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Influence of Innovations on Financial Performance of Microfinance Institutions. A Case of Butuuro SACCO in Bushenyi District, Uganda

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ABSTRACT

Microfinance institutions (MFIs) play a critical role in financial sector and assist developing countries immensely in poverty reduction. In Uganda,14% of the population are customers of banking sector and 10 million have bank accounts. The Savings and Credit Cooperatives (SACCOs) which form bulk of MFIs, their financial performance is low despite high interest rates charged ranging from 36% to 48% per year. Therefore, the study examined the influence of innovations on financial performance of MFIs through SACCOs. Objectives were to: examine the influence of organizational/institutional innovation, establish influence of product innovation and assess the influence of process innovation on financial performance of MFIs. The study was anchored on demand and supply theory and guided by conceptual framework. Descriptive research design was used and quantitative research approach adopted. A sample of 127 drawn from a population of 187 was used for the study. Simple random sampling was adopted in selecting respondents and questionnaire was the main data collection instrument. The data was analyzed using multiple regression technique with help of Statistical Package for Social Science software(SPSS version 25).The findings showed that organizational/institutional innovation had statistically significant influence on financial performance of MFIs($t=4.989, P=.000, P<.05$),equally product innovation depicted the same($t=2.506, P=.021, P<.05$).Further the results of process innovation had also statistically significant influence on financial performance of MFIs($t=3.208, P=.000, P<.05$).Therefore the study concluded that organizational/institutional innovation, product innovation and process innovation had significant influence on financial performance of MFIs. The study recommended introduction of more innovations in areas of organizational/institutional structure, product designs and process and procedures.

Keywords: Innovation, Microfinance Institution, Financial Performance

INTRODUCTION

Microfinance institutions (MFIs) play an important role in the financial system in most developing countries. They have a double bottom-line objective: a poverty-reduction mission and a sustainability goal. However, government of Uganda has created an enabling environment for establishment of self-help SACCOs as one way to reduce poverty in the country [1]. In Uganda only 14% of the population are part of the formal banking sector and only 10 million possess bank accounts [2, 3]. Savings and Credit Cooperatives (SACCOs) remain the most essential players in the provision of financial related services and have broader outreach than some other financial sectors in Uganda [4]. SACCOs constitute financial organizations that offer comparative if not similar items like banks and the greater part of them were shaped long time back before most commercial banks, yet their performance is low compared to other businesses in the same sector. Factors like financial management and capital levels challenge SACCOs as they struggle to serve their member's financial needs. SACCOs in Uganda face several challenges which have affected their operations since some of them have failed to meet their obligations due to lack of sufficient liquidity and ineffective risk management approaches leading to poor credit worthiness and loss of member's confidence [5]. Innovation is described as implementation of new ideas aimed at bringing a change in performance of an organization. It can also be defined as the continuous process of upgrading by employing knowledge or the new combination of existing knowledge that is new to the local area. Innovations generally assume different forms such as institutional innovations, product innovation and process innovation [6]. Institutional innovations relate to changes in microfinance structures, establishment of new financial

intermediaries, and the changes in the legal and supervisory framework, characteristics to respond to changes in market demand or improve efficiency. Product innovation includes new credit cards, personal unsecured loans, money transfer services, mobile banking and mobile lending while process innovation include electronic banking, Automatic Teller Machines (ATMs). Financial performance is an essential measure of the financial health, competitiveness, efficiency, cost effectiveness and productivity of a business enterprise. Invariably, financial performance is very instrumental in determining the growth and sustainability of microfinance institutions. Evidently, MFIs that experience sound financial performance exhibit high profits, portfolio quality and operational efficiency as well as improved competitive edge [7]. Additionally, good financial performance of microfinance institutions (MFIs) leads to realization of MFIs' profit maximization objective, reduction in the dependency rate, improved competitive edge and promotion of entrepreneurial ventures as well as economic development in a country [8]. As a result of sound financial performance, MFIs are able to improve the welfare of people through wealth creation and poverty reduction. However, global empirical evidence shows that microfinance institutions experience poor financial performance, epitomized by low profitability, low portfolio quality, low operating efficiency and high operating costs. Similarly, in Africa, MFIs also manifest poor financial performance as evidenced by low efficiency ratios, declining net operating margins and declining portfolio yield, a rise in operating costs, low relative productivity and profitability [9]. Micro Finance Institutions in Uganda charge exorbitant interest rates which range from 36% to 48% per annum from 2020-2022, still with such high interest rates their financial performance is still low [10]. The financial performance of MFIs highly depends on its credit risk management practices such as risk estimation, credit assessment, and credit risk control among others [10].

Problem Statement

Microfinance institutions (MFIs) play a critical role in poverty reduction particularly in developing countries and help promote micro and small enterprise development [11]. They offer financial services to low-income people who may not have access to mainstreams banks or other formal financial service providers. Many MFIs have reported low levels of profitability [12]. Still, many have secured high loan repayment rates but few earn profit [13]. In Uganda, MFIs financial performance is low due to high levels of non-performing loans [14]. The microfinance like commercial banks is known for introducing new innovations in their operations in order to improve financial performance. Despite these efforts made, financial performance levels have remained low. The issues of concern include the influence of organizational/instructional innovation, product innovation and process innovation on financial performance of MFIs which are scantly known. If the situation is not addressed, the MFIs will collapse consequently affecting micro and small enterprises, leading to increased poverty and crime rates. This in the long run will make it difficult for Uganda Government to achieve its National Development Plan (NDP). Therefore, the study sought to examine the influence of innovations on financial performance of microfinance institutions.

Research Objectives

The objectives of the study were to:

i) Examine the influence of Organizational/institutional innovation on financial performance of Microfinance Institutions
ii) Establish the influence of product innovation on financial performance of Microfinance Institutions
iii) Assess the influence of process innovation on financial performance of Microfinance Institutions

Research Hypotheses

The hypotheses were:

H_o1: There was no significant influence of Organizational/institutional innovation on financial performance of Microfinance Institutions

H_o2: There was no significant influence of product innovation on financial performance of Microfinance Institutions

H_o3: There was no significant influence of process innovation on financial performance of Microfinance Institutions

Theoretical Framework

The study has been anchored on Demand- supply theory of innovation. The theory of demand and supply innovation was developed by [15]. It indicates that the source of innovations can be analyzed from either the demand theory or supply of innovation. The demand theory holds that innovations are created as a response to demand of business firms that want to acquire competitive advantage in their business environment. This type of new developments is referred to as the demand driven innovations. The foregoing can be influenced by either the internal needs of the business firm aiming at improving its activities or by the changes in the it's environment requiring proper adjustments in its business strategy [16]. The second approach emphasizes on the role of supply side as innovations are first created by the innovation providers and then are implemented in the business entities who happen to be the end users of these innovations. These are called supply-driven innovations and are achieved because of the process consisting of the three phases. Theses phases include the creativity phase also called invention, innovation phase and the diffusion phase which is realized by commercialization or diffusion of the innovative solutions [17]. The demand and Supply theory of innovation can be used to explain financial innovations on general and product innovations on particular. Firms based on competitions, can ignite demand or certain products or services. In the financial sector competition is stiff and firms seek to outdo each other by introduction of innovations that can address the issue of demand and supply relative to the market.

Relevance of the Theory

All businesses or organizations exist as their mission to satisfy a demand from the consumers or customers. Therefore, the critical forces in the market are demand and supply. In order for an organization to remain relevant and continue operating, then meeting demands both at quantity level and quality is essential. This implies that organizations have to continually innovative in all aspects of the businesses or organizations which can help in customer retention and expansion of the organization and spur performance.

Conceptual Framework

The conceptual framework depicting variables of the study are shown in figure 1 below.

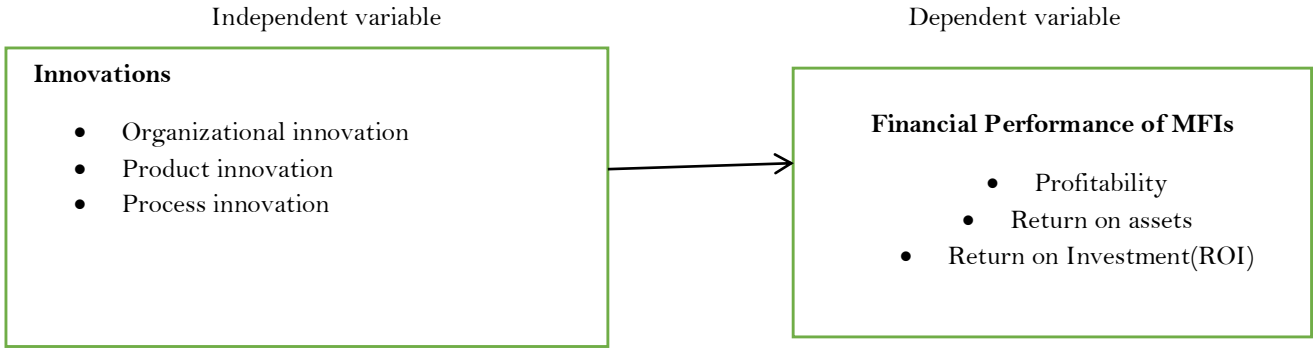

Figure 1. Interactions between independent variable and dependent variable

LITERATURE REVIEW

Organizational/Institutional Innovation and Financial Performance of Microfinance Institutions

Institutional financial innovation refers to the development and implementation of new financial products, services, processes or business models within financial institutions [18]. These innovations aim to improve efficiency, reduce costs, enhance risk management and better meet the needs of customers. some examples of such are: digital banking and fintech integration, blockchain, distributed ledger technology, robotic process automation (RPA), peer-to-peer lending and crowdfunding, big data analytics, RegTech (Regulatory technology), open banking, impact investing and sustainable finance, Insurtech, central bank digital currencies (CBDCs) [19]. Many financial institutions are adopting digital technologies and partnering with fintech companies to offer innovative solutions such as mobile banking, digital wallets and online lending. This enhances customer experience and provides more accessible financial services [20]. Financial institutions that embrace innovation often gain a competitive edge in the rapidly changing financial landscape. However, it's important to note that innovation also comes with challenges, including regulatory considerations, cybersecurity concerns, and the need for effective risk management strategies [21].The institutional innovations in Uganda include; introduction of credit referencing bureaus, agency banking, retail financial services, commercial banks getting into investment banking services, banks offering insurance services on behalf of insurance companies, Islamic banking and agency banking [22]. The innovation entails the changes in business structure, establishment of new types of financial intermediaries and changes in the legal and supervisory framework [23]. [24], indicate that organizational innovation improves company performance and can be a source of competitive advantage. Studies show that there is a relationship

between innovation and performance [25]. According to the study of [25], organizational innovation enhances sales in the enterprise. Research conducted by [26] show that innovation accounts for over 50% of the variation in firm performance and therefore concluded that organizational innovation or institutional innovation significantly and positively influenced firm performance. When innovations are embraced, they help cut down costs and reduce interest rates [27]. Institutional Innovations are characterized by entrepreneurship, leadership, ownership, governance and technology [28].

Product Innovation and Financial Performance of Microfinance Institutions

Product innovation as a strategy encompasses the development of new products, improved consumer-preferred products, competitive product and developing differentiated products with a view to delivering products that will exceed customer expectations, this will lead to increase in sales revenue, profits and ultimately firms' growth. Product innovation is vital in a firm as it offers protection to a firm from threats of competitors [29]. Research conducted by [30] found that product innovation in firms have positive and significant impact on organizational performance. The results were supported by [31] who reported that new products, improved products and quality products positively influenced firm performance. Studies have shown that proactive firms engage in new innovations in order to grab new market opportunities and retain their competitive advantage [32]. These innovations include the development of new markets, new products, product competitive, developing new processes of operation and re-inventing their organizational structures. Further result show that product innovation enhances firm performance and leads to competitive advantage and superior performance. Failure to be innovative has led to the loss of income from loans due to processing errors, undetailed information of clients, noncompliance with loan policies and excessive concentration of credit risks, and unskilled employee [33].

Process Innovation and Financial Performance of Microfinance Institutions

Process innovations include the introduction of new business processes leading to increased efficiency and market expansion [34]. Among the main process innovations include; office automation, use of computers in accounting systems and client data management software, M-pesa, electronic banking (taking the form of ATMs, Internet Banking and telephone transaction), Real Time Gross Settlement (RTGS), and Cheque Truncation System [35]. According to [36], process innovation has a positive effect on total quality management in the organization. The study further adds that process innovation beside enhancing speed and quality, it results to flexibility and cost efficiency. Process innovation provides the means for safeguarding and improving quality and also for saving costs [37]. Improved and radically changed products are regarded as particularly important for long-term business growth.

METHODOLOGY

The study used descriptive research design. The design assist to describe the situation as it exists [38]. According to [39] the design helps to explain or expose the existing status of two or more variables at a given point. Quantitative research approach was adopted because the findings were of numerical in nature. The target population for the study was 187 employees working with the Butuuro SACCO Ltd in Bushenyi District and also the stakeholders of those institutions. Sample size was determined using Yamane (1967) formula depicted below.

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

Extrapolating:
n: Sample size
N: Total population
e: Sampling error or level of significance (5%)
N = 187

$$n=\frac{187}{1+187 \text{ x } (0.05)2}$$

n= 127

Simple random sampling was used to select respondents for the study [40]. The selected sampling technique was appropriate because it gave an equal opportunity to potential respondent to be selected. The study used questionnaire to collect primary data. All the questions were formulated from the objectives of the study The data was analyzed using multiple regression analysis technique with the help of Statistical Package for Social Science (SPSS version 25) software.
Regression model equation

$$Y=BO+B1X1+B2X2+B3X3+e$$

Extrapolating
Y=Financial performance of MFIs
X1=Organizational innovation

X2=Product innovation
X3=Process innovation
BS=Coefficients of independent variables
e=Margin error (.05)

RESULTS AND DISCUSSION

Influence of Organizational/Institutional innovation on financial performance of Microfinance Institutions

The findings are shown in table 1 below

Table 1: Organizational/institutional innovation and financial performance of MFIs

Statement		SA	A	UD	D	DS	Mean	SD
MFIs have a clear business structure.	N	16	29	11	6	0	3.887	0.432
	%	26	47	17	10	0		
MFIs have adopted advanced technologies.	N	23	27	8	3	0	4.081	0.431
	%	37	45	13	5	0		
MFIs have collaborated with various financial intermediaries.	N	35	23	4	0	0	4.500	0.393
	%	57	37	6	0	0		
MFIs are guided by a clear legal frame work.	N	7	24	27	4	0	4.145	0.412
	%	11	39	44	6	0		
There is a supervisory framework that monitors MFIs	N	28	23	8	3	0	4.226	0.445
	%	45	37	13	5	0		
Overall mean/SD							4.1678	0.4226

Source: Field data,2023

Key: SA(5)-Strongly agree, A(4)-Agree, UD(3)-Undecided, D(2)-Disagree, DS(1)-Disagree Strongly

According to the findings, the respondents agreed that MFIs have a clear business structure with a mean of 3.887 and SD of 0.432. Also, on adoption of advanced technology, the mean was 4.08 with SD of 0. 431.This implies that there was general agreement on technology adoption. As per collaboration with other financial intermediaries, the mean was 4.500 and SD of 0. 393.meaning there was collaboration with other financial intermediaries. For legal framework, the mean was 4.145 and SD of 0.412, which implies that MFIs are guided by a clear legal framework. Concerning supervisory framework for monitoring purpose, the mean was 4.226 with SD of 0. 445.This implies that there was supervisory framework to monitor MFIs. The results are in agreement with [27] who reported that institutional innovations are characterized by technology. He further stated that MFIs enjoy economics of scale and more so, using technology enables the institutions to cut down costs and reduce interest rates. Also, the findings are in agreement with [24] who reported that organizational innovation improves company performance.

Influence of Product Innovation on Financial Performance of Microfinance

The results are tabulated in table 2 below

Table 2. Product innovation and financial performance of microfinance institution

Statement		SA	A	UD	D	DS	Mean	SD
MFIs develop new products quite regularly.	N	32	24	6	0	0	4.419	0.374
	%	52	29	9	0	0		
MFIs offer improved products to their customers.	N	23	19	12	8	0	3.919	0.387
	%	37	31	19	13	0		
MFIs offer high quality services.	N	27	25	4	6	0	4.177	0.365
	%	44	40	6	10	0		
The product performance is relatively high compared to other financial institutions.	N	23	24	6	9	0	3.919	0.385
	%	37	39	10	14	0		
The products offered by MFIs are highly differentiated.	N	26	24	7	5	0	4.145	0.398
	%	42	39	11	8	0		
Overall mean/SD							4.116	0.382

Source: Field data, 2023

Key :SA(5)-Strongly agree, A(4)-Agree, UD(3)-Undecided, D(2)-Disagree ,DS(1)-Disagree Strongly

The findings on development of new products on regular basis, the mean was 4.419 with SD of 0. 374.This implies that MFIs are engaged in developing new products regularly. As for offering of improved products to customers, the mean was 3.919 and SD of 0.387, which means that majority of respondents were undecided on improved products. As per services offered by MFIs, the mean was 4.177 and SD of 0.3654 which means that MFIs were offering high quality services. The results on product performance, the mean was 3.919 with SD of 0. 385.This implies that majority of respondents were undecided whether product performance was relatively high compared with other financial institutions. For product differentiation, the mean was 4.145 with SD of 0.398 which means that products offered by MFIs were highly differentiated. Therefore, the findings support the study of [41] who reported that product innovation significantly influences firm performance. Further, the results are supported by [30] who found that product innovation in firms have positive and significant impact on organizational performance.

Influence of Process Innovation on Financial Performance of Microfinance Institutions

The findings are shown in table 3 below.

Table 3: Process Innovation on performance of Microfinance Institution.

Statement		SA	A	UD	D	DS	Mean	SD
MFIs have a well-articulated process design.	N	31	19	7	5	0	4.226	0.387
	%	50	31	11	8	0		
MFIs have enacted changes in provision of services.	N	34	26	2	0	0	4.516	0.465
	%	55	42	3	0	0		
MFIs have adopted a cost effective process of operations.	N	41	21	0	0	0	4.532	0.384
	%	66	34	0	0	0		
The delivery process in MFIs is up to date..	N	32	30	0	0	0	4.387	0.378
	%	52	48	0	0	0		
MFIs have automated their service delivery	N	28	31	3	0	0	4.403	0.432
	%	45	50	5	0	0		
Overall mean/SD							4.413	0.409

Source. Field data, 2023

Key: SA (5)-Strongly agree, A(4)-Agree, UD(3)-Undecided, D(2)-Disagree, DS(1)-Disagree Strongly

According the result on process design, the mean was 4.226 with 0.387 standard deviation (SD). This implies that MFIs have well-articulated process design. For enactment of changes in provision of services, the mean was 4.516 with SD of 0. 465.This implies that MFIs have made changes in service provision. As per cost effectiveness process, the mean was 4.532 with SD of 0. 384.This mean that MFIs have adopted a cost-effective process of operations. For delivery process, the mean was 4.387 with 0.378 which implies that delivery process in MFIs is current or up to date. And for automation of services, the mean was 4.403 with SD of 0.432 which means that MFIs have automated their service delivery. Therefore, the findings of this study are in agreement with [42] who reported that process innovation assist banks to continue to earn high profits. Also, the results are in agreement with findings of [36] who found that process innovation had a positive effect on total quality management in the organization.

Financial Performance of Microfinance Institutions

The results are shown in table 4 below.

Table 4: Financial Performance of MFIs

Statement		SA	A	UD	D	DS	Mean	SD
MFIs enjoy high profits.	N	29	21	8	4	0	4.210	0.345
	%	47	34	13	6	0		
MFIs have recorded increased return on assets over the past financial year.	N	31	19	9	3	0	4.258	0.435
	%	50	31	15	5	0		
MFIs have advanced more cumulative loans over the last year compared to previous years.	N	27	33	2	0	0	4.403	0.356
	%	44	53	3	0	0		
MFIs have continued to record decreasing non-performing loans.	N	23	27	10	2	0	4.177	0.357
	%	37	44	16	3	0		
MFIs enjoy high return on investment	N	31	28	3	0	0	4.500	0.384
	%	50	45	5	0	0		
MFIs realize high return on equity	N	32	28	2	0	0	4.484	0.361
	%	52	45	3	0	0		

Source. Field data, 2023

Key: SA (5)-Strongly agree, A(4)-Agree, UD(3)-Undecided, D(2)-Disagree, DS(1)-Disagree Strongly

The result on profits, the mean was 4.210 with SD of 0.345 which implies that MFIs enjoy high profits. For return on assets, the mean was 4.258 with SD of 0.435 which means that MFIs have recorded increased return on assets over the past financial year. On loans advancement, the mean was 4.403 with SD of 0.356 which implies that MFIs advanced more cumulative loans over the past year compared to previous years. For non-performing loans, the mean was 4.177 with SD of 0.357 and this means that MFIs continue to record decreased no-performing loans. As per return on equity, the mean was 4.484 with SD of 0.361, this result implies that MFIs do realize high return on equity.

Regression Analysis

The results are shown in table 5a, b, c

Table 5a. Model Summary

Model	R	R^2	Adjusted R^2	R Std. Error of the estimate
1	0.756[a]	0.672	0.528	2.56741

a. Predictors: (Constant), Organizational innovation, Product innovation, Process innovation

The R is the measure of quality of the prediction of the dependent variable (Financial performance of MFIs). A value of 0.756 indicates a good level of prediction. The R^2 (0.672) shows the proportion of variance in the dependent variable that can be explained by the dependent variables. Therefore, regression model accounted for 67.2% of the variability in the dependent variable (Financial performance of MFIs.

For analysis of Variance (ANOVA), table 4.5b provides the results.

Table 5b. ANOVAa

Model		**SS**	**Df**	**MS**	**F**	**Sig.**
1	Regression	23.7930	2	11.90	136.8	0.000b
	Residual	14.4290	165	0.087		
	Total	38.2220	167			

a. Dependent variable (Financial performance of MFIs)

b. Predictors:(Constant). Organizational innovation, Product innovation, Process innovation

The F-ratio in the ANOVA table tests whether the overall regression model is good fit for the data. The result show that the independent variables (innovations) statistically significantly predict the dependent variable (Financial performance), $F.05(2,165) = 136.8$, $P<.05$).

Table 5c. Cofficients[a]

	Un-standardized Coefficients	Standardized Coefficients	t	Sig.
	B	Beta		
(Constant)	6.797		3.356	0.000
Institutional innovation	0.454	0.345	4.989	0.000
Product innovation	0.213	0.198	2.506	0.021
Process innovation	0.385	0.235	3.208	0.000

a. Dependent variable: Financial performance

The general form of the equation to predict financial performance from institutional innovation, product innovation and process innovation is shown below.

$$Y= 6.797+0.454X_1+0.213X_2+0.385X_3 \text{----------}_1$$

Research Hypotheses

The hypotheses were:

H_o1: There was no significant influence of organizational/institutional innovation on financial performance of Microfinance Institutions

The findings indicates that there was statistically significant influence of institutional innovation on financial performance of MFIs. (t=4.989, P=.000, P<.05). Therefore, null hypothesis has been rejected in favour of alternative hypothesis. The Beta coefficient shows that one additional unit of institutional innovation can influence financial performance of MFIs by 0.454 units.

H_o2: There was no significant influence of product innovation on financial performance of Microfinance Institutions

The result reveals that there was statistically significant influence of product innovation on financial performance of MFIs (t=2.506, P=.021, P<.05). Equally null hypothesis has been rejected. The study shows that additional of one unit of product innovation will increase financial performance of MFIs by 0.213 units.

H_o3: There was no significant influence of process innovation on financial performance of Microfinance Institutions

The findings shows that there was statistically significant influence of process innovation on financial performance of MFIs (t=3.208, P=.000, P<.05). Therefore, null hypothesis tested has been rejected in favour of alternative hypothesis. The beta coefficient of 0.385, implies that an additional unit to process innovation, will increase financial performance of MFIs by 0.385 units.

CONCLUSION

According to the results obtained from the study, institutional innovation had overall mean of 4.1678 with SD of 0.4226, and had statistically significant influence(t=4.989,P=.000,P<.0.05) with beta coefficient of 0.454.Further for product innovation, result recorded the overall mean was 4.116 with SD of 0.382, and was statistically significant(t=2.506,P=.021,P<.05) and beta coefficient was 0.213.Finally for process innovation, obtained overall mean was 4.413,SD was 0.409,and was equally statistically significant (t=3.208,P=3.208,P=.000,P<.05) with beta coefficient of 0.385.Therefore the study concluded that the three variables namely institution innovation, product innovation and process innovation (independent variables) influenced positively financial performance of Microfinance institutions(dependent variable).

Recommendations

The following are the proposed recommendation aimed at improving financial performance of MFIs:

i. **Institutional innovation**
   The MFI s should introduce new organizational structures especially on vertical structure and horizontal structure, introduce new processes which are more efficient.
ii. **Product innovation**
   The MFI s should continually be innovative on products by introducing new features on product design and innovative product positioning in the market place.
iii. **Process innovation**
   The organization should continually review existing processes, procedures and introduce other new ones. This will help the organization to be effective and efficient while taking care of customers. The improved efficiency and effectiveness will help boost profitability of MFIs.

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