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TOTAL QUALITY MANAGEMENT

A Test of the Effect of TQM on Performance and Stakeholder Satisfaction

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ABSTRACT

Title: Total Quality Management: A Test of the Effect of TQM on the Performance and Stakeholder Satisfaction

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Background and Problem Discussion: The performance of TQM Airlines and Non TQM airlines is measured comparing statistically three major performance indicator Customer satisfaction, Employee satisfaction and Operational effectiveness. To establish a link between TQM and performance and showing the need for the adoption of total quality culture in the local airline sector of the Nigeria aviation industry.

Purpose: The purpose of this thesis is to highlight the benefit of TQM implementation in the Nigerian Airline industry by examining the basic principles of TQM in the airlines. The impact of TQM implementation of the three performance indicator will be assessed.

Method: Quantitative and qualitative method. Primary data is collected from the airline companies by questionnaires and interview. Secondary data is gotten from articles, journals and online resources.

Theory: The theory section looks at different concepts of quality as defined and viewed by various authors. Also the benefits and hindrances of TQM implementation were reviewed.

Analysis: We have used a T-test hypothesis to measure the difference in means of TQM airline and Non-TQM airlines using the three performance indicator.

Conclusion: The research findings confirmed the benefits that ensue from the implementation of TQM. It showed that TQM is a strategic tool industry can employ in the quest to remain competitive. It was also discovered that for the TQM to be properly implemented, everybody in the organization must be involved from the management to the employees and even the customers.

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Oluwatoyin and Oluseun Adediran

<u>Glossary</u>

ATU   AIR TRANSPORT UPDATE

EQA   EUROPEAN QUALITY AWARD

EFQM   EUROPEAN FOUNDATION FOR QUALITY MANAGEMENT

FMA   FEDERAL MINISTRY OF AVIATION

FMT   FEDERAL MINISTRY OF TRANSPORTATION

NA   NIGERIAN AIRWAYS

TQM   TOTAL QUALITY MANAGEMENT

QA   QUALITY ASSURANCE

QC   QUALITY CONTROL

QI   QUALITY INSPECTION

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CHAPTER 1

1 INTRODUCTION

1.1 THE BACKGROUND OF THE STUDY

Total Quality Management (TQM) is a management philosophy which focuses on the work process and people, with the major concern for satisfying customers and improving the organizational performance. It involves the proper coordination of work processes which allows for continuous improvement in all business units with the aim of meeting or surpassing customer's expectations. It emphasizes on totality of quality in all facets of an organization with the aim of reducing waste and rework to reduce cost and increase efficiency in production.

TQM is applicable to any organization irrespective of size, and motives, even the public sector organization are fast adopting the ideology in order to make them effective in meeting public demands. However, the adoption of the ideology by most organization has been hampered due to their non compliance with the procedures and principles of TQM implementation. While some organization, run TQM like a program which they expect to function and perform the magic all by itself, others have used a half hearted approach to it, by using some bits and pieces of the principles. This has accounted for the failure of most organization in meeting up to their expected target from implementing this ideology. There is a need to continue to buttress the benefits that accrue to organisations from the implementation of TQM, especially in developing economies, such as Nigeria where the adoption of these principles seems far fetched to organisations. The Nigerian Aviation industry gives us a true picture of the shortcomings of organisations in their quest to make profit at the expense of quality. With the spate of changes going on in the country due to government reforms, the nature of competition seem to be changing from what it used to be. The influx of foreign and local investors into different sectors of the economy has given rise to intense competition, thus the need for organisations to look internally into their operational procedures and change strategically to meet up with the challenges.

The problems of poor services have consistently characterized the Nigerian aviation industry, with the different stakeholders accusing one another for the inefficiency in service delivery. Even with new investors entering into the sector and adopting the TQM ideology, which have no doubt given the industry a face lift, there still persists an array of complaints by passengers making use of these services. This research aims to find out the quality level of local airlines in Nigeria and the problems with the implementation of TQM and also will assess the effect of TQM implementation on the airline industry.

The deregulation of the airline industry in most part of the world marked the beginning of a new realm of competition in the industry. The deregulation n ensured that airlines set fares and service

levels based on the market situation (Rhoades and Waguespack, 1999). In trying to gain competitive advantage, airlines try to outshine their competitors by providing quality services that meets or exceeds the expectation of customers. Thus, customer satisfaction in the airline industry is never ending as they face numerous challenges and competition daily. This makes Quality management critical to the airlines as they strive to continuously improve their services to meet customers' expectation.

Service quality is essential in the airline industry as it is a major determinant of competitiveness. Airlines paying strict attention to service quality will be differentiated from others and will in the course of doing this gain competitive advantage. Although it's been argued that price is a major determinant of airline choice by customers and most airline would rather compete on it than on service quality. However, not managing quality will mean no added and assuring value to the airlines. (Peters, 1999)

The use of a strategic approach to quality management by airlines will therefore improve their competitiveness (Ghobadian, 1994). This approach ensures that airlines remain customer focused. TQM enables innovativeness as it empowers employees to take decisions that affect their job. For the airlines to be innovative in it offerings, it requires a flexible structure which permits cooperation between different functions.

The implementation of TQM involves the buying in of different units involved in the process of service delivery into the ideology and practices of quality management, which should be championed by the leadership of the airlines. That is, the support and primary activities of service delivery must inculcate quality in their activities.

1.2 RESEARCH MOTIVATION

The change in consumer behaviour has made most producers of goods and services to tailor their products to meet the requirement of potential buyers. Thus, most organisations are concerned about how to satisfy their customers through improved services which is tailored to meet or exceed the expectation of customers. Even as organisations strive to meet customer's expectation, there still exist some flaws in the process involved in service delivery. Rather than take the whole process as a matter of importance, most local Airlines in Nigeria narrow down their quality approach to few operations in other to cut cost. The emergence of new airlines into the market is now changing the face of competition in the industry, as these airlines tend to adopt a total quality management ideology. The advantage this brings to them can be viewed in terms of increased patronage over time.

If quality approach is not taken seriously by the old airlines, they might in no time lose customers which might eventually drive them out of business. Thus there is the need for change in organisational culture and structure to give room for a new approach to service delivery. The implementation of TQM can be beneficial to the old airlines when the principles are effectively adopted, for effective implementation of TQM will increase customer satisfaction with the service offerings. The

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improvement in quality can result in increased market share and profitability. Implementation of TQM further ensures that organisations change how they perform activities so as to eliminate inefficiency, improve customer satisfaction and achieve the best practice (Porter, 1996). Porter noted that constant improvement in the effectiveness of operation is essential but not a sufficient factor for organisation to be profitable. According to Sila, (2007) TQM helps in improving the quality of products and also reduces the scrap, rework and the need for buffer stock by establishing a stable production process. He argued that TQM will reduce the cost of production and time of production. Many other TQM practices such as training, information system management, relationship with suppliers etc have a positive impact on operational performance.

1.3 THE NEED FOR BENCHMARKING IN THE NIGERIAN AIRLINES

Benchmarking is one of techniques used by TQM firms in their continuous improvement drive. According to Rank Xerox, cited in (Cross and Leonard, 1994) 'benchmarking is defined as the continuous process of measuring product services and processes against strongest competitors or those renowned as world leaders in their field'. The idea behind this is to understand and evaluate the present position of a business in relation to the best practices and draw up areas for improving performance. As a tool in TQM, it helps to identify the processes involved in quality performance and facilitate the performance strategic function of a business (Vorley and Tickle, 2001).

For any organisation to be competitive it must keep abreast the best practices in the industry, this will ensure that such organisation meets the expectations of customers. Thus benchmarking should be a continuous process in strive to meet organisational objective of satisfying her customers.

The quest to deliver quality services in the Nigerian airlines requires airlines to continually update their services, so as to meet up with the demands of customers and remain competitive. While the old airlines which are regarded in this research as non-TQM need to update their service orientation by benchmarking their services with that of the TQM airlines, this can only be supported with an ideology which is focused on satisfying customers demand and which allows for continuous improvement. The TQM airlines on the other hand will have to continue to improve their services by looking at what obtains in other parts of the world in order to meet or surpass customers' expectations.

1.4 RESEARCH QUESTION

In this thesis, we will intend to answer the following questions:

1. What is the stand of the Nigerian local airlines today as regards TQM?
2. What are the quality levels of local airlines in Nigeria?
3. What are the problems possibly faced in the implementation of TQM in the Nigeria airline industry?
4. Who is likely to the effect of TQM implementation on the airline industry?

5. What are the compares and contrast in performance of TQM Airlines and Non TQM airlines?

6. What will be the benefit of TQM implementation in the local Nigeria airlines industry?

7. What are the basic principles that the local Nigeria airline industry can adopt to implement TQM?

8. How can the old airlines afford quality improvement and who will lead the quality improvement process?

9. Will Nigeria airline see TQM a means to improve their services?

10. How does the finding fit with the theory in the field?

1.5 OBJECTIVE AND AIM OF THE RESEARCH

The main objectives of this research are to highlight the benefit of TQM implementation in the Nigerian Airline industry by examining the basic principles of TQM in the airline.

It will thus compare and contrast the performance of TQM Airlines and Non TQM airlines by measuring statistically three major added values namely-:

- Customer satisfaction
- Employee satisfaction
- Operational effectiveness

The outcome of these comparison if positive, will show the need for benchmarking by the non-TQM airlines, in other to derive the value created by its implementation, if not the researcher will assess the problems associated with the implementation of this ideology by the TQM airlines by drawing inferences from the various interviews conducted outside the use of data gathered from the questionnaire.

CHAPTER 2

2 LITERATURE REVIEW

2.1 INTRODUCTION

This chapter reviews the concept of quality by assessing the various definitions and views of numerous authors. A general frame work of what quality is all about is discussed under the elements of quality. Since the research is more concerned about the effects of TQM on service quality, the literature also looks at the concept of service and service quality and how it is been assessed by the organisation and the customers alike. The road path to TQM implementation follows the concept of service quality, where the various stages and characteristics of these stages are discussed.

The concept of TQM under review looks at the contributions of its founding fathers to the tenets of TQM. The benefits of TQM and the hindrance to its implementations are reviewed. Finally the literature gives an overview of the Nigerian aviation industry and the need for benchmarking its activities with the world best.

2.2 THE CONCEPT OF QUALITY

Quality is a significant element of production or services in keeping the customers satisfied. There are different definitions and competing views of the term quality by different people and the common element of the business definitions is that the quality of a product or service refers to the perception of the degree to which the product or service meets the customer's expectations. Crosby, (1979) defined quality as the conformance to requirements or specifications and also suggested that to manage quality adequately; it must be able to be measured. ISO 9000: (2000) (cited in Vorley and Tickle, 2001) defined quality as the degree to which a set of inherent characteristics fulfil requirements.

The American Society of Quality sees quality as being subjective, with different individuals having their own perception of it (www.asq.org, assessed 29/10/08). To them, quality can be seen as having two meanings – the characteristics of the product or service ability to satisfy a particular need or a product or service devoid of faults. It can be defined as a state of conformance to valid requirements where valid requirement are defined as conditions that meets the needs of customers, measurable and achievable. Peters, (1999) defined quality as a 'magic bullet' which provides lower cost, higher customer service, better products and higher margins. He also explained that 'quality is in the eyes of the beholder', this mean it is what the customer say it is.

Kondo, (1997), defined quality as a source of employee's empowerment. To him, a major aim of a company is to make itself attractive to its employees and customers while making profits for its shareholders.

George Bernard cited in Stebbing, (1992) noted that two forms of qualities exist in the world, efficiency and inefficiency. To him, efficiency is what every senior manager should strive to achieve and the efficiency in service is what the customers expect to get. He explained that organisations are inefficient because of the inadequate trainings given to employees by the employers or the assignment of task to unqualified workers. Which ever way quality is defined, it is viewed as part of an organisational culture; this should be inclusive of all different facets of production.

2.3 QUALITY MANAGEMENT

Quality management involves the formulation of strategies, setting goals and objectives, planning and implementing the plans; and using control systems for monitoring feedback and taking corrective actions. An organisation's quality management implementations are of two folds-

a) Satisfying customer's expectation and

b) Improvement in the overall business efficiency (Dale, et al (a) 1994)

According to Juran (1988), the basic goal of quality management is the elimination of failure; both in the concept and in the reality of products, services and processes. This does not only mean that product, services and processes will fail in fulfilling their function but that their function was not what the customer desire. Failure must be prevented in quality management and to handle this there should be planning, organizing and controlling. Four stages of quality management was treated by Dale et al (1994), this include inspection, quality control (QC), quality assurance (QA) and total quality management (TQM).

2.3.1 INSPECTION

According to (ISO 8402, 1986) inspection can be defined as 'activities such as measuring, examining, testing, gauging one or more characteristics of a product or service and comparing these with specified requirements to determine conformity'. It involves the examination, measurement and testing of the characteristics of a product or service and the comparison to specified requirement and to access if the characteristics conform to specified requirement (Dale et al. (b) 1994). Inspection is an efficient and effective way of discovering defects in services and products. According to Deming (1986), 'inspection with the aim of finding bad product and throwing them out is too late, ineffective and costly'. Quality to him comes from the improvement in the process rather than inspection.

2.3.2 QUALITY CONTROL

Quality control is a conventional way that businesses have used to manage quality. Quality control is concerned with checking and reviewing work that has been done. This is mainly done by inspection of products and services (checking to make sure that what's being produced is meeting the required standard) take place during and at the end of the operations process. Juran (1988) defined

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quality control as the regulatory process through which we measure that actual quality performance, compare it with standards, and act on the difference. It is a more sophisticated management tool aims at preventing goods and services which do not conform to basic requirements from getting to the final consumer. Quality controls are operational techniques and activities that are used to fulfil quality requirement (ISO 8402, 1994). As a measure of quality, quality control however is costly when viewed in terms of tangible and intangible variable cost. It could also result in the production of substandard goods and services when conducted late in the process of production. Due to the problems associated with quality control, businesses now focus on other avenues or means through which quality could be managed effectively. Dale, Boaden and, Lascelles (1994), noted that the solving of a problem after a non conformance issue has been created is not an effective route towards eliminating the root cause of a problem.

2.3.3 QUALITY ASSURANCE

This is a principle based on the designing of the business process of production with a view of minimising the chances of producing substandard goods. According to Dale et al, ((a) 1994), quality assurance is a prevention based system, which improves product and service quality with increased productivity by placing the emphasis on product, service and process design. Quality assurance emphasis on defect prevention, unlike quality control that focuses on defect detection once the item is produced.

Quality assurance is focused on the prevention of the production of non conforming product and much emphasis is placed on the activities involved in the process of production. Thus, it is a management design aimed at controlling quality at all stages of production to prevent quality problems from emerging.

The quality assurance philosophy opined that quality is created in the design stage and not the control stage and that problems associated with quality are caused by poor process design. According to Lockwood et al, (1996), 'to be effective, quality assurance must involve the development of a new operating philosophy and approach that looks to be proactive rather than reactive, that includes motivating and involving people in the process across normal departmental barriers'.

Oakland (1995) defined quality assurance as broadly prevention of quality problems through planned and systematic activities, which include documentation.

2.3.4 TOTAL QUALITY MANAGEMENT

This is the highest level of quality management. It is concerned with the management of quality principle in all the facets of a business including customers and suppliers (Dale et al, 1994, Lockwood et al, 1996). Total Quality Management (TQM) involves the application of quality management principles to all aspects of the organization, including customers and suppliers, and their integration with the key business processes. It is an approach which involves continuous improvement by

everyone in the organisation. TQM is a principle which involves the mutual cooperation of everyone that aids the business process of an organisation and it involves all the stake holders of an organisation. Dale et al, ((a) 1994) cites BS.4778; part 2(1991) where

'TQM is defined as a philosophy embracing all activities through which the needs   and expectations of the customer and the community, and the objectives of the organisation are satisfied in most efficient and cost effective way by maximising the potentials of all employees in a continuing drive for improvement.'

According to Mohammed (2006), TQM is an effective system for integrating the quality development, quality maintenance and quality improvement efforts of various aspects of a system so as to enable services at most economical level and derive full satisfaction. TQM is aimed at the satisfaction of customers needs in an efficient, reliable and profitable way. It involves a radical direction through which an organisation perform her day to day operations in other to ensure that quality is put at the top of mind of every employee and departments in which they operate. Vorley and Tickle (2001), defined TQM as the synthesis of the organisational, technical and cultural elements of a company. They opined that TQM is a heart and mind philosophy which recognises that company culture affects behaviour which in turn affects quality

Oakland (1989), describes TQM as an approach to improve competitiveness efficiently and flexibility for the whole organisation. According to Hellsten and Klefsjö (2000), TQM can be defined as a management system which consist of interdependent unit namely core values, techniques such as process management, benchmarking customer focused planning or improvement teams and tools such as control charts. Dahlgaurd, Kristensen and Kanji (1999) saw TQM as a corporate culture that is characterised by increased customer satisfaction through continuous improvement involving all employees in the organisation. Oakland (1989), noted that 'for an organisation to be truly effective each part of it must work properly together towards the same goal, recognising that each person and each activity affects and in turn is affected by each other – the methods and techniques used in TQM can be applied through out any organisation.'

Table 2.1 The stages of Quality management and Characteristics

TOTAL QUALITY MANAGEMENT	Policy deployment Involves suppliers and customers Involve all operations Process management Performance measurement Team work Employee involvement
QUALITY ASSURANCE	Quality system development Advanced quality planning Comprehensive quality manuals Use of quality costs Involvement of non production operation Failure mode and effect analysis
QUALITY CONTROL	Develop quality manuals Process performance data Self inspection Product testing Basic quality planning Use of basic statistics Paper work control
INSPECTION	Salvage Sorting, grading and re-blending Corrective actions Identify sources of non conformance

Source- Adapted from Dale et al, (1994)

2.3.4.1 STAGES OF TQM IMPLEMENTATION

Dale et al, ((b) 1994) identified six different levels of TQM implementation, these includes- uncommitted, drifters, tool pushers, improvers' award winners and world class. According to them, these stages do not necessarily represent the stages through which organisations pass on their TQM journey. These levels according to Dale et al are to help organisation in identifying their weaknesses and proffering solutions to them through the use of continuous improvement.

➢ Uncommitted: - This stage represents organisations that have not started a formal procedure of quality improvement. Organisations in this stage view quality improvement as an added cost and thus have no investment in quality improvement programmes such as training of employees. Organisations in this stage are termed uncommitted because they are not aware of the benefit of quality improvement and lack an appropriate quality improvement plan (Dale et al, (b) 1994). The management of these organisations are characterised by an emphasis on return of sales and net asset employed.

Other common features of this level as highlighted by Dale et al ((b) 1994), this include

- A major concern for meeting sales target.

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- Employees show little or no concern for quality.
- Full inspection of materials is carried on incoming material and at strategic points during the process of production.
- Lack of communication among the various units of production even between the top management and front line employees.
- Minimal contact with customers.

➢ Drifters: - These are organisations that have engaged in a process of quality improvement for up to three years and have followed the available advice and wisdom of TQM. The management of the organisations in this stage tend to review the performance of the firm based on the implementation of TQM and expect immediate gains from it. These organisations view TQM as a programme rather than a process thus making the policy have a low profile among employees. Dale et al ((b) 1994) noted that organisations with such an approach to management are termed drifter because they drift from one programme to the other in a start stop fashion with concepts, ideas and initiative being reborn and re-launched under different guises.

   Organisations which fall within this stage usually have no plan for the   deployment of TQM philosophy through out the organisation thus limiting the implementation of TQM to the managers while leaving the shop floor out of the implementation process.

➢ Tool pushers: - Organisations in this category look at quality improvement programs but in most cases fail to use such tools appropriately. They adopt quality management tools such as quality cycles, quality improvement groups. These organisations often blame the failure of TQM on the tools adopted. Dale et al ((b) 1994,) explained that organisations in this stage find it difficult to sustain the momentum of its improvement initiatives and it is continually on the look out for new ideas. Some characteristics of the drifters includes –
- A major concern for meeting sales target.
- Solving current problems rather than future problems
- Non commitment of every senior management to TQM
- TQM does not operate in every facet of the organisation.

   Companies under this category are more experienced in quality improvement when compared with the drifters.

➢ Improvers: - Organisations in this category have engaged in a process of quality improvement for between five and eight years and during this time made important advances (Dale et al, (b) 1994). They understand that total quality involves long term cultural change and have recognised the importance of cultural change and the importance of quality improvement. Dale et al, ((b) 1994)

explained that organisations in this category are termed improvers because they are moving in the right direction and have made significant progress but still have a long way to go. This is because the implementation of TQM is dependent on a few managers to sustain the drive and direction of the improvement strategy.

➢ Award Winners: - These organisations are termed award winners because they have attained a point in their TQM maturity where the kind of culture, values and trust capabilities relationship and employee involvement has become total in nature and encompasses the whole organisation (Dale et al (b) 1994). In these type of organisation every member of staff recognises the importance of quality and all effort is made to maintain a quality standard. True competition based on product or service quality can only be attained when an organisation has gotten to a stage where it can compete for awards (Dale et al 1994 cited (p124) William and Bech, 1989). Organisations in this stage are believed to have manned the process of quality improvement as the organisations have all it takes to achieve greater heights.

➢ World class:-According to Dale et al, ((b) 1994) these organisations are characterised by the total quality improvement and business strategies to the delight of customers. The organisations that have attained this stage are always in search of opportunities to improve their services to satisfy customers. It was further explained that the focus of TQM here is on enhancing competitiveness by influencing the perception of customers to the company through the continuous innovation of the service offering. The impact of TQM is felt more here as it is aimed at continuous improvement to enhance customer appeal. The task of satisfying customers is a goal for every one in the organisation.

Figure 2.1: Levels of TQM adoption
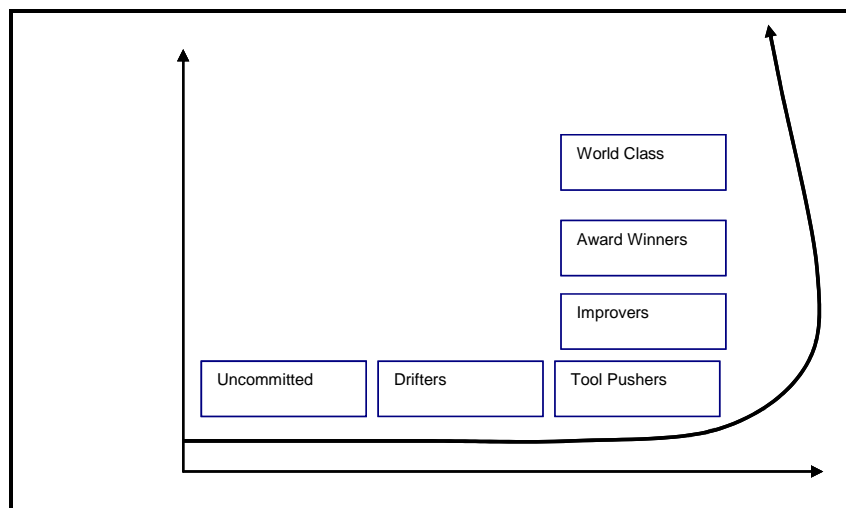
Source - Dale and Lascelles, (1997)

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2.4 MAJOR PRINCIPLES OF TQM

Before an organisation can rip the benefit from TQM implementation, some principle would have to be enshrined into the organisation's culture. This section of the literature reviews these principles in relation to TQM implementation. The principles are discussed below:-

2.4.8   TOP MANAGEMENT COMMITMENT AND LEADERSHIP

TQM requires effective change in organisational culture and this can only be made possible with the deep involvement/commitment of management to the organisation's strategy of continuous improvement, open communication and cooperation through out the organisation. TQM implementation improves the organisational performance by influencing other TQM dimensions (Kaynak, 2003). According to Oakland (1993), 'to be successful in promoting business efficiency and effectiveness, TQM must start at the top with the chief executive'. Cooper and Ellram (1993), identified leadership as being critical in effecting organisational change most especially in the areas of building effecting relationship with suppliers and others involved in the process of value delivery. The commitment of leadership to the TQM strategy as shown in their daily disposition to work will go a long way in motivating employees to deliver quality services that exceeds the expectation of customers.

Andrle (1994), noted that 'the implementation of TQM requires a clear long term leadership commitment'. To him, long term relationship with satisfied customers is an asset to the organisation, thus, management must be committed to it. Andrle also stressed the importance of management in providing a 'customer focused support system' such as measurements, rewards and recognition for satisfying customers with the aim of building a positive relationship with customers.

2.4.2 CULTURAL CHANGE

According to Oakland, (1989), 'TQM is a way of managing the whole business process to ensure complete customer satisfaction at every stage, both internally and externally. Cultural change to Dale et al, ((a) 1994) implies an approach to changing the cooperate culture of an organisation to be customer centric. The need for cultural change is stressed by the role it plays in the life of an organisation. According to Dale et al, ((a)1994), 'culture influences what the executive groups attend to, how it interprets information and the response it makes to changes in the external environments'- it is exceedingly crucial in the drawing up of the strategic position of the firm as it dictates how members of staff approach their day to day activities. Culture is said to help an organisation in planning and implementing their strategy.

Dale, et al ((a) 1994), defined quality culture as 'the culture which nurtures high social relationship, and respects for individual, a sense of membership or the organisation and a belief that continuous improvement is for common good'. The total quality culture implies the decentralisation

of responsibility to the lowest cadre. By so doing, it taps into the intellectual capability of every individual in the organisation in the process of continuous quality improvement. This makes quality central to every employee and management in the organisation. TQM emphasises the need for change from the traditional approach of quality management which is bureaucratic in nature and which gives little or no room for innovation. The process of change is however difficult as most organisations find it very difficult abandoning their traditional approaches (Dale et al, (a) 1994). The nature of change to take place makes it more difficult as it involves change in people's attitude.

2.4.3 CUSTOMER FOCUS

TQM is an ideology which is focused on the satisfaction of customer's need. Thus, most organisations try as much as possible to meet or exceed customer's expectation in their daily activity and also their long term plan (Andrle, 1994). TQM require organisations to develop a customer focused operational processes and at the same time committing the resources that position customers and meeting their expectation as an asset to the financial well being of the organisation. Filippini and Forza (1998) explained that it is necessary for organisation to maintain a close link with their customers in order to know their requirements and to measure how it has been successful in meeting up to customers' requirements. According to Muffatto and Panizzolo (1995), a high level of customer satisfaction is obtained solely by providing services or products whose features will satisfy customer's requirements or needs. The customer's needs and expectation serve to drive development of new service offering. This is due to the fact that customers determine the quality level of service delivered (Jablonski, 1992)

Oakland (1993), noted that organisations are made up of a series of internal suppliers and customers. To him, this forms the quality chain of the company and it implies that every employee is a potential customer and supplier in the course of production. The process of production is structured in a way where each process have needs and expectation which must be fulfilled by others in the network of production. The effective fulfilment of these needs leads to the production of quality goods and services.

2.4.4 TOTAL INVOLVEMENT

In the traditional sense, employee involvement was conceived to mean a 'feeling of psychological ownership among organisational members' (Harvey and Brown, 1996). Unlike what obtains in the TQM ideology, the traditional employee involvement is narrow-minded; it is job-centred rather than process-centred. The TQM approach involves 'achieving broad employee interest, participation and contribution in the process of quality management' (Dale and Cooper, 1993). The concept assumes a company wide quality culture, which gives autonomy or a level of freedom to employees in taking decisions that affect their job. Thus, employees are encouraged to perform function such as information processing, problem solving and decision making (Dimitriades, 2000). This is supported

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by Omachonu and Ross (1994), who noted that intrinsic motivation is at the heart of TQM, where empowerment and involvement in decision making is viewed as essential for sustained result.

The main aim for the total involvement of employee is to boost internal and external customer's satisfaction by developing a flexible environment which allows for innovation.

2.4.5 CONTINUOUS IMPROVEMENT

Continuous improvement means 'a commitment to constant examination of the technical and administrative process in search of better methods' (Fuentes-Fuentes et al, 2004). Turney and Anderson (1989) defined continuous improvement as the relentless pursuit of improvement in the delivery of value to customers. This was supported by Dean and Bowen (1994), who argued that customer satisfaction can be attained only through the relentless improvement of processes that create product or service.

Total quality management involves the design into the process of production, a system of continuous improvement. This contains regular cycles of planning, execution and evaluation (Muffatto and Panizzolo, 1995). According to Oakland (1993), 'the focus on continuous improvement will lead to the formation of formidable team whose membership is determined by their work on the detailed knowledge of the process, and their ability to take improvement action'. TQM is concerned with the continuous improvement in all the process of production, from the levels of planning and decision making to the execution of work by the front line staff. The principle behind the idea of continuous improvement is basically the idea that mistakes can be avoided and defects can be prevented. According to Stahl (1995), "continuous improvement refers to the constant refinement and improvement of products, services and organisational system to yield improved value to customers". He further explained that the continuous look for ways in improving quality of product or service in the absence of customers' complain may prevent a future problem. The continuous improvement process aims to identify and eliminate the cause of a mistake in order to prevent its reoccurrence. Fuentes-Fuentes et al, (2004) explained that organisations operating in a dynamic environment are liable to carry up continuous improvement in its operation; they explained that the face of competition changes faster in this environment as a result of the changes in customers' needs, competitors' activities and service/product innovation.

2.4.6 TRAINING

Training helps in preparing employees towards managing the TQM ideology in the process of production. Training equips people with the necessary skills and techniques of quality improvement. It is argued to be a powerful building block of business in the achievement of its aims and objectives (Stahl, 1995). Through training, employees are able to identify improvement opportunities as it is directed at providing necessary skills and knowledge for all employees to be able to contribute to

ongoing quality improvement process of production. Stahl (1995) argued that training and development programme should not be seen as a one time event but a life long process.

2.4.7 TEAM WORK

A well structured team will aid the effective production of goods and services through the integration of activities involved in the process of production. Dale et al (1994) noted that team work is a key feature of involvement. To him, team work aids the commitment of the workforce to the organisational goals and objectives.

The researchers believe it is essential to have a team made of people with right attitudinal disposition to working in groups so as to realise the gains of quality management. Team work is a way of stimulating positive work attitude, which includes loyalty to the organisation and a focus on organisational goals. Martinez et al, (1999) noted that teamwork contributes to the generation of improvements that are proposed by employees. To them, the proposed improvements have a way of changing the attitudes of employees that are resistance to change.

Some of the benefits of Team work as highlighted by Oakland (1995), are listed below

- Recommendations made by teams are more likely to be accepted and implemented where the team is highly formidable, unlike the individual suggestion which represents just an individual's opinion.

- A greater variety of complex problem will be tackled i.e. problems beyond the capability of an individual or department can be handled more efficiently through the pooling of resources together.

- Working in teams exposes a problem to a great variety of knowledge thus problems beyond functional departments can be solved more easily.

- Team work will boost workers morale and ownership through participation in problem solving and decision making.

2.5 BENEFITS OF TQM IMPLEMENTATION

The effective implementation of TQM will increase customer satisfaction with the service offerings (Omachonu and Ross, 1994). Quality enhances customer loyalty through satisfaction; this in turn can generate repeat business and lead to the attraction of new customers through positive word of mouth. The word of mouth communication will help in cost reduction. This Omachonu and Ross (1994), noted will provide competitive edge to the company. The improvement in quality will result in increased market share and profitability (Figure 2.3)

Figure 2.2 An adaptation of the effect of quality management
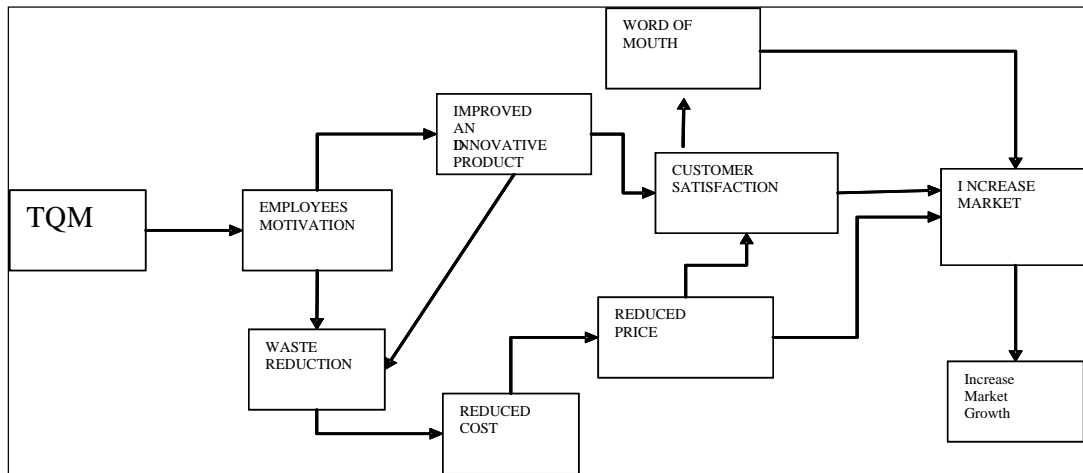
Omachonu and Ross (1994)

Total quality management is a management philosophy which emphasises the devolution of authority to the front line staff. It ensures the participation of every one in the decision making process through activities such as quality cycles and team work. The question is, does this devolution of authority leads to employees' satisfaction or not? Motivations theories indicate that two major forms of motivation exist – the intrinsic and the extrinsic motivation. While some will argue that the best form of motivation is monetary incentive, others argue for self fulfilment and recognition.

The motive behind the intrinsic reward is to provide the employee with some autonomy which empowers him to take decisions that affects his job, thus making him responsible and accountable. This is said to increase the employee's level of job satisfaction (Dimitrades, 2000). The implementation of TQM ensures that every worker in the organisation does his work with quality the first time, thus improving the efficiency of operation and avoiding some cost associated with waste. This in turn will offer more value to customers in terms of price and service quality, thus making them satisfied.

Implementation of TQM further ensures that organisations change how they perform activities so as to eliminate inefficiency, improve customer satisfaction and achieve the best practice (Porter, 1996). Porter noted that constant improvement in the effectiveness of operation is essential but not a sufficient factor for organisation to be profitable. According to Sila (2007), TQM helps in improving the quality of products and also reduces the scrap, rework and the need for buffer stock by establishing a stable production process. He argued that TQM will reduce the cost of production and time of production. Continuous improvement which is a feature of TQM is said to reduce the product cycle time thus improving productivity (Huang and Lin, 2002). Many other TQM practices such as training, information system management, relationship with suppliers etc have a positive impact on operational performance. The efficient management handling of these practices will improve efficiency and no doubt affect the profitability of the firm

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According to Sila (2007), TQM can minimize the total cost of production through 'sole sourcing'. The cost in this case is reduced by limiting the number of suppliers used by the firm and providing them with necessary training and technology. The efficient functioning of an operation will then depend on how well the suppliers meet up with the expectations of the organisation. This is why the TQM principle emphasises the totality of quality in all facets which includes the suppliers. TQM endorses the total quality approach in creating customer satisfaction. The total quality approach creates an integrated method of analysing operation by focusing the processes of production on customer satisfaction. Thus, it requires that quality be built into all the processes so as to be efficient in the overall operation (Andrle, 1994). Kaynak (2003), suggested that the effectiveness of TQM organisations should be measured by the degree of integration with their supplier bases because supplier quality management is a critical component of TQM. Operational effectiveness is then a function of how well the various units of an organisation carry out their functions with quality. This study will try to access if the TQM is responsible for the effective operation of the new local airlines in the aviation industry in Nigeria.

2.6 LIMITATIONS TO THE IMPLEMENTATION OF TQM

Oakland, (1995) identified factors that hinder the implementation of TQM. These include the thought that its implementation can be time consuming, bureaucratic, formalistic, rigid and impersonal. Ugboro and Obeng, (2000) in their research they found out that the half hearted implementation of TQM is a major reason for its failure in most organisations. According to them, organisations are only willing to implement just those aspects of TQM which is supported by existing organisational culture. Their findings revealed that employees did not feel as part of the decision making process and their ability to make contributions to quality improvement were restricted due to the limited authority granted them to carry out their activities. Smith, (2004) explained that quality management programs have failed because they were 'programs of the month'. According to him, implementing quality through out an organisation is not the result of a formalised programme but requires a cultural change in the way activities is conducted. Andrle, (1994) on his own assessment, claims that the adoption of incompatible quality approach by organisations results in the failure of TQM implementation, he further stressed that the delegation of quality leadership by managers might lead to the development of TQM bureaucracies that are ineffective like other functional departments.

According to Wilkinson et al (1998) the lack of commitment from any particular group within the organisation can be a serious barrier in management of quality. Most especially the non commitment by management to quality management is a major hindrance to the successful implementation of TQM. Asher (1996) observes that there is a need for management to drive the ideology of TQM process in order to encourage employees to follow and also to prove to them about management's commitment to quality.

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Porter (1996) noted that TQM is essential for an organisation's productivity and effectiveness but will not necessarily give an organisation competitive advantage over her competitors. TQM does not address strategic business issues like differentiation and positioning strategies. McCabe and Wilkinson (1998) noted that the failure of TQM can be attributed to the inappropriate implementation method adopted by the firms employed and not because of the principles of TQM itself. They believed TQM could be successful if it is adequately planned for and implemented according to plan.

Another reason for the failure of TQM is the emphasis given to individual rewards for TQM effort. This negates the recommendation made by Deming (1986), who argued that rewards needs to be tied to team work or department rather than individual. The failure of organisations to implement the rewards to group might lead to internal competition amongst employee and this will have a negative impact on team performance which TQM promotes.

High cost of providing quality service is a major hindrance to the implementation of TQM, in organisations.

2.7 TQM AND THE AIRLINE INDUSTRY

The deregulation of the airline industry in most part of the world marked the beginning of a new realm of competition in the industry. The deregulation ensured that airlines set fares and service levels based on the market situation (Rhoades and Waguespack, 1999). In trying to gain competitive advantage, airlines try to outshine their competitors by providing quality services that meets or exceeds the expectation of customers'. Thus, customer satisfaction in the airline industry is never ending as they face numerous challenges and competition daily. This makes Quality management critical to the airlines as they strive to continuously improve their services to meet customers' expectation.

Service quality is necessary in the airline industry as it is a major determinant of competitiveness. Airlines paying strict attention to service quality will be differentiated from others and will in the course of doing this gain competitive advantage. Although it's been argued that price is a major determinant of airline choice by customers and most airline would rather compete on it than on service quality. However, not managing quality will mean no added and assuring value to the airlines. (Peters, 1999)

The use of a strategic approach to quality management by airlines will therefore improve their competitiveness (Ghobadian, 1994). This approach ensures that airlines remain customer focused. Committed leadership to the strategy ensures that the airline offerings are continually updated so as to meet or exceeds customers' requirements. Zeithaml et al (1990) noted that the main cause of poor performance by service firms is that they do not know what is expected from them by customers. Airlines need to consistently monitor the perception of customers to their services so as to know where the gap lies between the offered service and expectations of customers. Gilbert and Wong (2003), noted that acceptable level of customer satisfaction is attained when passenger's expectation

have been met or exceeded. To ensure customer satisfaction, every body in the organisation including suppliers will need to have the customers at heart and work towards meeting their needs and expectations (Palmer, 1998). TQM enables innovativeness as it empowers employees to take decisions that affect their job. For the airlines to be innovative in it offerings, it requires a flexible structure which permits cooperation between different functions. It is noted that intensive cooperation, empowerment and open communication facilitate innovation (Mintzberg, 1979). Three major reasons can be identified as the basis for innovation (Alamdari, 1999)

- to satisfy customer's needs and requirement
- to meet the corporate objectives of the company
- to out perform competitors through product differentiation

These three reasons are interrelated as one is said to lead to the other. The satisfaction of customers will lead to increased patronage which will eventually lead the company in meeting its corporate objective of profitability, thus making more money for investors.

The researchers' view of the airline industry as a net work of activities involving different operating units some of which are outsourced due to regulations in the industry and also due to the need to benefit from the expertise of others who are specialised in such field so as to derive economies of scale. The implementation of TQM involves the buying in of these different units involved in the process of service delivery into the ideology and practices of quality management, which should be championed by the leadership of the airlines. That is, the support and primary activities of service delivery must inculcate quality in their activities.

This illustration below (Figure 2.2) depicts a typical organisational work process with different units having its own function, where each function affects and in turn is affected by the out put of the other. Thus, the efficient functioning of the whole process will create an added value to the organisation. This can only be attained if quality is well managed at the different operational activity.

While several researches have been carried out on service quality in the airline industry, no research has been carried on the effects of TQM implementation in the airline industry in general and the Nigerian airline industry in particular.

Figure 2.3 Value Chain
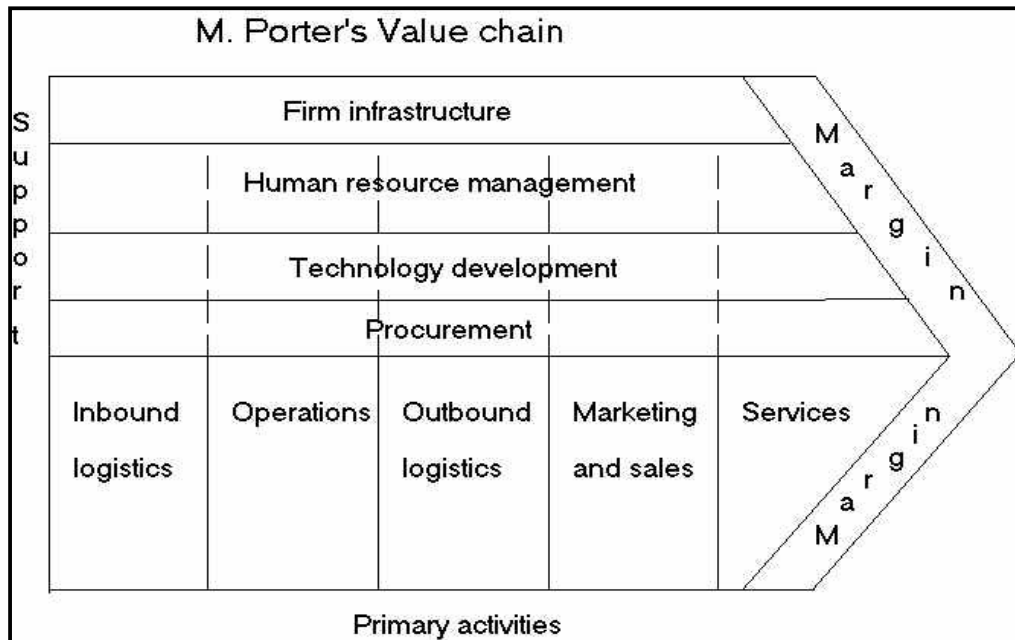
Source: Mellahi, Frynas, and Finlay (2005)

2.8 OVERVIEW OF THE NIGERIAN AVIATION INDUSTRY

Development in Nigeria aviation sector is believed to have begun when the Royal Air force plane made the pioneering flight to the race course in Kano, from Khartoum in the 1920s. The first civil airplane which flew from Lagos to Kano was privately owned. By 1936, the Royal Air Force threw open its airfields to commercial aviation.

The first commercial flight to Nigeria was operated by the Imperial Airways which began its services to Nigeria with four-engine De Havilland DH86 bi-planes. British Overseas Airways Corporation (B.O.A.C) later introduced its aeroplanes - the Argonauts and strato cruisers which landed in Kano and Ikeja airports from London taking 14 - 15 hours. After the Second World War, the West African Airways Corporation (WAAC) was established in 1946 in the four British colonies of Nigeria, Ghana, Gambia and Sierra-Leone with a fleet of De Havilland Dove (DH-104), Bristol Way Farers and Freighters (B-170). As each of the four countries obtained her independence they pulled out of WAAC. WAAC therefore became the property of Elder Demspter Lines, Nigerian Government and B.O.A.C. On 23rd August 1958, Nigerian Government bought the shares of the remaining two shareholders and it thus became Nigerian owned airline - the Nigerian Airways (NA). NA had such aircrafts as Doves, Harons, DC3, Piper Aztec, Fokker27 and 28, Boeing737, McDonnell Douglas DC 10 and the airbus A310. The Nigerian Airways in its hay days had about 19 aircrafts, 9000 staffs which included 250 pilots, flight and maintenance engineers (Adapted from F.I. Sotunde, 1990).

The growth and development of aviation in Nigeria mirrors the Nations political growth, as air transportation grew as an instrument of colonial bureaucracy. This later had a negative influence on the structure and development of the industry, as a result of it being dominated by public sector (Sotunde, 1990). The planning, development and management of the industry therefore reflected the peculiarity and weaknesses of public sector enterprises.

The defunct Nigerian Airways was synonymous with the air transportation in Nigeria as a result of the law which made it the national carrier with the monopolistic right on domestic routes. This privileged position conferred by statute was however misused as a result of poor and corrupt management and this had negative influence on the planning and development of air transportation in Nigeria (Okpere, 1990). The airline had the core objectives of fostering confidence and satisfaction of all customers with the aim of generating profit to build it expansion drive in order to dominate the leadership position within Nigeria and among African airlines and at the same time competing favourably with other developed airlines. Unfortunately NA could not meet up with its objectives, as its services were characterized by incessant flight delays and cancellations, poor ground and air services, this accounted for the loss of patronage (Figure 2.4) and dwindling returns (Okpere, 1990). The combined effect of mismanagement, commercial monopoly, growing cost, bad policies and unfriendly business environment resulted in the non–realization of the objectives for which the national carrier was set up and this was reflected in loss of passengers over time (Figure 2.4)

Figure 2.4 Nigerian Airway Passengers Uplift
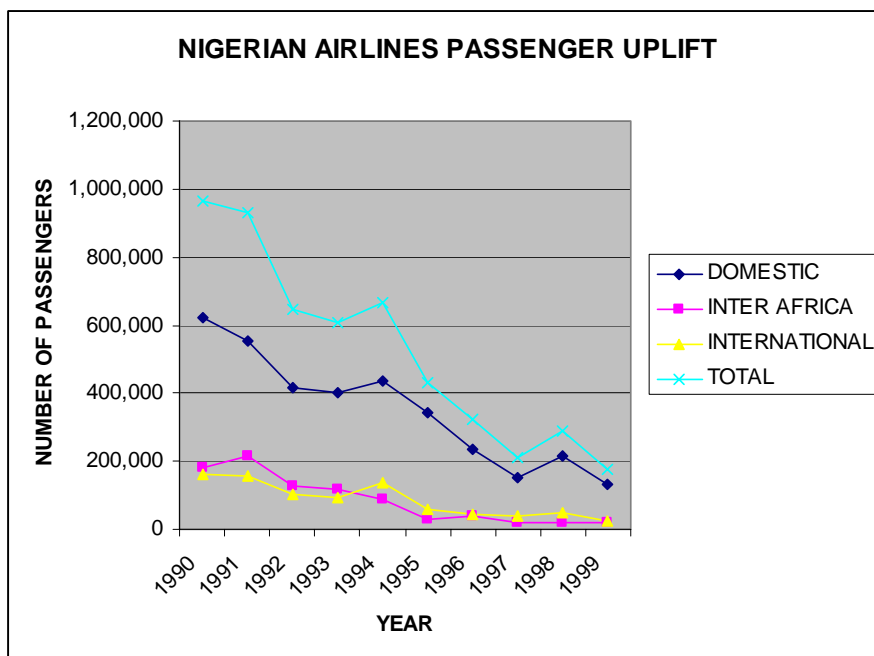
Source: Adapted from FMA (2000)

The deregulation of the airline sector in Nigeria brought about the appearance of indigenous airlines in the Nigerian airspace with a moderating effect on the local air transport scene. Their services were more efficient and effective when compared with the defunct national carrier. However, these airlines suffered the same faith as the national carrier as a result of bad policies, unfriendly business environment, poor management, rising cost of maintenance and bad infrastructure to support their business. Most of these airlines resorted to using cost cutting measures, such as the use of very old planes with poor maintenance to ply their routes. This accounted for the several plane crashes witnessed in the country in recent time. Before now the average age of the planes used within the Nigerian airspace was put between 26 and 30 yrs of age (FMT, 2007). The government however initiated a new capital base for the old airlines; this will see an end to the use of old and rejected planes of the western world in the skies of Nigeria (ATU, 2007). With effect from April, 2007, airlines operating in Nigeria are required to possess at least two new generation aircrafts, like Boeing 737-300 or its equivalent (ATU, 2007).

The advent of the democracy in Nigeria in 1999 saw the government initiating policies which were geared to revamping all the sectors of the economy. These policies were witnessed by the influx of both foreign and national investors in different sectors of the economy which account for the increase in the number of local and international flights operated by local airlines. See Figure 2.5 below

Figure 2.5 Passenger Traffic (Nigeria) from 1999-2002
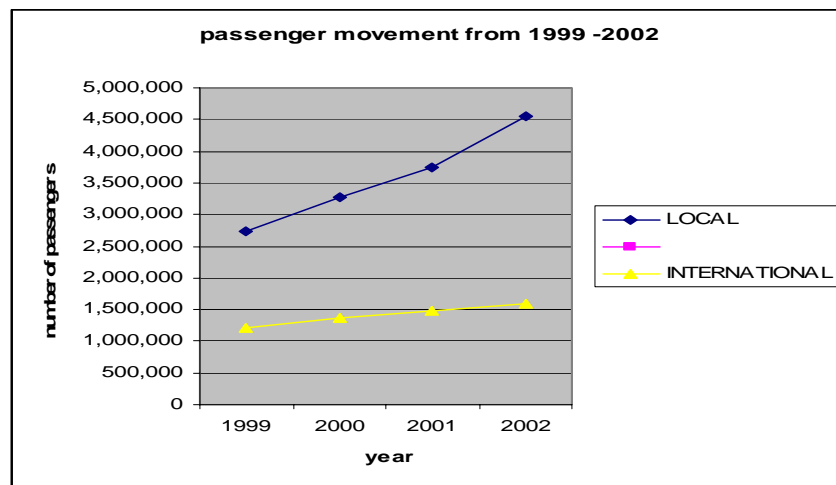
Source: Adapted from FMA, (2003)

The aviation industry on its part saw the emergence of new carriers, such as Aero-contractors, Virgin Nigeria and Arik Airlines to the market. Since then, the face of competition seem to have changed, as these airlines for the first time in several years brought in brand new planes into the skies of Nigeria. Asides, these new airlines have a customer driven ideology, through the range of services

rendered to customers and their management approach to service delivery. As a result of these events a correlated passenger shift was observed based on quality of service being offered by the new airlines. Within the few years of operation, the frequency of flights of these new airlines has increased indicating that most air travellers are more willing to use their services. Thus, there is a need for the management of the old airlines to improve the quality of services in all areas of operation.

Mohammed (2006) explained that airlines in Nigeria have much role to play in meeting the expectations of passengers as they serve as the bedrock of success of the Aviation industry. According to him, the more people fly, the more the revenue for the company as well as the regulatory authority.

Looking at the critical success factors in the Table 2.2 below, the issues of quality management is well enshrined into the various factors, as it takes a management which is customer driven to put these in place. As capitalisation and improved funding on it's own without the change in ideology towards managing these resources will not guarantee success. What is required here is the buying in of all stake holders into an ideology which will see that resources are efficiently deployed and utilised towards achieving its aim of achieving of satisfying customers and all the stake holders.

Table 2.2 Critical Success Factors of Nigerian Aviation Industry

Capital	Technology	Customer Service
Adequate Capitalization Acceptable Funding	Upgrades the IT infrastructure Enhanced Performance	Creating a market focus Timely Service Delivery
Adequate Capacity Utilization		Customer Focused services Market driven Pricing
Safety	**People**	**Operational Efficiency**
High Safety Standards Effective Maintenance Culture Well equipped to handle emergencies Adequate fleet of aircraft	Skilled Innovation Shared vision Well motivated Empowerment	Least Cost operation Shield against competition threats

Source – Action plan of the Federal Ministry of Aviation, Nigeria 2000

Today, the Nigerian aviation industry needs improved funding and more investment in infrastructure to give the sector the capacity to profitably meet the needs of a fast growing market and fit into the global aviation industry of the present time. The prospects for commercial air transportation in Nigeria are bountiful but would depend on the airlines adaptability to the aviation

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environment of the 21st century and beyond. Competition laws rather than regulations will guide commercial operations. The future, however, calls for increased enforcement of good management philosophy and security regulations by regulatory agencies via increased use of modern technology. There is the need for all stake holders to be committed to managing quality efficiently so as to reap the benefits of that will accrue from meeting travellers' expectations.

2.9   SUMMARY OF LITERATURE

Quality is a major determinant of customers' buying behaviour as shown in the review, thus organisations focused on satisfying customers' demands adopt measures through which the demands and expectations of customers are met. This is in order to remain competitive while ensuring that the organisation remains profitable.

The adoption of the TQM approach is to ensure that organisations manage quality at all functional areas of operation without giving room for lapses in the inter functional processes of operations. It is an ideology which is holistic and allows for the participation and contribution of everybody to the quality improvement drive of the organisation. This is aimed at satisfying customers and all stake holders alike, as the implementation brings about added value to the organization.

To benefit from the implementation of this ideology, there is the need for the basic principles which form the core values of TQM to be in aligned with the culture of the organisation as they serve as the bedrock through which quality service delivery are achieved. Listed among these principles are the commitment of both management and employees to quality, culture which gives room for all to participate, training and empowerment of employees and a focus on satisfaction of customer's demands amongst others. The proper adoption of these principles in the working life of an organisation is said to bring some added advantage to an organisation, in terms of satisfying customers, employees and improvements in the operational process. While some organisations have witnessed remarkable benefits with the adoption of this ideology, others have failed due to their non compliance with the implementation procedures. This research will access the effects of TQM implementation in the Nigerian airlines and also identify factors which hinders the airlines from reaping the benefits from its implementation

CHAPTER 3

3 THEORETICAL FRAME WORK AND METHODOLOGY

3.1 INTRODUCTION

This chapter describes the research design applied for the conduction of this study. The chapter examines the purpose of the study, the techniques used to conduct the research, as well as the design of the sample, the data collection methods and the data analysis process. Furthermore, justification of each choice made regarding the mentioned issues are included, in order for the research design to be supported.

This chapter is divided into two sections, the theoretical framework and the methodology. The first section will give an insight into the theory which is used as a framework for this research, while the second section explain the rational behind the methods used for the research.

3.2 PURPOSE OF THE RESEARCH

The main objectives of this research are to highlight the benefit of TQM implementation in the Nigerian Airline industry by examining the basic principles of TQM in the airlines. The researchers thus compared and contrasted the performance of TQM Airlines and Non TQM airlines by measuring statistically three major added values namely-:

- Customer satisfaction
- Employee satisfaction
- Operational effectiveness

These three areas assumed to be the benefits that will accrue airlines if they effectively implement total quality management. In summary, this research will assess the impact of TQM implementation on the aforementioned variables. The literature review has earlier highlighted, some of the benefit that accrues to an organisation from the implementation of TQM, with authors linking it with the aforementioned variables.

3.3 THEORETICAL FRAMEWORK

"A theoretical frame work is a conceptual model of how one makes logical sense of the relationship among the several factors that have been identified as important to the problem" (Sekeran, 2003). Cases and variables are always part of elements used in research.

Cases are objects whose behaviour or characteristics studied. Usually, the cases are persons. But they can also be groups, departments, organizations, etc. They can also be more esoteric things like events (e.g., meetings), utterances, pairs of people, etc.

Variables are characteristics of cases. They are attributes and qualities of the cases that is measured or recorded. For example, if the cases are persons, the variables could be gender, age, height, weight, feeling of empowerment, math ability, etc. Variables are called what they are because it is assumed that the cases will vary in their scores on these attributes. For example, if the variable is age, we obviously recognize that people can be different ages.

In any particular study, variables can play different roles. Two key roles are independent variables and dependent variables. Usually there is only one dependent variable, and it is the outcome variable, the one you are trying to predict. Variation in the dependent variable is what you are trying to explain.

The independent variables, also known as the predictor or explanatory variables, are the factors that you think explain variation in the dependent variable. In other words, these are the causes. (Adapted from http//www.analytictech.com)

3.4 EFQM (European Foundation Quality Model)

According to Dubas and Nijhawan (2005), the European Foundation Quality Model (EFQM) Excellence Model is a non-prescriptive framework based on nine criteria. Five of these are 'Enablers' and four are 'Results'. The Enabler criteria cover what an organization does. The Results criteria cover what an organization achieves. Results are caused by Enablers and feedbacks from Results help to improve Enablers. It contains a set of nine weighted criteria that are utilized in the assessment process. The Model is based on the premise that: Excellent results with respect to Performance, Customers, People and Society are achieved through Leadership driving Policy and Strategy, that is delivered through People Partnerships and Resources, and Processes. The EFQM Excellence Model is depicted below in Figure 3.1.

Figure 3.1 The EFQM Model
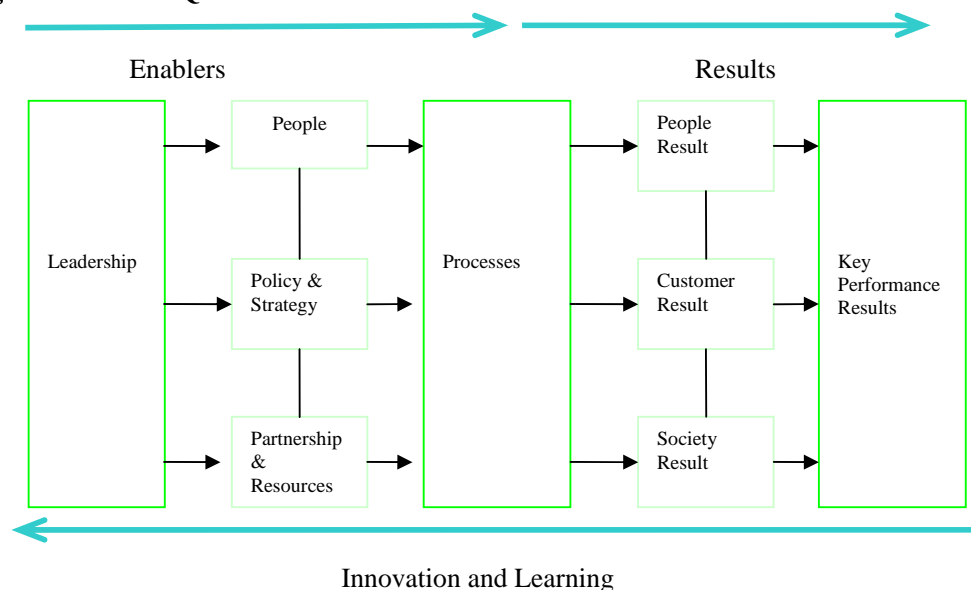
Source- Dubas and Nijhawan (2005)

The EFQM model is based on the idea that customer satisfaction, people satisfaction and impact on the society are achieved through the leadership driving policy and strategy, people management, resources and processes, leading ultimately to business results.

Organisations that are characterized by a relatively high degree of customer and employee satisfaction are believed to have a positive effect on society, will excel and achieve business results (Porter and Tanner, 1996). This is based on the fact that results are achieved through key processes which are funded and supported by skilled people with a clear direction. For an organization to achieve results, it must have an able executive leadership which drives the enablers of business success.

Below is the EFQM criterion of quality and details on the model (Figure 3.1) as described by Dubas and Nijhawan (2005) and Slack et al (1995):

➢ **ENABLERS**
- Leadership - The driver of the business who gives direction to business objectives, it is concerned about how the top management inspire and drive total quality as a vital process for continuous improvement.
- People management - This involves how the company harnesses the potential of her employees in order to improve the business continuously. With EFQM covering training, evaluation, effective human resources development, team work, empowerment, rewards and recognition. It ensures the effective development of people's skill, time and effort.
- Policy and strategy - How the firm's policy reflects the concept of total quality and how this principle is being used to determine improvement strategy. It covers product, service quality and organizational policy and strategy.
- Partnerships and Resources management - This involves how the resources of the company are disbursed to support quality initiatives. Active encouragement of supplier partnership is given, with emphasis on mutually beneficial relationships. On resources, the facilities need to be maintained for capability, and materials should be conserved.
- Processes – The efficient managing of processes to ensure that business objectives of value creation are achieved. It involves identifying and reviewing the processes involved in production so as to deliver the organization's strategy.
- Employee Result - People are supposed to be adequately surveyed, with ideas such as team briefings and suggestion schemes incorporated.
- Customer Results - This is external customer's perception of the company's product. This requires evaluation of customer satisfaction through surveys and interviews. Loyalty and market share are measures.

- Key Performance results – what the company is achieving in relation to its planned business. EFQM requires a "balanced scorecard" type approach, as well as cost of quality, product and process measures.

While the first set of five characters can be regarded as drivers to effective quality management, the last three are the results that accrue to a firm when the drivers are efficiently deployed. This research will focus on the latter, since it is concerned about the effect of TQM implementation. Thus hypothesis test would be conducted based on the model below, where TQM serves as the independent variable and the expected effects are the dependent variables.

3.5 HYPOTHESIS FORMULATION

This gives an insight into how the researchers derived the hypothesis formulated for this research. Three major hypotheses will be tested in this research which will help to answer the research questions highlighted in chapter one. The hypothesis development is divided into three parts, namely employee satisfaction, effective operations and customer satisfaction (Figure 3.2).

Figure 3.2 Dissertation model
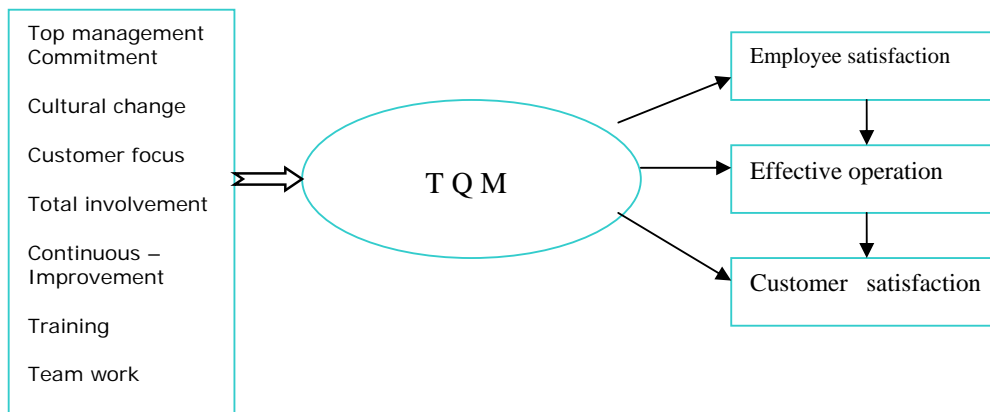
Source – Researchers' (2008)

3.5.1 EMPLOYEE SATISFACTION

An employee must be happy with his job for they are a crucial part of an organisation in implementing its strategy and be well informed as to how they affect customers; this can lead to a great performance in the company.

A successful TQM environment requires a committed and well-trained work force that participates fully in quality improvement activities. Such participation is reinforced by reward and recognition systems which emphasize the achievement of quality objectives. On-going education and training of all employees supports the drive for quality. Employees are encouraged to take more responsibility, communicate more effectively, act creatively, and innovatively. As people behave the way they are measured and remunerated, TQM links remuneration to customer satisfaction metrics

(http://www.johnstark.com/fwtqm, last assessed 20/11/08), In the airline industry, which is characterised by a substantial level of contacts with customers, employees play a rather crucial role in creating customer satisfaction, through their service delivery approach. The goal of any business is profitability, but the manners in which they achieve this differ from firm to firm depending on the type of organisation either for manufacturing or service. Most service organisations strive to attain profitability through the processes of service delivery which creates customer satisfaction, the manufacturing industry might add values to their products to create customer satisfaction. However, creation of these valued added activities will depend on how satisfied the employees are. That is, the satisfaction of customers is dependent on employee's satisfaction.

One of the major emphases of TQM is the empowerment of employees, in an attempt to generate improved individual and organisational performance and also to help employees achieve certain personal goals by giving them the right to participate in the decision making process and allowing them have control of their immediate job environment (Seibert et al, 2004). Past findings have shown that empowerment programmes provide employees with a positive experience thus leading to greater employee satisfaction (Seibert et al, 2004). Thus this research will find out if empowerment, through delegation of authority in the Nigerian airlines leads to greater employee satisfaction.

Hypothesis 1 - TQM Airlines will have a higher degree of employees' satisfaction than NON TQM airlines.

• H_0 - There is no difference in employee's satisfaction in TQM airlines and non TQM airlines.

• H_1 **-** There is a significant difference in employee satisfaction between TQM airlines and non TQM airlines.

3.5.2 CUSTOMER SATISFACTION

For a business the customer comes first. Customer satisfaction is seen as the company's highest priority. The company believes it will only be successful if customers are satisfied. The TQM Company is sensitive to customer requirements and responds rapidly to them. In the TQM context, being sensitive to customer requirements' goes beyond defect and error reduction, and merely meeting specifications or reducing customer complaints. The concept of requirements is expanded to take in not only product and service attributes that meet basic requirements, but also those that enhance and differentiate them for competitive advantage. (http://www.johnstark.com/fwtqm.html last assessed 20/11/08)

TQM emphasises a customer focus approach to service delivery. Thus, focus is placed on the need to improve the quality of service provided to customers by understanding the needs and problems of customers (Figure 3.3). To maintain a high level of customer satisfaction, airlines need to understand their customer's needs and compare it with organisational performance in meeting these needs.

According to Muffatto and Panizzolo (1995), a high level of customer satisfaction is obtained solely by providing services or products whose features will satisfy customer's requirements or needs.

Figure 3.3   Model of TQM Process
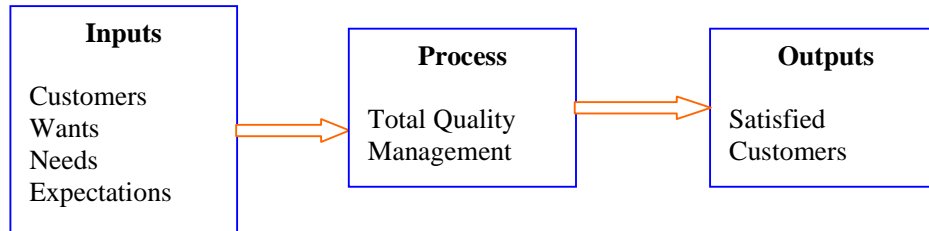
Source- Jordan (2002)

The main arguments of most authors are that increased customer satisfaction will increase customer loyalty and will bring about repeat purchase; while on the contrary, it is believed unsatisfied customers will defect to other services which are expected to meet their needs. In an attempt to prevent the churn caused by poor services, and reap the benefit of increased patronage, organisation places much emphasis on services that will make customers satisfied. Since service quality is defined by customers, organisations imbibing the TQM approach take measure in involving customers in their quality design. According to Wilkinson et al, (1998) customer focus provides a common goal for all organisational activities and members as it incorporates the design of quality and its conformance to quality specification.

The EFQM model, which serves as a frame work of this research, view customers as the final judge of service quality, thus customer loyalty and retention, are best optimised with a clear focus on customers' needs and requirement.

Hypothesis 2 - Airlines adopting TQM approach will have greater customer satisfaction than that not applying total quality management.

- H_0 - There is no difference in customer satisfaction in TQM airlines and non TQM airlines.
- H_1- There is a significant difference in customer satisfaction between the TQM Airlines and non TQM Airlines.

3.5.3 OPERATIONAL EFFECTIVENESS

The adoption of TQM is believed to have great impact on organisational effectiveness. From the literature review, different authors have linked TQM management to effective operation. While Sila, (2007) pointed to the fact that suppliers involvement in the overall process of quality improvement have a major role to play in the over all effectiveness of operations. Others pointed to the fact that continuous improvement, a major tenet of TQM leads to efficient operation

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According to O'Brien and Voss, (1992), quality depends on broad base employee involvement and commitment. The principles of TQM such as employee involvement, improved communication and team work brings about effective operation, this in turn creates a better quality service delivery which creates customer satisfaction. 'According to Muhleman et al, (1992), for an organisation to be truly effective, every single part of it, each department, each activity and each person and each level, must work properly, together, because every activity affects and in turn is affected by others'.

Thus, this research will access the reliability of this in the Nigerian airlines by accessing the effectiveness of the operation of airlines that have adopted TQM ideology and comparing it with those airlines that have not adopted the TQM ideology.

Hypothesis 3 - Airlines adopting TQM approach will have greater operational performance than non-TQM airlines.

- H_0 - There are no difference in the airline operational performance of TQM airlines and non-TQM airlines
- H_1- TQM airlines are more effective in their operation than non-TQM airlines

3.6 METHODOLOGY

Methodology is about anything that has to do with procedures or techniques of investigation, that is, the set of techniques used in one piece of research. It is all about the methods used in the study of the research. Methodology is essential in gathering relevant information thereby giving effective and reliable representation.

It is possible to categorize different research method approaches into two main categories depending on how they are conducted, quantitative research methods and qualitative research methods. Merriam (1994) stated that, information brought by words is qualitative while information brought by figures is quantitative. According to Patel and Davidson (1991), quantitative research methods are methods for analysing numeric information in the form of statistical methods. While qualitative research methods, on the other hand, are methods used for analysing other information, such as interpretations of text. Thou the two methods can be used to analyse data and information gotten from the research, they both have their differences. The main difference between the two research methods is that quantitative research methods transform the information into numbers and amounts, whereas qualitative research methods use the researcher's interpretation of information which cannot or should not be translated into numbers or amounts. The difference between quantitative and qualitative research lies in the procedure involved in investigation. 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 generalised

A qualitative research on the other hand is aimed at understanding a social or human problem from multiple perspectives and it is mostly conducted in a natural setting.

Due to the different characteristics of the different research methods, different methods are suited for different research purposes, kind of data involved and other circumstances. Both research methods often can be combined, supporting one another in research.

The methodology of this research is broken down into the following framework-

- Research design
- Method of data collection
- Population and sample
- Method of data analysis

3.6.1 RESEARCH DESIGN

Frankfort-Nachmias and Nachmias (1996) describe research design as 'a logical model of proof that allows the researcher to draw inferences concerning causal relations among the variables under investigation'. According to Sekaran (2003), the various issues involved in the research design concern the purpose of the study, the type of investigation, the type of the sample, which will be used, the methods by which the required data will be collected, as well as the process that will be followed for the analysis.

Induction and deduction are two ways in drawing conclusion to a research. According to Sekaran 2003, 'deduction is the process by which we arrive at a reasoned conclusion by logical generalization of a known fact, while induction on the other hand, is a process where we observe a phenomenon and on the basis arrive at a conclusion'.

These two forms may differ in the data gathered through observation, may lead to formulation of hypothesis and theory while those gathered via logical reasoning lead to the acceptance or rejection of hypotheses. This research adopted the deductive approach (Figure 3.4), specifically hypothesis testing, as it studied an established relationship, the effect of TQM on organisational performance.

Figure 3.4 Principles of Inductive and Deductive Research
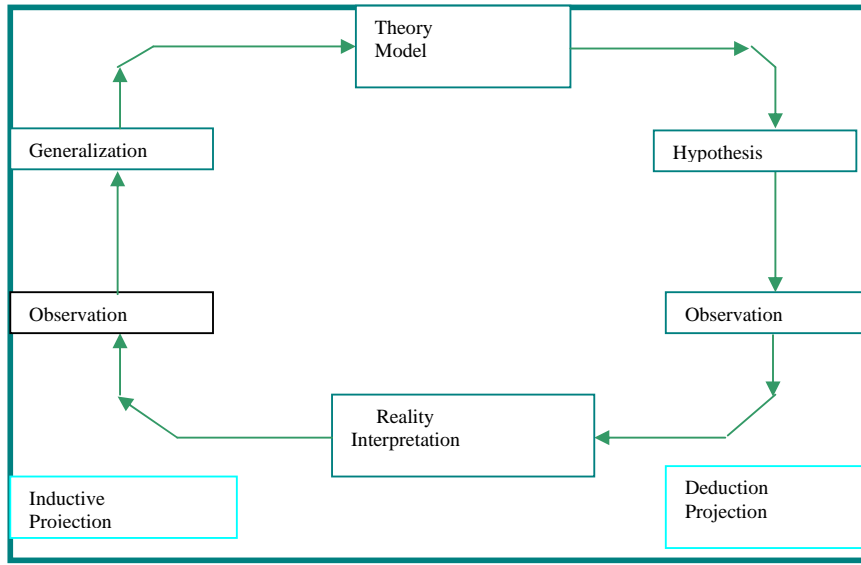
Source – Wiedersheim-Paul and Eriksson (1991)

3.6.2 METHOD OF DATA COLLECTION

Data collection is simply the ways information is gathered. Secondary Data and primary data collection are two ways of collecting information.

3.6.2.1 SECONDARY DATA

Secondary data is information collected by others for purposes, which can be different than those of the researcher. It is a synthesis of published and unpublished documents related to the research and it is of highly importance, as it comprises the logical framework of the research (Sekaran, 2003, Fink, 1995).

The collection of secondary data has both advantages and disadvantages, one of the foremost advantages of using secondary data is that it helps the researcher formulate and understand better the research problem, broadening at the same time the base for scientific conclusions to be drawn. Nevertheless, it should be taken under consideration that other researchers, organization or government departments for studies with different objectives and purposes collected the data; therefore, it might not be suitable for the current research.

For the purpose of this study, the collected secondary data included: textbooks, academic articles and journals related to the implementation of TQM. Also, a number of online resources were used to get information for the literature review, like www.asq.org, www.analytictech.com, www.qualityscotland.co.uk among others. This type of data collection was mainly used for the literature review since it was unable to meet the research objectives.

3.6.2.2 PRIMARY DATA

Primary data is the information gathered directly from the researcher, when secondary data is not available or is unable to contribute meeting research objectives (Sekaran, 2003). The collection of primary data involves the use of research instruments, such as questionnaires and interview schedules that have been constructed exclusively for the purposes of a specific study. For the purposes of this research, primary data were collected by questionnaire and interviews. The essence for this was to weigh the different views of groups in each airline studied in the research.

The main concern of a researcher is to ensure that the results of the research are accurate and applicable. Therefore, once the instrument used for the conduction of the research is ready, then the reliability and validity of the measures are established (Sekaran, 2003).

3.6.2.2.1 RELIABILITY OF PRIMARY RESEARCH

Reliability to regards the consistency of the results obtained from the instrument used in the research. Reliability is achieved when the same research process is repeated and reproduces results within stated confidence limits. Bells (1993) cited in (Eriksson, 2002) states that the reliability of an investigation is satisfying if another researcher can conduct the same research and draw the same conclusions. This has to do with the ability of a research finding to replicate itself if a parallel study is conducted. Thus in order to ensure the finding of this research the Cronbach Alpha was used to test the reliability of questions asked for this research. The result from the validity test shows Cronbach Alpha to be between the range of 0.743 and 0.82 on the average of all the variables considered which is above the require 0.7 mark. This is an acceptable level according to Sekeran, (2003).

3.6.2.2.2 VALIDITY OF PRIMARY RESEARCH

Validity represents 'the extent to which an instrument measures what it intended to measured. There is a distinction made among 'internal' and 'external' validity. Internal validity refers to whether the hypothesised cause produces the given effect in the research, while external regards the extent to which the results of the research can be generalised.

This research used past findings on the effects of TQM on organizational performance served as basis for selecting variables used for establishing the effects of TQM implementation in the airline industry. Validity here is established through published measures for the concept of TQM (Sekeran, 2003).

3.6.2.3 QUESTIONNAIRES

A questionnaire is a research instrument consisting of series of questions and other prompts for the purpose of gathering information from respondents. Most often it is designed for statistical analysis of the responses, (http://en.wikipedia.org/wiki/Questionnaires, last assessed 25/11/08). According to Sekeran, (2003), 'a questionnaire is a pre-formulated written set of questions to which respondents'

records their answers, usually within rather closely defined alternatives'. A questionnaire was structured for this research (Appendix 1) and was administered to the front line staffs of the studied Nigeria airlines; which includes the cabin crew, ticketing staff, and customer service agents. The choice of the questionnaire as one of the means of gathering data is borne out of the fact that it is cheap, do not require as much effort from the questioner as verbal or telephone surveys, not time consuming and often have standardized answers that make it simple to compile data It allows the respondents to supply answers that are confidential to them. (Sekeran, 2003).These questionnaires were handed directly to the respondents by the researchers which gave the researchers the privilege to introduce the topic and encouragement in answering the questionnaire. The questionnaire consists of four major parts, which focuses on the areas of interest of the research.

- The first part relates to the commitment of management to the implementation of TQM.
- The second part relates to customers satisfaction to the services rendered.
- The third part relates to employees satisfaction, the extent to which employees are motivated and encouraged in the implementation of TQM.
- The fourth and final part relates to factors responsible for effective or ineffectiveness operation.

The questionnaire consists of closed ended and open ended questions. Open-ended questions are questions to which there is not one definite answer. Open-ended questions may be a good way to break the ice with a survey, giving respondents an opportunity to answer in their own words. The responses to open-ended questions can be very useful, often yielding quotable material, and the drawback to open-ended questions is that the responses are more difficult to catalogue and interpret (Fink, 1995).

Closed-ended questions have a finite set of answers from which the respondent chooses. One of the choices may be "Other." It is a good idea to allow respondents to write in an optional response if they choose "Other." The benefit of closed-ended questions is that they are easy to standardize, and data gathered from closed-ended questions lend themselves to statistical analysis (Fink, 1995). The down side to closed-ended questions is that they are more difficult to write than open-ended questions. This is because the evaluator must design choices to include all the possible answers a respondent could give for each question. The closed ended questions helped the researchers to analyse the information gotten without difficulties using a 5 point Likert scale (The Likert Scale is an ordered, one-dimensional scale from which respondents choose one option that best aligns with their view).

3.6.2.4 INTERVIEW

Interviews were also carried out to source for information. According to Patton (1990), interviews could be base on

a) Informal conversational interviews - where the questions emerge from the immediate context and are asked in the natural context

b) Interview guide approach - where topics and issues are specified in advance but where the sequence is decided by the interviewer

c) Closed fixed response interview - where questions and response categories are fixed and determined in advance

d) Standard open ended interviews - where the wordings and sequence of questions are determined in advance

Personal interviews were conducted with the various airline operations manager so as to find out the following:-

1 Their view on TQM implementation in their organisations.

2 The effectiveness of their quality approach to their service.

3 Hindrances to the full implementation of TQM.

The interviews conducted were unstructured so as to enable the researchers obtain clarifications of some variables which needed further in-depth investigation. An informal mode of interview was carried out because of the sensitivity of some of the issues and also for the need to remove bias on the part of the respondents who might present false information in order to put their companies in better light just to earn some credibility.

3.6.3 POPULATION AND SAMPLE

Sekaran (2003) describes sampling as the process of selecting a sufficient number and the right type of elements for study from a certain population. As population is defined, the entire group of elements that the researcher is interested to investigate. An *element* on the other hand, is a single member of the population (Jankowicz, 1991). Sample is defined as a portion or subset of the population, the size of which is determined by the type and objective of the study, as well as time and financial constraints (Fink, 1995). Sampling therefore is the method of drawing the sample and it is a vital part of a research as it allows to the researcher to generalize findings, as it is impossible to examine the whole population (Frankfort-Nachmias and Nachmias, 1996).

Samples were drawn from the entire population of study in this research due to time, financial and human resource constraints, thus it is believed that the sample will provide the researchers with more reliable results (Sekaran, 2003; Blumberg et al 2005).

3.6.3.1 SAMPLE DESIGN

Sampling is divided into two main categories: probability and non-probability and these are used in this research. In probability sampling, the elements of the population have a definite chance, but not necessarily equal, of being included to the sample. On the contrary, in non-probability sampling, the odds that a particular element will be included in the sample are unknown.

The non-probability sampling technique was adopted using the quota sampling. This is due to the fact that the staffs that deal with customers directly in an organization are in the best position in providing the information required for this research (Sekeran, 2003). However, the use of this method is deficient in that the result cannot be generalised totally but it is believed to give the researchers the required information for the research and also offers the advantage of saving the researcher some costs and time.

3.6.3.2 POPULATION AND SAMPLE SIZE

The population of study was drawn out of the various local airlines in Nigeria. Thirty (30) questionnaires were distributed in each of the six Airlines under survey. These questionnaires were distributed among employees who deal directly with customers on daily basis. The choice for employees with customer facing role is borne out of the fact that they are believed to know the customers more since they have daily interactions with them and are supposed to know what the customers complain about and what they are happy with.

The operations manager for the six (6) airlines interviewed also gave insight into the operational activities of the airlines and the quality approach to service delivery. Thus, the six airlines understudy is equally represented in the study.

3.6.4 DATA ANALYSIS

The data was analysed using a parametric test, this determined statistically the significance between two independent samples. Hypothesis testing was adopted to test the differences in the means of the two categories of airlines. This was aided with the use of the SPSS software, which was used in carrying out the T-Test analysis by comparing the mean score of both TQM and non-TQM airlines to see if there is a significant difference in performance (Pallant, 2005).

3.7 PILOT STUDY

The pilot test is a useful tool for researchers, as it helps them 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). 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. According to Blumberg et al (2005), respondents in a pilot study could range between five and hundred, thus twenty questionnaires were distributed among airline staffs. The feed back given from the respondents was considered in remodelling the questions to suite the research objectives.

CHAPTER 4

4 DATA ANALYSIS

4.1 INTRODUCTION

Data extracted from the questionnaires were statistically analysed with the independent T-test using the SPSS software. Detailed analysis of the results derived from this analysis is presented in this chapter.

4.2 ANALYSIS OF RESEARCH POPULATION

The survey started on the 3rd of November, with the questionnaire distributed among front line staffs that have everyday contact with the customers, of the various airlines surveyed. It took the researchers four weeks in the distribution and collection of the questionnaires. *180* questionnaires were distributed among 6 airlines companies, of this *130* were returned but *14* of them were rejected as a result of so many omissions in filling.

Out of the *116* respondents, *56* of the respondents were from airlines with the TQM ideology while the remaining *60* are from non-TQM airlines. The descriptive statistics of the research population is given below.

4.2.1 DISTRIBUTION OF RESPONDENTS BY GENDER

A representation of gender in the population of the 116 respondents in the non-TQM airlines and TQM airlines is shown in Figure 4.1. The percentage of the respondents based on gender for both TQM and non-TQM is 38.79% male and 61.21% female. Table 4.1 and Figure 4.1 reveals this figures in a tabular and graphical form respectively.

Table 4.1 Distribution of respondents by gender

GENDER	TQM	NON-TQM	TOTAL	%
MALE	25	20	45	38.79
FEMALE	31	40	71	61.21
TOTAL	56	60	**116**	**100**

Figure 4.1 Graphical representation of respondents by gender
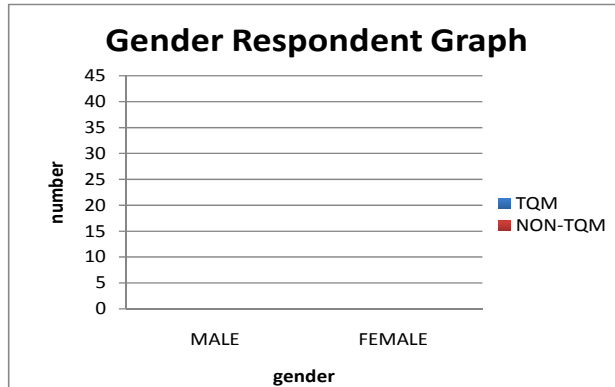
4.2.2 DISTRIBUTION OF RESPONDENTS BY DEPARTMENT

Questionnaires were distributed amongst respondents in three different sections of the airlines, namely ticketing and reservation, customer service and cabin crew. Figure 4.2 below is used to illustrate the representation of each section for the two airlines. The ticketing and reservation section had 24 respondents drawn from the TQM airlines and 25 respondents from the non-TQM airlines, represents 42.24% of the population. The customer service agents had 22 respondents drawn from the TQM airlines and 19 respondents from the non-TQM airlines, represent 35.34% of the total population. Finally for the cabin crew represent 24.41% of the total population, with 10 respondents drawn from the TQM airlines and 16 respondents from the non-TQM airlines had. This is represented in Table 4.2 and Figure 4.2 below:

Table 4.2 Distribution of respondents by departments

DEPARTMENT	TQM	NON-TQM	TOTAL	%
TICKETING & RESERVATION	24	25	49	42.24
CUSTOMER SERVICE AGENT	22	19	41	35.34
CABIN CREW	10	16	26	22.41
TOTAL	56	60	**116**	**100**

Figure 4.2 Graphical representation of respondents by departments
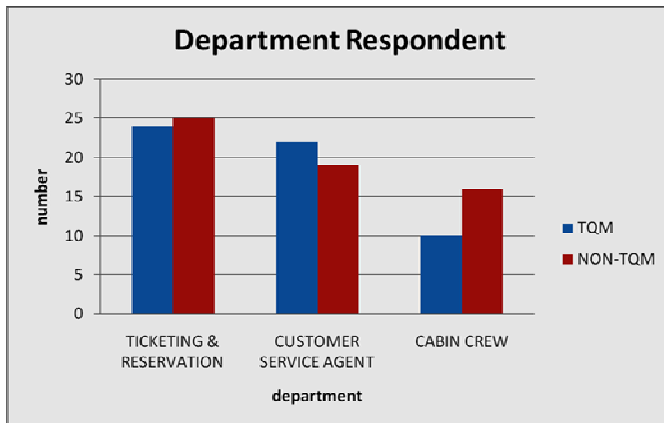
4.2.3 DISTRIBUTION OF RESPONDENTS BASED ON KNOWLEDGE OF TQM

The knowledge of TQM is higher amongst employee of TQM airlines to that of the non-TQM airlines. 40 of the 56 respondents from the TQM airline are conversant with the principles and the implementation of TQM. This represents 71% of the TQM airlines' population and 34% of the total population surveyed. The non-TQM airlines on the other hand had 10 of the respondents who are familiar with the principles of TQM, this represents 17% of the non-TQM airlines' population and 9% of the total population surveyed. In total 43.1% of the total respondents have prior knowledge of TQM while the remaining 56.9% do not have any knowledge of TQM. This is shown in Table 4.3 and Figure 4.3 below

Table 4.3 Distribution of respondents based on knowledge of TQM

TQM KNOWLEDGE	TQM	NON-TQM	TOTAL	%
KNOWLEDGE OF TQM	40	10	50	43.10
NO KNOWLEDGE OF TQM	16	50	66	56.90
TOTAL	56	60	**116**	**100**

Figure 4.3 Graphical representation of respondents based on the knowledge of TQM
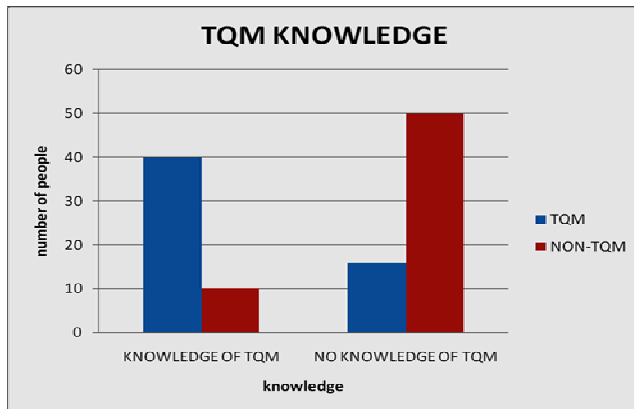
4.2.4 DISTRIBUTION OF RESPONDENTS BASED ON THEIR LEVEL OF SATISFACTION WITH AUTHORITY

From the distributions in Tables 4.4, Table 4.5 and Figure 4.4 below, it is observed that most respondents from the non-TQM airlines are not satisfied with the authority given to them to do their job except for the cabin crew where most respondents were satisfied. This is unlike the TQM airlines where most respondents from the different department appear to be satisfied with the authority given them to carry out their work.

Figure 4.4 below illustrates this point rather clearly, where most of the respondents for the non-TQM airline falls on the left hand of the scale which indicates dissatisfaction while the cabin crew for the same category of airline fell on the right side which indicates satisfaction.

Table 4.4 Distribution of non-TQM respondents based on satisfaction with authority

Satisfaction Level	Satisfaction level Scale	Ticketing & Reservation	Customer Service	Cabin Crew	Total	%
Extremely Satisfied	5	0	0	6	6	10
Satisfied	4	4	1	8	13	21.67
Indifferent	3	6	3	2	11	18.33
Unsatisfied	2	15	14	0	29	48.33
Extremely Unsatisfied	1	0	1	0	1	1.67
Total	-	25	19	16	**60**	**100**

Figure 4.4 Graphical representation of non-TQM respondents based on satisfaction with authority
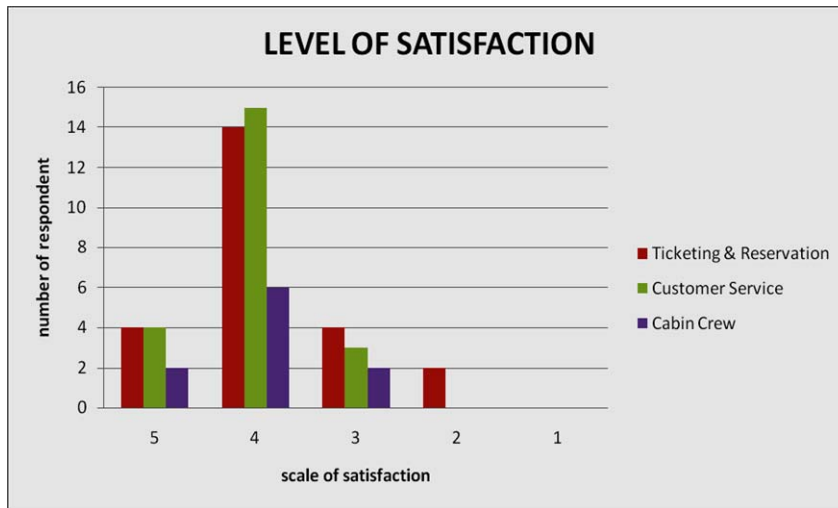
On the other hand, the TQM airlines portray a homogenous look, in that most of the respondents are satisfied with the authority given to perform their work. This could imply that the management of non-TQM airline are more concerned about in flight services and as such have given the cabin crew preference over other department in terms of empowerment. Thus, indicating that non-TQM airlines are just managing specific areas and not concerned about the totality of their operations.

Table 4.5 Distribution of TQM respondents based on satisfaction with authority

Satisfaction Level	Satisfaction level Scale	Ticketing & Reservation	Customer Service	Cabin Crew	Total	%
Extremely Satisfied	5	4	4	2	10	17.86
Satisfied	4	14	15	6	35	62.50
Indifferent	3	4	3	2	9	16.07
Unsatisfied	2	2	0	0	2	3.57
Extremely Unsatisfied	1	0	0	0	0	0
Total	-	24	22	10	**56**	**100**
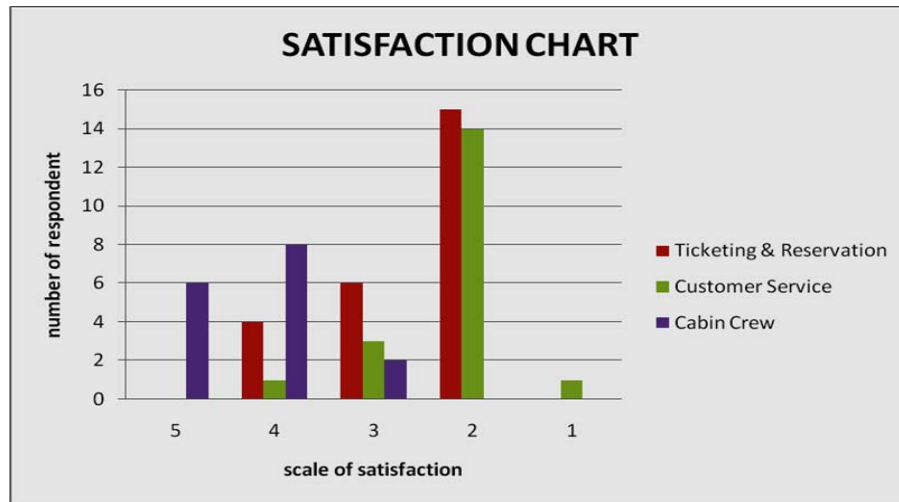
4.3 DESCRIPTIVE ANALYSIS OF VARIABLES AND T-TEST OF HYPOTHESIS

This section of the analysis deals with the descriptive analysis of different variables and test of hypothesis. Descriptive analysis used for each hypothesis is assessed followed by the test of hypothesis

4.3.1 DESCRIPTIVE ANALYSIS FOR EMPLOYEE SATISFACTION

Table 4.6 shows the variables used in testing the satisfaction of employees between the TQM and non-TQM airlines. From the Table, the average mean performance of TQM airline exceeds that of non-TQM airlines on all the variables used except for the variable where individual efforts are recognised, this might not be unconnected with the TQM principles which requires that team efforts be recognised above individual efforts.

Table 4.6 Descriptive statistics for employee satisfaction

Variables	Airline	N	Mean	Std. Deviation	Std. Error Mean
Satisfied with	TQM Airline	56	3.76	0.666	0.089
Authority	Non-TQM Airline	60	1.93	0.8	0.103
Regular	TQM Airline	56	4.21	0.624	0.083
Training	Non-TQM Airline	60	1.93	0.756	0.098
Encourage	TQM Airline	56	4.27	0.587	0.078
Team-work	Non-TQM Airline	60	3.47	0.999	0.129
Continuous	TQM Airline	56	4.02	0.587	0.078

Improvement	Non-TQM Airline	60	2.75	0.0836	0.011
Suggestion	TQM Airline	56	4.05	0.585	0.078
Count	Non-TQM Airline	60	2.52	0.965	0.125
Responding to	TQM Airline	56	4.2	0.616	0.082
Customers	Non-TQM Airline	60	3.43	0.927	0.120
Individual	TQM Airline	56	1.84	0.93	0.124
Effort	Non-TQM Airline	60	3.37	0.974	0.126
Involvement in	TQM Airline	56	3.8	0.644	0.086
Decision	Non-TQM Airline	60	3	0.974	0.126
Commitment due	TQM Airline	56	4	0.714	0.095
to empowerment	Non-TQM Airline	60	2.07	0.756	0.098
Job	TQM Airline	56	4.32	0.575	0.077
Flexibility	Non-TQM Airline	60	2.88	1.001	0.129
Salary	TQM Airline	56	4.32	0.716	0.096
Motivation	Non-TQM Airline	60	2.55	0.852	0.110

Table 4.7 Mean Performance Employee satisfaction

Airline	Total Mean	Average Mean	Mean Diff.
TQM Airlines	42.79	3.89	1.17
Non-TQM Airlines	29.90	2.72	

The above average mean result indicates that the TQM airlines have a mean score of *3.89* while the non-TQM airlines have *2.72*, and the mean difference in employee satisfaction in the two categories of airlines is *1.17*.

4.3.2 STATISTICAL TEST OF HYPOTHESIS 1

H_0 - *TQM Airlines will have a higher degree of employees' satisfaction than non-TQM airlines*
H_1 - *There is no difference in employee's satisfaction in TQM airlines and non-TQM airlines.*

There is a significant difference in employee satisfaction between the TQM airlines and non-TQM airlines. The significance level for the levene's test is *0.00,* this is lower than the cut off of *0.05,* thus the assumption of equal variances is violated, therefore the T–value for the second row, leading to the conclusion that the variances are not equal is used (Table 4.8).

In assessing the difference between the two categories of airlines, the value of the sig. (2–tailed) column on the second row is *0.00*; this is less than *0.5,* thus indicating that there is a significant difference between TQM and non-TQM airlines. Thus the alternate hypothesis (H0) which states that

TQM airlines have more satisfied employee is accepted while the null hypothesis is rejected. This indicates that difference in employee satisfaction is significant.

Table 4.8 Test of hypothesis for Employee satisfaction

		Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2 tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Total Employee Satisfaction	Equal variances assumed	29.692	0.00	16.07	114	0.00	12.896	0.803	11.307	14.486
	Equal variances not assumed			16.48	78.474	0.00	11.465	0.406	11.339	14.454

4.3.3 DESCRIPTIVE ANALYSIS FOR CUSTOMER SATISFACTION

The group statistics for variables used for customer satisfaction is shown in Table 4.9

Table 4.9 Descriptive statistics for customer satisfaction

Variables	Airline	N	Mean	Std. Deviation	Std. Error Mean
Quality Standards	TQM Airline	56	4.32	0.716	0.096
	Non-TQM Airline	60	2.55	0.852	0.110
Customer Complain	TQM Airline	56	2.41	0.654	0.087
	Non-TQM Airline	60	3.32	0.725	0.094
Repeat customers	TQM Airline	56	4.05	0.999	0.133
	Non-TQM Airline	60	2.28	0.739	0.095
Defection of Customers	TQM Airline	56	2.2	0.876	0.117
	Non-TQM Airline	60	3.36	0.739	0.095
Response to Customers	TQM Airline	56	3.93	0.759	0.101
	Non-TQM Airline	60	1.95	0.699	0.090
Customer Recommendation	TQM Airline	56	4.41	0.596	0.080
	Non-TQM Airline	60	2.35	0.799	0.103

Table 4.10 Mean Performance for Customer satisfaction

Airline	Total Mean	Average Mean	Mean Diff.
TQM Airlines	21.32	3.55	0.92
Non-TQM Airlines	15.81	2.64	

Comparing each variable, the mean values of the TQM airlines are higher in every tested area; this indicates that the customers of the TQM airlines are more satisfied than the non-TQM airlines. The non-TQM airlines register a higher number of customer complaints but their response to customer

complaint is lower when the average mean is considered. The quality standard of the TQM airline is higher on the average mean, thus customers are willing to recommend their services to others. On the average the mean difference in customer satisfaction between the two categories of airlines is *0.92* where the average mean for the two are *3.55* and *2.64* for TQM and non-TQM airlines respectively.

4.3.4 STATISTICAL TEST OF HYPOTHESIS 2

H_0 - There is no difference in customer satisfaction in TQM airlines and non-TQM airlines
H_1- There is a significant difference in customer satisfaction between the TQM Airlines and non-TQM airlines

The significance level for the levene's test is *0.009* this is lower than the cut off of *0.05*, thus the assumption of equal variances is violated, therefore the T– value for the second row which assumes that the variances are not equal is used. In assessing the difference between the two categories of airlines, the value of the sig. (2–tailed) column on the second row is *0.00*; this is less than *0.5*, thus indicating that there is a significant difference between the two airlines. Thus the alternate hypothesis which states that TQM airlines have more satisfied customers is accepted while the null hypothesis is rejected (Table 4.10)

Table 4.11 Test of hypothesis for Customer satisfaction

		Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2 tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Total Customer Satisfaction	Equal variances assumed	6.973	0.009	27.873	114	0	11.465	0.411	10.651	12.28
	Equal variances not assumed			28.23	104.592	0	11.465	0.406	10.66	12.271

4.3.5 DESCRIPTIVE ANALYSIS FOR OPERATION EFFECTIVENESS

Table 4.12 shows the variables used in the measurement of operation effectiveness of the airlines, like the previous variables assessed, the TQM airlines recorded higher means in all the variables assessed, thus indicating that there is a difference in operations of the TQM airlines and non-TQM airlines.

Table 4.12 Descriptive statistics for Operational Effectiveness

Variables	Company	N	Mean	Std. Deviation	Std. Error Mean
Accessibility to customer	TQM Airline	56	3.88	0.605	0.081
	Non-TQM Airline	60	2.58	0.591	0.076
Flight Scheduling	TQM Airline	56	4.14	0.554	0.074
	Non-TQM Airline	60	2.85	0.820	0.106
Baggage Handling	TQM Airline	56	3.63	0.620	0.083
	Non-TQM Airline	60	3.08	0.720	0.093
Flight Cancellation	TQM Airline	56	3.71	0.780	0.104
	Non-TQM Airline	60	2.33	0.629	0.081
Management Commitment to Quality	TQM Airline	56	4.54	0.538	0.072
	Non-TQM Airline	60	3.25	1.105	0.143
Employees Commitment to Quality	TQM Airline	56	4.39	0.731	0.098
	Non-TQM Airline	60	3.03	0.901	0.116
Job Flexibility Satisfaction	TQM Airline	56	4.27	0.587	0.078
	Non-TQM Airline	60	3.47	0.999	0.129
Suppliers Responsibility	TQM Airline	56	3.77	0.763	0.102
	Non-TQM Airline	60	2.98	0.983	0.127

Table 4.13 Mean Performance for Operational Effectiveness

Airline	Total Mean	Average Mean	Mean Diff.
TQM Airlines	32.33	4.04	1.10
Non-TQM Airlines	23.57	2.95	

The mean difference between the TQM and non-TQM airlines is *1.10.* An average mean of *4.04* was determined for TQM airlines and *2.94* for non-TQM airlines

4.3.6 STATISTICAL TEST OF HYPOTHESIS 3

H_0 - *There are no difference in the airline operational performance of TQM airlines and non-TQM airlines*

H_1- *TQM airlines are more effective in their operation than non-TQM airlines*

The significance level for the levene's test is *0.882* and this is higher than the cut off of *0.05*, thus the assumption of equal variances is not violated, therefore the T – value for the first row which assumes that the variances are equal is used. In assessing the difference between the two categories of airlines, the value of the sig. *(2 –tailed)* column on the first row is *0.00*; this is less than *0.5,* thus

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indicating that there is a significant difference between TQM and non-TQM airlines. Thus the alternate hypothesis which states that TQM airlines are more effective in operations is accepted while the null hypothesis is rejected. This indicates that difference in operational effectiveness is significant (Table 4.14)

Table 4.14 T–test result for operational effectiveness

		Levene's Test for Equality of Variances		t-test for Equality of Means							
										95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2 tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Total Operations Effectiveness	Equal variances assumed	0.022	0.882	18.955	114	0	8.49762	0.4483	7.60955	9.38569
	Equal variances not assumed			19.021	113.899	0	8.49762	0.44675	7.6126	9.38264

4.4 SUMMARY OF ANALYSIS

The main objective of this research is to find out if the adoption of TQM principles by the Nigerian local airlines will make them more effective in their operations and increase customer and employee satisfaction. In order to arrive at a logical conclusion for this research objective, a T-test hypothesis was carried out to measure the difference in means of TQM airline and Non-TQM airlines in the areas of employee satisfaction, customers' satisfaction, and effective operations. The samples were drawn from six different airlines in Nigeria consisting of 116 respondents and from three departments.

The three tests carried out shows that TQM has a great impact on the organizational performance. This confirms the theory that TQM organisations have competitive advantages in meeting customers and employees needs while also enabling the organization to be effective in their daily operations. The results confirms the true situation of the Nigerian airline industry, where the new entrants have had great impact in the industry, with an effective operations which has increased the satisfaction level of customers and a work process which gives room for involvement of all employees to partake in decision making with a great concern for managing quality.

CHAPTER 5

5 DISCUSSION, MANAGERIAL IMPLICATION AND CONCLUSIONS

5.1 INTRODUCTION

The major findings of this research, recommendation and limitation of the research will be discussed in this chapter. This chapter gives an insight into the major findings of the research and conclusions. The chapter starts by giving an insight into the findings of the research where the major principles of TQM and its level of adoption by the two airlines are discussed before looking at the three hypotheses tested and assess the degree of difference between the two categories while assessing the various effects of TQM implementation in the industry.

5.2 DISCUSSION OF FINDINGS

The arguments of this research is focused on the need for local airlines in Nigeria to adopt the TQM principles, due to the benefit derived from it in terms of customer satisfaction, operational effectiveness and employee satisfaction. The researchers based their argument on the EFQM model which gave three major benefits derived from TQM implementation. The results of this research attest to this fact.

Local airlines in Nigeria must take quality issues rather seriously as it is a major determinant of their continuous existence. In the airlines industry, the main essence of TQM is to provide services which will make customers satisfied, this in turn bring about repeat purchase thus increasing sales and profitability of the organization. The findings of this research are there by discussed first on the basis of individual hypothesis before giving a summary of the three hypothesis tested.

The independent t-test result on the first hypothesis, which states that TQM airlines have a higher degree of employee satisfaction than non-TQM airlines shows that the assertion is significant. This shows that there is a higher employee satisfaction in TQM airlines than in non-TQM airlines and it confirms the European quality model. Employee satisfaction in the TQM companies could be seen to have been derived from the combination of both intrinsic and extrinsic factors, Intrinsic factors such as involvement in decision making regular training and devolvement of authority. From the descriptive statistics, it is observed that the TQM airlines had higher means in all these factors, thus indicating that their approach to management has paid off when compared to that of the non-TQM airlines. The principle of total involvement, with the aim of meeting customer's need through delegation of authority and empowerment of employees have contributed greatly to the success of these organisations in their quest to make customers satisfied. This research to an extent shows that the satisfaction of customers is dependent on how well the employees are satisfied.

The non-TQM airlines' employees on the other hand are less involved in the day to day decision making of the organization as the airlines are bureaucratic in structure, and only permit decisions from management. This has a psychological effect on employees in terms of motivation, as it limits them from taking necessary action as at when due, and also removes the feeling of intrinsic reward as employees do not feel responsible and accountable, thus reducing their satisfaction level. Motivation for employees in non-TQM airlines basically is based on the recognition of individual effort, which appears to be higher when compared to the TQM airlines. The implication of this is to encourage team work which is a major motivator of employees in the quest to deliver quality service in their daily operations and to prevent internal competition amongst employee.

Empowerment of employees involves the organisations providing regular training to the employees, for without regular training, there is a limit to what employees can contribute as they lack the necessary skills and techniques for quality improvement and so cannot be trusted to deliver quality service as required.

In summary, TQM brings about satisfaction to employees through the devolvement of authority, and the holistic approach to management, which involves everybody in the organization being responsible for the management of quality. This is achieved with a culture which allows for continuous improvement through constant training and retraining of employees.

The second hypothesis which states that TQM airlines will register a greater amount of customer satisfaction than non-TQM airlines was also confirmed in this research through the t–test analysis conducted. The objective behind the implementation of TQM is to create an environment which is focused on fulfilling the desires of customers while meeting objectives of the company in terms of profitability. In the creation of this environment, the organization becomes sensitive to changes in customers desires and tailor her product offerings to meet or exceed customers need. From the variables assessed for customer satisfaction, it is observed that the TQM airlines had higher means in all except the variables which accessed the degree of customer complaints. This is expected as the non-TQM airlines are less sensitive to the demands of customers, and this amounts to the provisions of services which does not meet customers' expectations. Although, the TQM firms also had a relative high degree of customer complaints, they have been able to address this by putting up measures through which these complaints are managed. One of this is the empowerment of employees which was earlier mentioned. The effect of non-empowerment might have accounted for slow response to customers needs in the case of non-TQM and thus a provision of a service which is slow to react to emergencies.

Customers are only willing to use a service again if the features of this service consistently meet or exceed their expectations. Comparing the two categories of airlines, it is observed that a relatively high number of customers are willing to make use of the services of the TQM airlines again, as these services have in one way or the other met their expectations. On the other hand, the non-TQM airlines witnessed relatively low repeat customers when compared; rather they experienced a higher amount

of customer defection. This confirms the assertion that dissatisfied customers will defect when their needs are not met to another where they expect to get quality services. This shows clearly that quality is a universal phenomenon for customers in their choice of service or product. Hence, quality is seen here as a major criteria for winning customers over.

The idea behind the implementation of TQM is to ensure that adequate attention is given to quality so as to give room for an error free transactional process and less room for customer complaints while maximizing customer satisfaction. It is proven that satisfied customers are more willing to recommend quality service to others as shown in this research. This has some cost reduction implication on the airlines in term of advertisement which is good for the business as they will be able to compete more effectively in terms of operating cost. Again, this was proved in this research, as the TQM airlines' customers are more willing to refer people to their services as against the non-TQM airlines.

In summary, quality is defined in the eyes of consumers, thus a customer focus approach which TQM emphasizes, keeps a company abreast of how customers define it from time to time.

The third hypothesis tested is that TQM airlines are more effective in their operations. For an organization to be effective in terms of operations there is the need for every member of the organization to be involved and committed to this objective as the essence is to have a functional work environment which is efficient and focused on meeting customers' demands. TQM implementation is holistic in nature; its success depends on how well each unit of the organization is able to work interdependently towards achieving the objectives of the firm. Thus measure such as management and employees' commitment, decision making process, involvement of suppliers and flight delays and cancellation were used to test the efficiency in operations of the airlines. As it expected that the commitment of management and employees will aid the efficiency in operations of the organization. The findings confirmed that the TQM airlines are more efficient, this is due to the commitment of management, employees and the involvement of suppliers to the quality drive of the organisations. These airlines have a customer focused approach, thus have made their services more accessible to customers through numerous means. The researcher in the quest of this research observed that, unlike the non-TQM airlines, the TQM airlines have taken their services to the door steps of customers, by having several ticketing points outside the airport as well as the use of the online reservation system. This to a great extent must have affected their operations positively as adequate measures are taken in order to contain eventualities. This also buttresses the point of employee empowerment as observed in the previous test, slow decision have a boomeranging effect on other functional areas of operations. The slow decisions on the part of the non-TQM airlines does not allow for efficiency, although management seem to be committed, the negative impact of it affects the whole operation of the airline hence the dissatisfaction of customers.

As noted in the literature, the airline operations consist of interrelated activities which in some cases are not in direct control of the organization. The effectiveness of the airline operation does

depend on how well they involve their supplier in the quality drive as this could either make or mar their overall operations. From the interviews conducted, it was noted that, the airlines attributed the problems of delays to the suppliers and poor state of infrastructure at the airports. Among the reasons cited are consistent break down of the conveyor belts, poor airport traffic control and other exigencies such as closure of the run way due to VIP movement. According to the operations' managers interviewed, this in most cases affects the timing of flights and turn around time. A negative effect is thus created as customers will always attribute the failure to the airlines and not to the suppliers. However, going by the statistical report, the TQM airlines have made their suppliers more involved in their operations, although with a little difference when compared to the non-TQM airlines. This shows the importance of suppliers in the whole value chain. The non-TQM airlines could be seen to have some attributes of TQM airlines as regards involving suppliers.

Summarizing the whole discussion from the t-test and interviews conducted, it is observed that, the chain of activities involved in the operations of the airline have a direct or indirect effect on customer satisfaction. For example, the satisfaction of employees will affect the way they operate on daily basis, such as satisfying customers, and benefiting from this through the continuous patronage of the service by satisfied customers and the recommendations made by them through word of mouth advertisement

5.3 MANAGERIAL IMPLICATIONS

The managerial implication for these findings is based on two categories of airlines assessed and the aviation industry of Nigeria in general.

Quality issues must be taken seriously by any organisations in order to remain competitive, as the maintenance of high and consistency of high quality service will ensure that customers continue to patronize based on the trust built over time. Thus, the findings of this research suggest several implications for managers of non-TQM airlines, as there is the need to imbibe a total quality culture which will put them at the forefront of competition rather than manage quality partially or through inspection. It must be noted that the gains of a total quality culture far out weighs the cost of implementation as seen expressed in this research and the competitive nature of the industry calls for the organization to refocus it's strategies to suit the market demands. In this case, it would require an ideology which supports this strategic thinking to meet up with the challenges.

The TQM ideology as shown in this research is customer focused and ensures that organisations consistently meet the needs of her clients or customers through the organization of the work process, which allows for every member of the organization to be involved and contribute to decision making process of the organization. This ideology ensures a flexible work structure which is quick to react and adapt to changes in customers demands.

To benefit from the implementation of TQM, there is the need for the restructuring of the non-TQM airlines; this will come in a way of cultural change, although this does not necessarily come

easy as it involves attitudinal behaviour of individuals within an organization. But the commitment of the leadership of these organisations will go a long way in driving these values into the way of life of the organisations by encouraging employees to buy into this ideology. The change in culture will see employees empowered to take decisions that affect their immediate job environment; this will go a long way in ensuring efficiency in operations and even allows the organisations to be innovative in its product offering and compete more effectively. There is also the need for training and retraining of employees so as to equip them with the necessary tools to partake in decision making as well as perform their task efficiently, while also encouraging them to work in teams by attaching rewards to team performance. All these are ways of motivating the workforce, as it is proven that a motivated work force will be committed to organizational objectives of ensuring customer satisfaction. Apart from this, the organisations should structure their operations in order to benefit from the efficiency which it brings, although this might come with some cost, but the benefit derived from it will far outweigh the cost. For example, using the online reservation will save them some cost and even takes their products to the door steps of customers.

In summary, meeting up to the challenge posed by competition in the industry today, will require a change in organization culture by imbibing the TQM ideology and it's principles, this will ensure that the organisations are focused on satisfying their customers and not only concerned about profits.

For the TQM airlines, the strategic approach to management has paid off, but they have not gotten to the height of the world class airlines as they still experience some amount of complaints from customers. These shows there are some lapses in the implementation process of TQM. This is expected as these airlines are still within two to three years of TQM implementation. There is the need for continuous improvement, thus areas which have accounted for those complaints should be worked upon and proper procedures which will minimize these complaints if not wiped out completely should be put in place. Even as they have the greater market share, the competition is not resting as there is the need for them to continue to benchmark their services with the world class airlines and update their services regularly. A total involvement of suppliers and even offering to train suppliers' staff or provide logistic support in terms technological know how will be of great advantage to them. Continuous training should also be given to employees, so as to keep them acquainted with changes in the industry.

Finally the regulatory authorities of the aviation in Nigeria have a big role to play in ensuring the objectives of these airlines are attained. There is the need to upgrade the various facilities which will ensure the efficient functioning of the operations of these airlines, as the obsolete equipment presently used have in one way or the other hampered the effective operations and have affected the airlines from completely yielding the gains of TQM implementation. Thus, there is a need for change in management approach, and the need to buy into the objectives of these airlines.

The monopoly which the government enjoys in providing ground services to the airlines have not paid off, it has left the airlines with no choice. Government should encourage other investors into that

sector of the industry; this will give the airlines choices and use services which will best support their operations.

5.4 CONCLUSION

The findings of this research attest to the benefits that accrue from the implementation of TQM. It has shown that it is a strategic tool for an organization to employ in the quest to remain competitive. If adequately deployed, the principle brings about added value to an organization in terms of efficiency in operation, employee satisfaction, customer satisfaction, and even profitability. The finding also revealed that the relentless pursuit of improvement in service delivery bring about added value to customers by making the organization focused on satisfying customers needs, while team work and training empowers employees for the continuous improvement drive of the organization.

The implication of managing every facet of the organization was revealed, as each production unit is seen to affect and in turn affected by others. That is, a dysfunction in the process of service delivery has an overall effect on the total production process, thus showing the need for a holistic approach which involves every functional area to be managed effectively. The implication of not managing quality effectively was shown in the case on the non-TQM airlines, which resulted in inefficiency and loss of patronage due to dissatisfaction of customers. The importance of involving the suppliers in the whole value chain was also highlighted, as the effectiveness of an operation depends on how well it manages both the internal and external service delivery process.

Also, the findings of this research as well as the one reported in literature supports the idea that the management of the organization has a major role to play in terms of ensuring a culture which permits every member of the organization to be involved and contribute to quality improvement, as the involvement of employees in detecting and monitoring the quality performance requires a decentralized organizational structure. This structure permits for innovation as it permits every body in an organization to seek solution to a particular quality problem.

5.5 LIMITATIONS TO THE STUDY

The research was limited to front line staffs of the airline due to time limit and difficulty in reaching the management. The front line staffs does not represent the perception of the companies as a whole, thus the overview of this research is limited. Also, the sampling techniques used should have been representative of the sample population by adopting the simple random sampling technique but as a result of time and the cost involved, a non probability sample was adopted so as to get the information quicker from the companies.

The inability to show the financial impact of TQM implementation also limited this study, in that organisations wanting to adopt the TQM ideology are mostly concerned about the financial gains from the implementation. The non use of financial data was as a result of firms being reluctant to share such information with the researchers.

The research did not also take into cognizance other factors, outside the implementation of TQM that affects the performance of the firms. This includes access to funds, brand image, and political factors. These factors go a long way in helping or hindering the performance of organisations.

The TQM companies used for comparison are just between two and three years of operation and so, the research did not portray the world class expectation of TQM implementation.

5.6 RECOMMENDATION

It is recommended that a more studies should be carried out, which covers the whole departments of these airlines to establish the effectiveness of the implementation of TQM in the Nigerian aviation Industry, while using a   representative sampling technique. Also, it will be of great benefit to ascertain the true perception of customers to service quality in Nigeria as no prior research has been carried out in that field. This will give a clue to what the customers' desire most in terms of airlines service delivery.

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The questionnaires consist of four major parts as shown below, which focuses on the areas of interest of the research. The first part relates to the extent to which employees are motivated to implement the TQM ideology, the second section focuses on customers' satisfaction. The final section focuses on operational effectiveness.

QUESTIONNAIRE

Age: _____

Gender: Male [ ]   Female [ ]

Section: _____

Have you heard of Total Quality Management   Yes [ ]   No [ ]

How will you rate on a scale of 1-5 the following where

   (1- Strongly disagree, 2 – Disagree, 3 - Neutral, 4 – Agree, 5 - Strongly agree)

Employee satisfaction

On a scale of 1-5 how will you rate your level of satisfaction with the listed variables

1. **You are satisfied with the authority**   **[1] [2] [3] [4] [5]**

2. **Management encourages and recognise team-work effort**   **[1] [2] [3] [4] [5]**

3. **Management recognises your suggestions**   **[1] [2] [3] [4] [5]**

4. **Individual effort is recognized in delivering quality service**   **[1] [2] [3] [4] [5]**

5. **You view your job as being flexible**   **[1] [2] [3] [4] [5]**

6. **Salary is a means of motivation in the company**   **[1] [2] [3] [4] [5]**

7. **When was your salary reviewed last?**   **___ year(s) ago**

On a scale of 1- 5 how will you rate the following as regards to your organisation

8. **Regular Training for workers is put in place**   **[1] [2] [3] [4] [5]**

9. **How many times are you trained in a year?**   **_____ times**

10. **There is continuous improvement in your organization**   **[1] [2] [3] [4] [5]**

11. **Mistakes are seldom made while responding to customer's request** **[1] [2] [3] [4] [5]**

12. **Quality service delivery is due to workers empowerment**   **[1] [2] [3] [4] [5]**

13. **Employees are involved in decision making**   **[1] [2] [3] [4] [5]**

14. **How many times has your advised been seek in making a decision for**

   your organization?   **_____ times**

Customer satisfaction

On a scale of 1- 5 how will you rate how satisfied your customers are to the services rendered

15. **Customers see high standard of quality in the service you render**   **[1] [2] [3] [4] [5]**

16. **Customers do complain about your services**   **[1] [2] [3] [4] [5]**

17. **In spite of complaint there is the repeat of customers**   **[1] [2] [3] [4] [5]**

18. **Your customers recommend your services to others**   **[1] [2] [3] [4] [5]**

19. **The defection of customers is as a result of poor service**   **[1] [2] [3] [4] [5]**

20. **Your organisations respond quickly to customers complain**   **[1] [2] [3] [4] [5]**

21. **Do your company honours her commitment and guarantee to all customers?**

   Yes [ ]   No [ ]

22. **What do your customers complain about the most?**

   _____

   _____

   _____

23. **How do you help to solve the complaint?**

   _____

   _____

   _____

Effective operation

On a scale of 1- 5 how will you rate the operational effectiveness of your organization

24. **Your organization services are readily accessible to your customers** **[1] [2] [3] [4] [5]**

25. **Does the accessibility of services to customers' aids the efficiency in operation?**

   Yes [ ] No [ ]

26. **Your organisation keeps to its flight schedule**   **[1] [2] [3] [4] [5]**

27. **Your organisation handles the baggage of customers promptly**   **[1] [2] [3] [4] [5]**

28. **Flight delays and cancellation are due to controllable factors**   **[1] [2] [3] [4] [5]**

29. **Slow decision making is liable for flight delays and cancellation**   **[1] [2] [3] [4] [5]**

30. **Management commitment to quality encourages effective operation**

   [1] [2] [3] [4] [5]

31. **Employees' commitment to quality encourages effective operation** **[1] [2] [3] [4] [5]**

32. **Your job flexibility do contribute to effective operation**   **[1] [2] [3] [4] [5]**

33. **Your suppliers, such as (NAHCO) are responsible for flight delays** **[1] [2] [3] [4] [5]**

34. Does your suppliers operation aid the efficiency in your operations?

Yes [ ] No [ ]

How do you view the services rendered in your organization both to you as an employee and your customers' at large?

_____

_____

_____

Names of the Airlines assessed include the following

1. VIRGIN NIGERIA
2. AERO CONTRACTORS
3. CHANCHAGI AIRLINES
4. EAS AIRLINES
5. AERO LAND
6. BELLVIEW