EFFECTS OF E - BANKING INNOVATIONS ON THE FINANCIAL PERFORMANCE OF COMMERCIAL BANKS IN KENYA

A CASE STUDY OF COMMERCIAL BANKS IN KISII COUNTY

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Abstract

The study intended to establish the relationship between E-banking innovations on the financial performance of the banks within Kisii County. The study was restricted to the effects agency banking innovations, mobile banking innovations, internet banking innovations and automatic teller machine innovations on the financial performance of banks within Kisii County. The research study in question found research important because it offered out ways of improving the e- banking innovations at the banks, its operations and strategies in providing the services to its customers. The specific objectives of the study were to establish the effect to which ATM innovations, mobile banking innovations, agency banking innovations and internet banking. Innovations Contribute to the financial performance of banks. The target population which was the totality of the cases comprised of 220 respondents of which were 20 operational managers and 200 employees of banks within Kisii County. The sample size (142 respondents) was 64.54% of the target population. The study employed a descriptive research design. The questionnaire was used for data collection. The data was analyzed using descriptive statistics as well as inferential statistics involved the use of regression analysis to assess the strength of association between the variables. These findings revealed that there was significant correlation of 0.70 between e-banking innovations and the financial performance of the banking industry.

Keywords: E-banking, Alternative banking channels, Commercial banks, Financial performance, Kenya

INTRODUCTION

Technological innovation is used to refer to the process through which technological advances are produced (Goh, 2002). The innovation process includes a set of activities that contribute to increase in the capacity to produce new goods and services (product innovations) or to implement new forms of production (process innovations). Therefore, the concept of technological innovation is associated with the idea of a flow – generation, application, dissemination – of technologies. Technology push is not stable because rapid technological changes create many alternatives from which firms choose their technology strategy. Nor does demand pull provide a complete explanation in circumstances where customers lack the necessary foresight of possibilities in a world with radically new products or systems. To put it differently, Hamel (2002) suggests that innovations come to be seen as a result of collaboration for integration of skills and capabilities when competing for the future market.

The role of technological innovations on efficiency and cost reductions in the banking sector is paramount to the successful and profitable service delivery in the sector. According to Yasuharu (2003) technological innovations play a significant role in improving the efficiency of the banking sector as well as reducing the costs of banking transactions for customers. The banking sector has, for the past decade, witnessed various improvements and new technologies with the main purpose of improving the service delivery of the banking sector. A fundamental assumption of much recent research in operations improvement and operations learning has been that technological innovation has a direct bearing on performance improvements (Bijker et al, 2007). Strategic management in the banking sector demand that banks should have effective systems in place to counter unpredictable events that can sustain their operations and minimize the risks involved through technological innovations. Only those organizations that are able to adapt to the changing environment and adopt new ideas and ways of doing business can be guaranteed hope of survival.

Some of the forces of change that have greatly influenced the performance of commercial banks include mainly technological advancement. According to Goh, (2002) there are numerous barriers to innovation in developing nations. The developing countries with low literacy rates and weak higher educational systems often face a great deal of difficulties assimilating new technologies for innovation development as they lack the essential human capital to leverage on technological developments, scientific knowledge and technical skills. There is also inadequate intellectual property rights protection often which creates a disincentive for banks to engage in innovation development through research and development (R&D), as the economic spin-offs associated with their innovation efforts are diminished very quickly once made available in the public domain. The innovation projects often involve high risks, long

gestation periods and therefore require huge amounts of financial resources to share risks and costs, and hence restrictive ownership policies on direct investments often hamper private sector or foreign participation in technological innovation projects (Roehm and Sternthal, 2001).

Statement of the Problem

Banks and other financial intermediaries are at the heart of the world's recent financial crisis. The deterioration of their asset portfolios, largely due to distorted credit management, was one of the main structural sources of the crisis (Steven, 2002). The fast-changing competitive environment, globalization, economic changes, regulation, privatization and the like demands that commercial banks are run efficiently and effectively by continuously engaging in financial innovations.

In Kenya emergence of new technologies, products, processes, markets and competitor banks places demand on any commercial bank to apply any skills necessary to remain competitive and achieve competitive advantage. The banking industry has already been depicted (Parasuman et al., 2001) as exhibiting little market orientation and fulfilling services with little regard to customer needs as well as including branches dissimilar in efficiency which have contributed to low financial performance. In Kenya Long lines, transaction errors, queuing, insecurity and network failures have been said to be the most frequent problems using banking services (Smith, 1999). This highly lower customer's perception on the quality of service offered and hence reduces the bank's credibility hence profitability (Joseph et al., 2003).

As the importance of financial innovation in developing countries including Kenya increases, so does the need for research on the subject. (Joseph et al, 2003). Despite the recognized importance of financial innovations and an extensive descriptive literature, there have been surprisingly few empirical studies. This situation has denied the banks the much needed information regarding this important area of financial innovations sometimes leading to reverse causality in the innovation-performance relationship. Mugambi (2006) attest that researches have been done on areas of service excellence and customer satisfaction in the banking industry. However, there was no study in Kenya that had looked at the impact of financial innovation on commercial banks with reference to financial performance. This study therefore, intends to investigate the relationship between financial innovations and financial performance of commercial banks in Kenya.

General Objective

To establish the effects of e- banking innovations on the financial performance of banks in Kenya?

Specific Objectives

i. To establish the effect of mobile banking on the performance of banks

ii. To establish the effect of agency banking innovations on the financial performance of banks.

iii. To establish the effect of automated teller machines (ATMS) on the financial performance of banks

METHODOLOGY

Research Design

According to Mugenda and Mugenda (2003) defines survey research as an attempt to collect data from members of a population in order to determine the current status of the population with respect to one or more variables. There are four types of research designs namely; cross-sectional design, longitudinal design, case study design and descriptive design. The study employed a Descriptive survey research design. Descriptive statistics utilize data collection and analysis techniques that yield reports concerning the measures of central tendency, variation, and correlation. The combination of its characteristic summary and correlation statistics, along with its focus on specific types of research questions, methods, and outcomes is what distinguishes descriptive research from other research types. Descriptive survey research design was used and it enabled the researcher to collect data and report the way things were without manipulating any variables besides being less time consuming and able to capture a lot of data within the contained time and resources.

Target Population

Mugenda and Mugenda (2003), describes target population as the totality of cases of people, organization or institutions, which pose certain characteristics. They further asserted that target population is a group of individuals, objects or items from which samples are taken for measurement. The target population for this study was 20 banks within Kisii County and from each bank 10 employees was chosen representing all sections within the bank. The study also targeted 20 operational managers of these banks within Kisii County.

Table 1: Target population

Category	Target population
Operational Managers	20
Employees	200
Total	220

Sample Design

According to Mugenda and Mugenda (2003) a sample design is a set of information used to identify a sample population for statistical treatment. Kothari (2004) noted that the sampling frame must be representative of the population and this is a question outside the scope of statistical theory demanding the judgment of experts in the particular subject matter being studied. The research used stratified random sampling technique to select the respondents and this involved dividing population into homogenous subgroups and then taking a sample in each subgroup. The sample was selected so as to ensure that certain subgroups in the population are represented in the sample in proportion to their number in population. The researcher considered this technique appropriate because every member of the population had an equal chance of inclusion and reduced the biasness.

Sample Size Determination

Kull (1984) noted that sampling is the process by which a relative small number of individual object or event is selected and analyzed in order to find out surrounding about the entire population from which it will be selected using some systematic form. Since the overall population is heterogeneous, stratified random sampling was used in the study to select the respondents. Yamane (1967) provides a simplified formula to calculate sample sizes. This formula was used to calculate the sample sizes as shown below.

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

Where n is the sample size, N is the population size, and e is the level of precision or margin of error at 5% (standard value of 0.05). When this formula is applied to the above sample, we get;

$$n = \frac{220}{1 + 220(0.05)^2} = 142$$

The table 2 below shows sample size representing 64.55% of target population in which sampling technique was used to group the target population into homogeneous strata. The percentage of the sample size was as illustrated below;

$$\text{Percentage of the sample size} = \frac{\text{Sample Size}}{\text{Target Population}} * 100\%$$

$$= \frac{142}{220} * 100\%$$

$$= 64.55\%$$

Table 2. Sampling

Category	Target population	Sample size
Managers	20	13
Employees	200	129
Total	220	142

Data Collection Instruments

The main tools of data collection for this study were structured questionnaires. The questionnaire was suitable because it offered considerable advantages in the administration. It also presents an even stimulus potentially to large numbers of people simultaneously as it provided the investigation with an easy accumulation of data. Anonymity helped to produce more candid answers than is possible in an interview. The questionnaire comprised of closed-ended questions. Questionnaires contained items covering all the objectives of the study.

ANALYSIS AND FINDINGS

Data analysis was done through descriptive and inferential statistics. Descriptive statistics involved the use of frequency tables and percentages. Product moment of correlation coefficient was also used to show the strength of association between financial planning practices and the growth of small scale manufacturing industry at 5% of confidence level. Simple regression analysis was used to establish the relationship of financial planning practices and the growth of the manufacturing firms.

Correlations on ATMS Usage innovation on Financial Performance of Banks

The SPSS output for the data on ATMs usage on financial performance of banks shown in table 3 below revealed that there was an association between usage of ATMs and financial performance of banks. Issuance of ATMs as a means of access of cash has improved the financial performance of banks. The Pearson correlation coefficient (r) was 0.700 or 70% showed that there was a strong significance relationship between the usage of ATMs and financial performance of banks.

Table 3. Regression Model Summary

Model	R	R Square	adjusted R square	Std. error of the estimate
1	.8379	.700	.700	15842335.035

a. predictor: (constant), X (Net profit)

The statistical tools used in analyzing the model of this research were given thus the coefficient of correlation (r) shows the degree or extent of relationship between dependent variable and independent variable. The value of 0.70 in table 3 shows the existence of a positive relationship between these variables it equally reveals a good degree of dependency of the dependent variable to the independent variable. The coefficient (R^2) explains the proportion of the total variance in the dependent variable. The coefficient (R^2) explains the proportion of the total variation in the dependent variable that is attributed to the variations.

Regression Analysis on Usage of Mobile Banking Innovations

Table 4. Regression coefficients Analysis on mobile banking

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	1.878014	0.763809	2.052887	0.132396	-0.86277	3.998794	-0.86277	3.998794
X1	0.076756	0.040279	2.202162	0.095688	-0.03143	0.22494	-0.03143	0.22494

The estimated equation as generated above will be: Y= 1.8780+0.0767X

The findings were in line with Cohen (2005) who found out that the force that affects the economy was the purchase done with mobile banking when compared to individual savings there by promoting banks investment another support of the findings was Ausubel (1991) who did an empirical study of mobile banking and found out that abnormally high profits existed in the banking industry in spite of its seemingly competitive structure. In addition Mauning (2000) further found out that banks were eager to expand mobile banking because of the huge benefits associated with mobile banking.

Regression Analysis Coefficients of Agency Banking Innovation

According to table 5 the positive beta value of 0.1567 indicates that agency banking has a positive influence on financial performance of banks portfolio. This implies that an increase in agency banking increases the performance of commercial banks by approximately 0.15. The t-Value of 4.32 and P-value of 0.034 are higher than 2.0 and lower than 0.005 respectively. This implies that the estimated results of the coefficients are both individually and statistically significant.

Table 5. Regression Analysis Coefficients of agency banking

	Coefficients	Standard Error	t Stat	P-value
Intercept	1.242773	0.529236	2.878763	0.067062
X2	0.156700	0.023312	4.326096	0.03485

The estimated equation as generated above will be: Y= 1.242+0.1567X

Where, y = Performance in banks

CONCLUSIONS

The researcher drew the following conclusions from the study based on the research findings:

Effects of Usage of ATM Innovations

The study sought to establish the effects of usage of ATM innovations on the financial performance of banks. The findings reaffirmed that ATM usage innovation is essential and has contributed positively to the financial performance of the banks industry. Therefore more emphasis should be dwelt on ATM innovation to ensure prudent use of it for the ripple effect to be felt by the banks fully. In addition to this, the careful elimination of the non-required costs, no-value added services to the customers could help banks in saving organizational portfolio for the customers may help banks in achieving the competitive advantages.

Effects of Mobile Banking Innovations

For better management of the financial performance of the bank industry financial mobile banking innovation is necessary, it provides customers flexibility and thus improves financial performance of the banks. Banking industry should focus on expanding mobile banking innovation through establishment of accessibility of internet to ensure effective utilization of this channel of banking.

Effects of Agency Banking Innovation

Agency banking innovation is an important banking innovation for the improvement and expansion of banking services to the customers and for financial flexibility of the banking industry. In order to keep the banking industry in course, there must be effective marketing of agency banking and all the plans, objectives, and strategies could be translated into actions. For the effectiveness of agency banking innovation the banking system need to expand the capital

for agency banking. In order to have effective agency banking system greater marketing should be done.

RECOMMENDATIONS

In order to manage the financial performance of the small manufacturing industry efficiently the researcher made the following recommendations.

Recommendation on Usage of ATM Innovation

For effective ATM usage innovation the banking industry should continue to safeguard and improve the security features of the customers' information to avoid fraud. From the research findings it was noted that ATMs usage has a strong relationship with commercial banks revenue therefore there is need for commercial banks to widen ATM usage so as to benefit more from charges this will go along way of improving returns.

Recommendation on Mobile Banking Innovation

For effective utilization of mobile banking planning and expansion of the portfolio should be given priority. In order to give the growing trends in the use of mobile banking merchandise outlets like supermarkets, hotels and petrol stations need to adopt the use of mobile banking in paying bills this will, increase wider utility of mobile banking.

Recommendation on Agency Banking Innovation

Emphasis should be focused on agency banking innovation for effective utilization of the banking industry commercial banks should also properly evaluate their customers so as to give them appropriate withdrawal limits and banks should ensure efficient platform that is free of hitches during transactions.

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