Influence of Financial Innovation on Financial Growth of Non-Governmental Organizations in LREB-Kenya.

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Abstract

The purpose of this study was to analyze effect of financial innovation on financial growth of non-governmental organizations in Lake Region Block- Kenya. Cross-sectional research design was adopted involving a sample of 220 respondents from various NGOs. Both primary and secondary data were collected. Data was analyzed using independent samples t-test and one-way ANOVA. Results indicated that adoption of financial innovations significantly enhanced financial growth by 16.04%. Furthermore, product, process and structural innovations influenced percentage change in revenue with structural having a greater influence in relation to product and process innovations. Findings of this study may be invaluable to management of NGOs in embracing financial innovation which is likely to enhance their revenue growth. More importantly, findings may also contribute to academia by providing valuable empirical data on innovation strategies influencing financial growth.

Keywords: Financial innovation, financial growth, Lake Region Economic Block- Kenya.

1. Introduction

An innovation means development of new financial instruments, services and markets using new and innovative technology. It is an inclusion of new financial applications and instruments with help of technology in the market and entails creating new process, product and structural systems which would promote growth of organizations. There has been a keen interest on innovation and how it impacts on the organization since financial crisis of 2008. Innovation might comprise refining current products or developing a completely new idea to generate an original product where the different forms of financial innovations include; product, process, market, and structural innovations Dubey, Sonwaney, & Venkatesh (2015) and Larsen & Lewis, (2010).

A number of scholars that include Atalay (2013), Bibu (2012), Costanza (2009), Dah, (2022), Luxmore and Stephens & Partridge (2013) amongst others have done researches on financial growth and innovations of NGOs in Gambia, Romania, India, Thailand and Myanmar and noted that innovations encourage active participation in decision making by leaders of NGOs, act as effective mediators between leadership and employees and motivate and control individuals to accomplish successfully central resolve and goals of an organization. The studies acknowledged financial management practices, revenue diversification, funder to beneficiary relationship management practices and revenue generation capacity as the innovative factors that influence growth of NGOs. From the foregoing, as much as the researchers tried to relate financial innovation and growth, the important aspects of financial innovation such as product, process, and structural innovations were not considered an indication that their influence on financial growth of NGOs remain unknown hence a justification for a study to determine the effect of financial innovation on financial growth of non-governmental organizations in Lake Region Block (LRB).

2. Literature Review

Study done by Maier (2018), Popescu (2018) found out that Organizations are increasingly involved in Product innovative actions geared to management, organization and business configuration methods that contribute to the achievement of sustainable competitive advantages. Davila & Melendez (2019) , Berry (2011), Brown & Fazzari (2009) in their research adopted a descriptive research design approach and the study of product innovation found out that innovation is key strategic element to growth, necessary ingredient for sustainable success, and progressive in any organization the results showed positive relationship though on profit making firms. Amabile & Pratt (2016), Kleinbaum & Tushman (2007), Xiao (2013) researched on strategic direction using descriptive research design on financial innovation and formal rules and integrating novel ideas into an innovation involves collaboration among many. The scholars did research on the product Innovation in Taiwan using cross sectional research design and results showed effect of growth of organization and other also showed creativity-based design process for innovative product design in Tainan, Taiwan using cross sectional research design where findings indicated the sensuous association method (SAM), which can be employed to encourage designers' potential to produce innovative ideas quickly. Although there's positive link between creative and innovation in profit making firm the study focused on the innovation and growth in non-profit organization organizations that are not comparable to NGOs hence results may not be generalized to non- profit organizations.

Tsai (2021), surveying 150 Taiwanese high-tech companies to understand how product innovation and affect institutional performance noted that out of a target population of 600 with a sample 135 respondents, product innovation had a positive effect on organizational performance with the magnitude being more significant in business environments experiencing high levels of uncertainty. Anikoyi (2023) employing a survey design in Nigeria that involved 340 employees of Nestle Plc In Nigeria to investigate how product innovation impacted performance. Innovation did have a positive impact on profitability by explaining 21% in its variation. However, the profitability was highly only under circumstances where customers perceived innovation as stronger, favorable and unique.

A research by Nakato, Ngigi, & Andemariam, (2021), in Kampala on printing SMEs involving explanatory design and a census of 125 SMEs established existence of positive association between product innovation and performance of printing SMEs given a correlation coefficient of 0.61. Another study by Muhumed, Abdilahi, & Hassan (2017) on SMEs conducted in Somaliland involving 378 SMEs supports Nakato et al. (2021) whereby it was discovered that innovation significantly improved SMEs performance.

Determining how product innovation affects performance of commercial banks in Kenya by adopting a cross-sectional survey involving 43 banks and using both primary and secondary data, Kamakia (2014) indicates that product innovation aspects comprised of locality and extensive linkage, office networks and variety of products amongst others. Responses from majority of the banking staff clearly indicated that product innovation greatly influenced performance by improving customer care, profitability, sales volumes, quality of products and promoted the bank's reputation. A similar study done by Muchoki (2013) in Kenya with a focus on mobile telephony firms for 5 years. The companies had involved product innovations of different types which enhanced their performance. However, it was established that not only product innovations impacted positively on performance but had a negative influence and a point in case was that short message service (SMS) that reduced revenues.

As much as majority of the research work point to a scenario where product innovation has a positive influence on performance, there has been an indication that some aspects of product innovation negatively impact performance of organizations. This points to mixed findings with regard to the product innovation impact. Furthermore, all studies reviewed had a bias towards profit making organizations that portray a perception that non- profit making organizations do not undertake innovations. This together with mixed results creates a knowledge gap with regard to how product innovation affects financial growth of NGOs as it remains unknown the direction and magnitude of the effect product innovation on the revenue growth of the organizations.

A process innovation involves execution of a different or considerably enhanced delivery technique including modifications in methods, equipment and software intended to reduce cost per unit of delivery, improve quality and deliver enhanced products Yuan & OECD (2021). According to Nelson (2021) bringing forth new products is normally presumed to have a clear, positive effect on the growth of income. However, process innovation may have a hazier effect given that it is expensive and difficult to realize if there is lack of relevant technical know-how (Akpoviroro, Amos, & Oladipo, 2019). Atalay, Anafarta and Sarvanc (2013) assert that innovation remains a key foundation for viable competitive advantage in a dynamic surrounding since it causes improvement in processes, which assist organizations endure and expand faster, become efficient and eventually more profitable. In their study involving 113 automotive companies in Turkey, results showed that process innovation significantly improved performance of the companies by 0.2 units.

Following the enactment of a 2001 law in Sweden outlawing landfilling of combustible waste as noted by Kenfac, Nekoumanesh & Yang (2013), municipalities attempted to increase their waste-management practices which prompted a qualitative study to scrutinized how 4 municipalities in Sweden used process innovation to achieve their goal of waste collection. It was revealed that processes innovation directly impacted on the municipality's financial performance. Akpoviroro et al. (2019) in determining impact of process innovation on organization financial position of Nigerian Etisalat Telecommunications Company employed cross-sectional survey involving 114 employees. The findings indicated that process innovation significantly enhanced organizational performance by 51.9%. Ahawo (2021) realizing that researches conducted in North America showed positive relationship between process innovation and performance but inadequate studies had been carried out among humanitarian organizations in Kenya. To add to existing knowledge a cross-sectional survey targeting managers of humanitarian organizations in Kenya was adopted. From regression results it was evident that 50.3% of variation inorganization performance in the humanitarian organization in Kenyan was explained by adoption of process innovation. Similarly, Omesa (2015) determined the effect of process innovation on performance of Kenya power Company in Kenya using data for a period of 10 years. Regression analysis results showed that 95.7% of variations in return on assets (ROA) were due to process innovation such that enhanced process innovation improved ROA by 1.75 units.

From the forgoing review on process innovation, it is evident that studies have been carried out world over. However, majority focused on profit making organizations and for a study by Ahawo (2021) that attempted to look at non-profit making organizations in Kenya, organization performance was approached from the perspective of efficiency and therefore in no certain terms did the researchers try to link process innovation and revenue growth.

Structural innovation is a recent institutional arrangement advanced to transform how institutions coordinate, communicate and conduct as well as distribute tasks and responsibilities where the institutional structure requires maintenance of a vibrant strategic direction Agwarwal & Liu (2020). Structural innovation involves some modifications that carry innovative ways of transmitting information and decision-making mechanisms that enable institutions to adjust and respond to the environmental changes more quickly Xiaoran, Chunsheg, & Wei (2022). Also, structural innovation decreases rate of institutional centralism and encourages collective decision-making that to some extent reduces the negative impacts that could have been caused by executives limited rationality and opportunism and hence enhancing performance (Xiaoran et al., 2022; Wu, Wu, & Xu, 1999). To support the argument, Xiaoran et al. (2022) conducted a study that explored 362 HEM enterprises. They established that there was a directly proportional effect of structural innovation on organizational performance.

Alosani and Yusoff & Alosani (2019) in examining how innovation affects the performance of Dubai police employed a survey design involving 150 police officer. Regression analysis results confirmed that innovation had a significant positive effect on police performance with a magnitude of 0.24 units. In a study by Walker (2015), it was noted that structural innovations to performance link is intricate and is subject to other factors. In their census study of 139 authorities, they found out that structural innovations had no direct effect on performance of local authorities in the United Kingdom but an indirect effect was realized through performance management that had a positive impact on performance. In contrast to the study, a cross sectional survey by Dararat (2021) using a structural equation modeling involving 360 companies to establish if strategic innovation influenced firm performance in Thailand noted that structural innovation had a direct positive effect on the company's performance.

Nduati (2020) investigated the effect of strategic innovation on manufacturing firm's performance in Kenya using a desktop review where results portrayed a positive and significant impact performance. Similarly, studies by Kanyuga(2019) and Kariuki (2014) involving mobile telecommunications companies in Kenya depicted positive link between structural innovation and performance. From the various studies it is evident that a lot has been researched on how structural innovation relate with performance. However, the short coming arises from the sense that almost all the studies focused on profit making institutions calling for a study involving non-profit making organizations that is likely to give a clear link in the sector.

3. METHODOLOGY

A cross-sectional research design was adopted targeting a total of 517 NGOs was targeted. The study employed modified Mugenda and Mugenda (2003) formula to obtain a sample size of 220 based on stratified sampling where a subsample of NGOs was drawn using simple random sampling within each stratum. Both primary and secondary data were collected where secondary data was obtained from published NGOs Co-ordination Board reports for 2021/2022 and 2022/2023 financial years that was used to compute the annual revenue growth which was comparable with primary data collected in the financial year 2022/2023. Drop and pick procedure shall be adopted where research assistants distributed the various questionnaires and collected them after one week from the selected NGOs.

4. RESULTS

The following result explains the Financial Innovation Adoption (FIA) levels by types for the sampled NGOs in the LRB-Kenya.

Table 1: Adopted Financial Innovation

Adopted	Frequency	Percent (%)
Yes	133	88.7
No	17	11.3
Total	**150**	**100.0**
Type adopted	**Frequency**	**Percent (%)**
Product	52	39.1
Process	51	38.3
Structural	30	22.6
Total	**133**	**100.0**

Table 1 presents the Financial Innovation adoption frequencies, types and percentages. The results reveal that out of the 181 responses, a total of 150 respondents gave information with regard to adopting financial innovation in their NGOs. It is evident that out of the 150 NGOs, 133 (88.7%) have adopted financial innovations while 17 (11.3%) have not adopted financial innovations in the order of their operations. Whereas the 17 returned a 'No' feedback during the administration of data collection tool, all financial operations employ modern innovation. The main financial innovations adopted were product, process, and structural where 52 (39.1%), 51 (38.3%) and 30 (22.6%) had adopted the innovations respectively.

4.1 Financial Innovation and Growth

To examine if financial innovations have significant influence on financial growth for the NGOs, it is prudent to relate adoption of financial innovations and financial growth. Since financial growth proxied by percentage change in revenue (the dependent variable) is a continuous variable while adoption is a categorical variable having two categories of Yes and No. The appropriate analysis to be deployed is therefore independent samples t-test. The test outlines results on group statistics and independent samples test as shown in Table 2.

Table 2

Group Statistics

Innovation aspect	Adopted financial innovation	N	Mean	Std. Deviation
% change in revenue	Yes	133	-5.65	7.0721
	No	17	-21.69	31.500

Independent samples Test

		Levene's Test for Equality of variances		T-test for Equality of Means			
		F	Sig.	T	Df	Sig.	Mean Difference
% change in revenue	Equal variances assumed	.128	.721	2.135	148	.026	16.039*

The test was based on the null hypothesis that there is no significant difference in the mean percentage change in revenue between NGOs that had adopted financial Innovation and those that had not adopted. It also assumes that the equal variances in the dependent variable of percentage change in revenue. The Levene's test was used to establish whether equal variances were assumed. Given a p-value of 0.721 as in Table 2 which was greater than 0.05, then it was established equal variances were assumed. Further, a p-value of 0.026 that was less than 0.05 under the T-test equality for means section implied that the null hypothesis was rejected at 5% level of significance such that there was a significant difference in the mean percentage change in revenue for the NGOs that had adopted financial innovations verses those that had not adopted financial innovations.

It was evident that under the T-test equality for means section, there was a significant mean difference of 16.04% in percentage change in revenue such that whereas the NGOs that had not adopted financial innovations recorded a decline in revenue growth of 21.69%, those that had adopted financial innovations recorded a decline in revenue growth of 5.65%. The first objective having been to determine influence of financial innovation on financial growth of non-governmental organizations in LRB-Kenya based on the null hypothesis that financial innovation has no significant influence on financial growth of NGOs in LRB-Kenya, it is therefore confirmed that null hypothesis is rejected at 5% level of significance such that financial innovation had a significant influence on financial growth of NGOs in LRB-Kenya.

The financial growth (though negative in the period of study) of NGOs in LRB-Kenya that had adopted financial innovations was better than those that had not adopted by 16.04%. The findings conform to those of Akpoviroro et al. (2019) and Omesa (2015) amongst other researchers who established that innovations enhanced organizational performance in Nigeria and Kenya respectively.

4.2 Financial Innovation Aspect Adopted and Financial Growth

The following information concerns the adoption of the examined aspects of Financial Innovation; being product, process and structural.

Table 3: One-way ANOVA

Percentage Revenue Change Descriptive Statistics					
Financial Innovation	**N**		**Mean**	**Minimum**	**Maximum**
Product	52		-8.789	-68.00	55.00
Process	51		-19.628	-64.00	57.00
Structural	30		-4.233	-65.00	52.00
Total	133		-11.917	-68.00	57.00
Test of Homogeneity of Variances					
Levene Statistic	Df1		Df2		Sig.
.585	2		130		.559
ANOVA					
% revenue growth	Sum of squares	Df	Mean Square	F	Sig.
Between groups	5312.129	2	2656.064	3.855	.024*
Within groups	89575.961	130	689.046		
Total	94888.090	132			
Multiple Comparisons - Dependent Variable: Percentage Revenue growth					
I) Innovation type	(J) Innovation type		Mean Difference (I-J)	Std. Error	Sig.
Product	Process		10.839*	3.173	.025
	Structural		-4.555*	1.018	.003
Process	Product		-10.839*	3.173	.025
	Structural		-15.394*	6.040	.032
Structural	Product		4.555*	1.018	.003
	Process		15.394*	6.040	.032

*. The mean difference is significant at the 0.05 level.

Table 3, presents results for Analysis of Variance for the tested variables, using Leven statistics and F statistics. Generally, the financial innovation had a significant influence on financial growth of NGOs in the LRB-Kenya. However, the independent samples t-test fell short of giving insights as to whether the specific financial innovations of product, process and structural influence financial growth. Therefore, it was necessary to employ the One-way ANOVA test to examine if the specific financial innovations had an influence on financial growth of NGOs in the LRB-Kenya and to what extent. The analysis technique was applicable since the dependent variable of financial growth proxied by percentage change in revenue was continuous while the outcome variable of which type of financial innovation was a categorical variable having three categories of product, process and structural.

The null hypothesis for the test was that 'there is no significant difference in the mean percentage change in revenue due to adoption of the various innovations.' The test is also based on the fact that there is homogeneity of variances in the dependent variable of percentage change in revenue. The Levene's statistic was used to establish homogeneity of variances. Given a p-value of 0.559 as in Table 3 which was greater than 0.05, then it was established there was homogeneity of variances. Further, a p-value of 0.024 that was less than 0.05 under the one-way ANOVA section implied that the specific innovations had a significant influence on NGOs financial growth at 5% level of significance.

Under the multiple comparisons section, it was clear that each type of innovation impacted differently on financial growth where between product and process innovations there existed a significant mean difference of 10.8%, product and structural innovations there was a significant mean difference in percentage change in revenue of 4.6% while there was a significant mean difference of 15.4% in percentage change in revenue between structural and process innovations.

As depicted in the percentage revenue change descriptive statistics section in Table 4.5, the average decline in percentage revenue change was 4.2% for NGOs that had adopted structural innovations, 8.8% for those adopting product innovation and 19.6% for those adopting process innovations. It was therefore confirmed that structural innovations had a greater influence on financial growth of NGOs in LRB-Kenya in relation to product and process innovations that can also be clearly seen in Figure 4.15 on the means plot for revenue growth.

The findings of significant influence of product, process and structural innovations on financial growth of NGOs in the LRB-Kenya conform to the results of Onikoyi (2017) in his research on Entrepreneurial Orientation and Innovative Performance of Selected Manufacturing Firms in Lagos State, Nigeria using survey research design revealed a significant positive association between competitive aggressiveness and innovative performance.

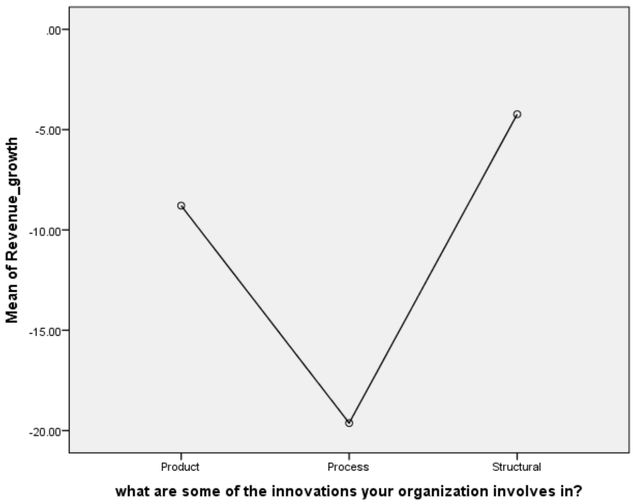

Figure 1: Mean Plots for Revenue Growth.

As depicted in the percentage revenue change descriptive statistics section in Table 3, the average decline in percentage revenue change was 4.2% for NGOs that had adopted structural innovations, 8.8% for those adopting product innovation and 19.6% for those adopting process innovations. It was therefore confirmed that structural innovations had a greater influence on financial growth of NGOs in LRB-Kenya in relation to product and process innovations that can also be clearly seen in Figure 1 on the means plot for revenue growth.

5. Summary, Conclusions And Recommendations

The objective of the study was to determine influence of financial innovation on financial growth of NGOs in LRB-Kenya based on the null hypothesis that financial innovation has no significant influence on financial growth of NGOs in LRB-Kenya. It was confirmed that financial innovation had a significant influence on financial growth of NGOs in LRB-Kenya where the NGOs that had adopted financial innovations had a smaller decline in percentage change in revenue compared to those that had not adopted innovations i.e. percentage change in revenue was better by 16.04%. Furthermore, product, process and structural innovations influenced percentage change in revenue with structural having a greater influence in relation to product and process innovations. It was then concluded that financial innovation significantly influenced financial growth of NGOs in LRB-Kenya by enhancing growth in revenues. The study recommends that to enhance financial growth NGOs in the LRB-Kenya need to embrace financial innovation which is likely to enhance their revenue growth. To harness the influence of financial innovations more emphasis should be given to structural innovations that may help the NGOs to reduce operational costs, enhance internal financial management flexibility, meet cost sharing requirements for external donors, improve brand recognition and enhance attraction to new partners.

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