivation is based on the concept that all the people in an organisation should be committed to, motivated by, rewarded upon the basis of, and equipped to perform the task of meeting or exceeding customer satisfaction (Russo et al., 1992). Any company which embraces a TQM strategy must undergo a cultural transformation culminating in changes in beliefs, attitudes, and behaviours. In organisations, such behaviour is influenced and reinforced by reward and recognition (Russo et al., 1992). Since things that are rewarded are the things that are performed, a basic tool for creating such change is through reward and recognition (Knousse, 1995).

According to Russo et al., (1992) reward is the conveyance of items of value and other forms of personal satisfaction to individuals or groups while recognition is an

on going communication activity by which appreciation is declared for the contributions of individuals or groups.

Rewards and recognition are benefits, such as increased salary, bonuses and promotion resulting from the annual review of performance, which is conferred for public acknowledgement of superior performance with respect to goals (Ooi et al, 2007). Employees' contributions in increasing organizational performance or any other contribution that distinguish them from others in the organization (like employee of the month, cash rewards for higher sales), when shared within the organization impose positive impact on employees' attitude, behaviour, and self satisfaction and it also helps to increase motivation among other workers by increasing competition (Adawiyah and Agus Pramuka, 2012). Reward and recognition strengthens quality proportionate to short-range monetary concern. In motivation theory, recognition is one of essential motivator which determines workforce positive behaviours (Herzberg, 1996 as cited by Adawiyah and Agus Pramuka, 2012).

Work force moral is enhanced by rewards received by workers as a result of their quality endeavours (Kassicieh and Yourstone, 1998). Rewards also offer means of promotion quality endeavours and providing indication to workers that the companies appreciate their attempts. Such valuable compensation improves workforce dedication at work. Without workers' enthusiasms, continuous individual endeavour, well organized group endeavours, and the accumulation of personal efforts that fulfil companies' objectives, TQM is not viable missions (Evans and Lindsay, 2002).

Recognition and reward activities should effectively stimulate employee commitment to quality improvement, otherwise these activities are failures. Working condition improvements, salary promotions, position promotions, monetary or non-monetary rewards, financial awards for excellent suggestions are good methods for recognition and reward (Zhang et al., 2000).

Reward and recognition activities are valued by employees, and therefore provide motivation or incentives (O'Driscoll *et al.,* 1999). If executed appropriately reward

and recognition can secure employees' involvement to their jobs and make their jobs more enjoyable and thus, create an overall involvement within the respective organization (O'Driscoll and Randall, 1999). In an empirical study on the satisfaction with rewards, the results indicated that the rewards offered by an organization have a powerful effect on employees' attitudes towards their jobs and the company for which they work (Ooi et al., 2007). Reward and recognition therefore plays a major role in employee job satisfaction (Ijaz, Kee and Irfan, 2012). However Ozutku (2012) posits that the type of reward practices used by organizations play an important role in motivating employees because extrinsic rewards have no direct motivational effect on people.

Hypothesis 2: Rewards and recognition impacts positively on job satisfaction.

2.4.3 Team Work

Team work is the extent to which an organization practices to increase employees' control in their work and allow the employees and management to cooperate with each other (Jain, 2010).This principle of teamwork suggests facilitating collaboration of group efforts across and within functions to better the collective decision making, feedback, and problem solving toward satisfying customer needs (Shenawy et al., 2007).Team work in TQM takes the forms of quality control circles and quality improvement teams (Prajogo and Cooper, 2010). The need for teams is based on the assumption that a good number of quality problems are solved through involving people from different departments.

Quality circles and the quality improvement teams assure employee participation from all departments in order to resolve the quality related issues which create motivation and satisfaction among the employees (Ijaz et al., 2012). According to Prajogo and Cooper (2010) a successful team provides employees with motivation and self efficacy which in turn will fulfil social needs in the work place and increase job satisfaction. Teams promote employee fulfilment and satisfaction, which in turn leads to higher productivity and efficiency (Shenawy et al., (2005). Team work expedites the implantation of team spirit and enthusiasm into employees to cultivate corporate loyalty and shared identity (Adler, 1993). Team work to achieve common

goal in the interest of the organization causes employees' job satisfaction and increased performance (Karia and Asaari, 2006).

An alternative view of team work was provided by Boje and Winsor (1993). Team work is a method by which Taylorism is accomplished under TQM as the practice is similar to assembly lines (Boje and Winsor, 1993). These assembly lines eliminate rest periods from the worker's programme of tasks. If teams are under staffed or assembly lines are accelerated, team members are forced to work harder (Parker and Slaughter, 1988). In Zimbabwe, most organizations have undergone retrenchments leaving fewer employees for the same job that used to be done by many employees. This understaffing can result in overworked less satisfied employees with their jobs.

Some benefits of Team work highlighted by Oakland (1995) as cited in Oluwatoyin and Oluseun (2008) are that;

i.   Recommendations made by teams have greater chances of being accepted and implemented where the team is highly formidable. This is contrary to individual suggestion which represents a single person's mind.
ii. Problems beyond the capability of an individual or department can be handled with greater efficiency through combining resources.
iii. Working as groups exposes a problem to a great variety of knowledge thus problems beyond functional departments can be solved more easily.
iv. Team work will boost workers morale and sense of possession through involvement in problem solving and decision making.

Hypothesis 3.Team work results in job satisfaction.

2.4.4 Employee Involvement

Employee involvement under TQM involves achieving broad employee interest, participation and contribution in the process of quality management (Dale and Cooper, 1993). An organisation wide quality culture, which gives autonomy or a level of freedom to employees in taking decisions that affect their job is assumed. In employee involvement, workers are thus encouraged to perform functions such as information processing, problem solving and decision making (Dimitriades, 2000).

According to Harvey and Brown (1996) the traditional sense of employee involvement meant a feeling of psychological ownership among organisational members. The traditional employee involvement is thus narrow-minded as it is job-centred rather than process-centred, centrally to involvement under Total Quality Management.

Employee involvement entails developing both top-down and bottom- up communication channels, providing mechanisms for employees to voice their suggestions or concerns on quality issues and direct participation in decision making processes (Prajogo and Cooper, 2010).According to Boje and Winsor, (1993), employee involvement through suggestion systems may result in greater work load as workers, pressured to make suggestions and instilled with a sense of shame if they fail to make suggestions, make suggestions that increase workload. Increased work load diminishes one's job satisfaction. However, according to Brocka and Brocka, 1992 as cited in Boje and Winsor, 1993), suggestion systems are a refinement of the concept that organizational change is best accomplished when the people likely to be affected by the change are brought into the process early.

Suggestion systems allow employees to exercise the concept of 'voice'. This is the ability of an individual to express an opinion or an attempt to change the status quo by registering an input into the decision making process (Hirschman, 1970 as cited in Boje and Winsor, 1993). The mere expression of voice enhances an individual's perception of being treated fairly and of having control or input in a decision, even where there is no chance of influencing that decision (Lind et al, 1990). According to Peters and Waterman (1982) employees place great value upon the ability to assert their will, even when they have no control over an outcome. Voice is used in TQM to enhance employees' perception of fair treatment (Boje and Winsor, 1993) hence can bring job satisfaction.

Employees who feel more involved tend to be more satisfied with their jobs (Lawler et al. 1998, Guimaraes, 1996). The employees are more committed to the organization and are less interested in leaving (Guimaraes, 1996).

Involvement is a key motivator among employees' job satisfaction as it creates an environment in the organization where employees participate in decision making activities (O' Driscoll and Randal, 1999). Through total involvement, employees at all levels are empowered to improve their outputs by coming together in new and flexible work structures to solve problems and improve processes (Tener and DeToro, 1992). High involvement and job enrichment in TQM enhance the quality of working life and thus would be positively associated with employee job satisfaction because greater opportunities for problem solving and taking responsibility over one's work increase the intrinsic rewards of work (de Menezes, 2012).

Critiques argue that involvement empowers employees to make decisions but authority to make changes lies with the manager therefore employees are given responsibility without sufficient power and authority (Welikala and Sohal, 2008). Participation without power leads to frustration if suggestions are not implemented (Welikala and Sohal, 2008). Most researchers consent that involvement results in job satisfaction.

From a practical perspective, it is reasonable to expect that methods to reduce waste and increase efficiency also mean that work processes are better organized and consequently less stressful. This leads to the conclusion that employees are satisfied with very routine manufacturing jobs that do not require much involvement (Vidal, 2007). Standardization in TQM results in routines (Vidal, 2007).

Hypothesis 4: Employee involvement has positive impact on job satisfaction.

2.4.5 Empowerment

Empowerment is defined as a process of enhancing feelings of self effectiveness among employees of a company through identification of conditions that foster powerlessness, and through their removal by both formal organizational practices and informal techniques of providing efficacy information (Ijaz, Kee and Irfan, 2012). According to Jain (2012), empowerment is assigning responsibility with authority to employees.

Empowerment provides an environment where workers can increase, develop and utilize their skills and knowledge to their fullest potential for the welfare of the organization and themselves (Chang, Chiu and Chen, 2010). This soft TQM practice is operationalised in two forms. One form is by way of encouraging employees to respond to quality related problems and taking initiatives to solve the problems. This is achieved by delegating authority and allocating resources to attain it. Another form of operationalising empowerment is provision of freedom for employees to take responsibility for their ideas, decisions and outcomes, thereby releasing the employees from the rigid and bureaucratic controls (Chang et al., 2010).

According to Silver and Randolph (2004), employee empowerment has a positive impact on employees' attitudes behaviour which leads to higher job satisfaction. Lawler (1994) asserts that employees have higher levels of job satisfaction and performance because of their involvement in goal setting and in making decisions that affect their work.

To be meaningful, empowerment must reflect a genuine shift in focus of power but sometimes the limited nature under TQM leads to questions as to whether empowerment has really occurred (Wilkinson et al., 1997). If the degree of participation offered by TQM is strictly within an agenda set by management and does not extend to significant power sharing in higher level decision making, job satisfaction may not be achieved (Wilkinson et al., 1997).

Based on studies, empowerment programmes provide employees with a positive experience leading to employee satisfaction (Seibert et al, 2004). This study seeks to find out if empowerment, through delegation of authority at Fidelity Printers and Refiners (Pvt) Ltd leads to greater employee satisfaction.

Hypothesis 5: Empowerment positively impacts on job satisfaction

2.4.6 Control Variables

According to Lam (1996), different groups of employees have different perceptions. Job satisfaction varies directly with age (Lam, 1996). TQM can have different impacts to younger workers and their older counterparts. Older workers tend to be

significantly more satisfied with their jobs than younger workers (Wright and Hamilton, 1979 as cited in Lam, 1996).Three possible explanations for this tendency are that: (1) the young workers subscribe to a set of post-material values that contradict the demands of the industrial system and cause greater work discontent, (2) the standards of the old are systematically eroded by their years in the system, such that they learn to be satisfied with less; and (3) older workers simply have better jobs (Wright and Hamilton, 1998).

TQM may also have different impacts on job satisfaction on male workers and their female counterparts. According to Penly et al, (1980), women's attitudes towards their jobs are more favourable than men's. Women are more satisfied towards their jobs than men. This view was also supported by Clark (1997) and Kim (2005). Women are more satisfied because they focus on their roles as homemakers rather than on their roles as workers and derive additional satisfaction from this sphere (Penly et al (1980). According to Hodson (1989), men and women have different expectations and use different comparison groups in arriving at evaluations of their jobs. As an example, women compare themselves to other working women rather than men, and thus may not feel deprived or they may compare to women engaged solely in homemaking and feel relatively satisfied in their employment situation regardless of its specific characteristics (Hodson, 1989). Some researchers (Shapiro and Stern, 1975) have found men to be more satisfied than their female counterparts.

Hypothesis 6: Old employees are more satisfied with their jobs than young employees

Hypothesis 7: Female employees are more satisfied with their jobs than males.

2.5 Conceptual Framework

Based on literature, this research adopts a modification of a model by Ooi, Bakar, Arumugum, Vellapan and Locke (2005) with TQM practices as indicated in Figure 2.10.

TOTAL QUALITY MANAGEMENT

Reward and Recognition

Education and Training

Level of Employee Involvement

Team work

Empowerment

JOB SATISFACTION

Age
Gender
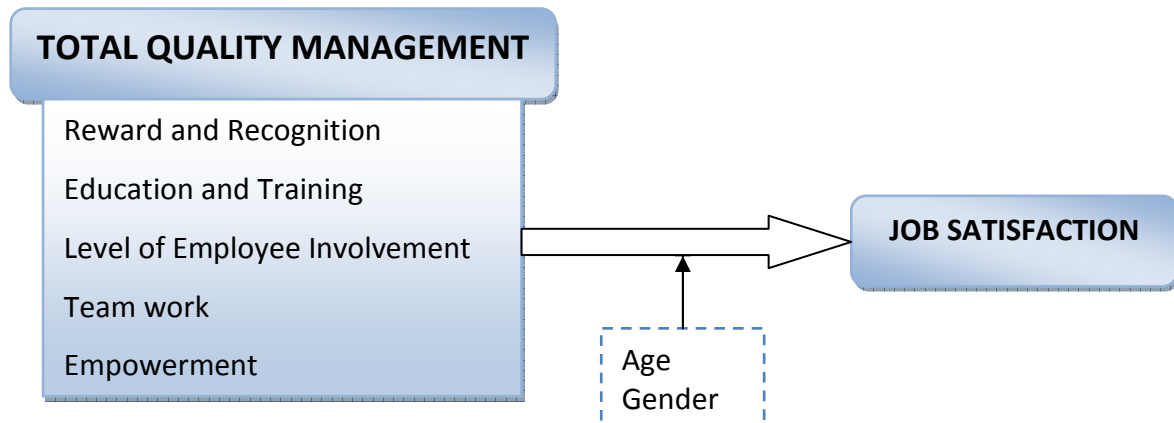
Figure 2.10

The major research question for this research is; -What are the main people oriented TQM practices that influence job satisfaction within the printing sector in Zimbabwe?

2.6 Chapter Summary

Total Quality Management is the highest level in the hierarchy of quality which begins with quality inspection. There is no agreed definition of both quality and total quality management as each author gives a definition that suits a particular research. However there is a general agreement that TQM is a philosophy with a focus on employees, customers and products or services.

TQM can be studied on the basis of the soft aspect or the hard aspect. The soft aspect is aligned to human resources management (people issues). The hard aspect of TQM deals with the tools and techniques of total quality management. TQM has received considerable attention and much has been studied about the hard or technical aspects of TQM. The studies have neglected the soft aspect yet people issues are the most difficult to address. Growing literature on TQM failure points to the neglect of the soft side of quality management where in human resources and organizational behaviour aspects of quality management are not given their deserved attention.

Theories of TQM emanate from gurus of quality. Several practices are mentioned in literature as the core for studying total quality management. Selection of the combination of practices to use in a particular research is based on the main focus of

the research. To study the impact of TQM on job satisfaction in Printing, education and training, reward and recognition, team work, employee involvement and employee empowerment are used.

There is no consensus in literature as to the relationship of total quality management and job satisfaction. Some authors claim that TQM leads to motivation and job satisfaction while others assert a negative relationship. This study seeks to determine major people oriented TQM practices that influence job satisfaction out of a set of five practices. The methodology that will enable this determination is discussed in the following Chapter.

CHAPTER THREE
RESEARCH METHODOLOGY

3.1 Introduction

The research methodology is a way to systematically solve a research problem. Under research methodology, the various steps that are adopted by a researcher in studying the research problem along with the logic behind such steps are studied (Zhang, 2000). This research is quantitative oriented. The researcher seeks to test theory measure with numbers and analyse the data using statistical techniques.

This Chapter presents an overview of the methodological perspective of the research. Section 3.2 is a recap of the problem statement followed by objectives and methodological framework in sections 3.3.and 3.4 respectively. Section 3.5 describes the research design and in particular the research approach, unit of analysis, pilot study and administration of questionnaire are discussed. The data gathered using questionnaires is explored under data analysis.

3.2 Problem Statement

Evidence of the relationship between people oriented TQM practices and employees' Job satisfaction has been established in various countries and industries (Guimaraes, 1996, Boseline and Carlopio, 2002, Lam, 1995; Gardner and Carlopio, 1996) but there is no existing literature that studies the relationship in the context of the Zimbabwean printing industry.

Of the people oriented TQM practices, there is no consensus among researchers on which ones are positively associated with job satisfaction. While some authors found no association between job satisfaction and reward and recognition (Ooi, Baker, Arumugum, Vellapin, Locke, (2007); Jain (2010) others reported a positive association (Ijaz, Kee and Irfan, (2012); Adawiyah and Pramuka, (2012); Chag, Chin and Chen, 2010). Fidelity Printers and Refiners is selected as a case study as it is

one of the few manufacturing companies and the only known printing company that has embarked on TQM in Zimbabwe.

In studies where association between TQM practices and job satisfaction has been established to be either positive or negative, there has been no distinction on the basis of gender or age. The people oriented practices are assumed in literature to have the same effects to both men and women, and to both young and old. This may not be the case. Through this research, such assumption can be affirmed or disputed.

3.3 Aim and Objectives

The overarching aim of this study is to understand the major TQM practices that influence job satisfaction in the Printing sector by using a major player in the printing industry as a case study.

The researcher seeks to identify a set of soft TQM practices effective as a guide in measurement of job satisfaction and explore the relationship between the TQM practices and job satisfaction. A determination of which gender and age group are more satisfied with their jobs as a result of TQM practices completes the set of objectives.

3.4 Methodological Framework

3.4.1 Major research question

This research intends to answer the major research question: What are the major people oriented (soft) TQM practices that influence job satisfaction within the Printing sector in Zimbabwe? Fidelity Printers and Refiners (Pvt) Ltd is used as a case study.

3.4.2 Hypotheses of the study

Five hypotheses were formulated for this research. The five identified soft TQM practices (rewards and recognition, team work, employee involvement, education and training, and employee involvement) were postulated to be positively associated with job satisfaction. Old employees and female employees were also assumed to be more satisfied with their jobs than young and male employees respectively.

3.4.3 The study variables

The independent variables for this study are education and training, rewards and recognition, team work, employee involvement and employee empowerment. Job satisfaction is the dependent variable.

3.5   Research design

The research design is the mechanism that ensures that the data collected is accurate and good enough to enable answering of the research questions. According to Frankfort-Nachmias and Nachmias (1996), research design is a coherent model of proof that allows the researcher to draw inferences concerning causal relations among the variables under investigation.

3.5.1 Research approach

This research follows the deductive approach. According to Sekeran (2003), a deduction is a process by which we arrive at a reasoned conclusion by logical generalization of a known fact. A deductive approach is a top down strategy working from the general to the specific. It starts with theory or hypothesis from which certain other things should logically follow (Saunders et al., 2003). These implications can be tested on the basis of the results and the initial hypothesis can be supported or rejected (Saunders et al., 2003). Hypotheses based on the relationship of people oriented TQM practices were formulated and statistically tested. Since the time allowed to complete the MBA research is short, a deductive approach is suitable as deductive reasoning does not require meticulously observing a variety of observational evidence to reach a conclusion.

3.5.2 Research Strategy

A case study approach was used for the determination of what main people oriented TQM practices influence job satisfaction. Case study data is contextual. Since the researcher is an employee of the company, not just empirical data is collected but histories and stories that can be told about the company can be assessed. Case studies are the only way to provide an in-depth insight into the processes going on within complex organizations (Yin, 1989). Case studies have the ability to deal with a

full variety of evidence such as documents, interviews and observations although there is no scientific basis for generalization (Zhang, 2000).Yin (1994) posits that the purpose of a case study is to generalize to theoretical propositions or hypothesis not to populations as in statistical research.

3.5.3 Methodology

Methodology is about everything that has to do with procedures or techniques of investigation, that is, the set of techniques used in one piece of research (Oluwatoyin and Oluseun, 2008). Methodology is crucial in obtaining relevant information.

Qualitative approach has the shortcoming of being subjective. It is also difficult to apply conventional standards of reliability and validity. In qualitative research, contexts, situations, conditions and interactions cannot be replicated to any extend nor can generalizations be made with confidence to a wider context than the one studied (Burns and Burns, 2008).

Quantitative research involves generation of data in quantitative which can be subject to rigorous quantitative analysis in a formal and rigid fashion. Inferential approach to research is a sub class of quantitative approach where a data base is formed from which to infer relationships (Burns and Burns, 2008). This dissertation seeks to gather to find out the relationship between major people oriented TQM practices and job satisfaction.

Quantitative approach has the advantage of using standardized instruments so that the varying perspectives and experiences of people can fit a number of predetermined response categories to which numbers are assigned. This overcomes the subjective assessment of attitudes, opinions and behaviour in qualitative approach. Research in qualitative approach is a function of the researcher's insights and impressions. The quantitative technique is an approach which seeks to inquire into an identified problem, based on testing the theory measure with numbers and analysing the data using statistical techniques. The main objective of the quantitative technique is to find out if a theory can be generalized.

The current study pursued a quantitative methodology. The questionnaire was the research instrument used to collect data. Respondents were asked Likert type questions based on selected 'soft' practices of Total Quality Management and job satisfaction. The responses were codified and input to an SPSS program as numbers for analysis. A response such as Strongly Agree was entered as a 5 in SPSS while a Strongly Disagree response was entered as a 1 to convert the data to numerical form. The data was subjected to tests such as normality, correlation, Kruskal-Wallis, Mann Whitney U, and regression analysis. This gave a rigorous quantitative analysis of the data from which inferences were drawn.

3.5.4 Unit of analysis

A unit of analysis is a major entity that is being analysed in a research (Trochim, 2008). In this study, people- oriented TQM practices are being investigated.

3.5.5 Research instrument

The research instrument for this thesis was the Questionnaire. Questions on TQM dimensions were grouped into 5 variables and measured on a five point Likert format which ranges from 1 (strongly disagree) to 5 (strongly agree). Validated questions were obtained as indicated in Table 3.1.

Table 3.1: Sources of Questionnaire questions

VARIABLE	SOURCE
1. Rewards and recognition	Zhang, 2000a; Morrow, 1997; Adiwayah and Pramuka, 2012.
2. Education and Training	Zhang, 2000b.
3. Team work	Zhang et al., 2000.
4. Empowerment	Zhang, 2000a; Ahire, Golhar & Waller, 1996.
5. Employee involvement	Zhang, 2000a; Prajogo and Cooper, 2010.
6. Job Satisfaction	Linz, 2003; Ooi et al., 2007; Prajogo and Cooper, 2010.

3.5.6 Pilot study

The pilot test helps researchers to check the data collection methods and uncover any mistakes or miscomprehension of the questionnaire. The sample examined in the pilot study must be a part of the sample used for the conduction of the research; thus, the researcher may reveal unexpected findings, based on which any necessary adjustment is made (Gerson and Horowitz, 2002 as cited in Oluwatoyin and Oluseun, 2008). According to Blumberg et al (2005), respondents in a pilot study could range between five and hundred.

A pilot study was conducted before the administration of the questionnaire in order to detect potential problems that may arise as a result of difficulty in the interpretation of questions by respondents. A total of 10 questionnaires were distributed to randomly picked employees. Follow up interviews revealed a few corrections that were necessary on the questions. Generally the respondents selected were of the view that the questionnaire was simple to answer.

3.5.7 Sample

Literature recommends a sample size, N greater than 50 +8m, with m = number of variables (Pallant, 2005). A sample size of 90 was used in this study and is close to the recommended sample size. There are 5 variables in this study.

3.5.8 Administration of the Questionnaires

The company's work force is concentrated in Harare although some employees operate from the Bulawayo branch. Only employees based in Harare were considered for this research. There are no printing operations in Bulawayo as it is currently a gold buying centre. Questionnaires were printed. Each department has a departmental register where employees sign-in every morning. These registers were collected and every odd numbered employee on the register was selected. A list of such people was compiled. This is systematic sampling and the procedure is useful when a sampling frame is available in the form of a list. In systematic sampling, the selection process starts by picking some random point in the list and then every nth element is selected until the desired number is secured.

The list of respondents was compiled and questionnaires were distributed to the odd numbered employees in the register. The respondents were given two weeks to complete the questionnaire. After one week, a reminder was send to respondents through the company internal electronic mail. An assistant, who is an employee of the company, was made use of. The assistant was given a copy of respondents list and instructed to collect the questionnaires from persons on the list for an agreed sum of money. Twenty questionnaires were distributed as soft copies. Contract employees (indicated by their employee numbers) were omitted. Collection of questionnaires was stopped after the two weeks period to allow for data analysis.

3.5.7 Data analysis

The statistical computer program used for questionnaire data analysis was SPSS for Windows Version 17.0. SPSS is useful for questionnaire data analysis (Ooi et al, 2007). Profile of respondents was analysed using frequencies while the reliability of data was tested with Cronbach's alpha. Normality tests check if parametric or non-parametric methods can be used. The tests examine how statistically significant the findings are (Saunders et al., 2003). Statistical significance gives assurance of obtaining same results if experiment is repeated. If the probability of obtaining the test statistic or one more extreme by chance is higher than 0.05, it can be concluded that the relationship is not statistically significant (Saunders et al., 2003).

The data was not normally distributed and hence non parametric methods were employed. The following tests were done on the data; correlation analysis, reliability tests, Mann- Whitney U test, Kruskal- Wallis Test, normality tests, and regression analysis.

Correlation analysis was used to determine the relationships between the variables. The coefficient enables the researcher to quantify the strength of the relationship between variables and can take any value between +1 and -1.This is useful as this study intends to test hypotheses. For data that is not normally distributed, the Spearman coefficient (ρ) is calculated. The following guideline determines strength of the relationship,

ρ =0.10 to 0.29 weak,

ρ=0.30 to 0.49 medium,

ρ= 0.50 to 1.0 strong (Pallant, 2005)

Standard regression analysis is useful in this study. This is where all the independent (or predictor) variables are entered into an equation simultaneously and each independent variable is evaluated in terms of its predictive power over and above that offered by all other independent variables. This gives a coefficient which enables assessment of the strength of a relationship. The coefficient (R^2) can take values between 0 and +1. The coefficient measures the proportion of the variation in a dependent variable that can be explained statistically by the independent variable(s) (Saunders et al., 2003). Standardised coefficients (β values) in an SPSS regression output indicates which variables included in the model contributed to the dependent variable. The largest β value is an indication that the variable makes the strongest unique contribution to explaining the dependent variable (job satisfaction) when the variances explained by all other variables in the model is controlled for.

The Sig value in a regression output indicates whether this variable is making a statistically significant unique contribution to the equation. If sig value is less than 0.05, then the variable is making a statistically significant unique contribution to the prediction of job satisfaction (the coefficient is unlikely to have occurred by chance alone) (Burns and Burns, 2001).
If Sig value is greater than 0.05, one can conclude that the variable is not making a significant unique contribution to the prediction of the dependent variable (the regression coefficient could have occurred by chance alone) (Burns and Burns, 2001).

3.5.8 Validity and Reliability

Validity is the extent to which any instrument measures what it is intended to measure. According to Bryan and Bell (2011), validity is concerned with the integrity of the conclusions that can be generated from a piece of research. Construct validity is to do with whether or not a measure that is devised of a concept really does reflect the concept that it is supposed to be denoting while internal validity is concerned with the question of whether a conclusion that incorporates a causal relationship holds water (Bryan and Bell, 2011). External validity measures whether the results can be

generalized beyond the specific research context. Construct validity measures the extent to which the items in a scale all measure the same construct and can be evaluated by the use of factor analysis (Flynn et al., 1994).

Reliability deals with the question of whether the results of a study are repeatable and is commonly used in relation to the question whether or not the measures that are devised for concepts in business and management (such as team working, job satisfaction and organizational effectiveness) are consistent (Bryan and Bell, 2011). Internal reliability measures whether or not the indicators that make up the scale are consistent. This implies a measure of whether or not respondents' scores on any one indicator tend to be related to their scores on the other indicators.

The use of validated questions in the questionnaire was meant to ensure validity of the questionnaire. Questions were obtained from peer reviewed Journals which meant such questions have been tried and tested. How ever since most of the studies from which the questions are sourced were conducted outside Zimbabwe, it was imperative to check if respondents in the current study understood the questions. This was achieved through a Pilot Study and some interviews to check if the respondents had understood the questions. The interviews were also meant check whether the interpretation of the questions was consistent across the respondents in the pilot study. There was acceptable variation in the respondents' interpretation of the questions which gave the researcher confidence that the instrument used for this study was reliable and that the questions were valid.

3.5.9 Ethics and values

Ethics is the application of moral principles and or standards that guide behaviour in human relations (Burns and Burns, 2001), The Company is a private business covered under the Protected Areas Act. Issues of secrecy and confidentiality are critical to the organisation. As such the research avoided over exposure and all participants will remain anonymous. Information provided will be reported in summary format only. Permission from individuals in authority to provide access to the study participants was sought through a memorandum.

3.6. Chapter Summary

The Chapter presented an over view of the research methodology employed in this study. This involved outlining an ideal research design based on the research questions. The methodological framework outlined the major research question and hypotheses as well as the variables for this study. The deductive approach and a case study strategy were employed for this study.

The sample was obtained from employees of Fidelity Printers and Refiners in Msasa. Questionnaires were distributed and the statistical computer program used for data analysis was SPSS for windows, version 17.0.

Chapter 3 has described the research methodology employed in this study. The subsequent Chapter presents the research findings

CHAPTER FOUR
RESULTS AND DISCUSSION

4.1. Introduction

The previous chapter detailed the methodology used to collect and analyse data and, as already explained, a quantitative methodology is the preferred approach to collect data using cross-sectional surveys. This chapter presents the findings and the analyses that followed in order to test our hypotheses and answer the major research question.

The first two sections describe the frequencies and descriptives of the data. These tests are done to have a feel of the level of job satisfaction in among respondents. Reliability tests follow thereafter to check repeatability of data. Normality tests are done to assess the distribution of scores. This is followed by correlation tests and regression analysis. The chapter concludes with a discussion.

4.2 Frequencies

One hundred and thirty questionnaires were distributed and 90 were returned giving a 69% response rate. All the returned questionnaires were usable. Of the 130 questionnaires, twenty were in soft copy form and 110 were hard copies. Only 6 of the soft copies were returned via the email. This could be because respondents were afraid of revealing their names once they reply to an email. An option was given to print and return a hard copy so the majority of questionnaires were returned as hard copies.

4.2.1 Profiles of respondents in tabular form

Table 4.1. Gender of Respondent

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	61	67.8	67.8	67.8
	Female	29	32.2	32.2	100.0
	Total	90	100.0	100.0	

There were 29 (32.2 percent) female and 61 (67.8 percent) male respondents. This is reflective of the composition of male to female employees at the company where only one third of the employees are female.

Table 4.2. Age of respondent

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	25 to 35yrs	41	45.6	45.6	45.6
	36 to 44 yrs	37	41.1	41.1	86.7
	more than 44yrs	12	13.3	13.3	100.0
	Total	90	100.0	100.0	

Out of this group of respondents, no one was in the less than 25 years age category. The company has had two retrenchments in 2010 and 2012 where those who were employed during the hyperinflation period were offered packages. Most people who had few years of service and without special skills were retrenched. Respondents were concentrated in the 25-35 years (46%) and 35 to 44 years (41%) categories. The retrenchment also targeted the old aged employees without special skills. This also gives rise to the few respondents in the more than 45years age category.

Table 4.3. Length of service at FPR

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 to 5yrs	10	11.1	11.1	11.1
	more than 5yrs	80	88.9	88.9	100.0
	Total	90	100.0	100.0	

The company now recruits temporary employees on a need basis but these were not eligible as only for this study hence no one in the less than five years length of service category although it appeared in the questionnaire. There were few respondents in the 1 to 5 years category (11%). Consistent with the company's aim to keep employees numbers low, recruitment after the retrenchment exercise has

been only for critical services. The majority of employees were in the more than five years category.

Table 4.4. Position in the company

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Managerial	7	7.8	7.8	7.8
	supervisory	20	22.2	22.2	30.0
	general staff	63	70.0	70.0	100.0
	Total	90	100.0	100.0	

Respondents in the managerial grade comprise 7.8% of total respondents while the majority of respondents were general staff. Again this is reflective of the population where 21 out of 300 employees of the company are in the managerial grade (Management Report, 2013). Results shown in the tables can be represented as pie charts shown in Figures 4.1 to 4.4

4.2.2 Profiles of respondents represented as Pie Charts

4.2.2.1 Pie Chart representation of Gender of Respondents
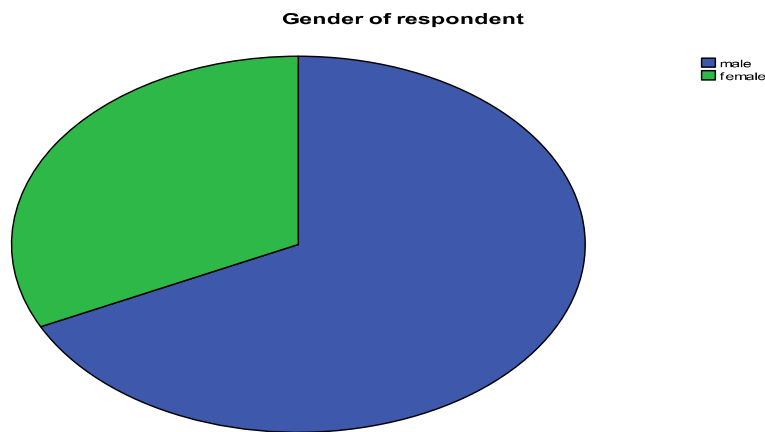
Figure 4.1

The majority of respondents were men (68%). Females constitute 32 percent. This is reflective of the population of the permant employees of the company.

4.2.2.2 Pie Chart representing Age of Respondents

Age of respondent
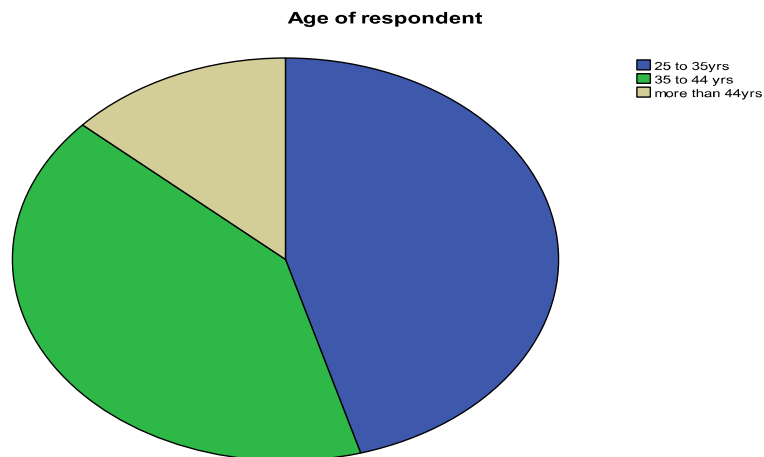
Figure 4.2

Forty six percent of the respondents were in the 25 yrs -35 year old age group while forty one percent were in the 35-44 year old age group. The organisation has a young population as those above 45 years of age constitute about 13 perscent. This was due to two retrenchments within a space of two years that targeted those without essential skills and the old people.

4.2.2.3 Pie chart for respondents' Length of service

Length of service at FPR
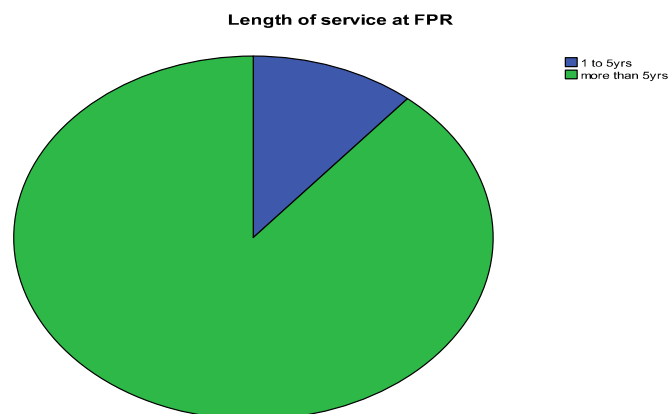
Figure 4.3

The bulk of respondents (90%) have more than 5 years working for the company. This is reflective of permant employees only. After two retrenchments, the company now employees non essential skills on a contract basis. The majority of employees with less five years working experience are contract workers and were inelligilble for this survey.

4.2.2.4 Pie chart for Respondents' Position in the Company

Postion in the compay
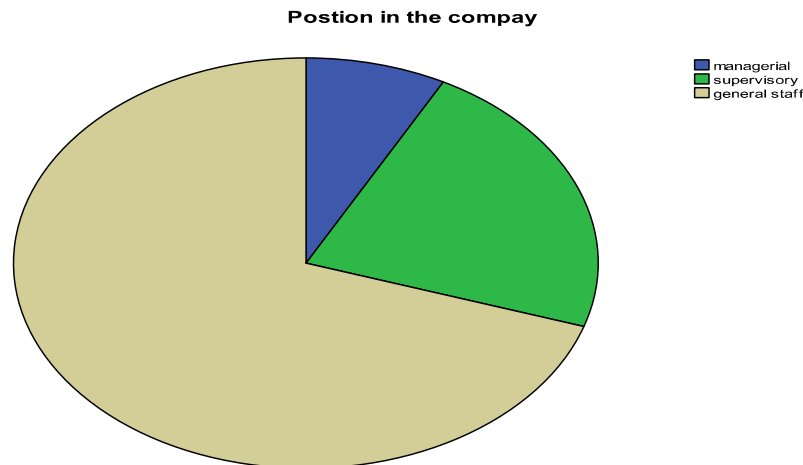
Figure 4.4

General staff constitute the bulk of respondents (70%) with supervisors and managers being a 22% and 8% of the respondents respectively.

4.3 Descriptive Tests

Descriptive tests were done to get a feel of the level of job satisfaction in the organisation. The means for job satisfaction for all the measurement categories are summarized in Table 4.5

The overall mean of 3.54 on a scale of 1 to 5 indicates the employees are generally satisfied with their jobs. Based on gender, the males (mean 3.57) are more satisfied by their jobs than female (mean 3.46). Most female employees are quality controllers who examine work from the printing machine and their work is routine. Men operate the printing machines. As different designs of jobs are printed, the work is not routine. Besides, there are better prospects of being promoted when one operates the machines than when one examines printed work.

The managers and supervisors are more satisfied than general staff (3.95 against 3.36) and the 35-45yrs age category is the most satisfied of the age categories. At the time of conducting the research, managers were receiving new vehicles after

several years. Meanwhile employees were complaining that the salary adjustment awarded in April 2013 after several years without an increment was inadequate.

Table 4.5 Average job satisfaction for the various categories of respondents

CATEGORY	N	MEANS OF JOB SATISFACTION
Overall	90	3.54
Male	61	3.57
Female	29	3.46
Managerial	7	3.95
Supervisory	20	3.95
General staff	63	3.36
1-5 yrs of service	10	3.83
More than 5 yrs of service	80	3.50
25-35 yrs age group	41	3.25
35-44 yrs age group	37	3.81
More than 45 yrs age group	12	3.64

Added to that, there were moves to change the conditions of service to suit the manufacturing sector. Most employees feel that the old conditions of service (more aligned to the financial sector) were better. With the old conditions of service, getting a personal, car or housing loan was almost automatic when one becomes a permanent employee. However the proposed conditions stipulate that such loans are subject to availability of funds. The '*subject to availability of funds*' clause in the conditions of service is viewed by employees as a way to deny employees access to loans.

1.3 Reliability Tests

Reliability is concerned with the question of whether the results of a study are repeatable. The reliability of the questionnaire was tested according to the Cronbach's alpha measurements. Reliability tests were conducted on the independent variables – people oriented TQM practices (employee involvement, reward and recognition, education and training, employee empowerment, and team work) and the dependent variable of job satisfaction. This was done to ensure that the questionnaire items were consistently measuring the constructs. The results for internal reliabilities of the five independent variables and the number of items for each variable as well as the dependent variable and the number of items are shown in Table 4.6.

Table 4.6. Summary of Cronbach's alpha for Variables

VARIABLE	CRONBACH'S ALPHA	ITEMS
Employee involvement	0.841	5
Reward and Recognition	0.812	4
Education and Training	0.801	5
Employee Empowerment	0.774	5
Team work	0.609	5
Job Satisfaction	0.701	3
Total	0.906	27

All the constructs except team work have a Cronbach's alpha above 0.70 indicating that these measures were reliable (Nunnally, 1978 as cited in Ooi et al., 2008). The 0.609 Cronbach's alpha for team work is above the minimum of 0.6 that is acceptable for exploratory work. There were no items deleted for employee involvement, reward and recognition, education and training, and team work.

The internal reliability of a 6 item scale for employee empowerment was 0.757. Inspection of the table suggested that item 2 (I am fully responsible for the work that

I am assigned to) should be eliminated because of its low and negative correlation with the test as a whole and the indication that its removal would increase reliability. A repeat Cronbach's alpha minus item 2 then produced a Cronbach alpha reliability coefficient of 0.774, which is acceptable.

The internal reliability of a 6 item scale for job satisfaction produced an alpha of 0.629. Inspection of the table suggested that item 1 (my opinion of myself goes up when I do this job well) should be eliminated to increase reliability. A repeat Cronbach's alpha minus item 1 then produced an alpha of 0.676. Inspection of the new table suggested that removal of item 2 (I feel a great sense of satisfaction when I do this job well) would increase reliability. A repeat Cronbach's alpha minus items 1 and 2 produced a Cronbach alpha reliability coefficient of 0.701 which is acceptable. An overall Chronbach's Alpha of 0.906 suggests internal consistency and supports the content validity of the questionnaire (Trochim, 2006).

The variables in this research comprised of an initial total of 30 items out of which 25 items represented the five people oriented TQM practices as the independent variables and 5 items represented job satisfaction as the dependent variable. After reliability tests, two items were deleted from empowerment in order to improve the reliability and one item was deleted from job satisfaction resulting in 27 items. This was done to improve reliability of the constructs.

4.5. Normality Test

Normality test is an assessment of the distribution of the scores. 'Normal' is used to describe a symmetrical, bell-shaped curve, which has the greatest frequency of scores in the middle, with smaller frequencies towards the extremes (Pallant, 2005). The Kolmogorov- Smirnov statistic assess the normality of the distribution of the scores by testing how statistically significant the findings are and give assurance that if the study is repeated, the same result will be obtained. A non significant result (Sig value of more than 0.05) indicates normality. Table 4.13 is SPSS output normality tests.

Table 4.7 Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	Df	**Sig.**	Statistic	Df	Sig.
Job satisfaction	.115	90	**.005**	.967	90	.021
Reward and recognition	.152	90	**.000**	.942	90	.001
Education and Training	.109	90	**.010**	.975	90	.087
Teamwork	.104	90	**.017**	.957	90	.004
Empowerment	.124	90	**.002**	.973	90	.056
Involvement	.131	90	**.001**	.946	90	.001

a. Lilliefors Significance Correction

SPSS output in Table 4.13 indicates that the results are statistically significant (the Sig values are all less than 0.05) thus violating the assumption for normality. Since the data is not normally distributed, the data was analysed with non parametric tests.

4.6   Mann Whitney U Test

Mann-Whitney test is used to test for differences between two independent groups such as male and female on a continuous measure. Instead of comparing means of the two groups, the Mann- Whitney U test compares medians. It was important to test whether there were differences between men and women regards job satisfaction in the context of Total Quality Management as this was a control variable in the study.

Table 4.8 Mann Whitney Test based on Gender

	Gender of respondent	N	Mean Rank	Sum of Ranks
Job satisfaction	Male	61	46.68	2847.50
	Female	29	43.02	1247.50
	Total	90		

Table 4.9 Test Statistics[a]

	Job satisfaction
Mann-Whitney U	812.500
Wilcoxon W	1247.500
Z	-.629
Asymp. Sig. (2-tailed)	.529

a. Grouping Variable: Gender of respondent

A Mann-Whitney test revealed no significant difference in job satisfaction between men (Md= 46.68, n=61) and women (Md = 43.02, n = 29) U= 812.500, z = -0.529. There is not much difference between the two mean rank values (46.68 and 43.02).This result is supported by literature (Rast and Tourani, 2012; Smith et al, 1998 and Oshagbemi, 2000) which argued that there is no significant difference of perception between male and female employees. This implies that hypothesis H7 is rejected.

4.7   Kruskal- Wallis Test

The Kruskal-Wallis test is the non-parametric alternative to a one way between groups analysis of variance that allows the comparison of scores on some continuous variable (for example age) for 3 or more groups. Scores are converted to ranks and the mean ranks for each group is compared. The questionnaire had 3 sets of continuous variables being age, position in the company and length of service respectively.

4.7.1 Kruskal Wallis result for Age of Respondent

Table 4.10 Ranks

	Age of respondent	N	Mean Rank
Job satisfaction	25 to 35yrs	41	35.99
	35 to 44 yrs	37	53.77
	more than 44yrs	12	52.50
	Total	90	

Table 4.11 Test Statistics[a,b]

	Job satisfaction
Chi-Square	10.238
Df	2
Asymp. Sig.	.006

a. Kruskal Wallis Test

b. Grouping Variable: Age of respondent

A Kruskal- Wallis test revealed a statistically significant difference in job satisfaction across 3 different age groups (Grp1, n= 41; 25-35 yrs, Group 2, n = 37, 35-44 yrs, Group 3, n =12, more than 45 years, Chi square χ^2 (2, n =90) = 10.238). ρ = 0.006. The middle age group (35-44yrs) recorded higher median score (Md = 53.77) than the older age group (more than 45 yrs, Md = 52.5) and the young employees with a mean-rank scores of 35.99. Since older employees are more satisfied with their jobs than younger employees, hypothesis **H6** is accepted.

Tests based on position in the company (Appendix Table C1) reveal that managers and supervisors (Md =60 and Md= 58 respectively) are more satisfied than general staff (Md =39). The tests also indicate that those who have served the company for 1 to 5 years are more satisfied (Md =55) than those with more than 5 years (Md = 44). However, the results are not statistically significant (Sig = 0.210), (Appendix Table C2). However, of interest to this study were the control variables of age and position in the company.

4.8   Correlations

Correlation analysis is used to quantify the strength and direction of the linear relationship between variables.The non parametric correlation technique is the Spearman rank order correlation (ρ). The direction is indicated by the sign of ρ (+ or - imply a positive or negative relationship respectively).

In the current study, correlation analysis was done to determine how the independent variables were correlated to each other and how each in turn was correlating with the dependent variable (job satisfaction).

Table 4.12 Spearman's rank order correlations between TQM practices and Job satisfaction

		Reward & recognition	Education &Training	Team work	Empower-ment	Involvement	Job Satisfaction
Spearm an's rho	Reward and recognition	Correlation Coefficient	1.000					
		Sig. (2-tailed)	.					
	Education &Training	Correlation Coefficient	.552**	1.000				
		Sig. (2-tailed)	.000	.				
	Teamwork	Correlation Coefficient	.281**	.398**	1.000			
		Sig. (2-tailed)	.007	.000	.			
	Empowerme nt	Correlation Coefficient	.344**	.482**	.485**	1.000		
		Sig. (2-tailed)	.001	.000	.000	.		
	Involvement	Correlation Coefficient	.446**	.527**	.408**	.567**	1.000	
		Sig. (2-tailed)	.000	.000	.000	.000	.	
	Job satisfaction	Correlation Coefficient	.394**	.422**	.307**	.374**	.301**	1.000
		Sig. (2-tailed)	.000	.000	.003	.000	.004	.
		N	90	90	90	90	90	90

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

The relationship between people oriented total quality management practices and job satisfaction was investigated using Spearman's rank order correlation. Table 4.12 shows that there was high and positive correlation among the independent variables. The strongest correlation (0.567) was between involvement and empowerment. Only team work and reward and recognition had a weak correlation (0.281) while all others were correlation was in the medium to strong category. This means that some of the variables especially those with a strong correlation were redundant and could be incorporated in the other variables.

The correlation of the independent variables to job satisfaction and the strength of the relationship based on the discussion under Section 3.5.7 are shown in Table 4.13.

Table 4.13 Strength of relationship of variables with Job Satisfaction

Variable	Correlation coefficient with Job satisfaction	Sig. value	Strength of Relationship
Reward and Recognition	0.394	0.000	Medium
Education and Training	0.422	0.000	Medium
Team work	0.307	0.003	Medium
Empowerment	0.374	0.000	Medium
Involvement	0.301	0.004	Medium

All the independent variables in the model have a positive relationship with job satisfaction and the results were statistically significant. However in order to test our hypotheses, regression was conducted which has more rigour. A regression test will help determine the variables that predict job satisfaction

4.9 Regression Test

Multiple regression analysis is a technique that is used to analyse the relationship between a single dependent variable and several independent variables (Hair *et al.*, 1998). It can tell how well a set of variables is able to predict a particular outcome. Multiple regression will also provide information about the model as a whole and the relative contribution of each of the variables that make up the model. Of importance from the regression output are the β values and the Sig. values from the SPSS regression output.

Standard multiple regression was used to assess the ability of five independent variables (people oriented TQM practices - reward and recognition, education and training, team work, empowerment, and involvement) to predict job satisfaction.

Table 4.14 Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.496[a]	.246	.202	.76780

a. Predictors: (Constant), Involvement, Teamwork, Reward and recognition, Empowerment, Education

b. Dependent Variable: Job satisfaction

The coefficient of determination, R^2 was 24.6%, an indication that people oriented TQM practices can account for 24.6 percent in employees' job satisfaction. The other variation is determined by other variables not considered in the model.

When a small sample is involved, the R^2 value in the sample tends to be an optimistic over estimation of the true value in the population (Tabachnick and Fidell, 2001 as cited in Pallant, 2005. The Adjusted R^2 statistic corrects this value to give a better estimate. The Adjusted R^2 for the sample was 0.202, an indication that the variables in the study account for 20.2% of job satisfaction.

Table 4.15 ANOVA[b]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	16.191	5	3.238	**5.493**	.000[a]
	Residual	49.519	84	.590		
	Total	65.710	89			

a. Predictors: (Constant), Involvement, Teamwork, Reward and Recognition, Empowerment, Education
b. Dependent Variable: Job satisfaction

The F value measures the likely hood that the model describes a relationship that emerged at random rather than a real relationship. F value ranges from zero to an arbitrary number (Burns et al., 2003). Statistical significance is important. The lower the significance of F value, the greater the chance that the relationships in the model are real. Although the value obtained from this regression is small (F=5.493), it is statistically significant (Sig. 000) implying that it is better to use the model than to guess the results.

Table 4.16 Coefficients[a]

Model	Unstandardised Coefficients		Standardized Coefficients	T	Sig.	95.0% Confidence Interval for B		Correlations			Collinearity Statistics	
	Beta	Std. Error	Beta			Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	VIF
1 (Constant)	**1.344**	0.522		2.575	**0.01**	0.306	2.382					
Reward &recognition	**0.173**	0.117	0.175	1.474	**0.14**	-0.06	0.406	0.364	0.159	0.14	0.636	1.571
Education & Training	**0.207**	0.143	0.194	1.455	**0.15**	-0.076	0.491	0.41	0.157	0.138	0.504	1.984
Teamwork	**0.206**	0.159	0.143	1.305	**0.2**	-0.109	0.524	0.328	0.141	0.124	0.743	1.346
Empowermnt	**0.196**	0.136	0.185	1.438	**0.15**	-0.075	0.467	0.382	0.155	0.136	0.542	1.844
Involvement	**-0.051**	0.135	-0.049	-0.38	**0.71**	-0.32	0.219	0.297	-0.041	-0.04	0.536	1.866

a. Dependent Variable: Job satisfaction

Each of the variables had a tolerance value of more than 0.1 and a variance inflation factor (VIF) of less than 10 (Table 4.17). The finding indicates that the model had no serious multi co linearity problem (Hair *et al.*, 1998).

The results also indicate that four people-oriented TQM practices, namely: reward and recognition ($\beta = 0.173$, $\rho > 0.05$), education and training ($\beta = 0.207$, $\rho > 0.05$), team work ($\beta = 0.206$, $\rho > 0.05$), and empowerment ($\beta = 0.196$, $\rho > 0.05$) are positively associated with employees' job satisfaction. Employee involvement is negatively associated with job satisfaction ($\beta = -0.051$ $\rho > 0.05$). The result shows that employees are not involved in some of the major decisions that concern them in the company. Comments from some respondents seem to suggest this. Below are some of the comments.

Respondent 67 had this comment;

"*I think generally the company, or maybe the HODs underestimate us or look down upon us that we don't even have any say towards our work. We are given minimum empowerment towards our work to the extent that even suggestions are not taken. If you keep on pressing towards your work or suggestion you will be seen as someone who incites others*"

Respondent 62 commented that superiors have the final decision and that subordinates do not have a say while Respondent 80 indicated that employees

should be involved in decision making for them to have a great sense of belonging. Respondent 36 had the comment, "*I think employers should try to engage their employees and try to share ideas on how some jobs can be done*". According to Respondent 13, lack of employee involvement and motivation gives dissatisfaction in what one does and in turn compromises quality. A comment by Respondent 20 to the effect that strategic plans for the organization must be known by all employees so as to successfully implement them also suggests lack of employee involvement in planning or poor dissemination of information.

Reward and recognition has the least positive contribution to job satisfaction. The following comments by respondents (on the questionnaire) give an insight of how the workers feel about recognition and rewards at the company;

- Respondent 9 "*the company does not recognize the hard work and effort put by the workers to help the company grow*"

- Respondent 14 "*employees often take a wait and see attitude due to lake of adequate remuneration but often perform above average to safeguard their contract of employment*"

- Respondent 53 "*I strongly believe I should quit this job. The effort and what I get paid for does not match. No motivation for an employee*"

- Respondent 80 "*For employees to have a great sense of belonging, it is critical to have a clear rewarding system in place*"

The findings also indicate that the most important TQM practice that explains variance in job satisfaction was training and education ($\beta = 0.207$). However all results are not statistically significant (Sig. value is greater than 0.05). Therefore H1, H2, H3, H4, H5 and H6 are all rejected at significance level of greater 0.05. The model can therefore not easily be used for prediction of job satisfaction in this particular case.

4.10 Discussion

The overall objective of this study was to examine the major people oriented TQM practices that influence job satisfaction within the printing industry. On the basis of correlation analysis all the variables have a significant positive correlation with job satisfaction. Job satisfaction is thus enhanced as these people oriented TQM practices increase. Education and training is the most important TQM practice in enhancing job satisfaction. The greater the extent of education and training, the greater the enhancement of job satisfaction. This result confirms the findings of Karia and Asaari (2006) who studied the impact of total quality management (TQM) on employees' work related attitudes such as job satisfaction and found out that education and training has the greatest impact

Continuous training and education are essential for improvement in employees' skills. The training department must therefore provide continuous training and education in ensuring ongoing improvements in job satisfaction. Based on correlation analysis all but one TQM practice positively impacts on job satisfaction. From this result, hypotheses H1, H2, H3, and H5are accepted while hypothesis H4 is rejected.

The results of multiple regression analysis indicated that job satisfaction was not statistically predicted by perceptions of TQM practices. The reason could be that important variables other than the ones selected for this study were at play in influencing job satisfaction within the printing sector. The results of regression analysis were in contradiction with previous findings (Ooi et al. (2008); Guimaraes, (1996); Ooi et al., (2005). Most of the researches cited above were conducted in developed countries. This study could be the first one conducted in Zimbabwe for any printing company hence results obtained in this study are different from literature.

The organisation studied is unique in that as it is a banknote printing company, security and confidentiality are paramount to minimize theft and counterfeit. Employees sign confidentiality forms swearing that whatever information they possess about the organisation and their jobs will not be shared with others without

prior consent from the Head of Department. Although this strictly applied to Banknote Printing, the practice is still in existence even when the company is migrating to be fully commercial. This barring of information sharing meant that managers would also give employees enough information just to perform their duties. There was no room for much employee involvement.

The design of new bank notes was a national issue which involved the Reserve Bank. A few employees were involved. From interviews, it came out that managers are yet to embrace the idea of employee involvement because of the long history of non involvement for security and confidentiality reasons
.

Employee involvement was found to be negatively associated with job satisfaction. TQM calls for involvement and participation of employees in objective setting and decision making. Whereas most researchers believe that such participation results in higher motivation and job satisfaction, Nwabueze (2001) argues that this theoretical assumption is hard to achieve in practice. According to Nwabueze (2001), it is naïve to assume that the opportunity to participate in setting goals will automatically result in the controlled to become highly motivated to achieve better results. In circumstances where a participative approach produces motivation and job satisfaction, it is due to the willingness on the part of the majority to work smarter not harder (Nwabueze, 2001)

The onset of TQM could create fear of redundancy within the ranks. Workers may actively or passively resist the initiative in the hope that jobs can be protected. Alternatively workers may feel that TQM presents another management fad and may be cynical as to the longevity of the project (Glover, 2000). This may cause the negative correlation between employee involvement and job satisfaction as obtained in this study. As a currency printing company, employees were highly paid and had access to loans which only bank employees enjoyed. The deterioration of the economy resulted in the high salaries being unsustainable. As if that was not enough, the company has had two retrenchments in a space of two years. This could have created fear of redundancy and resentment for TQM.

4.11 Chapter Summary

This Chapter presented the results and the various analyses conducted to test our hypotheses. The proportion of men to women and managerial to non-managerial respondents was reflective of the population. The data was not normally distributed hence non parametric methods of analysis such as the Spearman's rank order correlation, Mann Whitney U and Kruskal- Wallis tests were done. The results showed no statistical differences between men and women as regards job satisfaction in the context of Total Quality Management. The Kruskal Wallis test revealed that young employees are the least satisfied.

Results of standard regression analysis showed that the data had co linearity problems as indicated by the tolerance and variance inflation factor (VIF) values. Employee involvement was found to be negatively associated with employee job satisfaction. Although the other people oriented TQM practices were found to be positively associated with job satisfaction, the results are not statistically significant the hypotheses were not supported, none of the independent variables were able to statistically significantly predict job/employee satisfaction. The next Chapter brings the research to a conclusion.

CHAPTER FIVE
CONCLUSIONS AND RECOMMENDATIONS

1.3 Introduction

While the previous Chapter presented the findings, analyses and discussion, this Chapter wraps up the study by drawing conclusions from the findings and making recommendations. The Chapter focuses on the findings of the study in relation to the research objectives which aim at answering the main research question: what major TQM practices influence job satisfaction in printing? The Chapter makes managerial recommendations and suggests areas for further studies.

5.2 Conclusions

5.2.1 Hypotheses

Seven hypotheses were tested in this study. All except one were rejected based on regression output. Table 5.1indicates the hypotheses and the results.

Table 5.1 Hypotheses tested and Results based on Regression Analysis

HYPOTHESIS	RESULT
H1: Education and training in TQM positively impacts job satisfaction.	Rejected
H2: Rewards and recognition impacts positively on job satisfaction.	Rejected
H3: Team work results in employee job satisfaction.	Rejected
H4: Employee involvement has positive impact on job satisfaction.	Rejected
H5: Empowerment positively impacts on job satisfaction.	Rejected
H6: Old employees are more satisfied with their jobs than young employee.	Accepted
H7: Female employees are more satisfied with their jobs than males	Rejected

Main Argument

The main argument in this research is that people oriented TQM practices have a positive impact on job satisfaction. This argument was partially supported from results of correlation analysis but the outcome could not be confirmed in a regression analysis as the results were not statistically significant. Based on regression analysis, employee involvement is the negatively associated with job satisfaction while four other practices positively impact on job satisfaction.

5.2.2 Answers to Research Questions

1. Which people oriented TQM practices are effective for the measurement of job satisfaction?

Based on correlation results, education and training, reward and recognition, empowerment, team work, are moderately measure job satisfaction as the strength of the relationship is medium. The results from the analysis are statistically significant.

2. What is the relationship between the identified TQM practices and job satisfaction?

The identified TQM practices of training and education, rewards and recognition, team work, and empowerment positively impacts job satisfaction while the TQM practice of involvement is negatively related to job satisfaction.

3. Are female employees more satisfied with their jobs than their male counter parts as a result of TQM practices?

Based on Mann-Whitney U Test results, there is no significant difference between satisfaction of men and women with their jobs as a result of TQM practices.

4 Are young employees more satisfied with their jobs than old employees as a result of TQM practices?

Based on Kruskal- Wallis Test results, young employees are less satisfied with their jobs than old employees.

5.2.3 Study Objectives

Some objectives of the study were met while others were not. This study aimed to identify a set of people oriented TQM practices that would prove to be an effective

guide in measurement of job satisfaction. From the findings none of the identified set of people- oriented TQM practices were predictors of job satisfaction in the environment in which this study was carried out. Although correlation results indicate that only employee involvement is negatively associated with job satisfaction, there was a positive association between the other people-oriented TQM variables with job satisfaction. The negative correlation can possibly result from the long period the company has been printing banknotes (from colonial era to 2009). Banknote printing has little employee involvement as consultations mostly involve the Government and the Reserve Bank and employees are only told what to do. With such a long history of employee non involvement it is possible that management still cling to the old ways of doing business.

The objective to determine which gender is more satisfied with the job was met as it can be concluded from findings that there is no difference in job satisfaction between men and women. Similarly, based on Kruskal Wallis results, one can conclude that older employees are more satisfied with their jobs than younger employees therefore another of the objectives of the study was met.

5.3 Theoretical Contribution

The conceptual model for this study was presented in Section 2.5. The findings of this study reveal that none of the variables statistically significantly predict job satisfaction. This therefore means that there are other variables that are more important to predict job satisfaction other than the ones identified. The model can therefore not easily be used in prediction of job satisfaction at the organisation under study. In terms of practical implications, the findings do not support the implementation of people related TQM practices as part of a strategy of creating high performance workplace practices through the enhancement of job satisfaction. The modified model can thus be represented as shown in Figure 5.1.
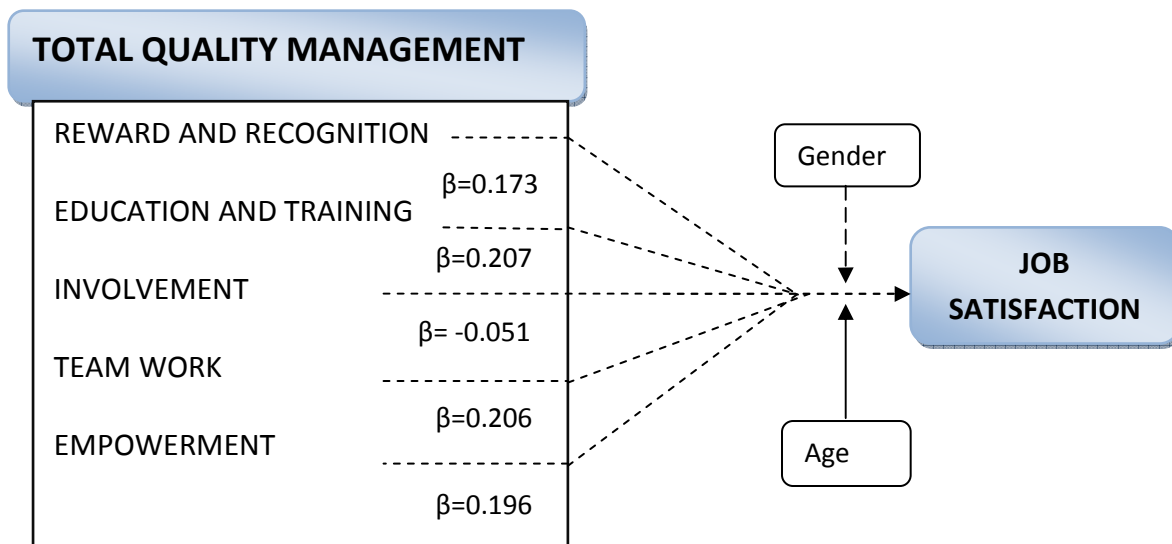
Figure 5.1 Conceptual Model for determination of job satisfaction

Note*: The dotted lines in the model indicates that the relationship is not statistically significant.*

There is need for the development of a more comprehensive model that addresses people oriented TQM variables as people issues have become more important in organizations. The model in the current form is useful in determining differences in satisfaction based on gender and age.

This study also contributes to literature because of the effort to satisfy a need for an analytical study that examines human elements of Total Quality Management and linking the elements to job satisfaction using rigorous statistical methods as opposed.

5.4 Recommendations

5.4.1 Policy Recommendations

The Educational Scholarship Policy for employees' children needs to be revisited to cater for all levels of education from Crèche to University as long as the child is below 18 years of age. This will ensure that the young married employees with young children can also benefit. Alternatively the company can implement a Total Cost to Employer policy where monetary value of the benefits is collapsed into salary so that young employees, even those without children can benefit. This will help boost the job satisfaction of young employees.

The results indicate lack of employee involvement (β = -0.051). The company should ensure that worker representatives are incorporated in all committees and desist from appointing only managers. Worker representatives should also attend strategic meetings to keep the workers abreast of the direction the company is taking. This helps improve employee involvement in decision making.

5.4.2 Managerial Recommendations

This section looks at recommendations that can be made to such stakeholders such as management so that the effectiveness of TQM can be enhanced. In light of the findings of this study, the following recommendations are made for the purpose of trying to enhance the effectiveness of TQM in printing industry in Zimbabwe.

5.4.2.1   Recommendation 1

Education and training is the highest predictor of job satisfaction at the organization. Management must ensure that every employee has an opportunity to be trained. Currently there are some dissenting voices to the effect that selection for training and education is biased in favour of certain individuals. Respondent 5 had this comment: "*The company hires on nepotistic ideology and as a result those who are well connected are given opportunities to study and are actually told to study certain courses so that they will be ready for an appointment in the future. This kills team work spirit as the system also rewards those who are good at spreading gossip*"

The study result also prescribes potential implications for management to review TQM programs, consistent with the training needs of the employees within the company for the employees to perform better and feel higher levels job satisfaction and increase commitment towards the company. The higher levels of satisfaction may give the company an edge over other companies in attracting and retaining employees in this competitive environment.

5.4.2.2   Recommendation 2

The results indicate that older employees are more satisfied than the younger employees. However the company continues to channel extrinsic and intrinsic

rewards to the older employees while neglecting the younger employees. For example, from the researcher's knowledge (who works in this company), long service awards start from ten years of service where a certificate and an amount equivalent to 5% of one's annual salary are awarded. Employees who have served the organization for 20, 25 or 30 years qualify for a certificate, 10 % lump sum plus a trip with spouse to a local holiday destination of choice. The young employees do not qualify because they have not served the organization long enough. The company should also focus on programmes that benefit the young employees.

Management can either resuscitate the Sports Club where employees used to go and socialize. Alternatively, the company can subscribe for employees to established Club Houses to boost employee morale. The organization used to send employees, together with RBZ employees, from different sporting disciplines outside the country for Central Bank Games but has since stopped. The allowances and travelling experience benefited the younger employees. This can be rejuvenated. Introduction of worker of the year awards will also ensure that every employee is catered for regardless of age. This will also tend to benefit the younger employees more as they are still energetic.

From the researcher's knowledge, the company pays tuition fees for employees' children from Grade one to University while pre-school is not catered for. Again the older employees benefit more as they have children up to University going age. Most of the younger employees have children attending kindergarten which is not covered under the current Education Scholarship Policy. It is hereby recommended that the educational scholarship be extended to preschool level.

5.4.2.3   Recommendation 3

Although reward and recognition is not the highest predictor of job satisfaction in this study, it is a provider of long term, infrastructural benefits necessary for the continued improvement over time. It is recommended that the company must closely monitor its reward system to ensure alignment with the market.

5.5 Generalisation

The results obtained from this study may not easily be generalisable to the printing industry as a whole partly because of the small sample used and partly because of the unique aspects of Fidelity Printing Company.

5.6 Limitations and Areas for Further Study

5.6.1 Limitations

There are limitations which must be considered when interpreting these results. Although the survey results were derived from a major printing company in Zimbabwe, the small sample size of Fidelity Printers and Refiners limits generalization of the findings and therefore future research may collect data from different printing companies with increased sample size and geographical diversity.

The cross sectional data analysis cannot confirm the direction of causality implied in the model. Besides, snap shot surveys may coincide with other issues at the organisation that may distort results. For example, the current study was conducted when employees felt that management had short- changed them by awarding a small salary adjustment (11.26%), while management employees were upbeat because they were receiving new cars. Most of the managers had been due for these cars since the 2007 but the company had no money to buy new cars. In this scenario, the research has been conducted in a somewhat temporary atmosphere as both management excitement and employee disgruntlement may soon die down.

The measure of job satisfaction in this study comprises a small number of items which tapped few aspects of job satisfaction and does not represent an overall view of job satisfaction. Future research may be beneficial if more variables are developed in relation to this outcome variable so that significant factors are not left out.

5.6.2 Areas for Further Study

a. A limited number of independent variables were used in the model hence the model is not comprehensive. Other researchers can take into account other independent variables not considered in this study.

b. Other researchers can conduct a longitudinal study of the impact of people oriented TQM practices on job satisfaction.

c. More items (questions on job satisfaction) may in future be included in the questionnaire to tap in different aspects of the outcome variable (job satisfaction). The conceptual domain of job satisfaction is broad since it involves the job and its characteristics. Facets of job satisfaction include satisfaction with the supervisor, relationship with co-workers, present pay, nature of work and opportunities from promotion.

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APPENDIX A

QUESTIONNAIRE

I, Remigius Chipfuyamiti, an MBA student at the University of Zimbabwe, am undertaking a research to determine what major people oriented total quality management (TQM) practices influence Job Satisfaction in Printing. To this end, I kindly request that you complete the Questionnaire below. It should take no longer than 10 minutes of your time. Although your response is of utmost importance to this research, your participation is entirely voluntary. Please do not enter your name or contact details on the questionnaire. It remains anonymous. Information provided by you remains confidential and will be reported in summary format only.

SECTION A

3.1. Background Information

Please answer the following questions by crossing (X) in the relevant block.

3.1.1. Gender

Male	
Female	

3.1.2. Which age group applies to you?

Less than 25 years	
25 to 34 years	
35 to 44 years	
More than 45 years	

3.1.3. How long have you been employed by Fidelity Printers and Refiners?

Less than one year	
1 to 5 years	
More than 5 years	

3.1.4. Please indicate your position within the company.

Managerial	
Supervisory	
General staff	

SECTION B

3.2. People oriented TQM practices

3.2.1. Rewards and Recognition

Please read each statement in the table below and choose the answer that best describes your opinion on rewards and recognition at the company by crossing (**X**) in the relevant box. For all statements; **1 = Strongly Disagree, 2=Disagree, 3 = Neutral, 4 = Agree, 5 = strongly Agree**

		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	The company improves working conditions to recognize employee loyalty.	1☐	2☐	3☐	4☐	5☐
2	The compensation system encourages team and individual contributions.	1☐	2☐	3☐	4☐	5☐
3	Rewards and recognition system is based on work quality.	1☐	2☐	3☐	4☐	5☐
5	Employee rewards are clearly communicated	1☐	2☐	3☐	4☐	5☐

3.2.2. Education and Training

For each of the statements in the table below, please choose the answer that best describes your opinion on Education and Training at the company

		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	Resources are available for employees' education and training.	1☐	2☐	3☐	4☐	5☐
2	Employees are trained on how to use quality management methods.	1☐	2☐	3☐	4☐	5☐
3	Areas of employee improvement needs are continuously assessed	1☐	2☐	3☐	4☐	5☐
4	Quality awareness education is given to employees	1☐	2☐	3☐	4☐	5☐
5	The company formulates education & training on the basis of employees' requirements	1☐	2☐	3☐	4☐	5☐

3.2.3. Team Work

For each of the statements below, please choose the answer that best describes your opinion on Team Work at the company

		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	Employees are consistently trained on team building and group dynamics	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐
2	I am more comfortable working in a team rather than as an individual.	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐
3	Work within this department is assigned around groups.	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐
4	Our staff is encouraged to work as a team rather individuals in their responsibilities.	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐
5	I share knowledge and expertise with other employees	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐

3.2.4. Employee Empowerment

Please read each statement in the table below and choose the answer that best describes your opinion on employee empowerment at the company

		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	The company always encourages me to offer ideas about workplace improvements.	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐
2	I am fully responsible for the work that I have been assigned to.	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐
3	Employees are given adequate authority in controlling the quality of their jobs.	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐
4	Risky initiatives for improvements are taken.	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐
5	Employees are encouraged to fix problems they find.	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐
6	Employees are given the resources necessary to correct quality problems they encounter	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐

3.2.5. Employee Involvement

Please choose the answer that best describes your opinion on employee involvement at the company for each statement in the table below.

		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	Employees' suggestions for improvement are implemented.	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐
2	Employees are actively involved in quality related activities.	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐
3	Employees are given feedback on their quality performance.	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐
4	Employees are involved in quality related decision making process.	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐
5	Employees actively participate in the quality audit process.	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐

3.3. TQM Outcome.

3.3.1. Job Satisfaction

Please read each statement in the table below and choose the answer that best describes your opinion on Job Satisfaction

		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	My opinion of myself goes up when I do this job well.	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐
2	I feel a great sense of satisfaction when I do this job well.	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐
3	I am generally satisfied with the kind of work I do in this job.	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐
4	I frequently think of quitting this job.	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐
5	My job is interesting and I am motivated to do it well	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐

3.4. Any Other Comments (*You may utilize the space at the back of this page*)

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………………………………………………………………………………………………........................

Thank you for your co-operation in completing this questionnaire. Kindly return the questionnaire to afore mentioned researcher.

APPENDIX B
SPSS OUTPUT- DESCRIPTIVES

Overall Job Satisfaction

Table B1. Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Job satisfaction	90	100.0%	0	.0%	90	100.0%

Table B2 Descriptive

			Statistic	Std. Error
Job satisfaction	Mean		3.5370	.09057
	95% Confidence Interval for Mean	Lower Bound	3.3571	
		Upper Bound	3.7170	
	5% Trimmed Mean		3.5802	
	Median		3.6667	
	Variance		.738	
	Std. Deviation		.85925	
	Minimum		1.00	
	Maximum		5.00	
	Range		4.00	
	Interquartile Range		1.00	
	Skewness		-.809	.254
	Kurtosis		.059	.503

Table B3 Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	df	Sig.
Job satisfaction	.172	90	.000	.925	90	.000

a. Lilliefors Significance Correction

Job satisfaction based on Gender

Table B4 Case Processing Summary

		Cases						
		Valid		Missing		Total		
	Gender of respondent	N	Percent	N	Percent	N	Percent	
Job satisfaction	male	61	100.0%	0	.0%	61	100.0%	
	female	29	100.0%	0	.0%	29	100.0%	

Table A5 Tests of Normality

		Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Gender of respondent	Statistic	Df	Sig.	Statistic	df	Sig.
Job satisfaction	male	.147	61	.002	.932	61	.002
	female	.232	29	.000	.852	29	.001

a. Lilliefors Significance Correction

Job satisfaction based on Length of service at FPR

Table B6 Case Processing Summary

		Cases					
		Valid		Missing		Total	
	Length of service at FPR	N	Percent	N	Percent	N	Percent
Job satisfaction	1 to 5yrs	10	100.0%	0	.0%	10	100.0%
	more than 5yrs	80	100.0%	0	.0%	80	100.0%

Table B7 Tests of Normality

		Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Length of service at FPR	Statistic	df	Sig.	Statistic	df	Sig.
Job satisfaction	1 to 5yrs	.296	10	.013	.862	10	.080
	more than 5yrs	.154	80	.000	.932	80	.000

a. Lilliefors Significance Correction

Job satisfaction based on Position in the Company

Table B8 Case Processing Summary

		Cases					
		Valid		Missing		Total	
	Position in the company	N	Percent	N	Percent	N	Percent
Job satisfaction	managerial	7	100.0%	0	.0%	7	100.0%
	supervisory	20	100.0%	0	.0%	20	100.0%
	general staff	63	100.0%	0	.0%	63	100.0%

Table A12 Tests of Normality

	Position in the company	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Job satisfaction	managerial	.238	7	.200[*]	.840	7	.100
	supervisory	.282	20	.000	.874	20	.014
	general staff	.155	63	.001	.937	63	.003

a. Lilliefors Significance Correction

*. This is a lower bound of the true significance.

Job satisfaction based on Age of respondents

Table B9 Case Processing Summary

		Cases					
		Valid		Missing		Total	
	Age of respondent	N	Percent	N	Percent	N	Percent
Job satisfaction	25 to 35yrs	41	100.0%	0	.0%	41	100.0%
	35 to 44 yrs	37	100.0%	0	.0%	37	100.0%
	more than 44yrs	12	100.0%	0	.0%	12	100.0%

Table B10 Tests of Normality

	Age of respondent	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Job satisfaction	25 to 35yrs	.172	41	.004	.944	41	.044
	35 to 44 yrs	.259	37	.000	.875	37	.001
	more than 44yrs	.229	12	.083	.839	12	.027

a. Lilliefors Significance Correction

APPENDIX C

SPSS OUTPUT- RELIABILTY

Table C1. Reliability Statistics- Employee involvement

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.841	.842	5

Table C2. Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Employee involvement Q1	11.344	11.734	.618	.459	.816
Employee involvement Q2	10.644	10.591	.718	.562	.787
Employee involvement Q3	10.556	11.261	.580	.406	.827
Employee involvement Q4	11.167	11.354	.694	.502	.796
Employee involvement Q5	10.733	11.119	.625	.430	.814

Table C3 Reliability Statistics- Reward and recognition

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.812	.814	4

Table C4 Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Reward and recognition Q1	6.900	7.057	.683	.481	.739
Reward and recognition Q2	6.944	7.356	.651	.482	.755
Reward and recognition Q3	7.067	7.299	.629	.451	.765
Reward and recognition Q5	7.156	7.211	.565	.372	.797

Table C5 Reliability Statistics- Education and Training

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.801	.805	5

Table C6. Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Education and training Q1	11.344	10.992	.479	.289	.800
Education and training Q2	11.211	10.865	.669	.504	.740
Education and training Q3	11.533	9.892	.653	.484	.741
Education and training Q4	11.000	11.798	.520	.412	.783
Education and training Q5	11.578	10.741	.629	.466	.750

Table B7 Reliability Statistics- Employee Empowerment

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.774	.776	5

Table C8 Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Employee empowerment Q1	12.189	10.694	.537	.327	.737
Employee empowerment Q3	11.733	10.984	.536	.292	.736
Employee empowerment Q4	12.133	11.825	.539	.302	.736
Employee empowerment Q5	11.844	11.144	.541	.353	.734
Employee empowerment Q6	12.100	10.967	.585	.379	.719

Table C9 Reliability Statistics- Team work

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.609	.632	5

Table C10 Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Team work Q1	15.411	5.818	.327	.123	.582
Team work Q2	14.278	5.933	.354	.219	.561
Team work Q3	14.578	6.651	.262	.084	.606
Team work Q4	14.256	6.013	.435	.303	.518
Team work Q5	13.833	6.500	.512	.366	.507

Table C11 Reliability Statistics- Job Satisfaction

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.701	.714	3

Table C12 Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Job satisfaction Q3	6.878	3.816	.578	.348	.567
Job satisfaction Q4	7.244	3.265	.462	.216	.692
Job satisfaction Q5	7.100	3.102	.544	.331	.577

Table C13 Reliability Statistics- Total

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.932	.934	33