THE EFFECTS OF TOTAL QUALITY MANAGEMENT ON PRODUCTIVITY USING THE PROBIT MODEL

(A CASE STUDY OF SKYE BANK PLC EDO STATE)

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AUGUST, 2013

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A RESEARCH PROJECT PRESENTED TO THE DEPARTMENT OF ACCOUTANCY IN PARTIAL FULFILLMENT OF THE REQUIREMENT FOR THE AWARD OF BACHELOR OF SCIENCE (B.Sc) DEGREE IN ACCOUNTANCY, FACULTY OF MANAGEMENT AND SOCIAL SCIENCES, CARITAS UNIVERSITY, AMORJI-NIKE, ENUGU STATE

AUGUST, 2013

APPOVAL PAGE

This project on The effects of total quality management on productivity: A case study of Skye Bank Plc, written by Sidi Victor Izuagbe of Accountancy Department has been approved and assessed by the committee of Accountancy Department, Faculty of Management and Social Sciences, Caritas University Amorji-Nike. Enugu

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CERTIFICATION

This is to certify that the research work titled the effects of total quality management on productivity using the probit model: a case study of Skye Bank Plc was carried out by and written by SIDI VICTOR IZUAGBE with Registration number ACC/2008/501 under our supervision in the Department of Accountancy, Faculty of Management and Social Sciences, Caritas University, Amorji-Nike, Enugu.

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DEDICATION

This research is dedicated to the glory of Almighty God for His protection and direction throughout this project and to my lovely parents MR. and MRS. SIDI and my lovely siblings Constance Sidi, Daniel Sidi and Annette Sidi.

ACKNOWLEDGEMENT

The most pleasant way of writing a project is the opportunity to express ones gratitude to those that contributed in one way or the other. My first thanks goes to my supervisor Professor Nwadialor for his positive criticism and guidance in my project and also my gratitude goes to my H.O.D Accountancy Department Dr.Frank Ovute and also to my lecturers Mr.Chinedu, Mr.Ugwu and Mr.Desmond from whom I acquired great knowledge such lecturers will continue to be awarded abundantly by almighty God.

My special thanks goes to my lovely parents Mr and Mrs.Sidi and my siblings, who contributed immensely to the completion of my study, to my friends Marvis, Isaac, Cino, Austin, Christopher who also helped in sustaining my interest in writing this project.

ABSTRACT

The broad objective of this research work is to take a critical look at the principle of total quality management so as to find out how its implementation will affect an organisation's productivity and profitability. For the purpose of this study, the researcher limited its data to those of the Skye Bank Plc and her customers. The researcher used survey method to investigate the effects of Total Quality Management on productivity using the probit model: a case study of Skye Bank Plc Edo State.

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CHAPTER ONE

INTRODUCTION

1.1 HISTORICAL BACKGROUND AND THE ORIGIN OF SKYE BANK PLC

Banking in Nigeria took a new dimension after the pronouncement of the former governor of the Central Bank of Nigeria professor Charles Soludo for the need to improve the banking industry in Nigeria thereby competing with other foreign banks, hence capital base to 25 billion naira.

According to the governor of central bank professor Charles Soludo, the whole idea of the increment is to give room for other small financial institutions to strive, thereby reducing the rate of competition amongst banks in Nigeria.

For the purpose of this study, Skye Bank PLC came together as an entity after due diligence was carried out amongst their five banks.

- Prudent Bank
- EIB Eko International Bank
- Reliance Bank

- Bond Bank
- Cooperative Bank Ltd

Currently, the bank has a significant network spread across the nation over 200 branches and also planning to spread across West African countries, turn up before the end of 2007, it major of business is centered round services, hence service delivery is term of Skye Bank or the hallmark as it term.

As a new generation bank, Skye Bank Plc is online real that is to say every customer can access his/her account from any of location whether it is savings or current account. It is worthy to know that the bank is highly aggressive in expanding its numerous clientele world, that is to say that the satisfaction derived by the customers is a key.

As a strategy to preposition the industry in order to offer high quality products, CBN embarked upon a process of scrutinizing products offered by banks.

Quality management of products in a post consolidation era been brought to front banner. In order to contribute to this debate, TQM (total quality management) as a policy for assessing and

regulating service delivery process became a very important instrument in this regard.

At the heart of the survival of any bank the satisfaction of the clients is most important, the clients/customers are only satisfied when their demands are being met at the right cost and to the right quality. Ironically, it only when the customers are satisfied that the bank in question can be seen as performing it as a new generation bank.

One particular approach to improve organizational performance and effectiveness is the concept of the Japanese-inspired Total Quality Management. This is a set of management practices throughout the organization, geared to ensure the organization consistently meets or exceeds customer requirements. TQM places strong focus on process measurement.

The successful organization should as a matter of policy be constantly seeking opportunities to improve the quality of its products or services and processes; the bank must also couple quality with a required level of productivity. TQM represents a total system and as such increasingly enhances quality circles as a broader means of addressing the demand for quality.

Total Quality Management is a method by which management and employees can become involved in the continuous improvements of their products and services. It is a combination of quality and management tools aimed at increasing profit and reducing losses due to wasteful practice.

This research work stems from the need to evaluate the cost of quality vis-à-vis its benefits in terms of increased productivity of any organization, a lot of banks pay lip service to quality simply because they do not realize the benefit such investment of time, effort and money will bring to their banking system other are skeptical on whether or not there is any real benefit at all.

It was the need to clear all these and show through a detail and systematic study of how a popular quality philosophy such as TQM will affect the performance of Skye Bank PLC that forms that background for the study.

1.2 STATEMENT OF THE PROBLEM

The central focus of gravity organization is customer satisfaction and improved performance. Quality focus seeks to institutionalize planned and continuous improvement so as to ensure that quality is the outcome of all activities that takes place within an organization; that all

functions and all employees have to participate in the improvement process; that organization need both quality culture and management effectiveness of this approach in making small but steady improvements. But users and critics of Total Quality Management universally agree that that approach takes too long to do, many abandon the approach with frustration because it takes too long.

If we were to break a Total Quality Management efforts into its components, it takes more time, very little go into problem solving.

Perhaps, we should spend more time on identifying the right problem. After all, solving the wrong problem is a complete waste of time, in this section we shall strictly discuss the basic problems encountered in TQM implementation which was addressed by this research work.

One nagging and ever present problem with Total Quality Management is meetings and more meetings; lots of time goes into meetings. Thus anything that will make meetings effective will reduce the amount of time spent on the Total Quality Management and then makes it worth the while.

Another problem with Total Quality Management implementation is the fact that a great deal of time is spent on charting

a process. Steam members debate how the current process works. In essence, by describing the process, teams set the stage for how the process could be changed. Description of the process creates the mind set and frame within which solutions would be sought.

Discovering ways to radically reduce the time it takes to do a process charts will go a long way in helping to solve the problem.

Still another problem is that and effort is spent in data collection, once an improvement is made we need to collect data to verify that indeed real improvement have been made. This phase takes considerable amount of time, as designed surveys distributed, retrieved and analyzed, several months to a few years may be spent on data collection. Again effort need to be put on strategies to reduce the amount of time and effort spent on this area.

1.3 OBJECTIVES OF THE STUDY

The broad objectives of this research work are to take a critical look at the principle of Total Quality Management so as to find out how its implementation will affect an organization performance. The specific is to investigate the following:

- The relationship between Total Quality Management variables and the bank productivity.
- The relationship between Total Quality Management variables and the bank profitability.

1.4 RESEARCH QUESTIONS

The questions related to this work are:

- Does the implementation of Total Quality Management (TQM) have any effect on the performance of the bank?
- What kind of effect does Total Quality Management (TQM) has on the performance of the bank and
- To what extent does Total Quality Management (TQM) implementation affect performance?

1.5 HYPOTHESES OF THE STUDY

To identify the achievements of the desired objectives, the following hypotheses are formulated:

H_0: Represents Null Hypotheses

H_1: Represents Alternate Hypotheses

HYPOTHESES I

H_0: Total quality management variables will have negative influence on banks productivity.

H_1: Total quality management variables will have great influence on banks productivity.

HYPOTHESES II

H_0: Total quality management variables will have negative influence on banks profitability.

H_1: Total quality management variables will have a great influence on banks profitability.

1.6 SIGNIFICANCE OF THE STUDY

Looking at the volume of investment required to execute a formidable quality instrument such as TQM in bank, one would agree that it is important to be able to convince ourselves that such investment would yield some gains for the bank before embarking on such a project.

Thus to say that this study is justified is merely repeating the obvious as without a study like this it might be difficult to get the

support of quality advocators and sympathy of other members of the organization.

Apart from this management, we will also not be able to measure the benefit derivable from their huge investment in implementing quality programmes such as TQM. A study like TQM will therefore provide a guide towards evaluating the gains of implementing a quality program both for organisations who has done that and those that are still in the process.

In summary, the following listed points could be considered as justification for a study just as this:

- It provides an opportunity to critically evaluate every quality program in line of what benefit it will yield.
- It provides a good basis for the justification of proposed quality program for the advocators of such program.
- It shows vividly what organization stand to gain or lose it implementing quality programs such as TQM.
- Finally it exposes organization and other readers to the rudiments of Total Quality Management philosophy.

1.7 THE SCOPE OF THE STUDY

This research work covers the performance of Skye Bank Plc. in the years before and after the implementation of Total Quality Management in the organization.

It is a study designed to compare the implementation of the Total Quality Management principles in Skye Bank Plc. with the performance of the banks using turn over and profitability as a measurement yard-stick for the banks performance.

1.8 LIMITATION OF THE STUDY

- Network interconnectivity to enhance elaborate research
- High level of illiteracy
- Organization operational huddles
- Time and cost constraints due to cause of scarcity in gasoline to go about the research.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.1 INTRODUCTION

Total Quality Management (TQM) is a business philosophy that seeks to encourage both individual and collective responsibility to quality at every stage of the production process from initial design and conception through to offer sales services of the product.

Many businesses may not use the term Total Quality Management (TQM) anymore but the philosophy is still very much part of most business thinking, it is seen as being a way in which a business can add value to its products and to gain competitive advantage over its rivals, for example, the former may allow a business to charge a high price for its product or service while the later can be a key feature of its marketing programme.

TQM requires a change in the way in which business operate.it implies a number of things if it is to work successfully:

- Management structures have to be more consultative and less hierarchical.

- Workers have to be empowered to be able to make decisions at all levels of the organization.
- Workers have to be trained and involved in building of the philosophy.
- Communications links between employees and the chain of administration must be excellent.
- Commitment to the process must be led to the senior management of the business paying 'lip service' will invariably end in failure.

TQM can be addressed in a business in a number of ways.

- **A Policy of Zero Defects** – Any problem in the production processed are filtered out before they get anywhere near the customer.
- **Quality Chains** – each state of the production process is seen as being a link in the chain right down to the relationship between one worker in the process and another.
- **Quality Circles** – meetings of those directly involved in the production process to discuss and solve problems and make improvements to the production process.

- **Statistical Monitoring** – the use of data and statistics to monitor and evaluate production process and quality.
- **Customer Feedback** – using market research and focus groups to identify needs and experiences and to build this into the process.
- **Changing Production Methods** – many businesses, where appropriate, have looked at the layout of their production processes – it could be the move to open plan offices, the development of teams or the use of cell production to improve worker commitment to the philosophy.

High quality change management is therefore an essential ingredient of the success of such strategies.

Costs can however be saved if the change is successful. The cost of replacing damaged of faulty goods/products can be high – if the high business waits until the end of the process other resources will have been wasted. The improved communication between suppliers and the firm should help to reduce defective components

Other benefits may involve the effect on customer loyalty and repeat purchases, as well as winning over customers from rivals; image and reputation can take many years to win but only a short time to lose so the stakes for the business are high.

To prove that the business has rigorous quality standard, external certification by a respected body is seen as being important. Such external certification could be through the investors in people programme – a recognized standard in the training and professional development of staff in a business – and through such bodies in the training and professional development of staff in a business – and through such bodies as the ISO.

Two certificates are particularly sought after ISO 9000 and ISO 14000, the former is adherence to regulations and the pursuit of continuous improvement.

ISO 14000 is related to the impact of the firm's activities on environment and the firm's attempts to improve its performance in this respect. Getting certification means that the company can send a message to companies throughout the world, which recognise this standard currently, around 90 countries – of the quality that they can expect when dealing with the company.

On the other hand, organizational performance had to do with the actual result of activities in the organization. This can be measured using different types of parameters depending on what the result will be used for.

To achieve this, the concept of performance management which include activities to ensure that goals are consistently being met in an effective and efficient manner is critical. Performance management can focus on performance of the organization, department, process to build a product or service, employees, etc.

- **REVIEW OF RELEVANT LITERATURE ON TOTAL QUALITY MANAGEMENT**

There are numerous definitions of TQM. Their definitions are generally expressed as a way of life for an organization as a whole, committed to total customer satisfaction involvement of people.

TQM is a management philosophy that seeks to integrate all organizational functions (marketing, finance, design, engineering, and production, customer service, etc.) to focus on meeting customer needs and organizational objectives.

TQM views all organizations as a collection of processes. It means the organization must strive to continuously improve their process by incorporating the knowledge and experiences of workers. The simple objective TQM is "do the right thing right, the first time, every time".

TQM is infinitely variable and adaptable. Although originally applied to manufacturing operations, and for a number of years only in that era, TQM is now being recognized as a generic management tool, just as applicable in service and public sector organizations. There are a number of evolutionary stands, with different sectors creating their own versions from the common ancestor. TQM is the foundations for activities, which include:

- Commitment by senior management and all employees.
- Meeting customer requirements.
- Reducing development cycle times.
- Just in time/demand flow manufacturing.
- Improvement teams.
- Reducing products and services costs.
- System to facilitate improvement.

- Line management ownership.
- Employee involvement and empowerment.
- Recognition and celebration.
- Challenging quantities goals and benchmarking.
- Focus on processes/improvement plans.
- Specific incorporation in strategic planning.

These show that TQM must be practiced in all activities, by all personnel, in manufacturing marketing, engineering, R&D, sales, purchasing etc.

TQM is also "a system of continuous improvement employing participative management and centered on the needs of customers" (JUROW & BARNARD, 1993).

Key components of TQM are:

- Employee involvement and training;
- Problem – solving teams;
- Statistical methods;
- Long term goals and thinking; and
- Recognition that the system, not people, produces inefficiencies.

2.2.1 TQM OVERVIEW

The Total Quality Management (TQM) was developed by an American W . Edwards Deming (1986), after world war ll or improving the production quality of goods and services. The concept was not taken seriously by Americans until the Japanese who adopted it in 1950 to resurrect their post business and industry, used it to dominate world markets by 1980. By then most US manufacturers had finally accepted that the nineteenth century assembly line factory model was outdated for the modern global economic market. Quality management expert, Joseph Juran and Philip Theories, models and tools, the TQM is now practicable in business as well as in government, the military, education, and in non-profit organizations including Libraries, Jurow and Barnard (1993).

The TQM philosophy of management is customer-oriented. All members of a Total Quality Management (control) the organization strive to systematically manage the improvement of the organization through the ongoing participation of all employees in problem solving effort across functional and hierarchical boundaries.

TQM incorporate the concepts of:

- Product quality;
- Process control;
- Quality assurance; and
- Quality improvement.

Consequently, it is the control of all transformation processes of an organization to better satisfy customer needs in the most economical way, Total Quality Management is based on internal or self-control, which is embedded in each unit of the work system (technology and people). Pushing problem solving and decision-making down in the organization allows people who do the work to both measure and take corrective action in order to deliver a product or service that meets the needs of their customer.

Managers and experts disagree about how to effectively apply TQM to their organisations, some advice that customer satisfaction is the driving force behind quality management; others suggest quality management is achieved by internal productivity or cost improvement programmes. In other applications, TQM is considered a means to

introduce participative management. The Japanese, in general, concentrate customer satisfaction with a focus on understanding customer need and expectations. Until very recently Americans in general have emphasized the "cost of non-conference" and the importance of employers meeting upon the agreed requirements for each process. Leonard vansina, president and founder of the international institute of organizational and social development, cautions that such efforts are based on the (faculty) assumptions that processes tasks that lead to the desired quality are already understood. However, he states, "control of the production process will not likely help a business increase its market share when its product or service does not meet customer requirements".

2.2.2 THE IMPORTANCE OF PEOPLE IN TQM IMPLEMENTATION

TQM emphasizes on the importance of people as the key to quality. Human resources management and quality management are conveying to give total quality. It is lack of communication and awareness that causes failures and costs. There have been too much reliance on systems. Although systems are necessary, they are as effective as the people who design them.

Changes in the traditional organizational structure and increasing importance of effective work groups emphasize team – based management as essential of TQM.

TQM require the creation of a corporate identity and a supportive environment. It involves setting the highest standards for quality at lowest cost; effective training including team building throughout the organization; integrating systems and technology with people; and the motivation, participation and commitment of staff at all levels of the organization. Proper attention to human resources issues is an essential requirement for the successful implementation of TQM.

James (1999) puts forward the contention that TQM initiatives will not succeed unless rooted in a supportive Quality of working Life (QWL) culture.

According to him, world standards of organizational effectiveness are not achievable without fully developed and committed people at all levels within an organization. New technologies, new systems, and new concept may, of themselves, produce some improvement will be stunted without an organization culture which engenders commitment of people across the organizations.

The aim of QWL culture is to create a fear-free organization in which employee involvement is pursued vigorously. It generates a high degree of reciprocal commitment between the needs and development of the organization. A QWL cultural underpinning anchors the development of total quality and is essential to a successful TQM strategy.

2.2.3 QUALITY MEASUREMENT AND BUSSINESS EXCELLENCE.

For dynamic companies, quality is becoming a complete misnomer as it involves organization into the arena of business excellence to achieve transition, the challenge for the future is to harness latest development and thinking in this field.

- Quality should represent two things in today's business; customer satisfaction and continual improvement. Customer demand satisfaction to and accept more. It is no longer sufficient to merely satisfy customers; they need to be delighted, both internally and externally.
- Today's competitive business performance requires the setting of clear missions, objectives and measurement to deliver these levels of customer satisfaction. A performance through the

linkage of critical company issues right through to day-to-day activity and reporting.

- Teamwork is replacing the organizational hierarchy but team need to be able to perform well with good team achieve leadership and quality processes to work or achieve their missions.
- Quality registrations based on compliance to standard-like Iso 9000 have played their part but this arena is moving fast. Leading organization will need to adapt from compliance to performance-based quality management systems as benchmarking takes over. The success of the EFQM Business Excellence models is evidence of this.
    - Complicate this with new environmental initiatives such as Iso 145000 and m numerous. Other standards then flexible, dynamic management systems are needed more than ever.

2.2.4 QUALITY IMPROVEMENT VERSUS QUALITY ASSURANCE

It is important to avoid equating quality improvement with quality assurance. Quality assurance is a system of activities designed to ensure production that meets pre-established requirement. It gives the customer a guarantee of quality by measuring product performance with process and performance specifications.

Quality improvement refers to all efforts directed to increase effectiveness and efficiency in meeting accepted customer expectations. It is a continuous process to achieve a better understanding of the market; to innovate product and processes; to manage and distribute materials and products; and to provide services to customers. The success of quality improvement is based on the understanding of every member of the organization concerning the needs of their customers (internal and external). Maintenance of that understanding requires continuing dialogue and negotiation with the customer and measurement of one's product and services against the customer expectations.

2.2.5 IMPLEMENTATION OF PRINCIPLES AND PROCESSES

A preliminary step in TQM implementation is to assess the organization's current reality. Relevant preconditions have to do with the organization's history, its current needs, precipitating events heading to TQM, and the existing employee Quality of working Life. If the current reality does not include important preconditions, TQM implementation should be delayed until the organization is in a state in which TQM is likely to succeed.

If an organization has a track record of effective responsiveness to the environment, and if it has been able to successfully change the way it operates when needed, TQM will be easier to implement, if an organization has been historically reactive and has no skill at improving its operating system, there will be both employer sceptism and a lack of skilled change agents. If this condition prevails, a comprehensive programme of management and leadership development may be instituted. A management adult is good assessment tool to identify current levels of healthy before beginning TQM, if it has significant problems such as every unstable funding base, weak administration systems, lack of managerial skill, or poor employment morale, TQM would not be appropriate.

However, a certain level of stress is probably desirable to initiate TQM. People need to feel a need for a change. Hradesky (1994) addresses this phenomenon be describing building blocks which are present in effective organizational change. These factors include departures from tradition, a crisis or galvanizing event, strategic decisions, individual "prime movers", and action vehicles; departure from tradition are activities usually at lower levels of the organization, which occur when entrepreneurs move outside the normal ways of operating to solve a problem. A crisis, if it is not too disabling, can also help create a sense of urgency which can mobilize people to act. In the case of TQM, this may be a funding cut or threat, or demands from customers or other stakeholders for improved quality of service. After a crisis, a leader may intervene strategically by articulating a new vision of the future to help the organization deal with it.

A plan to implement TQM may be such a strategic decision. Such a leader may then become a prime mover, who takes charge in championing the new idea and showing others how it will help them get where they want to go. Finally action vehicles are needed and

machines or structures to enable the change to occur and become institutionalized.

2.2.6 STEPS IN MANAGING THE TRANSITION

Williams (1994) have outlined the basic steps in managing a transition to a new system such as TQM: identifying tasks to be done, creating necessary management structures, developing strategies for building commitment, designing mechanisms to communicate the change and assigning resources.

Task identification would include a study of present conditions (assessing current reality, as described above); assessing readiness, such as through a force field analysis, creating a model of the desired state, in this care, implementation of TQM announcing the change goals to the organization; and assigning someone within the organization to oversee the effort. This should be a responsibility of top management. In fact, the next step designing transition management structures is also a responsibility of top management.

Hyde (1992) asserts that management must be heavily involved as leaders than relying on a separate stuff person or

function to shepherd the effort. An organization wide steering committee to oversee the effort may be appropriate. Developing commitment strategies was discussed above in the sections on resistance and on resistance and on visionary leadership.

To communicate the change, mechanisms beyond existing processes will need to be developed. Special all – staff meetings attended by executives, sometimes designed as input or dialogue session, may be used to kick off the process, and TQM newsletters may be an effective ongoing communication tool to keep employees aware of activities and accomplishments.

Management of resources for the change effort is important with TQM because outside consultants will always be required. Choose consultants based on their prior relevant experience and their commitment to adapting the process to fit unique organizational needs.

While consultants will be invaluable with initial training of staff and TQM system design, employees (management and other) should be actively involved in TQM implementation, perhaps after receiving trainjng in change management which they can then pass on to other employees. A collaborative relationship with consultants

and clear role definitions and specifications of activities must be established.

In summary, first assess preconditions and current state of the organization to make sure that the need for changes is clear and that TQM is an appropriate strategy. Leadership styles and organizational culture must be congruent with TQM. If they are not, this should be worked on or TQM implementation should be avoided or delayed until favourable conditions exist.

Remember that this will be difficult, comprehensive and long-term process; leaders will need to maintain their commitment, keep the process visible, provide necessary support and hold people accountable for results. Use input from stakeholder (clients, referring agencies, funding sources, etc.) as possible; and of course maximize employee involvement in design of the system.

Always keep in mind that TQM should be purpose driven. Be clear on the organisations vision for the future and stay focused on it. TQM can be a powerful technique for unleashing employee creativity and potential, reducing bureaucracy and costs, and improving service to clients and the community.

2.2.7 KEY IMPROVEMENT CONCEPTS

2.2.7.1 Processes and system

Deming (1986) describes organization as composites of system designed to meet customers' needs. Common systems in organisations are human resources processes such as compensation or financial ones like accounting in such systems, processes and tasks are linked together and affect one another. For example, status changes for employees will require interdependent tasks on the part of the employees pay-roll, compensation, benefits, straining, and the relevant supervisor. The basic assumptions of the Total Quality control approach include:

- Work can be broken down into tasks, which are a series of related steps.
- A process groups all related tasks done to accomplish an outcome (i.e. hiring a new employee producing a product).
- A group completing a series of related tasks have independent roles in the organization.
- A group of related processes can be seen as a system (i.e. producing or selling a product).

The practice of defining the steps and outcomes (products and services) in their processes and system by employees result in a common language and understanding of what their jobs should be and how they fit into the larger picture.

With the application of the scientific approach using flow charts, work-flow diagrams, deployment charts, pare to chart and cause and effect diagrams people can see their Interdependence and that the quality of what comes out is in measure determined by quality that goes into a process.

2.2.7.2 Customers and suppliers

Customers and suppliers are both inside (internal) and outside (external) the organization, people in and outside organisations that provide input to the steps in a process are "suppliers" and those who use product and services are "customers" thus, employees in one sphere of a work process are customers of the employees who produced the goods or services used by customers of the marketing research employees. The marketing research employees are customers of statisticians and computer information systems employees who are assisting them and maintaining computing capacity for use in analysing data.

Employees within the organisation receive work passed through their systems from other employees, the "internal" supplier.

Therefore, each employee is a customer of preceding employees, and each has a customer, the people to who receive the result of his or her work. Likewise the people outside the organisation who sell materials, information or services to be used by employees are external" suppliers. A company's external customers purchases or service and contribute to profits. They must ultimately be satisfied if the business is to survive.

2.2.7.3 Quality

A popular slogan of the quality movement is "quality begins with the customer".

The premise being if customers are the people who receive our work then only they can tell us what they want and how they want it. The quality that comes out of a process is affected by the quality of what goes in and what happens step along the way. It follows that we must build quality into every step, process and system to produce quality in the outcome. To do this, we must collaborate with internal and external customers to determine their needs.

Attainment of quality in products and services at competitive price requires an emphasis on doing the right, things (products and services that reflect target features based on the needs of intended customers) and doing the right thing right (using efficient processes).

2.2.7.4 BENCHMARKING

Benchmarking is the comparison of the processes and system of a given business function across companies. It can be applied to any organisation. It is a way for managers and employees to compare their functional performance to that of other companies, particularly those that excel, and identifying why they may differ.

Benchmarking can be defined as that of best-in-class companies, analyzing how (methods) the best achieve their performance level, and using the information as the basis of evaluating your own target, strategy, and application.

Involvement and improvement are not limited to employees. In some cases, customers and suppliers are involved in group problem customers and suppliers are involved in – group problem solving. At ford, vendors and dealers contribute ideas.

2.2.7.5 Teams and Team Work

When TQM is successful, employees at every level participate in decisions affecting their work. The most common vehicle for employee participation is a steam. Teams range in scope and responsibility from problem – solving groups to sell – managed work team that schedule works, assign jobs, hire members and set the standards and volume of output. A participative work culture is encouraged when quality becomes every body's responsibility.

2.2.8 THE CONCEPT OF CONTINUOUS IMPROVEMENT BY TQM

TQM is mainly concerned with continuous improvements in all work, from high level strategic planning and decision making, to detailed execution of work elements on the shop floor. It seems from the belief that mistakes can be avoided and defects can be prevented. It leads to continuous improving results, in all aspect of work, as a result of continuously improving capabilities, people, processes, technology and machine capabilities.

Continuous improvement must lead not only with results, but more importantly with improving capabilities produce better results in the future. The five major areas of focus for acceptability improvement;

demand generation, supply generation, technology, operations and people capability.

A central of TQM is that mistakes may be made by people, but most of them are caused or at least permitted by faulty system and processes. This means that the cause of such mistakes can be identified and eliminated, and repetition can be prevented by the process.

There are three major mechanisms of prevention

- Preventing mistakes can't be absolutely prevented, detecting them early to prevent them being passed down the values added chain (inspectional at source or by the next operation).
- Where mistakes recur, slopping production until the process can be corrected, to prevent the production of more defects.

2.2.8.1 BASIC PRINCIPLES OF TOTAL QUALITY MANAGEMENT

The principles of TQM are as follows:

- Quality can and must be managed
- Everyone has a customer and is a supplier

- Processes, not people are the problem
- Every employee is responsible
- Problems must be measured
- Quality improvement must be continuous
- The quality standard is defect free
- Goals are based on requirement, not negotiated
- Life cycles costs, not from end costs
- Management must be involved and lead
- Plan and organize for quality improvement

2.2.9 KEY ELEMENT OF TQM

To successfully implement TQM, an organisation must concentrate on the eight key elements:

- Ethics
- Integrity
- Trust

- Training
- Teamwork
- Leadership
- Recognition
- Communication

TQM has been coined to describe a philosophy that makes quality the driving force behind leadership, design, planning and improvement initiatives, for this, TQM requires the help of those eight key elements. These elements can be divided into four according to their functions. The groups are:

- Foundation – it includes: Ethics, Integrity and Trust.
- Building bricks – it includes: Training, Teamwork and Leadership.
- Binding Mortar – it includes: communication.
- Root – it includes: Recognition.

- **Foundation**

TQM is built on a foundation of ethics, integrity and trust. It fosters openness, fairness and security and allows involvement by everyone. This is the key to unlocking the ultimate potential of TQM. These three elements move together, however, each element after something to the TQM **concept**.

- **Ethics –** Ethics is the discipline concerned with good and bad in any situation. It is a two-faced subject represented by organisational and individual ethics. Organisational ethics establish a business code of ethics that outlines guidelines that all employees are to adhere to in the performance of their work. Individual include personal rights or ways.

- **Integrity –** Integrity implies honesty, morals, values, fairness and adherence to the facts and sincerity. The characteristics is what customers (internal or external) expect and deserve to receive. People see the opposite of integrity as duplicity. TQM will not work in an atmosphere of duplicity.

- **Trust –** Trust is a by-product of integrity and ethical contact without trust, the frame work, of TQM cannot be built. Trust fosters full participation of all members. It allows empowerment that encourages pride ownership and it encourages commitment.

It allows decision making at appropriate levels in the organisation, fosters individual risk-taking for continuous improvements and helps to ensure that measurement focus in improvement of process and are not used to contend people. Trust is essential to ensure customer satisfaction, so, trust builds the cooperative environment essential for TQM.

2. Bricks

Base on the strong foundation of trust, ethics and integrity, bricks are placed to reach the root of recognition; it includes:

- **Training** – Training is very important for employees to be highly productive. Supervisors are solely responsible for implementing TQM within their departments and teaching their employees requires interpersonal skills, the ability to function within teams, problem saving decision making, job management performance analysis and improvement, business economics and technical skills. During the creation and formation of TQM, employees are trained so that they can become effective employees for the company.

- **Teamwork –** To become successful in business, teamwork is also a key element; the business will receive quicker and better

solutions to operational problems. In teams, people feel more comfortable bringing up problems that may occur, and can get help from other workers to find a solution and put into place**.** There are mainly three types of teams that TQM organisation adopt;

- Quality Improvement Teams or Excellence Teams (QITs) – There are temporary teams with the purpose of dealing specific problems that often re-occur. These teams with the purpose of dealing with specific problems are set up for period of three to twelve months.
- Problem Solving Teams (PSTs) – These are temporary teams to solve certain problems and also to identify and overcome causes of problems. They generally work from one week to three months.
- Natural Work Teams (NWT) – These teams consist of small groups if skilled workers who share tasks and responsibilities. These teams use concept such as employee involvement teams, self-managing teams and quality circles. These teams generally work for one to two hours a week.

- **Leadership** – it is possibly the most important element in TQM. It appears everywhere organising leadership in TQM requires the manager to providing inspiring vision, make strategic directions that are understood by all and instil values that guide subrogates for TQM to be successful in the business, the supervisor must be committed in leading his employers. A supervisor must understand TQM, believe in it and demonstrate their bullet and commitment through their daily practices of TQM. The supervisor makes sure that strategies, philosophies, values and goals are transmitted down throughout the organisation to provide focus, clarity and direction. A key point is that TQM has to be introduced to provide and led by top management commitment and personal involvement is required from management in creating and deploying clear quality values and goals consistent with objectives of the company and in creating and deploying well defining systems, methods and performance measures for achieving those goal.

3. BINDING MORTAR

- **Communication –** it binds everything together starting from foundation to root of the TQM house, everything is bind by strong

mortar of communication. It acts as a vital link between all elements of TQM. Communication means a common understanding of ideas between the sender and the receiver. The success of TQM demands communication with and among all the organization members, suppliers and customers. Supervisors must keep open process. Communication coupled with the received information about TQM process. Communication coupled with the sharing of correct information is vital.

For communication to be credible the message

Must be clear and receiver must interpret it in the way the sender intended. There are different ways of communication such as:

- **Downward communication** – This is the demand form of communication in an organization, presentation and discussions basically do it. By this the supervisors are able to make the employee clear about TQM.
- **Upward communication** – By this the lower level of employees are able to provide suggestion to upper management of the effects of TQM. As employers provide

insight and constructive criticism, supervisor must listen effectively to correct the situation that comes about through the use of TQM. This forms a level of trust between supervisors and employees. (this is also similar to empowering communication, where supervisors keep open ears and listen to others.

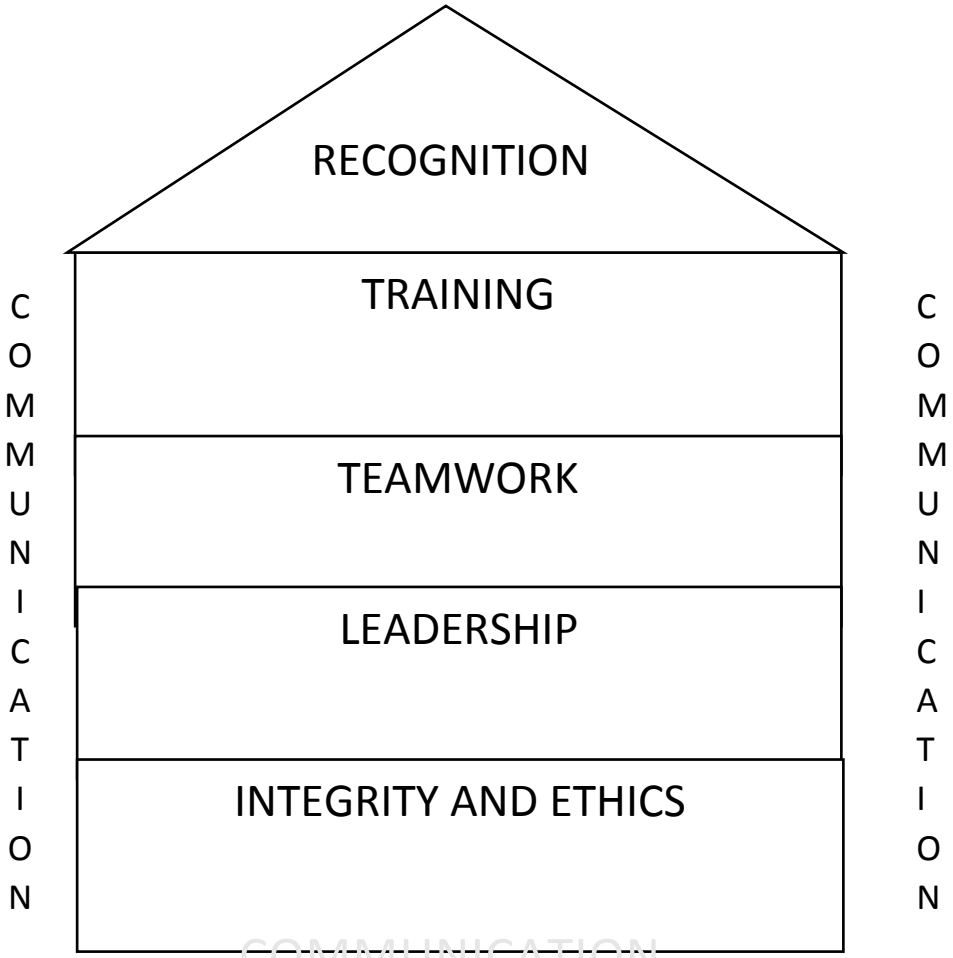
- **Sideways communication** – This type of communication is important because it breaks down barriers between departments; it also allows dealing with customers and suppliers in a more professional manner.

4. ROOF

A. Recognition - Recognition is the last and final element in the entire system. It should be provided for both suggestions and achievements for teams as well as individuals. Employees strive to receive recognition for themselves and their teams. Defecting and recognition contribution is the most important job of a supervisor. As people are recognized, there can be hugh changes in self-esteem, productivity, quality and the amount of effort exhorted to task at hand.

Recognition comes in its best form when it is immediately following an action that an employee has performed. Recognition comes in different ways, places and times such as;

- **Ways** – it can be by way of personal letter from top management also by award of banquets, plagues, trophies etc.
- **Places** – good performers can be recognized in front of departments, on performance board and also in front of top management.
- **Time** – recognition can be govern at any time like in staff meeting, annual award banquets, etc. The above can be represented diagrammatically with the diagram below.


RECOGNITION
TRAINING
TEAMWORK
LEADERSHIP
INTEGRITY AND ETHICS
COMMUNICATION
COMMUNICATION
COMMUNICATION

2.2.10 STEPS TO TOTAL QUALITY MANAGEMENT (TQM)

Based on his work with Japanese managers and others, Deming (1986), Walton (1986) outlined 14 steps that managers in any type of organization can be taken to implement a total quality management program.

- Create constancy of purpose for improvement of products and service, constancy of purpose requires product innovation, investment research and education, continuous improvement of products and service, maintenance of equipments, furniture and fittings, and new aids to production.
- Adopting the new philosophy management must undergo a transformation and begin to believe in quality product and services.
- Cease dependence on mass inspection, inspects products and services only enough to be able to identify ways to improve the process.
- End the practice of awarding business on price alone, the lowest price goods are not always the highest quality, choose a supplier based on his record of improvement is not a one-time effort,

management is responsible for leading the organization into the practice of continual improvement in quality and productivity.

- Institute training and training worker need to know how to do correctly even if they need to learn new skills.
- Institute leadership – Leadership is the job management. Managers have the responsibility to discover the barriers that prevent staff from taking part in what they do. The staff will know what those barriers are.
- Drive out fear – people often fear reprisal if they "make waves" at work. Managers need to create an environment can express concerns with confidence.
- Break down barriers between staff areas, managers should promote team work by helping staff in different areas/ departments to work together. Fostering inter relationships among departments encourages higher quality making.
- Eliminate slogans, exhortations and targets for the work force. Using slogans alone, without an investigation into the processes of the workplace; can be

- Offensive to workers because they imply that a better job could be done. Managers need to learn real ways of motivating people in their organization.
- Eliminate mineral quotas – quotas impede quality more than any other working condition; they have no room for improvement. Workers need the flexibility to give customers the level of service they need.
- Remove barriers to work of workmanship. Give workers respect and feedback about how they are doing their jobs.
- Institute a vigorous program of education and retraining with continuous improvement, job descriptions will change. As a result, employees need to be educated and retrained so they will be successful at new job responsibilities.
- Take action to accomplish the transformation.

2.2.11 THE CONCEPT OF CULTURE

Total Quality Management is the culture of an organization committed to customer satisfaction through continuous improvement. This culture varies both from one country to another and between different industries, but has certain essential principles which can be

implemented to secure greater market share, increase profit and reduce cost.

The importance of organizational culture, generally accepted by many people, can be summed by Peter and Waterman in their book "In search of Excellence", where they said "without exception, the dominance and coherence of culture within those organization proved to be essential quality of success".

Many managers these days pay proper attention to their organizational culture because they view culture as an asset (Egan 1994). Some people have also suggested that organization with adaptive cultures, geared to satisfying the changing demands of customers, employees and shareholders, can outperform organisations without such cultures. Companies with a sound culture can increase their sales three times more than the organization without sound culture. Therefore, a successful company needs more than just sound strategy; it needs a culture to support strategy.

It is our understanding that sometimes organization reflect the personality and character of the founder members' norms and beliefs. This can be seen easily by considering Henry Ford, who is known for his immeasurable impact on the shape of his organisation's culture,

other examples include Walt/Disney productions and David Packard at Hewlett Packard. However, according to schem (1985) when the founder moves on, the culture he/she has embedded does not lose momentum. The process and people in the company have become the carriers of the culture and the culture continues in the organisation. The concept of corporate culture has been used in different years to develop and understand the concept. However, the concept of culture, which is now considered for the theory of organisations, has its origin within anthropology and is given by Tyler (1871) as follows:

> "Culture are civilisation taken in its wide ethnographic sense, is that complex whole which includes knowledge, belief, art, moral, law, custom and any other capabilities and habits acquired by and as a member of society".

2.2.12 APPLYING TOTAL QUALITY MANAGEMENT IN ACADEMICS

The concept of TQM is applicable to academics. Many educators believe that the Deming concept of TQM provides guiding principles for needed educational reform. In his book Arcaro (1995) outlines the TQM principles, his believes are most salient to education reform. He calls them the "four pillars of Total Quality Management".

- **SYNERGETIC RELATIONSHIPS**

According to this principle, an organisation must focus first and foremost, on its staff and customers. In a TQM organisation, everyone is a customer and staff, this confusing concept emphasises "The systematic nature of the work in which all are involved". In other words, team work and collaboration are essential.

Traditionally, education has been prone to individuals and departmental isolation. However, according to Arcaro (1995), this outdated practice no longer serves us. "When I close the classroom door, those kids are mine?" is a nation too narrow to survive in a world in which teamwork and collaboration result in high quality benefit for the greatest number of people.

The very application of the first pillar of TQM to education emphasises the synergetic relationship between the "firm" and "customers". The concept of synergetic suggest that performance is enhanced by pooling the talent and experience of individuals.

In a classroom, teacher-student teams are the equivalent of industry's front-line workers. The product of their successful work together is the development of the student's capabilities, interest and character. In one sense, the student is the teacher customer, as the recipient of educational services provided for the student's growth and improvement. Viewed in this way, the teacher and the school are suppliers of effective learning tools, environments and systems to the student, who is the school's primary customer. The school is responsible for providing for the long term educational welfare of students by teaching them how to learn and communicate in high quality ways, how to access quality in their own work and in that of others, and how to invest in every aspect of daily life.

In another sense, the student is also a worker, whose product is his or her own continuous improvement and personal growth.

- **CONTINUOUS IMPROVEMENT AND SELF EVALUATION**

The second pillar TQM applied to education is the total dedication to continuous improvement, personally and collectively within a total Quality School Setting, administrators work actively with their customers: teachers gone are the vestige of "scientific management" … whose march wards were compliance, control and command. The foundations for this system were fear, intimidation and an adversarial approach to encourage everyone's potential by dedicating ourselves to the continual improvement of our own abilities and those of the people with we work and live. Total Quality is essential, a win-win approach which works to everyone's ultimate advantage.

According to Arcaro (1995), not human being should ever evaluate another human being. Therefore, TQM emphasises self-evaluation as part of a continuous improvement process. In addition, this principle also laments to the focusing on students strengths, individual learning styles and different types of intelligence.

. A SYSTEM OF ONGOING PROBLEMS

The third pillar of TQM as applied in academics is the organisation as a system and the work done within the organisation must be seen as an ongoing process. The primary implication of the principle is that

individual students and teachers are less to blame for failure than the system in which they work. Quality speaks working on the system, which must be examined to identity and eliminate the flawed processes that allow its participants to fail.

Since systems are made up of processes, the improvements made in the quality of those processes largely determine the learning processes based on learning outcomes replaces the outdated "teach and test" mode.

- **LEADERSHIP**

The fourth TQM principle applied to education is that the success of TQM is the responsibility of top management.

The school teachers must establish the context in which students can best achieve their potential through the continuous improvement that results from teachers and students working together. Teachers who emphasise content area literacy and principle-centered teaching providing the leadership, framework and tools necessary for continuous improvement in learning process.

According to the practical evidences, the TQM principles help in schools in following clause:

- Redefine the role, purpose and responsibilities of schools.
- Improve schools as a "way of life".
- Plan comprehensive leadership training for educators at all levels.
- Create development that addresses the attitudes and benefit of the school staffs.
- Use research and practice – based information to guide both policy and practice.
- Design comprehensive child – development initiatives that cut across a variety of agencies and institution.

In order to achieve the above as opportunities, the academic scenario, in addition to patience, participatory management among well trained and educated partners is crucial to the success in TQM in education; everyone involved must understand and believe in principles.

2.2.13 THE SUCCESS OF TOTAL QUALITY MANAGEMENT

Almost inevitably, there are negative comments and criticisms about the concept of TQM, and doubts about its value. However, there are many success stories which give evidence of its benefits and effectiveness.

Helter refers to the dissolution with, and backlash against TQM which was bound to come. 'No technique has ever spread so far or so wide'. However, he makes the point that:

The success and many other European cases, ever, are emphatic evidence that Total Quality Management delivers – you can't argue with results.

TOTAL QUALITY MANAGEMENT AND ISO 9000

Iso 9000 is a Quality System management standard. TQM is a philosophy of perpetual improvement. The Iso Quality standard sets in place a system to delay policy and veritable objectives. An Iso implementation is a basis for a Total Quality Management implementation. Where there is an Iso system, about 75 percent of the steps are in place for TQM. The requirement for TQM can be considered Iso plus. Another aspect relating to the Iso standard is that the proposed changes for the next revision (1999) will contain customer satisfaction and measurement requirements. In short, implementing TQM is being proactive concerning quality rather than reactive.

Organisational Performance Defined

Organisational performance comprises the actual output of an organisation as measured against its intended outputs (goals and objectives).

In recent years, many organisation have attempted to manage organizational performance suing the balance scorecard methodology where performance is tracked and measured in multiple dimensions such as:

- Financial performance (e.g. shareholders return)
- Customer service
- Social responsibility (e.g. corporate citizenship, community
- On performance management in organisation, the subject is relatively new concept to the field of management. What performance management does is to remind us that being busy is the same as producing results. It reminds us that training, strong commitment and lots of hard work alone is not results. The major contribution of performance management is its focus on achieving results … useful products and services for customers inside and outside the organisation. Performance management redirects our efforts away from busyness towards effectiveness.

Recently, organisations have been faced with challenges like never before. Increasing competition from business across the world has meant that all business much more careful about the choice of strategies to remain competitive. Everyone (and everything) in the organisation must be doing what they are supposed to be doing to ensure, strategies are implemented effectively.

This situation has put more focus on effectiveness that systems and processes in the organisation be applied in the right way to the things to achieve results. All of the results across the organisation must continue to be aligned to achieve the overall results desired by the organisation for it to survive and thrive. Only then it can be said that the organisation and its various parts are really performing.

2.3 MEASUREMENT OF ORGANISATION PERFORMANCE

Organisation performance is the sum of total of the performance of every unit of the organisation. Various parameters exist for the measurement of performance in organisations. These includes; turnover, profitability, cost, quality etc. However, for the purpose of this project, we shall use only profitability and turnover as our basis of measurement.

Performance in organisations is measured for these basic reasons which are:

- Providing measurable results so the organisation can demonstrate progress towards goal and objectives. This is done by providing specific measurement results that aggregate to the organisation – wide measures.
- Determining the effectiveness of each part of the organisation. Developing and using a system of performance process, improvement process, process improvement teams often analyse work processes by breaking them down into related project activities and tasks to improve quality, timeliness and efficiency.

CHAPTER THREE

RESEARCH METHODOLOGY

INTRODUCTION

In chapter three we examined the method employed in analyzing the data used for the research in addition to the presentation of data collected. We have for the purpose of this academic work limited our data to those of the Skye Bank Plc and her customers.

These are contained in the following such as research design, area of the study, scope of the study, population of the study, sample and sampling technique, data collection procedure, instruments validity and reliability, and data analysis procedure.

3.1 RESEARCH DESIGN

In this study, the researcher's design is a framework of collecting and analyzing the data for a study. Research design answers the fundamental question of how the study subjects will be brought into the scope of the research setting to yield the required data.

The two approaches to research design are the case study and the survey methods. In this study we will use survey method to investigate an application of the probit model to the accessment of companies performance: a case study of Skye Bank Plc.

3.2 SOURCES OF DATA

The analysis drew on both primary and secondary data sources.

PRIMARY DATA

Skye Bank Plc annual turnover and profitability on one hand and the customer feedback on some explainable TQM variables with respect to dealing with the Skye Bank Plc.

While the turnover and profitability data were taken from the Skye Bank profit and loss accounts for six years cutting across the years before the bank implemented the Total Quality Management programs and three years after the implementation of Total Quality Management. The customer feedback survey was conducted using questionnaire administered on clients of Skye Bank Plc.

With these we are able to extract the performance of the bank in terms of profitability and turnover before and after implementation of Total Quality Management by the organisation. These sets of data are then tested against the customers' feedback on the TQM variables to determine the kind of relationships that exist between Total Quality Management on the other.

SECONDARY DATA

The sources of gathering the secondary data in this study were from journals, literature review, textbooks, other relevant records from Skye Bank Plc and other research works relating to this topic published and unpublished.

3.3 AREA OF STUDY

This study will be conducted in Edo State. The Skye Bank Plc is located in Benin City, Edo State, Nigeria. The Skye Bank Plc used in this study is located at 77 mission road, Benin City, Edo State.

3.4 POPULATION OF THE STUDY

The population of this study embodies the clients of Skye Bank Plc, Benin City, Edo State. As at the time of this study population was 300 clients.

The breakdown shows the following:

Clients	
Withdraw over 20 times annually	140
Withdraw less than 20 times annually	160
Total number of clients	300

3.5 SAMPLING SIZE AND TECHNIQUE

The selected members of the class or group (population) to be interviewed constitute the sample. The sample size of this research covers mainly the Skye Bank Plc, Edo State. In sampling therefore, Edo State was chosen, that is to say Edo State is the project assigned area and the chosen sampling. The sample size purposely used for this study is determined by the Taro Yamene's formular which is as follows;

Sample size (n) = $\frac{N}{1+N(e)^2}$

Where:

N = population of the study

n = sample size desired to be covered

e = error estimate/significance level, given as 0.05

1 = constant

Therefore, to compute a size "n" which shall be a representative of all confidence limit or 0.05 significant level by using Taro Yamani's formula

$$n = \frac{N}{1+N(e)^2}$$

$$n = \frac{300}{1+300(0.05)^2}$$

$$n = \frac{300}{1+300(0.0025)}$$

$n = \frac{300}{1+0.75}$

$n = \frac{300}{1.75}$

n = 171

Therefore, the sample size for the study is 171. And based on this, a total of 171 questionnaires were printed and distributed to the selected set of respondents.

However, to ensure adequate and proportional allocation of this 171 questionnaires, the researcher used the Bowleys formula. The formula is thus:

$$\frac{n}{N} \times \frac{nh}{1}$$

where

n = sample size

N = population of the study

nh=number of clients in each set of respondents

(1) Clients that withdraw over 20 times annually

$\frac{171}{300} \times \frac{140}{1} = 80$

(2) Clients that withdraw less than 20 times annually

$$\frac{171}{300} \times \frac{160}{1} = 91$$

n1 + n2 = 80 + 91 =171

So the questionnaires were distributed to the two selected set of clients in the above proportions.

3.6 VALIDITY OF THE INSTRUMENTS

This research study has been validated by my supervisor by reading my work and making corrections and this corrections have been implemented. Hence, have approved the validation of this study.

3.7 RELIABILITY OF THE INSTRUMENTS

Data from the primary sources are very reliable. It has been tested over and over again and the same results were obtained which means the information was very reliable.

3.8 METHOD OF DATA COLLECTION

The ultimate of every research is to find solutions to identify the problems of the subject or study. This can only be achieved through the collection of reliable data. Therefore, data were collected from both primary and secondary sources.

3.9 METHOD OF DATA ANALYSIS

In analyzing the above data, we made use of trend analysis to see the growth or otherwise in the company's turnover and profitability after the implementation of TQM. In addition to this we also made use of probit model to test the relationship that existed between Total Quality Management using some variable of TQM and the Skye Bank Plc performance as explained by the customer patronage.

The probit technique was originally developed by Finney (1952) for biological essay problems. Nigerian economists have applied these analysis model to economic problems. This model takes care of the heteroscedasticity of the disturbances as well as restricting production values 0 and 1.

In the study, multivariate probit model was used to identify parameter variations that will interplay to show the correlation between TQM as explained by the TQM variables used in customers' patronage which invariably determines turnover and profitability. According to Ameniya (1981) Gujarati (1988) and Pindyck and Rubinfield (1990) the probit model is a quantitative response model, which in this case will help us to predict the effect of the TQM variables identified in this inquiry.

The cumulative normal distribution with zero mean unit variance will also be used in transforming the index to the probability range as given by:

$$Pi=\frac{1}{\sqrt{2\pi}}\int_{-8}^{z} exp -s^{2}/_{2}\ ds$$

Where;

Z = the level of stimulus;

P = profitability of the TQM variables

S = random variables which is normally distributed

With zero mean and unit variance

The unobserved z defined as the linear combination on unobservable explanatory variables. This can be presented algebraically for the ith variable as:

$$Zi = \beta_0 + \beta_1 x_1 + \beta_2 x_2 + \ldots + \ldots \beta_n x_n + ei$$

i = 1, 2,….,n (sample size)

Hence, $z = f(pi) = \beta_0 + \beta xi$

The definitions of parameter estimates used in the probit model are presented in Table 3.1. In order to obtain the best specification that vividly describes the phenomenon under study, attempts were made to minimise misspecification basis or inefficiency due to exclusion of relevant parameters.

This was achieved by eliminating certain variables based on logical, statistical, and economic consideration Aiyedun (1995).

DEFINITION OF TQM VARIABLES USED

The impact of TQM on the Skye Bank's performance is a function of these explanatory variables.

A. TIME

The shorter the service delivery time the higher the bank's turnover and profit; Simpkins (2004). The reason is that in his study, he found that the customers place a high premium on quality services. The implication of this is that the customer is able to trust the bank with more investment or profit/interest rates, the bank is also able to charge some premium for this performance.

B. COST EFFECTIVES

When an organisation product and solution are cost effective, such organisation is able to attract merchants. According to Wilier (1997) cost effectiveness is defined as ability to offer the same quality level of product and solution at lower prices than its competitors.

The implication of this is that more business will flow to the organisation with cost effective solutions than organisation whose solutions are not cost effective.

C. RESPONSIVENESS TO CLIENTS NEEDS

An organisation is expected to be customer oriented. Evidence from Hirsch and Jackson (1993) however, suggests that a customer orientation is defined by the ability of the bank to respond to clients in a timely manner. This timely respond is what gives the customer the confidence that the bank will deliver when given the opportunity.

D. PRE-ACCOUNTING OPENING CONSULTANCY

Every client prefers a bank/organisation that shows genuine interest in solving their clients' problems and not just a hiring to collect clients' money.

Education no doubt improves the ability of anybody to gather and process information. Simpkins (2004) that this genuine interest is exhibited in what they called pre-scale account opening consultancy.

E. POST-ACCOUNTING OPENING CONSULTANCY

One key factor that guarantee customer loyalty is the ability to show continued interest in the clients' well being even after every withdrawals has been conducted Wilier (1997). In cases where the

organisation demonstrates this, the clients' become certain that the organisation is genuinely interested in them and not their money.

F. PREVENTIVE SUPPORT SERVICES

The ability of the organization to foresee a problem with the problem delved and proactively solve the problem places such organization above its competitors Miller (2000).

G. REACTIVE SUPPORT SERVICES

When a fault does occur, the speed at which such faults are cleared goes a long way to demonstrate the banks' capability. According to Wilier (2000) it is not enough for an organization to be able to foresee a fault and prevent it before it occur; it should also be able to rectify any fault that do occur.

H. PRODUCT SCALABILITY

Product scalability is the ability of the product to grow with the customer Johnson (1991). A scale able product such that will be able to scale up within the shortest possible time and at the last cost possible to meet the clients growing demands. The implication of this is that the demands changes.

I. PARTICIPATORY INTEGRATION APPROACH

This is an approach that incorporates the clients into the product/solution implementation strategy Hirsch and Jackson (1993).

Organisations that practice this approach ensure that they jointly deploy the clients' solution together with the client.

TABLE 1.1 TQM VARIABLES USED IN THE PROBIT MODEL

	Variables	**UNIT or TYPE**	
X 1	Time	BINARY	1, if time is significant 0, if otherwise
X2	Cost Effectiveness	BINARY	1, cost effectiveness is significant 0, if otherwise
X3	Responsiveness to clients needs	BINARY	1,if responsiveness is significant 0,if otherwise
X4	Pre-account opening consultancy	BINARY	1,if pre-account opening consultancy is significant 0,if otherwise
X5	Post account opening	BINARY	1,if post-account opening is significant 0,if otherwise
X6	Preventive support services	BINARY	1,if preventive support services is significant 0,if otherwise
X7	Reactive support services	BINARY	1,if reactive support services is significant 0,if otherwise
X8	Product scalability	BINARY	1,if product scalability is significant 0,if otherwise
X9	Participatory Integration Approach	BINARY	1,if PIA is significant 0,if otherwise

CHAPTER FOUR

PRESENTATION OF DATA

4.1 PRESENTATION OF DATA

In chapter four, we presented the data collected, analysed it and published the result of the analysis.

We started by using descriptive statistics to analyse the data collected and then went deeper with further analysis using the Probit Regression Model.

TABLE 1.2: **Skye Bank Performance Form**

YEAR	TURNOVER	PROFITABILITY
2006	172,886,753	5,367,289
2007	227,819,205	5,504,186
2008	254,164,695	6,718,427
2009	323,942,859	10,055,535
2010	498,269,148	15,973,108
2011	2,868,892,849	47,769,576

Source: Skye Bank Profit and Loss Account 2010 & 2011

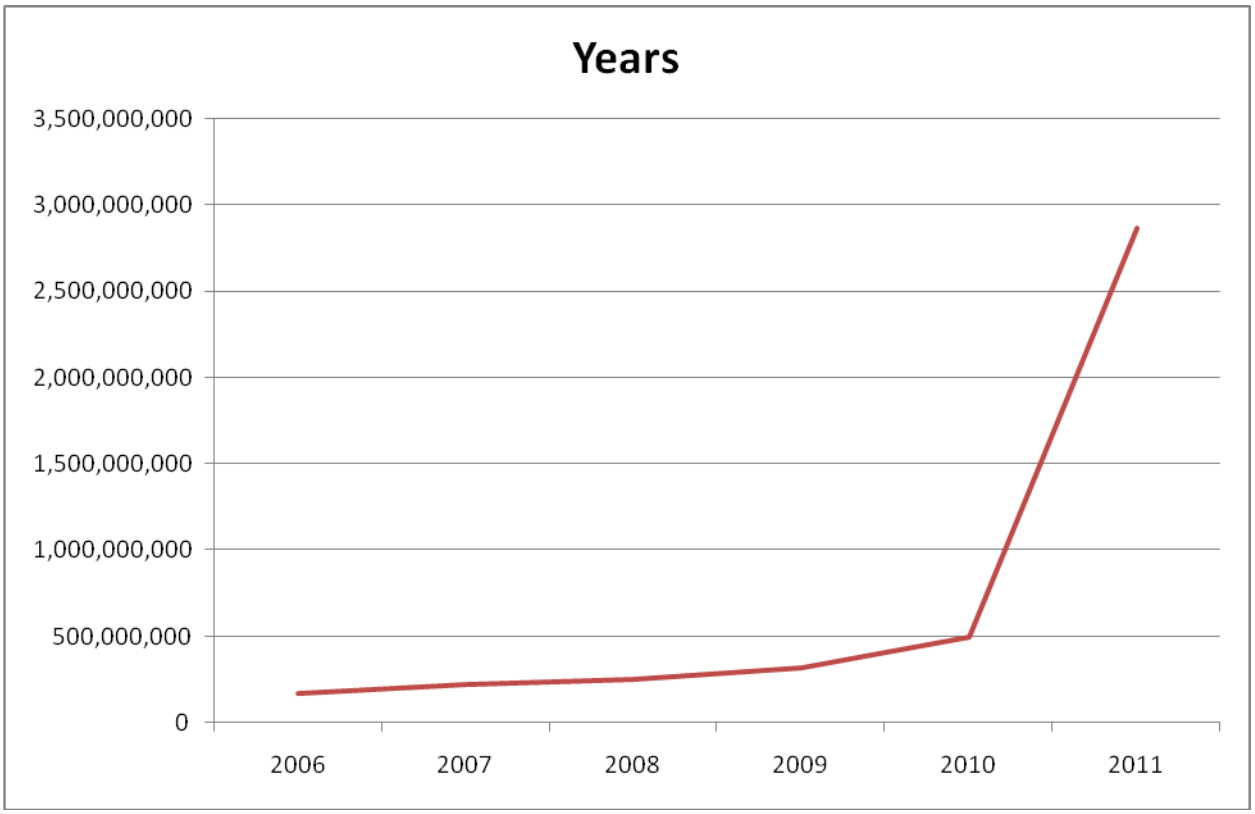


Figure 1.1: Skye Bank Turnover Trend from 2006-2011

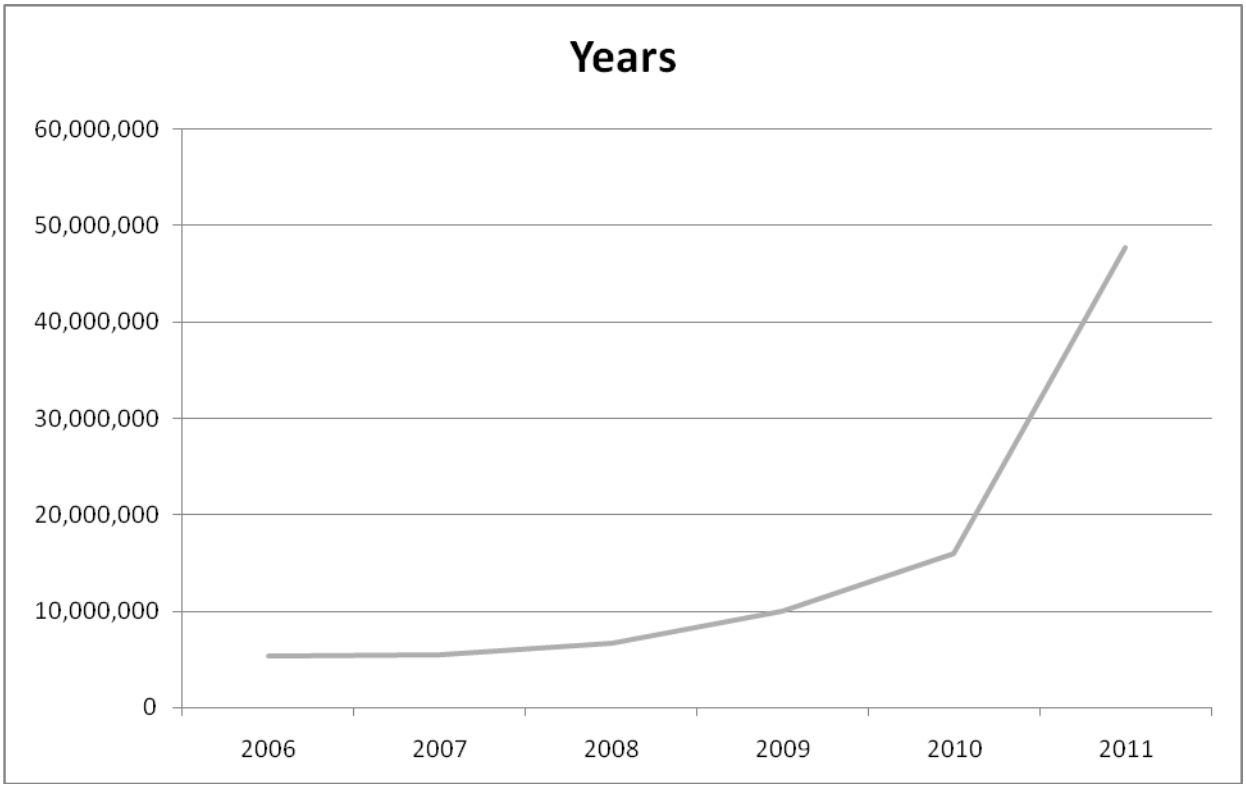


Figure 1.2: Skye Bank Profitability Trend from 2006-2011

4.2 TEST OF HYPOTHESIS

Having shown from the above trend analysis the Skye Bank Plc from 2006-2011, we shall now test the influence of the identified TQM variables on the organizational performance to ascertain the level of influence of their variables on the bank performance using the probit regression model. The result of this model will reveal on the TQM, variables that has the greatest influence on the bank's performance which has been on the increase since the implementation of TQM as shown by the above trend.

We have used two set of data for this analysis. First we used data collected from customers that make more than 20 withdrawals annually ($21 \leq C \leq 40$) while the second set are those customers who make less than 20 withdrawals a year ($1 \leq C \leq 20$).

We subjected the data to regression using the probit model.

4.2.1 EFFECTS OF TQM VARIABLES ON CUSTOMERS PATRONAGE (SKYE BANK PLC PERFORMNACE) $21 \leq C \leq 40$

TABLE 1.3

PARAMETERS	Parameter Estimates P	Asymptotic Error(s)	Probability	Ranking of parameter
Time	0.0790	0.6039	0.1636	9
Cost Effectiveness	-0.0900	0.5824	6.2967	7
Responsiveness to clients	-0.0980	0.3316	0.6791	5
Pre-Account opening	-0.0360	0.4239	0.2569	8
Post-Account opening	-0.1110	0.6433	0.331	2
Preventive support services	-0.1140	0.8092	0.9881	1
Reactive support services	-0.1650	0.9865	0.3617	6
Product scalability	-0.0800	0.8318	0.6965	4
Participatory Integration	0.0590	0.9865	0.7399	3

4.2.2 EFFECTS OF TQM VARIABLES ON CUSTOMERS PATRONAGE (SKYE BANK PERFORMANCE) 1≤C≤20

TABLE 1.4

PARAMETERS	Parameter Estimates P	Asymptotic Error(s)	Probability	Ranking of parameter
Time	-0.4081	0.2549	0.1958	8
Cost Effectiveness	-0.2096	0.7166	0.2324	5
Responsiveness to clients	-0.2518	0.1766	0.7642	1
Pre-Account opening	0.3346	0.9507	0.1193	9
Post-Account opening	0.0018	0.13521	0.2184	7
Preventive support services	0.0129	0.5159	0.4845	3
Reactive support services	0.2408	0.1871	0.2293	6
Product scalability	-0.1636	0.3070	0.6566	2
Participatory Integration	0.1896	0.4374	0.4374	4

4.3 DISCUSSION OF FINDINGS

With respect to the effect of the TQM variable on the patronage of Skye Bank Plc performance which is presented in the table 1.3 above. Needless to say, the working hypothesis is that each of the variables will have negative effects on the probability of patronage of the bank which invariably determined the performance of the organisation.

As expected, the co-efficient of most of the variables are negative except time and participation integration approach. Product Reliability was statistically insignificant and dropped. Product indication therefore is that in order to increase the probability of patronizing Skye Bank Plc (thereby decreasing the patronage of others) efforts must be geared towards enhancing cost effectiveness of their products. Training and retraining course must be engaged on fine tuning their responsiveness to clients, pre and post account consultancy, preventive support services (which happen to be the most influential variables in this respect), Reactive support services. The management must enhance their strategies on product scalability and constantly fine tune participatory integration approach.

In assessing the effects that the TQM variables have on customers' patronage as presented in table 1.4 that is those that make

between 1-20 withdrawals annually. The hypothesis that cost effectiveness, responsiveness to clients and product reliability will have negative effects on the Skye Bank Plc patronage. Their coefficient are negative except time, pre and post account opening consultancy, preventive support service product reliability and participatory integration approach. The most influential parameter that explains customers' patronage for this class of customers is the responsiveness of the Skye Bank Plc staff to clients. However, for those investing huge sums of financial resources by making over twenty withdrawals annually; preventive support service to the most influential. This may be due to the fact that the products they offer to the customers are revenue sensitive and must be geared towards optimal performance levels.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATION

5.1 SUMMARY

This research work took a critical look at the impact of Total Quality Management (TQM) implementation on the organisational performance using the Skye Bank Plc as a case study. The work was multi-dimensional in the sense that it looked first at the macro level using the bank's annual turnover and profitability and then went down to micro level by interacting with the organisation's clients to see which of the TQM variables in their own views, impact most on the organisational performance.

This is shown by the trend analysis as presented in chapter four of the project. To further consolidate this findings, I went ahead to use probit model to test the effect of ten TQM variables on customer patronage which in turn explains the sterling performance of the bank. From the probit analysis the following were discovered.

For the high Net-worth clients, preventive support services happen to be the most influential (Table 1.3) TQM variables that tied them to the organisation. These are clients that make more than 20 withdrawals annually. But for the Net-worth clients, the bank's staff

responsiveness to their request among other variable happen to be the most influential (Table 1.4) for them, pre-account opening is not of any significance.

5.2 CONCLUSION

Although the subject of Total Quality Management (TQM) is not new to most organisations and scholars, the fact is that this work came with some interesting findings which have not been reported by previous writers.

From the research it was clear that TQM does play a significant role in gluing the clients to the organisaton. This in effect results in the growth of the organisation's performance in terms of turnover and profitability as vividly shown by our analysis and results.

It is therefore imperative that every organisation pays good attention not just to the implementation of quality principles such as a TQM in their organisation but also in ensuring that such implementation are through by breaking it down into its respective variables and measure the impact of each of the variable so as to know the significant level of each variable.

It is therefore safe to conclude that proper implementation of Total Quality Management principles in an organisation will result in improved performance in such an organisation.

5.3 RECOMMENDATIONS

Having looked at the subject of Total Quality Management first from different authors perspectives and secondly from the data obtained from Skye Bank Plc, I am strategically positioned to make recommendations as to what to do to make the implementation more effective in an organisation. These recommendations are discussed below:

First, organisations willing to improve their performance should consider implementing the ideals and hence increase their performance by imbibing the ideals of quality such as presented by TQM. This will mean that everybody in the organisation will think they practice quality with a resultant effect, reduced cost and improved quality of product and services.

Secondly, organisation in the process of implementation TQM needs to first of all understand the various TQM variables applicable to their respective organisation. This will afford them the opportunity to measure both the implementation and the performance of the process.

Thirdly, organisation needs to redesign their strategy in line with the significance level of the various variables as identified by them. It is however, possible that different type of customers will have different variable that is of significance to them.

Lastly, organisations should pay serious attention to the various significant variables and to redesign their strategies in line with variables that are of great significance to the client if they must continue to be relevant. That way the organisation will be responsive to the customer's needs and hence improve its performance.

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APPENDIX

Questionnaire Design

Department ofAccountancy,

Caritas University,

Amorji-Nike.

Emene.

June 2013.

Dear Respondent,

AN INTRODUCTORY LETTER

I SIDI VICTOR IZUAGBE, a final year student of Accountancy department, Caritas University, Amorji-Nike, Enugu, i am carrying out a research on THE EFFECTS OF TOTAL QUALITY MANAGEMENT PRODUCTIVITY USING PROBIT MODEL (A case study of Skye Bank Plc). I shall be grateful if you would answer the under listed questions to the best of your knowledge.

Every answer you give will be confidentially handled. Thanks immensely for your corporation.

SIDI VICTOR IZUAGBE

Student researcher

QUESTTIONNAIRES SURVEY ON THE EFFECTS OF TOTAL QUALITY MANAGEMENT ON PRODUCTIVITY USING PROBIT MODEL (A CASE STUDY OF SKYE BANK PLC)

Section a [bio data]

Instruction: please tick the box against the appropriate answer of your choice in each of the following questions that follow:

1. Gender: Male ( ) Female ( )
2. Age: 20-25 ( ) 25-35 ( ) 35-40 ( ) 40 above ( )
3. Marital status: Single ( ) Married ( )
4. Qualification: M.Sc ( ) B.Sc ( ) HND ( ) OND ( ) NCE ( ) SSCE ( )
5. Religion: Christianity ( ) Muslim ( ) Others ( )
6. How long have you been banking with this bank? 1-5yrs ( ) 5-10yrs ( ) 10yrs and above ( )

7. Are you satisfied with the time limit of Skye Bank' service delivery?

   Satisfied ( ) Agree ( ) Not satisfied ( ) Undecided ( )

8. Do you think the cost of Skye Bank's services and products meet the demand of its customer?

   Strongly agree ( ) Agree ( ) Undecided ( ) Disagree (

   Strongly disagree ( )

9. The responsiveness of Skye Bank to its client's needs and problems is vey important.

Strongly agree ( ) Agree ( ) Undecided ( ) Disagree ( ) Strongly disagree ( )

10. Skye Bank shows genuine interest in the well being of its customers in terms of its services and packages.

Strongly agree ( ) Agree ( ) Undecided ( ) Disagree ( ) Strongly disagree ( )

11. The efficiency of Skye Bank in preventing re-occurring problems is very important.

Strongly agree ( ) Agree ( ) Undecided ( ) Disagree ( ) Strongly disagree ( )

12. Do you think Skye Bank have the capability to quickly resolve its problems?

Strongly agree ( ) Agree ( ) Undecided ( ) Disagree ( ) Strongly disagree ( )

13. Skye Bank has the capability to meet the growing demands of its customers.

Strongly agree ( ) Agree ( ) Undecided ( ) Disagree ( ) Strongly disagree ( )

14. Are you in support of the fact that Skye Bank products and services are reliable in solving its client's problems?

Strongly agree ( ) Agree ( ) Undecided ( ) Disagree ( ) Strongly disagree ( )

15. Implementing new products and services while considering its clients is very important.

Strongly agree ( ) Agree ( ) Undecided ( ) Disagree ( ) Strongly disagree ( )