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Does Firm Innovation have an effect on Financial Performance? Evidence from Insurance Firms in Kenya

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Abstract

The purpose of this study was to examine the effect of firm innovation on financial performance of insurance firms in Kenya. The study was informed by balanced score card theory and stakeholder theory. The study employed explanatory research design. The study population comprised of 5273 employees drawn from 49 Kenyan insurance firms who are members of Insurance Regulatory Authority. A sample size of 372 employees was drawn using Yamane's formula. Data for this study was collected using a survey questionnaire. Reliability of data collection ensured through pre-testing of the instruments and statistically, the Cronbach's alpha was adopted to assess the level of reliability of the instrument. Findings from multiple regression models and Pearson correlation analysis indicated that innovation had significant and positive effect on performance of insurance firms. A firm innovation always led to the financial performance insurance firms.

Keywords: *financial performance. Insurance firms, firm innovation*

1.1 Introduction

Financial performance of a firm is best typified by the profits realized by the enterprise (Boot & Thakor, 2007). In line with the resource-based view, firm performance contended that firm capabilities make it possible for them to attain maximum returns on their investment. For instance, the dimension of performance management capability makes it possible for business leaders to make corrective action on possible or actual

spillages in a proactive manner (Athanasoglou et al, 2008). Similarly, the extant literature in strategic management and marketing contend that both process management and customer management capability have the potential to influence firm performance (Alam et al, 2011). Furthermore, financial performance is used as indicator of how best an organization is creating value for its owners.

Firms intending to make profits have to continually innovate products and services, have firm structures that will save on the cost of production and focus on satisfying customers. In certain instances, firms have to have a research and development department tasked with instituting innovative practices to yield profits and in certain cases trial and error. The end result is innovation that spurs firm performance. The implications of financial innovation have been the subject of debate in the literature as benefits are accrued to the innovators as well as the society. As such, innovations tend to stimulate financial performance of firms engaging in the innovation process (Boot & Thakor, 2007).

In the past decade, the essence of firm innovation has been on the rise especially for developing economies such as Kenya thereby necessitating research on the subject (Joseph & Mark, 2003). Developing economies like Kenya are believed to be investment-driven and not innovation-driven (Tarus & Sitienei, 2016) due to lack of innovative workface, but based on competitive intensity in insurance industry (The Association of Kenyan insurer, 2012). Kenya's development strategy is built on four pillars, where one of them is to invest in innovation. Strengthening the quality and exploiting the productive use of Kenya's innovation capital must be a high policy priority (Thugge, Heller and Kiringai, 2008). The availability of a well-developed innovation base in Kenya is critical to the attainment of the Vision 203. The much-needed higher productivity in the process of realization of Vision 2030 depends on the quality of innovations and how they are utilized (Kimutai and Patrick, 2011).

One of the problems that insurance firms and commercial banks in Kenya face is low innovations. A study done by Price Water House Coopers (2010) on Kenyan insurance firms found that there are an innovations or employee creativity challenge facing insurance firms, whereby there is a shortage of innovation skills among insurers. Moreover, the advancement in technology that has been evidenced in Kenya particularly in the banking sector has forced insurance firms to capitalize on any skills that they possess so as to remain competitive. In fact, in the past few years, the financial reforms, globalization and progressions made in ICT have brought about a lot of changes in the insurance industry (Kiragu, 2014). Nevertheless, these changes have not impacted positively on productivity, efficiency and the overall performance in the industry. As such, the performance dimension in the insurance industry is most often dependent. The resulting outcome of innovation has been that insurance firms lack information on how they can be on the forefront in coming up with innovative products and services. This therefore necessitates the study as there is not much that has been evidenced on the link between intellectual capital and financial performance. Therefore, there is need to establish how firm innovation affects financial performance.

Despite there being earlier studies delving on firm innovation (Langerak *et al.*, 2004; Ledwith *et al.*, 2008 and Geroski, 2005), few of them have given attention in relation to firm innovation, and financial performance. Zambon and Monciardini (2015) found that complexities exist in the link between innovation and firm innovation and still it is an open research question. Nowadays, it is important to link the innovation and firm performance particularly in financial institutions (Zambon and Monciardini, 2015). Therefore, there is need to establish how firm innovation affects financial performance. Thus, the study hypothesized that:

$H_{o:}$ There is no significant effect of firm innovation on financial performance

2.1 Theoretical and Literature Framework

Firm innovation is considered the main factor of firms' profitability (Alipour, 2012). Damijan *et al.*, (2012) found that innovation has an impact on organization's productivity, but only significant in the case of enterprises with low productivity growth rates. Therefore, some antecedents seem to be hidden in the linkage between a productivity-driven growth and innovation. Rodrigues *et al.*, (2015) argue that innovation and its intangible antecedents are essential to understand innovation-driven economic growth. Additionally, intangible assets show a most relevant influence on innovation and performance than tangible ones (Bueno *et al.*, 2010). Hence, firms with intellectual capital tend to exhibit more innovation in terms of the range of products and the services on offer.

The Schumpeterian argument has offered several theories insights on financial innovations made by firms are protected from imitation for a given timeframe. Consequently, innovations that are successful creates a trademarked competitive position that enables firms to elicit superior performance and a competitive advantage (Lyons, Chatman & Joyce, 2007). Imitations that take place throughout the Schumpeterian process of inventive annihilation then creates the need for firms to come up with more innovation to sustain their competitive advantage.

Furthermore, Lyons, Chatman & Joyce (2007) are of the view that changes in technology in the form of innovations lead to the reduction in costs in terms of collection, storing, processing, conveying information and the manner in which clients access their banking services. Specifically, in the banking sector, innovations such as the automated teller machines, internet and mobile banking have revolutionized the banking system by enhancing efficiency and influencing the overall bank performance positively. Similarly, Mansury & Love (2008) argue that technologies in the banking and several other technologies have also been instrumental in enhancing bank performance.

Earlier studies delving on innovation have generally established that superior performance is as a result of the innovation process. However, there has been a new wave of models that have a different standpoint on the nexus between firm performance and innovation activities. According to these models, the focus has shifted to multifaceted innovation channels through which the inputs of innovation are translated into superior

firm performance (Loof; *et al.,* 2006; Kemp; *et al.,* 2003). The utility of financial innovation is best described by Roberts and Amit (2003) as a way in which firms attain competitive edge and enhanced financial performance. Their results further indicate that there is a positive correlation between the innovation process and firm productivity.

The norms, relationships and institutions that dictate the quantity and quality of the social interactions in a society are what makes up the social capital (Lu *et al.,* 2011). It has been argued by authors such as Laurrsen *et al.,* (2012) that the innovation capabilities of firms are dependent on the social capital. The study suggests that with the deepening of the relationships among individuals, there is increased willingness to stimulate and coordinate the deployment of innovations (Carmona-Lavado *et al.,* 2010). There is thus enhanced teamwork and organization within a firm (Putnam, 1993).

A study that was conducted by Lawson and Samson (2001) delving into the relationship between innovation and performance highlighted that innovators play a critical role in coming up with new ideas on product development that in turn reflect in improved firm performance. Also, the authors stated that it is essential to utilize capabilities in driving innovation. There were seven aspects of innovation that were conceptualized as critical in enhancing organizational performance. As such, there is need to capitalize on these aspects in order to improve of innovation capabilities and the overall firm performance.

As well, Saunila (2014) conducted a study on the influence of innovation capabilities on firm performance and established that financial performance is positively influenced by innovation capabilities. Furthermore, Gopalakrishnan (2000) established that both the innovation magnitude and speed have an influence on the performance of firms. On the one hand, the innovation speed refers to how swiftly firm deploy their resources and capabilities to meet the rising interests at the industry level.

In addition, the speed by which new innovations are generated determines whether there is decline in costs and an improvement in the quality of products. There is therefore an association between speed of innovation and the increase in market share. With regard to the magnitude of innovation within a firm, the adoption of a wide array of innovation is key in the reduction of costs and the increase of profits at firm level (Gopalakrishnan, 2000).

3.1 Research Methodology

In this paper, compared to other paradigm approaches, positivism had an upper hand as opposed to phenomenological point of view since innovation and the financial performance of firms constructs especially in the insurance sector can be investigated objectively using set up hypothetical frameworks and structured instruments to evaluate and analyze it, whereupon generalizations can be made from the study results.The research design that was utilized by the study was explanatory. Population of the study consisted of 5273 employees from 49 insurance companies registered as members of Insurance Regulatory Authority (IRA) in Kenya (IRA, 2014). The sample size of 372 employees from 49 firms was covered. By adopting Yamane (1973) sample selection

approach the following formula were used. The survey questionnaire research instrument was used to collect data for the study.

4.1 Research Findings and Discussions

This chapter highlights the analysis, presentation and interpretation. The chapter is organized as follows: descriptive analysis, correlation analysis, regression analysis, hypothesis testing and discussion of the study findings. In the present research, the response rate obtained was high at 89.78 percent and implied that the response rate was good. The success rate was attributed to the researcher's self-administration of the questionnaires from which the intended respondents were pre-notified before the date of data collection from which the researcher agreed on the actual date for the administration of the data questionnaire. Follow-up calls were created to explain queries and thus the elevated response rate was increased.

4.1.1 Descriptive and Correlation Results

The descriptive analysis included the means, standard deviation. Normality was then assessed using skewness and Kurtosis (Tabachnich and Fidell, 2007). The dissemination across the variable was viewed as normality dispersed if skewness and kurtosis values fell between - 2.0 to 3. As demonstrated by the skewness and kurtosis values for the investigation variable, skewness and kurtosis values for the variable in the examination were within the accepted range. The assumption of normality had therefore been met. Respondents were asked to indicate on a seven-point Likert scale their level of agreement on several statements describing the performance of insurance firms. Descriptive statistics such as mean and standard deviation were jointly used to summarize the responses as presented in Table 1. Findings of the study indicated with the overall mean of focus financial performance being 5.44 in insurance firms. In addition, innovation in insurance firms was highly scored with a mean of 5.56. This shows that majority of the respondents were in agreement with the statements that were used to measure firm innovation in insurance firms. Before performing the regression analysis, correlation analysis was done in order to check whether there was association between variables and also checked whether there was multicollinearity among the variables. Pearson product moment correlation coefficient (r) was used to aid in establishing correlation between the study variables of interest. The study findings showed that there is a significant positive relationship between firm innovation and performance insurance firms ($r = .764$, $p = .000$). This implies that firm innovation the performance insurance firms. The most influential factor in relation to performance insurance firms was social capital followed by human capital and finally organization capital since it had the highest correlation coefficients. It is important to note that firm innovativeness improved performance insurance firms more that to the extent of human and social capital does. This agrees with Ghorbani *et al.*, (2012) that there is a relationship between parameters of intellectual capital management (social capital, organizational capital, human capital) and organizational innovation. This finding is consistent with Seleim, Ashour, and Bontis (2007) and Maditinos, Chatzoudes, Tsairidis, & Theriou (2011) who found that human capital indicators had a positive relationship with organizational performances.

Table 1: Descriptive and Correlation Results

	Mean	Std. Deviation	Skewness	Kurtosis	Performance	Innovation
Financial Performance	5.439	.888	-.598	-.232	1	
Firm Innovation	5.572	.819	-.448	-.120	.764**	1

**. Correlation is significant at the .01 level (2-tailed).

4.1.2 Test of Regression Assumptions

MR assumptions recognized in the studies as main issue include linearity, independence of errors, homoscedasticity, normality, and collinearity. For normality, Kolmogorov-Smirnov and Shapiro Wilks Tests (Shapiro and Wilk, 1965) were used to define the distribution shape in the research. The p-value of Kolmogrov-Smirnov-test and Shapiro Wilk-test could detect normality. In this respect, if the Shapiro-Wilk Test's p-value (Sig. value) exceeds .05, the data is normal. The information differ considerably from a normal distribution if it is below .05. Therefore, as the p-values were more than .05 for all factors, the normality of the information was verified. Lilliefors significance correction was used to assess that data has come from a normally distributed population. Following accepted processes, linearity was evaluated with SPSS. The decision rule applied was that if the value of significance linearity deviation is > .05, then it is said that the relationship between the predictor and outcome variables is linearly linked. However, if the value < .05, the reverse was true. The Levene's variance equality statistics were used to test for homoscedasticity hypothesis. Violation of variance homoscedasticity is verified if the Levene test statistics (alpha level .05) are discovered to be important. The Levene statistics were above .05 Martin and Bridgmon, 2012). Therefore, the hypothesis of variance homoscedasticity in this research was endorsed.

4.1.3 Testing of Hypothesis

To determine the nature of the relationship, a linear, multiple regression analysis was used. Furthermore, the inferential statistics were used to test for possible rejection or acceptance of the null hypothesis. The level of significance of 5 percent was drawn as the level of decision criteria that rejected the null hypothesis if the p-value was less than .05 and accepted if not. From the model (R^2=.588) displaying that in insurance companies, innovation represents 58.8 percent variation in firm performance. Using the F-ratio as shown in Table 2, the change statistics were used to assess if the change in adjusted R^2 is significant. The model caused adapted R^2 to alter from zero to.588, resulting in a F-ratio of 156.716, which is significant at a.05 likelihood.

The study hypothesized that there is no significant effect of innovation on performance of insurance firms. The results depicted that there was a positive significant effect of innovation on performance of insurance firms (β=.764 and p<.05). A unit increase in organization capital led to an increase in performance of insurance firms by .764. The

null hypothesis was rejected and the alternative hypothesis accepted. In insurance companies, innovation has a important impact on financial innovation. The results indicated that the innovation affect financial performance of insurance firms. The more the innovation is considered in insurance firms the more the increase in financial performance of the firms. This agrees with Ghorbani et al., (2012) that organizational innovation has a important connection. It also agrees with Al-Dujaili (2012) that the impact of organizational innovation is important. This agrees with Amiri et al., (2011) that both incremental innovation and radical innovation are favorably linked to financial performance.

The results coincide with those of Wu, Chang and Chen (2008) who discovered that there are important levels of mediating impacts of product development on MFIs ' economic results. Thus, insurance companies ' success depends on the level of innovation applied. The results agree (Laurrsen et al., 2012) that the innovative skills of the firm affect financial performance. He also agrees with Saunila (2014) that the effect on economic and operational results of the general elements of innovation capacity. Innovation capacity elements have more impact on economic performance than on operational performance. This is in line with Lawson and Samson (2001) that in order to achieve high and efficient efficiency, innovators ' capability is important.

Table 2: Regression Results

	Unstandardized Coefficients			Standardized Coefficients	
	B	Std. Error	Beta	t	Sig.
(Constant)	.839	.256		3.279	.001
firm age	-.003	.002	-.051	-1.427	.155
firm size	.000	.001	.021	.572	.568
Innovation	.828	.038	.764	21.603	.000
Model Summary					
R	.767				
R Square	.588				
Adjusted R Square	.584				
Std. Error of the Estimate	.57318				
model fitness statistics					
F	156.716				
Sig.	.000				

a Dependent Variable: Performance

5.1 Conclusion

The firm innovation had significant relationship with performance of insurance firms. A firm innovation always led to the financial performance insurance firms. This is usually the case when firms are in the forefront when in it comes to the introduction of new products and services in the market. In so doing, firms are able to attract new customers as well as maintain the existing ones. Such a firm is also capable of staying ahead of the competition as it actively engages in innovation. The resulting outcome is improved financial performance. To a certain extent innovation facilitates the process and

innovation capital, enhances the coordination and support within and outside the firm and empowers the human resource which in turn brings about an improvement in the financial performance.

6.1 Recommendation of the Study

Evidently, firm innovation leads to superior financial performance. Therefore, insurance firms need to actively engage in the development of new products and services so as to capture new markets and strengthen on the existing ones. The firm's product lines need to be extended as it will have a positive effect on financial performance. For the managers, they should develop and adopt innovations that are geared towards improving their financial performance. The empirical findings confirm that an increase in the innovation level increased financial performance. Specifically, they underline the relevance of the innovation developed in order to meet the customers' needs as well as of those developed in order to differentiate from the competitors in improving the financial performance. Moreover, results suggest that in insurance the level of technology adopted to develop innovation does not impact on the financial performance

Finally, the management of insurance firms should empower their employees through motivation strategies that can make them become more innovative. In addition, the insurance firms should enhance innovation strategies among their capital resources in order to enhance their performance.

Further studies are needed to investigate effects of other variables such as strategic goals, information sharing and competitive strategies on financial performance with multiple informants to allow respondents to address their precise area of expertise resulting in a greater validity of the findings.

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