

## **Effects of total quality management on financial performance in the banking sector: a case study of national bank of Kenya**

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**Abstract:** *Total quality management (tqm) has become an accepted technique to ensure performance and survival in the modern economies. Recent studies have claimed that the successful implementation of tqm could generate improved products and services, as well as reduced costs, more satisfied customers and employees, and improved financial performance. The purpose of this study was to establish tqm practices employed by nbk and examine their effect on the financial performance of the bank. The objective of this study was to establish the effect of total quality management on financial performance of nbk. This study was limited to establishing how the pillars of tqm, namely supplier relationship, customer relationship, processes and top management involvement relate to financial performance. the four pillars of tqm formed the independent variables of this study while financial performance was the dependent variable. These variables were studied to fill the gap of explaining how the use of tqm in nbk affects its financial performance. This study was descriptive in nature and the researcher used case study method. The target population of the study comprised of nbk employees. the researcher used stratified random sampling in selecting respondents. the findings indicated a positive relationship between top management involvement, process and supplier relationship and financial performance. However, customer relationship negatively affected financial performance. the regression analysis showed a weak relationship among the variables with by the f-test and a weak coefficient of determination. the research recommends that steps to improve top management involvement, process and supplier relationship to improve financial performance.*

**Keywords:** *Globalization, liberalization, total quality management, quality control*

**Acronyms:** *Automated teller machine (atm), central business district (cbd), management by objective (mbo), national bank of kenya (nbk), total quality management (tqm)*

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### **I. Introduction**

Total Quality Management (TQM) has become an accepted technique to ensure performance and survival in the modern economies according to Katller and Armstrong (2004). Deming (1995) had earlier asserted that the success of quality management efforts depended upon the effective integration of various management subsystems. TQM integrates fundamental management techniques, resources, and its implementation stands as a challenge and support to top management. Recent studies have claimed that the successful implementation of TQM could generate improved products and services, as well as reduced costs, more satisfied customers and employees, and improved financial performance (Hendricks & Singhal, 2001).

The ever improving global competition and increasing requests for more qualified products by customers have caused organizations to understand that the only way of survival in the market is to deliver better quality products to meet customers' needs. Many organizations, therefore, spend considerable amounts of their funds in activities related to improving products and services. The vast applicability of Total Quality Management (TQM) has made it to earn recognition as one of the most popular continuous improvement systems for quality. TQM increases customer's satisfaction through the participation of all personnel (Demirbag et al, 2006). The main aim of TQM is to implement a management system and organizational culture that ensures the customer satisfaction since customers who are more sensitive to quality standards improve their expectations continuously (Eriksson and Hansson, 2002).

Quality is vital for organization success. It has become inevitable for banks to work on enhancing quality within their functions, product and services and the way they manage their organizations. Quality denotes an excellence in goods and services, especially to the degree they conform to requirements and satisfy customers (Islam. A. and Haque, A. F. M.2012). According to Adeoti j. O. (2003) Quality of service is more difficult for customers to measure than quality of manufactured goods. Generally, though a user of a service has a few characteristics and attributes in mind that he or she uses as a basis for comparison among alternatives. Lack of one attribute in a bank may make the customers to prefer another. For survival, it is mandatory to

provide best service quality and it is also viewed as pre-requisite to success of banking sector. Many studies have proved that the performance of banks is significantly and positively linked with the service quality, and to achieve service quality in the banking sector, the TQM is highly essential (Talib F, Rahman Z& Qureshi M 2012).

### 1.1 Statement of the Problem

The issue of the relationship between successful TQM implementation and financial performance is important, when considering the incentives for the large organizational change. The main incitement for change is to improve, whether it is an improved management system or an improved customer satisfaction. Most organizations implement TQM in order to respond to changes in the competitive context that surrounds them, e.g. as a consequence of a discovered need to develop or as a reaction in order to survive (Talib F, Rahman Z& Qureshi M 2012).

In the banking sector there is more than one bank trying to woo customers for patronage. The rate of interest (price) may be a critical factor for patronage, but another factor is the quality of the service. Infact, quality is often the major issue. And poor quality service can lead to erosion of goodwill, which could be very costly for any bank (Islam. A. and Haque, A. F. M.2012). NBK is faced with the challenge of stiff competition from rivals which forced the bank to implement TQM. The purpose of this study was to establish how the four pillars of TQM namely Supplier relationship, Customer relationship, processes and Top management involvement impact the financial performance of NBK from 2007 to 2012.

### 1.2 Research objectives

- i. To establish how top management involvement affect financial performance in NBK.
- ii. To establish how processes affect financial performance in NBK.
- iii. To establish how customer relationship affects financial performance in NBK.
- iv. To establish how supplier relationship affect financial performance in NBK.

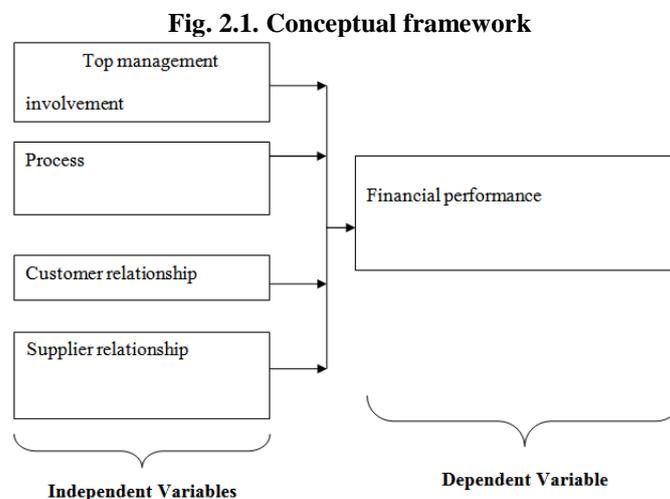
### 1.3 Scope of the Study

This study examined the various TQM practices employed by NBK and their effects on the bank financial performance against the four pillars of TQM as proposed by KEBS (2008). It was conducted at NBK headquarter in Nairobi. A sample of 50 respondents was used.

## II. Literature review

### 2.1 Conceptual framework

The figure 2.1 below illustrates the conceptual framework of the study, identifying the dependent and independent variables which will form the basis of the study.



### 2.2 The pillars of TQM

Total Quality embraces not only the quality of a specific product or service, but everything an organization does, might or should do to determine the opinion not only of its immediate customers or end-users, but its reputation in the community at large (Shahin. and Dabestani, 2011).

TQM is based on eight pillars according to Islam and Haque (2012) which are: Creation of quality management environment; Development of Teamwork; Practice of quality control tools and techniques; focus on customer; focus on supplier relationship; Benchmarking; continuous improvement of processes; and involvement of employees. This study, however, focuses on four pillars as shown in the conceptual framework.

#### 2.2.1 Top management involvement

For TQM implementation to be successful, top management should champion its implementation by providing leadership and engage all employees in the work of satisfying the customer with a continuously improved quality. This means that continuous improvement should be practiced everywhere in the processes and that the involvement of all employees at every level should be facilitated. This core value also includes suppliers, who over time will become partners by working with empowered employees to the benefit of the organization (Islam, A. and Haque, A. F. M.2012).

The work is based on the skills and participation of every employee and his or her understanding of what is required. Top management should champion training all employees to provide the knowledge needed on the mission, vision, direction, and strategy of the organization as well as the skills they need to implement TQM and resolve problems. Keywords for commitment are information, delegation and training (Witjaksono, A. D. (2012).

#### 2.2.2 Customer relationship

A central core value in TQM is that all products and processes should always have a customer focus. Quality should be valued by the customers and should always be put in relation to their needs and expectations (Nagaprasad, H. and Yogesha, B 2009). To focus on the customer means, therefore, that one tries to find out the customers' needs and values by conducting market analyses and then trying to fulfill the market expectations while systematically developing and manufacturing the product. Every employee has customers within the organization, internal customers, and in order to do a good job their needs also have to be fulfilled. (Nagaprasad, H. and Yogesha, B 2009).

#### 2.2.3 Processes

Much of the work within an organization can be looked upon as a process, which means a repetitive sequence of activities (Bergman & Klefsjö, 2003). The goal of the process is to produce products or services, which should satisfy the customer. The corollary of focusing on processes is that the focus is not on results. Instead the result is the dependent variable. The result comes from whatever process is followed; process drives result. The process generates data that indicates how well the process is satisfying its customers. (Bergman & Klefsjö, 2003).

#### 2.2.4 Supplier relationship

The management of an organization needs to allow sufficient time for the purchasing department to identify several low cost, high quality suppliers and to analyze the information they submit. An unrealistic deadline, for instance, can lead to poor selection of suppliers based on incomplete information about supplier qualifications. (Islam, A. and Haque, A. F. M.2012).

### **2.3 Knowledge Gap**

Literature review suggests that a lot of research work has been done on TQM and relationship between TQM and organizational performance, but only a limited number of studies have been done on effect of TQM implementation in the banking sector. This study was conducted to fill the gap.

#### Methodology

This study was descriptive in nature and the researcher used case study method. Such primary data collected from respondents is reliable and up-to-date and hence the choice of this method. Quantitative technique was used since the expected information from the field involved factual elements that would be presented using descriptive statistics. The target population of this study comprised of top management, middle and junior staff from the different divisions based at the NBK head quarters in Nairobi.

The study employed stratified random sampling in selecting respondents since NBK has a large number of employees. 10% of the 500 employees that is 50 employees participated in the study. In a similar study conducted by Bichangi and Karani (2012) a sample study of 10% was used.

The research instrument used was questionnaire. The field survey was conducted in NBK head quarter. A total of 50 structured questionnaires were distributed to the various departments at NBK. Secondary data for this study was gathered from existing published works i.e. current TQM Journals and books, NBK Strategic Plan and NBK Annual Report.

To enhance the validity and reliability of the research instruments, the questionnaire was pre-tested on 10 employees, 2 respondents for each stratum of the population. The data was tabulated to help make logical interpretation, conclusion and recommendation. Descriptive statistics (i.e. frequency analysis) were computed for presenting and analyzing the data. Proper fields or categories were created to describe all variables in the study. Qualitative data were derived from the variables in questionnaires. The data for these variables was subjected to in-depth content analysis.

### III. Results and discussions

**Table 1 Top Management Involvement**

| variable   | not at all | Less extent | Moderate extent | Large extent | Very large extent |
|--|------------|-------------|-----------------|--------------|-------------------|
| Creating clear vision and mission                  | 0%         | 0%          | 20%             | 80%          | 0%                |
| Setting achievable and realistic targets           | 0%         | 0%          | 10%             | 20%          | 70%               |
| Providing staff with required resources & training | 2%         | 6%          | 0%              | 30%          | 62%               |
| Encourage team work and performance appraisal      | 0%         | 0%          | 0%              | 70%          | 30%               |
| Reward best performing employees                   | 0%         | 10%         | 10%             | 40%          | 40%               |

(Responses were based on a scale of 1= not at all, 2 = Less Extent, 3= Moderate extent 4= Large extent, 5= Very large extent)

From the findings 80% of respondents felt creating clear vision and mission will to a large extent affect financial performance of NBK. 70% of respondents felt to a very large extent when top management set achievable and realistic targets, financial performance will improve.62% of respondents felt top management was required to provide staff with required resources and train them how to perform their duties, this will to a very large extent affect financial performance. The implication of these findings is that top management plays a crucial role in TQM implementation, their support through providing staff with clear visions, resources, training and encouraging team work will translate into improved financial performance of NBK.

**Table 2 Process**

| variable                               | not at all | Less extent | Moderate extent | Large extent | Very large extent |
|--|------------|-------------|-----------------|--------------|-------------------|
| 24 hour working ATM and simple banking | 0%         | 0%          | 0%              | 15%          | 85%               |
| Fast processing of loans               | 0%         | 0%          | 0%              | 30%          | 70%               |
| Breakdown of systems                   | 10%        | 0%          | 0%              | 90%          | 0%                |
| Increase in number of loan defaulters  | 0%         | 5%          | 5%              | 0%           | 90%               |
| Offsite ATMS and agency banking        | 0%         | 5%          | 15%             | 60%          | 20%               |

From the findings 85% of respondents felt having 24 hour working ATM and simple banking system that customers can operate will to a very large extent affect financial performance.90% felt breakdown of the core banking system will to a large extent affect financial performance. When NBK processes loans of its clients fast this to a very large extent affect the banks performance.90% of respondents felt an increase in number of customers who default paying their loans will affect financial performance of the bank.

The finding implies that processes are key to banks financial performance. The bank should ensure it has systems in place that are efficient and effective at all times. The bank should have process to ensure all customers given loans are repaying since any rise in loan defaulters will negatively affect financial performance.

**Table 3 Customer Relationship**

| variable                                    | Very dissatisfied | Dis-satisfied | A little satisfied | satisfied | Very satisfied |
|---|-------------------|---------------|--------------------|-----------|----------------|
| determine customer satisfaction             | 0%                | 0%            | 5%                 | 55%       | 40%            |
| Systems to handle customer complaints       | 0%                | 0%            | 30%                | 60%       | 10%            |
| Training customers to use new bank products | 20%               | 50%           | 0%                 | 30%       | 0%             |
| Inclusion of customer feedback              | 0%                | 40%           | 25%                | 25%       | 10%            |
| Organisation understands customer needs     | 0%                | 0%            | 30%                | 0%        | 70%            |

(Responses were based on a scale of 1=Very dissatisfied, 2= Dissatisfied, 3=A little satisfied, 4=satisfied, 5=Very satisfied)

55% of the respondents were satisfied with the techniques used by NBK to determine customer satisfaction.60%of respondents were satisfied by systems the bank has implemented to handle customer complaints.NBK has developed products that satisfy the needs of its customer this can be concluded by the 70% of the respondents who were very satisfied by how NBK understands its customers' needs.

50% of the respondents felt the bank has not invested in training its customers on how to use its new products like online banking. Although the bank has mechanisms to capture customers feedback 40% of the respondents

felt the feedback is not acted upon. From the findings it shows although the bank has good mechanisms to capture customer feedback, the bank has done little to act on feedback given by customers.

**Table 4 Supplier Relationship**

| <b>variable</b>                           | <b>not at all</b> | <b>Less extent</b> | <b>Moderate extent</b> | <b>Large extent</b> | <b>Very large extent</b> |
|---|-------------------|--------------------|------------------------|---------------------|--------------------------|
| Select supplier on basis of quality       | 0%                | 10%                | 40%                    | 0%                  | 50%                      |
| Select supplier on basis of price         | 0%                | 0%                 | 30%                    | 70%                 | 0%                       |
| Capacity of supplier                      | 10%               | 2%                 | 10%                    | 20%                 | 58%                      |
| Quality control measures used by supplier | 0%                | 10%                | 0%                     | 50%                 | 40%                      |
| Lead time taken by supplier               | 0%                | 0%                 | 5%                     | 20%                 | 65%                      |

From the findings 50% of respondents felt the kind of suppliers NBK selected will affect its performance to a very large extent. 70% of respondents felt to a large extent suppliers selected on basis of price will also affect financial performance. 65% of the respondents felt to a very large extent lead time taken by suppliers will affect financial performance of the bank. The finding implies selecting the right supplier is key factor affecting financial performance of NBK.. The bank should select suppliers with capacity to supply required items within the time stipulated in buying contract.

**4.1 Descriptive Statistics**

**Table 5 Summary Statistics**

| <b>variable</b>            | <b>MEAN</b> | <b>SD</b> | <b>MAX</b> | <b>MIN</b> |
|----------------------------|-------------|-----------|------------|------------|
| Top Management Involvement | 3.87        | 0.87      | 5.00       | 1.75       |
| Process                    | 3.97        | 0.70      | 5.00       | 2.50       |
| Customer Relationship      | 3.92        | 0.72      | 5.00       | 2.13       |
| Supplier Relationship      | 3.96        | 0.74      | 5.00       | 2.09       |
| Financial Performance      | 3.36        | 0.74      | 5.00       | 1.83       |

The findings indicated a strong agreement that the involvement of top management influenced financial performance ( $\mu = 3.87, \sigma = 0.87$ ). There was also strong indication that the processes involved in the provision of services influenced financial performance ( $\mu = 3.97, \sigma = 0.70$ ). There was also strong indication that customer relationship determined financial performance ( $\mu = 3.92, \sigma = 0.72$ ). The same was with the case of supplier relationship ( $\mu = 3.96, \sigma = 0.74$ ). However, the staff were neutral on whether financial performance was good ( $\mu = 3.36, \sigma = 0.74$ ).

4.2 Correlation Analysis

**Table 6 Correlation matrix**

|                            | <b>TM</b> | <b>P</b> | <b>CR</b> | <b>SR</b> | <b>F</b> |
|----------------------------|-----------|----------|-----------|-----------|----------|
| Top Management Involvement | 1.00      | 0.47     | 0.80      | 0.65      | 0.10     |
| Process                    |           | 1.00     | 0.38      | 0.59      | 0.17     |
| Customer Relationship      |           |          | 1.00      | 0.62      | 0.04     |
| Supplier Relationship      |           |          |           | 1.00      | 0.22     |
| Financial Performance      |           |          |           |           | 1.00     |

Each of the independent variables showed positive correlation with each other but negatively correlated with the dependent variable. High positive correlation was recorded between Top Management Involvement and Customer Relationship ( $r = 0.89$ ). There was also high correlation between Top Management Involvement and Supplier Relationship ( $r = 0.80$ ); between Customer Relationship and Supplier Relationship ( $r = 0.80$ ); between Supplier Relationship and Process ( $r = 0.80$ ); between Process and Top Management Involvement and Leadership Role ( $r = 0.80$ ). Low negative correlation was recorded between Top Management Involvement and Leadership Role and Financial Performance ( $r = -0.14$ ); Financial performance and Process ( $r = -0.19$ ); Financial performance and Customer Relations ( $r = -0.22$ ) and between Financial performance and Supplier Relationship ( $r = -0.14$ ).

4.3 Regression Analysis

**Table 7**

*Regression analysis*

|                           | <b>Coefficient</b> | <b>Std Error</b> | <b>T-Ratio</b> | <b>P-Value</b> |
|---------------------------|--------------------|------------------|----------------|----------------|
| <b>Constant</b>           | 4.3048             | 0.5351           | 8.045          | 2.00e-011      |
| <b>TM</b>                 | 0.2065             | 0.2346           | 0.8803         | 0.3819         |
| <b>P</b>                  | -0.0499            | 0.2602           | -0.1917        | 0.8485         |
| <b>CR</b>                 | -0.4372            | 0.3194           | -1.369         | 0.1756         |
| <b>SR</b>                 | 0.0440             | 0.2189           | 0.2012         | 0.8412         |
| <b>R-Squared</b>          | 0.0608             |                  |                |                |
| <b>Adjusted R-squared</b> | 0.0047             |                  |                |                |
| <b>F(4, 11)</b>           | 1.0846             |                  |                | 0.3713         |

Regression analysis was done to establish the relationship between Top Management Involvement, Process, Customer Relationship and Supplier Relationship as the independent variables and financial performance as the dependent variable. The whole regression was not statistically significant and the variation in the independent variables explained only 6.65% of the variation in financial performance.

#### **IV. Conclusion and recommendation**

This study found that the coefficient of Top Management Involvement was positive. This indicates that the top management is involved in day to day operations of the bank making its financial performance to improve. Top management of NBK has created a clear vision that all staff can identify and interpret. By top management setting realistic and achievable goals the entire team work hard towards achieving the goals this in turn is seen in rise in profits of the bank. The top management of NBK recognizes need for providing its staff with required training and resources to ensure they perform their duties well. From the findings NBK trains its staff before posting them to any new department.

This study found a positive coefficient for Process indicating that process affected financial performance at NBK. This indicates that when processes improve at NBK, so does the financial performance. NBK invested on new banking system that allows the bank to serve its customers fast. In 2013 the bank rolled out agency banking to allow its clients access banking facility in remote areas where the bank is yet to open new branches. The bank has developed mechanisms to ensure loans defaulters are few since they negatively affect its financial performance.

The coefficient of Customer Relationship was positive. This indicates that when the relationship between NBK and the customer improves, financial performance improves and when the reverse happens, financial performance drops. NBK rolled out a 24 hour working call centre to be receiving any customer's complaints as well as answer any customer query anytime any day. This was done as a way of the bank move to improve how it serves its customers. From the findings NBK should develop ways of training its customers how to use the products the bank rolled out, since 50% of respondent felt NBK has done little to educate its customers from queries they receive from customers.

The coefficient of Supplier Relationship from the regression analysis was positive. This indicates that when relationship between NBK and its suppliers improves, financial performance also improves. When the relationship between NBK and suppliers deteriorates, financial performance drops.

#### **5.1 Conclusions**

Strategic management in any organization is a crucial factor in effective leadership for successful functioning of any organization. Top management plays a crucial role in TQM implementation, their support through providing staff with clear visions, resources, training and encouraging team work will translate into improved financial performance of NBK.

NBK management should ensure it has systems in place that are efficient and effective at all times. Break down of the core banking system used by the bank will negatively affect the bank since with such breakdown no services will be rendered. The bank should have process to ensure all customers given loans are repaying since any rise in loan defaulters will negatively affect financial performance.

The study found customer relationship to negatively affect financial performance. This indicates that there are customer related issues at National Bank that affect financial performance. Although the bank has good mechanisms to capture customer feedback, the bank has done little to act on feedback given by customers.

#### **5.2 Recommendations**

The study recommends that top management should provide stronger leadership and be more involved at every management level in the bank. Top management should provide staff with required resources to ensure they have all they require to perform. NBK should ensure its ATM is well maintained and working all the time to serve its clients well. Currently the simple banking service is not available to customers 24 hours. The bank should work towards having a new simple banking system that operates 24 hours.

Customer relationship seems to be hurting the performance of the bank. Although the bank has good mechanisms to capture customer feedback, NBK has done little to act on feedback given by customers. NBK should act on all customers feedback. NBK develop good products serving needs of its clients however the bank has not invested in training their customers how to use the products. This study recommends the bank should develop ways of training its customers how to use the products the bank rolls out.

#### **V. Definition of terms**

**Customer relationship:** is the front line between an organization and its customers. How customers are initially greeted and treated can influence their decisions to do business with your company (Nagaprasad, H. and Yogesha, B 2009).

**Globalization:** is the process of world shrinkage, of distances getting shorter, things moving closer. It pertains to the increasing ease with which somebody on one side of the world can interact, to mutual benefit, with somebody on the other side of the world (Kim, D., Kumar, V. and Kumar, U.2012).

**Liberalization:** The removal of or reduction in the trade practices that thwart free flow of goods and services from one nation to another (Kim, D., Kumar, V. and Kumar, U.2012).

**Profitability:** The ability of a company to earn a profit. It is a relative measure of success for a business (Holmberg, 2000).

**Quality:** Quality denotes an excellence in goods and services, especially to the degree they conform to requirements and satisfy customers (Islam. A. and Haque, A. F. M.2012).

**Quality control:** Quality control is a procedure or set of procedures intended to ensure that a manufactured product or performed service adheres to a defined set of quality criteria or meets the requirements of the client or customer (Shahin. and Dabestani, 2011).

**Research Design:** A research design constitutes the 'blue print' for the collection, measurement and analysis of data. It is the plan and structure of investigation so conceived as to obtain answers to research questions (Shahin. and Dabestani, 2011).

**Total Quality Management:** Andrew (2007) defines Total Quality Management as an approach that seeks to improve quality and performance which will meet or exceed customer expectations.

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