Product Innovation and the Performance of Financial Technology Companies in Kenya

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ABSTRACT
Product innovation has continued to be the driving force of the organizational performance of companies operating globally and locally. However, most of the financial technology companies operating in Kenya have continued to record deteriorating performance due to issues with product innovations. Despite the acknowledged fact that product innovations enhance the performance of firms, financial technology companies operating in developing countries and, more specifically, in Kenya are underperforming. The study sought to assess the effect of product innovation on the performance of financial technology companies in Kenya. The study was anchored on Schumpeter’s Theory of Innovation. The study adopted a descriptive research design to determine the problem under investigation. The target population of this study was 36 financial technology companies in Kenya. Because the population was small, a census was conducted in this study. A questionnaire was the primary tool in data collection. The validity of the research instrument was determined by using industry experts like lecturers and experienced employees working with financial institutions, while the reliability of the research instrument was tested using Cronbach’s Alpha. The Statistical Package of Social Sciences (version 21) was used to process and analyze the data. Data was analyzed using descriptive statistics and inferential statistics. Descriptive statistics such as frequency distributions, percentages, means, modes and standard deviations and frequency tables were used to summarize and relate them, which were attained from the administered questionnaires. Regression analysis was used to establish the effect between product invocation and the performance of financial technology companies in Kenya. The results were presented in tables. The results indicated that product innovation had a positive and significant effect on the performance of financial technology companies in Kenya. An improvement in product innovation led to improved performance of financial technology companies in terms of increased customer satisfaction, increased market share and increased staff satisfaction. The study recommends that the management of financial technology companies and companies of a similar nature need to recognize and appreciate the need to implement strategic initiatives like product innovations.

Keywords: Financial technology, organizational performance, product innovation.

1. INTRODUCTION
Strategic innovation, such as product innovation, is a strategic tool that can be used to align the firm’s resources and capabilities with opportunities in the external environment in order to enhance the survival and long-term success of the organization (Josee & Shisia, 2014). Product innovation is critical for firms that are in pursuit of improved performance, and their reward is often an increase in their profits and their market share (Smit, 2010). Product innovation is the bringing in of a fresh or considerably upgraded product in relation to its features or proposed usage. This comprises substantial enhancements in technological provisions, product constituents, integrated software and consumer-friendliness, as well as incorporating additional useful features.

With increased competition, changing technology, changing consumer needs and the influence of globalization, most of the companies operating in the global and...
local business environment have continued to recognize numerous strategic innovations as a measure of improving their performance in the turbulent business environment (Shisia et al., 2014). Despite the fact that product innovation contributes to enhanced organization productivity, it is noted that the majority (73%) of companies operating in developing countries in multiple sectors and, especially in Kenya, are experiencing deteriorating performance due to issues of product innovations (Ngugi & Karina, 2013). By extension, it is observed that product innovations pursued by the majority of organizations are not fully implemented in organizations due to structural and management issues (Hayes et al., 2000).

Innovation is considered to be a critical requirement for the growth and profitability of organizations. For private sector organizations operating in an increasingly competitive market, innovation is often a condition for simple survival. The capability to innovate is evermore viewed as the single most vital factor in developing and supporting survival. The capability to innovate is often a condition for simple survival. The capability to innovate is evermore viewed as

The research hypothesis of the study was:

H01: Product innovation has no significant effect on the performance of financial technology companies in Kenya.

2. Theoretical Foundation

This study was anchored on the Schumpeter Theory of Innovation. The theory was established by Schumpeter (1934), who argued that organizations operating in the modern business environment should engage managers or workers with entrepreneurial skills. The ability of the workers in any organization to think differently and independently is a driver of organization competitiveness. The spirit of research and development in any system is promoted by employees with common mental models. Changing the strategies of the organization and the ability of workers to adapt to changes in the business environment automatically stimulates organizational productivity. Schumpeter (1934) emphasized the role of entrepreneurship and the seeking out of opportunities for novel value-generating activities which would expand and transform the circular flow of income, but it did so with reference to a distinction between invention or discovery on the one hand and innovation, commercialization and entrepreneurship on the other.

The separation of invention and innovation suggested in Schumpeter’s theory marks out the typical nineteenth-century institutional model of innovation, in which independent inventors typically fed discoveries as potential inputs to entrepreneurial firms. He further observed that innovations are perpetual gales of creative destruction that are essential forces driving growth rates in many systems. Furthermore, from Schumpeter’s thinking perspective, it is noted that innovations are evolving in nature, and organizations should regard them as a dependent component that is exceptional and based on individuals/entrepreneurs willing to take on exceptional hazards as an act of will. Therefore, the applicability of this theory in this study describes the capability of organizations to achieve their goals based on product innovation and continuous quality improvement innovations.

3. Empirical Literature Review

Mutevu and Kerongo (2015) conducted a study with the objective of investigating the effect of technological innovations on the financial performance of Equity in Kenya. A descriptive research design was used. The study established that in today’s global and dynamic competitive business environment, product innovation is becoming more and more relevant despite competition, fragmented and demanding markets, and diverse and rapidly changing technologies. The study also revealed that banks realize significant financial performance in comparing the financial before and after the adoption of internet banking. It was also revealed that despite the benefits associated with product innovation, like increased profits, it was equally difficulty for most of the organizations to innovate their products in Kenya. For instance, it emerged that most of the companies, especially Commercial Banks in Kenya, were facing challenges in adopting appropriate technologies. Structural and employee resistance were some of the factors that hindered product innovation. The study recommended that for banks to be highly competitive, they need to employ modern technological innovations.

Mwendwa et al. (2016) conducted a study which used a descriptive research design and indicated that it was suitable for the study since it allows flexible data collection and the respondents are not manipulated. The study revealed that with the emergence of new technologies,
most of the companies operating in developing countries and, especially in Kenya, have significantly increased their productivity by 41% compared to traditional methods, which are costly and of less value. It emerged that with new technologies, organizations have the potential of developing new products, enhance customer experiences and minimizing costs by 50%. Despite the challenges associated with new technologies, like consumer resistance due to social values and complexity, it was concluded that no company could survive in the changing business environment without strategic innovations. However, it was noted that the study was confined to technological innovations and focused on banks in Meru town but failed to address the variables in this study, i.e., process innovation and product innovation in the financial technology companies in Kenya.

Adhiambo (2014) conducted a study using an explanatory research design since the objective of the study was to know and understand the traits and mechanisms of the relationship between the independent and dependent variables. The study ascertained that product innovation is one of the competitive practices that result in enhanced customer loyalty. Companies that do not innovate regularly have continuously recorded a decline in profits. Consumer research on products and services provided by companies in the market has remained to be the driving force of performance. It emerged that companies that fail to innovate their products are likely to lose their customers to potential competitors with alternative offerings. Subsequently, it established that companies that were ranked top in the world were driven by product innovation culture. It was concluded that companies, both large and small, should continuously invest in product research as a strategic approach to attracting and retaining customers. However, it was noted that the study was limited to a single name and focused on financial performance.

Ngugi and Karina (2013) reported that innovation is considered to be a critical requirement for the growth and profitability of organizations. Achieving organizational growth and sustaining performance is based on innovative practices and creativity among workers. It was also established that product replacement and repositioning generally contributed to the profitability of organizations. The study concluded that overall firm productivity was stimulated by product innovation and continuous improvement of the process of production and distribution. Without product innovation in an organization, most firms may find it difficult to sustain themselves in the changing business environment. Firms should dedicate their efforts to improving and developing new products to remain relevant in the international and local marketplace.

However, it was noted that the study was limited to strategy innovations among commercial banks in Kenya but not strategic innovation on the performance of financial technology companies in Kenya.

4. Conceptual Framework

The conceptual framework outlined below shows the effect of product innovation on the performance of financial technology companies in Kenya. A general conceptualization diagram, as shown in Fig. 1, illustrates that a firm’s performance was the dependent variable and product innovation was the independent variable.

As illustrated in Fig. 1, it is conceptualized that Financial Technology Companies operating in Kenya are likely to experience significant improvement in their performance by improving and developing new products and services regularly.

5. Research Methodology

The study adopted a descriptive survey research design to establish the effect of strategic innovations on the performance of financial technology companies in Kenya. The study targeted the 36 six financial technology companies in Kenya. Since the target population is small, a census was conducted where all the members of the population were considered. The study relied on primary data, which was collected through semi-structured questionnaires with open and closed-ended questions. Questionnaires were the main instruments of data collection based on the fact that they provided an opportunity to collect data systematically and analyze it for strategic decision-making.

The validity of the instrument was determined by seeking the opinions of experts in the field of study, especially lecturers and industry experts. Cronbach’s alpha coefficient was used to test the reliability of the questionnaire. A Cronbach’s alpha coefficient of 0.7 and above was adequate to confirm the reliability of the instrument (Mertler & Vannatta, 2010). A pilot study was conducted on five Financial Technology companies headquartered in Kampala, Uganda. The study found that Cronbach’s alphas for all the variables were above 0.7. The mean Cronbach’s alpha for all the variables was 0.899, which was above the recommended threshold of 0.7.

The data collected was analyzed using descriptive statistics (measures of central tendency and measures of variations). Once the data was collected, the questionnaires were edited for accuracy, consistency and completeness. Data was analyzed using SPSS (v21) based on the items of the questionnaires. In particular, mean scores, standard
deviations, percentages and frequency distribution were used to summarize the responses. Regression analysis was adopted to determine the effect between variables. A simple regression method was conducted at a 95% confidence level and a 5% significance level. Results were presented in the form of tables. Specifically, the regression model was of the form below:

$$Y = \beta_0 + \beta_1 X_1 + \varepsilon$$  

(1)

where:
- $Y$ = Performance of financial technology companies in Kenya,
- $\beta_0$ = The intercept,
- $\beta_1$ = Regression coefficients,
- $X_1$ = Product innovations,
- $\varepsilon$ = Error term.

6. RESULTS AND DISCUSSION

The study had 36 respondents. Out of 36, 34 of them completed the questionnaire, accounting for 94.45% of the population, which is an acceptable response rate.

6.1. Profile of Respondents and Demographic Characteristics

Table I presents the age of the respondents.

<table>
<thead>
<tr>
<th>Age category</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Below 25 years</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>26–35 years</td>
<td>13</td>
<td>38.2</td>
</tr>
<tr>
<td>36–45 years</td>
<td>7</td>
<td>20.6</td>
</tr>
<tr>
<td>Above 45 years</td>
<td>14</td>
<td>41.2</td>
</tr>
<tr>
<td>Total</td>
<td>34</td>
<td>100.0</td>
</tr>
</tbody>
</table>

From Table I, 41.2% were above 45 years of age, 38.2% were between 26 and 35 years of age, 20.6% were between 36 and 45 years of age, and none of the participants were below the age of 25 years. These results showed that a majority of the participants were senior in age. This is consistent with the fact that being in senior management within an organization takes some years.

Table II below presents the gender of the respondents.

<table>
<thead>
<tr>
<th>Gender</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>24</td>
<td>70.6</td>
</tr>
<tr>
<td>Female</td>
<td>10</td>
<td>29.4</td>
</tr>
<tr>
<td>Total</td>
<td>34</td>
<td>100.0</td>
</tr>
</tbody>
</table>

From the results, 70.6% of the respondents were male, while 29.4% of the respondents were female. This finding is consistent with the current setup where a majority of those in senior management of most companies are male.

Table III presents the length of stay in the company by respondents.

<table>
<thead>
<tr>
<th>Period</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between 2 and 6 years</td>
<td>9</td>
<td>26.5</td>
</tr>
<tr>
<td>Between 7 and 11 years</td>
<td>20</td>
<td>58.8</td>
</tr>
<tr>
<td>Over 12 years</td>
<td>5</td>
<td>14.7</td>
</tr>
<tr>
<td>Total</td>
<td>34</td>
<td>100.0</td>
</tr>
</tbody>
</table>

From the results, 58.8% of the respondents had stayed for between 7 and 11 years, 26.5% between 2 and 6 years, and 14.7% over 12 years. This finding shows that the majority of the respondents were senior and had stayed with the companies long enough to make important strategic decisions on behalf of the company.

6.2. Descriptive Statistics on Product Innovation

This section presents the descriptive statistics of the responses on product innovation and organization performance. A five-point Likert scale where 1 = Strongly Disagree, 2 = Disagree, 3 = Uncertain, 4 = Agree, and 5 = Strongly Agree was used to establish respondent’s perception of product innovation strategies in their companies. Table IV below presents the results of the descriptive statistics of responses about product innovations.

Table V: Results of Descriptive Statistics on the Performance of the Information Technology Companies

<table>
<thead>
<tr>
<th>Response about product innovation</th>
<th>N</th>
<th>Mean</th>
<th>Mode</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customers are highly satisfied</td>
<td>34</td>
<td>4.82</td>
<td>5</td>
</tr>
<tr>
<td>Costs of operation have been reduced significantly</td>
<td>34</td>
<td>4.79</td>
<td>5</td>
</tr>
<tr>
<td>Employee motivation has increased</td>
<td>34</td>
<td>4.88</td>
<td>5</td>
</tr>
<tr>
<td>Customer numbers have increased</td>
<td>34</td>
<td>4.94</td>
<td>5</td>
</tr>
<tr>
<td>Company market share higher than others</td>
<td>34</td>
<td>4.65</td>
<td>5</td>
</tr>
</tbody>
</table>

Note: Predictor: Product innovation.
that their companies improve their products and services to conform to the changing customer needs. The statement “My organization conducts consumer research before developing new products” had a mean of 4.62 and a mode of 5.00. The respondent strongly agreed that the majority of the time, their companies conduct research before developing new products. The statement “My organization develops products based on consumer demands” had a mean of 4.59 and a mode of 5.00. The respondents strongly agree that their companies/organizations develop their products based on the consumer demand for those products. The statement “My organization develops and improves products based on information collected from consumers” had a mean of 4.59 and a mode of 5.00. The responses from the respondents confirm that, indeed, their respective companies develop and improve their products based on information that they gather from their respective customers. The statement “My organization offers a variety of products customized to client needs” had a mean of 4.47 and a mode of 5.00. The respondents strongly agreed that their companies do offer a variety of products customized to client needs. The statement “Customers are oriented on new products regularly” had a mean of 4.47 and a mode of 5.00. The respondents strongly agreed that their respective companies do make a point of regularly orienting their customers on any new products that they launch. The statement “My organization produces products cost effectively” had a mean of 4.35 and a mode of 5.00. The responses show that the respondents agree that their respective companies generally produce their products in a cost-effective manner.

6.3. Descriptive Statistics on the Performance of Financial Technology Companies in Kenya

Table V presents descriptive statistics of responses about the performance of the information technology companies in Kenya.

From Table V, the statement “Customer numbers have increased” had the highest mean score (M = 4.94). This means that respondents agreed that customer numbers have increased in the recent past. The statement had a mode of 5, meaning that the respondents strongly agreed that their customer numbers had increased. The statement “Employee motivation has increased” had a mean of 4.88, meaning the respondents agreed that the employee motivation had been increasing. The statement had a mode of 5.00, meaning that the respondents strongly agreed their employee motivation had increased. The statement “Customers are highly satisfied” had a mean response of 4.82, meaning that the respondents strongly agreed that their companies’ customers were highly satisfied. The mode of 5.00 confirms the fact of agreement by the respondents. The statement “Costs of operation have reduced significantly” had a mean of 4.79, meaning respondents strongly agreed that their cost of operation had significantly reduced. The statements had a mode of 5.00, meaning that the respondents strongly agreed that their cost of operation had reduced significantly. The statement “Company market share higher than others” had a mean of 4.65 and a mode of 5.00. These statistics show that the respondents strongly agree that they have a higher market share compared to their competitors.

6.4. Hypothesis Testing

Regression analysis was used to establish the effect between product innovation and the performance of financial technology companies in Kenya. Regression analysis was conducted between product innovation and the performance of financial technology companies. The hypothesis tested in this analysis was the following:

$H_{01}$: Product innovation has no significant effect on the performance of financial technology companies in Kenya.

From the model summary in Table VI, the $R^2$ was found to be 0.423. This suggests that there was a 42% change in the performance of the financial technology companies as a result of product innovation. The remaining 58% suggest that there are other factors that can explain the variation of the performance of the financial technology companies.

The standardized beta coefficient ($\beta = 0.333, p = 0.050$) indicates that process innovation strategies are significant predictors of the performance of financial technology companies in Kenya (see Table VII). This significant beta coefficient suggests that an increased ranking of product innovation will lead to a 33% increase in the performance of financial technology companies in Kenya.

Thus, hypothesis two, which states that product innovation has no effect on the performance of financial technology companies in Kenya, is rejected, and the alternative hypothesis, which states that product innovation has an effect on the performance of financial technology companies in Kenya, is accepted.

7. Conclusions

The objective of the study was to determine the effect of product innovation on the performance of financial technology companies in Kenya. The study concluded that product innovations are also a key determinant of the performance of the financial technology companies in Kenya. The simple regression results indicated that there is a positive and significant relationship between the implementation of product innovations and the performance of financial technology companies in Kenya.
8. Recommendations

Financial technology companies in Kenya should consider product innovation strategies as key strategic initiatives in the industry. Being a service industry, the impact on the performance of these initiatives is significant, as has been shown by this study. As the companies continue to grow and as the industry matures, product innovations take greater meaning as such improvements see a greater-than-normal increase in performance as the companies implement the process innovations.

As a policy recommendation, it is recommended that the Central Bank should insist that the companies have a product division or department that is dedicated to the review and implementation of new product suggestions. The department or division should be cross-functional and should draw people from diverse backgrounds to bring diversity into the product decisions that are made. The study also recommends that the financial technology companies come up with a standards bureau that will handle all standards-related implications of the changes that the companies will be making. This will ensure that the products can be reviewed and approved by an internal standards body other than the Central Bank of Kenya (CBK).

The management of financial technology companies and companies of a similar nature need to recognize and appreciate the need to implement strategic initiatives like product innovations. The management should ensure that as they implement product enhancements and solutions, they keep in mind the customer and always find a way of incorporating the customer in the process and product discussions.

9. Areas for Future Research

The study provided great insights into the effect of product innovations on the performance of financial technology companies in Kenya. An in-depth study on the effect of market innovations on the performance of financial technology companies is recommended. It is also recommended that the study be extended to the Eastern African market to see the impact of product innovations on the performance of financial technology companies in the region.

Future studies can also use other research instruments such as interviews, focus group discussions and collection of secondary data in order to glean further insights that can help financial technology companies adopt product innovations in a bid to drive performance.

Conflict of Interest

The authors declare that they do not have any conflict of interest.

References


