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/ol. 10, 1 (2022) p. 42-57 AM: Jul/2021 SM: Jul/2020

Promoting an Intrapreneurial Environment in Microfinance Institutions as a Catalyst for Innovation. The Case of Ugandan MFIs

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Abstract

This paper investigates the extent to which the intrapreneurial environment within Microfinance institutions (MFIs) enhances innovation. The study was motivated by the scarcity of information on the internal organizational factors that drive innovations in MFIs despite a wide body of literature on innovation and its role in a dynamic environment. The quantitative approach was applied using a cross section design surveying 113 MFIs in Uganda. Data analysis used descriptive statistics, cross tabulations and partial least square modelling. The results showed that two of the components of the intrapreneurial environment ('organization motivation to innovate' and 'intrapreneurial resources') had a positive significant relationship with innovation. (Intrapreneurial management practices' did not have a significant relationship with innovation. Overall, the intrapreneurial environment constitutes an internal force stimulating innovation throughout the organization. Therefore, MFIs should nurture such environment to ignite innovations in response to the current strong competitive context.

Keywords: Intrapreneurial Environment; Innovation; Microfinance Institutions.

Cite paper as: Nassuna, A.N., Jeppesen, S., Balunywa, W., (2022). Promoting an Intrapreneurial Environment in Microfinance Institutions as a Catalyst for Innovation. The Case of Ugandan MFIs, *Journal of Innovation Management*, 10(1), 42-57.; DOI: https://doi.org/10.24840/2183-0606_010.001_0003

1 Introduction

Microfinance institutions, hereafter referred to as MFIs, emerged as an innovation due to the failure of commercial banks to meet the financial needs of the poor (Ledgerwood and White, 2006). Therefore, MFIs are all those institutions that offer financial services to the poor. The microfinance sector is a growing one worldwide and is described as an important catalyst for the broader goal of developing a healthy financial system as well as promoting economic development in general. MFIs are not only seen as vehicles of inclusive banking but also as a development tool given their focus on the poor who constitute the majority in developing countries (Ahlin et al., 2011).

Despite the growth of MFIs in developing countries and their contributions, there is growing concern that most are weak, heavily donor-dependent and unlikely to reach a state of financial independence (Littlefield and Rosenberg, 2004). The Grameen Bank model has been replicated

in many countries but with poor financial performance and limited outreach (Ghosh, 2013). In addition, products offered by MFIs have long been limited to credit only and some MFIs have been inefficient and thus forced into closing down prematurely. It has been reported worldwide that fewer than 100 of the 7,000 MFIs could claim self-sufficiency, and by 2007, only around 200 could claim it (Dichter, 2007). Limited products and inefficiencies have made microfinance a bad product and nearly killed much of the trust that had been built over time. In recent years in Uganda, many customers have resorted to Savings and Credit Cooperative Organizations (SACCOs), many of which are informal MFIs (Deshpande et al., 2006).

Amidst the challenges, there are many changes taking place in the microfinance industry worldwide. Many MFIs are being commercialized and competition is increasing in the sector while donor funding is being reduced (FSDuganda, 2014).In addition, formal commercial banks have come on board to offer microfinance services. This has brought about technological and product service changes (Dichter, 2007). Current technological changes include such things as the use of magnetic stripes and smart cards, point of sale devices, automated teller machines (ATMs), satellite communication, e-commerce, credit scoring, and data mining (Dichter, 2007). These changes in technology influence payments, underwriting and information systems management. The once mono-product industry of credit has seen some MFIs starting to offer a wide range of products including savings, insurance, and money transfers. Despite the wide range of literature on organizational innovation and the innovative climate not much has been done to explore innovation and the intrapreneurial environment within MFIs yet innovation is a critical driver of change. In a bid to be more client focused in recent years, there has been a paradigm shift in the microfinance industry from offering a mono product of credit to offering other financial services to the poor, including savings, insurance and training in financial literacy.

Uganda provides an interesting case in understanding the role of innovation in MFIs. It is a developing country where the majority of the population, especially those in the rural areas, does not have access to financial services (Finscope, 2018). Commercial banks reach only 21% of the population. This creates a high market potential for MFIs. However, microfinance services have not been able to serve this market due to the various obstacles stated above. One key reason seems to be low levels of innovativeness (Bank of Uganda, 2017). This makes the challenge of microfinance a pertinent research issue as the answers provided may improve innovativeness and help cope with the ever changing environment.

This paper proposes that MFIs need a new paradigm to enable them cope with the changing environment and survive in the long run. This new paradigm is the promotion of an intrapreneurial environment within the MFIs that will generate innovation to help them cope with the changing environment. Today, MFIs operate in a dynamic environment characterized by high competition, changing technology, and commercialization of once non-profit MFIs. It has been argued that lack of an intrapreneurial environment creates organizational inertia at the strategic level, which naturally leads to a focus on maintaining existing systems (Amabile, 2013). Research has shown that the survival and growth of enterprises in a dynamic environment depends largely on their ability to promote innovation within their organizations (Damanpour and Schneider, 2009). The central question therefore is "to what extent does nurturing an intrapreneurial environment enhance innovations, a critical factor in the changing environment?"

A dynamic organizational environment (also termed "intrapreneurial environment") refers to all the factors surrounding an organization that act as antecedents to intrapreneurship, which is ideally entrepreneurship within an organization (Antoncic and Hisrich, 2001). An intrapreneurial environment signifies that the organization has characteristics of being innovative, proactive and risk-taking (Widya-Hastuti et al., 2016). An intrapreneurial environment promotes spontaneity, change, openness, adaptability and responsiveness within the organization and makes it flexible. Fostering an intrapreneurial environment is considered a prime strategy for improving performance, especially in dynamic rapidly evolving industries as it increases the level of innovation in an organization (Bireswari, 2013; Amabile, 2013). Innovation refers to the successful implementation and utilization of all creative ideas (Damanpour and Schneider, 2009). There are various types of innovations at the organizational level, and these may include product or service innovations as well as process and administrative innovations.

Complacency in a changing environment is not sustainable on the part of MFIs and new approaches should be devised to ensure better service delivery. This paper is based on the componential theory of creativity and innovation of Amabile (2013). The componential theory assumes the social and work environment in which individuals operate can that brings variations in the level and frequency of their creative and innovative behaviour. Amabile (2013) argues that it is only firms that create an organizational environment that allows the implementation of new ideas oriented towards the changing world that will survive. This paper examines the extent to which the intrapreneurial environment within MFIs can enhance innovation. It therefore hypothesizes that an increase in the level of the intrapreneurial environment will lead to an increase in the level of innovation in a given MFI. The rest of the paper shows the methods, the results and the conclusion.

2 Research Methods

This paper is drawn from the results of a larger study that examined the intrapreneurial environment, innovation and performance of microfinance institutions. The larger study used a mixed methods approach that employed both quantitative and qualitative data. The quantitative portion of the study on which this paper is based employed a cross sectional design and used a survey. This paper's arguments are based on the componential theory that helps test the hypothesis that an increase in the level of intrapreneurial environment will lead to an increase in the level of innovation. The paper also examines the levels of intrapreneurial environment and innovation in the MFIs studied.

2.1 Study Population

The study population included all MFIs registered with the Association of MFIs in Uganda (AMFIU) as well as all the fully paid members of the Uganda Cooperative of Savings and Credit Unions (UCSCU). At the time of this study, the AMFIU had 84 ordinary members who are directly involved in offering microfinance services to the public (AMFIU, 2011) while the UCSCU had 130 members with fully paid annual subscriptions (UCSCU, 2010). These institutions were considered because they could provide reliable information on which to make consistent statistical inferences.

The unit of analysis was the MFIs while the units of inquiry consisted of operations managers, credit or loan managers, and financial managers at each MFI. Operations managers were selected because the researcher believed that they control innovation initiatives and are responsible for ensuring achievement of organizations' performance targets. Credit officers were selected because they deal directly with client's issues while financial managers were considered because they are custodians of organizations' financial data and are more knowledgeable about the organizations' financial status. An analysis of the data from these units of inquiry were merged into a single unit so as to fit into the unit of analysis, which was the MFIs.

2.2 Sampling Method and Sample Size

Purposive sampling was used to select respondents from tier one to three. It was assumed that the seven MFIs from tier one, two and three would automatically be part of the sample given their small numbers. In tier four, simple random sampling was used in order to give each institution in this group an equal chance of being selected thus reducing bias (Dura et al., 2010). A sample size of 123 was taken as the suitable sample from tier four giving an overall target sample size of 130 MFIs. Data was finally obtained from 113 MFIs, which was then analyzed accordingly.

2.3 Operationalization of Concepts and Measurement of Variables

The study variables were operationalized by a review of the existing literature in order to translate them into measurable indicators. The variables were then measured using the items identified by earlier researchers, with modifications to suit the research context. All variables in the final questionnaire were measured on a five-point Likert scale, which was deemed suitable since scales with a smaller number of points could provide respondents with too few options while scales with more points could confuse respondents (Johns, 2010).

Intrapreneurial Environment

The intrapreneurial environment within the MFIs was investigated using the KEYS model (Amabile, 2013), which measures the climate for innovation within a group or organization and helps identify the necessary conditions for innovation. The KEYS model identifies three main constructs of the work environment: management practices, organization motivation, and resources while it uses creativity and productivity as the outcomes from the work environment. The KEYS model was used because other studies have identified these factors in influencing innovation (Kuratko et al., 1990; Ireland et al., 2009). The constructs of management practices, organization motivation and resources have been adapted in this study, using innovation as the outcome of the intrapreneurial environment.

The KEYS model categorizes the organization environmental factors into two categories: environmental stimulants, which are positively related to innovation, and environmental obstacles, which negatively influence innovative outcomes. In the larger study of the intrapreneurial environment, the stimulating factors were studied quantitatively while the inhibiting factors were studied qualitatively. This paper focuses on the stimulating factors.

Innovation

Measurement of innovation was based on the operational definition of innovation in this study. Innovation was defined as "the intentional introduction and application within a role, group or organization of ideas, processes, products, or procedures new to the relevant unit of adoption, designed to significantly benefit the individual, the group, organization or wider society" (Damanpour and Schneider, 2009; Damanpour, 1991). Therefore, innovation was operationalized into product, process and administrative innovations. When measuring each of these innovations, we looked at newness, value to the organization and benefit to the customers. This paper analysed innovation as a combination of the three different types and did not distinguish the effect of each particular type. This was based on previous studies that showed that different types of innovations can be measured as a single variable (Johannessen et al., 2001) since they are often influenced by common factors (Seshadri and Tripathy, 2006) and the innovation process is more or less the same for the different types (Rosenbusch et al., 2011)

2.4 Data collection Instrument

A self-administered questionnaire was used to collect data on intrapreneurial environment and innovation. The questionnaire was self-administered because the respondents were assumed to have adequate knowledge to respond to the issues therein. Such questionnaires help save time and grant the respondents time although they sometimes lead to delays and need clarification. Therefore, where necessary, the respondents were given clarification from the research.

2.5 Data Analysis

Descriptive statistics and cross tabulations helped us understand the level of intrapreneurial environment and innovation and how these related to the sample characteristics of the data. In addition, the hypothesis was tested using partial least square modelling. The partial least square method was considered appropriate because it has been recommended when dealing with relatively small samples and in cases where data does not meet normality tests (Mateos-Aparicio, 2011).

3 Results

What follows are the results of the survey in relation to the level of intrapreneurial environment, innovation and the hypotheses that the intrapreneurial environment positively influences innovation in MFIs. It starts with sample characteristics presented below:

3.1 Sample Characteristics

A total of 113 MFIs were surveyed and this section presents their basic characteristics in terms of years of existence, types, number of employees, location and nature as shown in Table 1 below.

	Variables/values (N=113)	Frequency	%
1	Years of existence		
	1. 1–4	27	24
	2. 5–9	55	49
	3. 10–14	24	21
	4. 15–18	1	1
	5. >=20	6	5
2	Type of organization		
	1. Bank	2	1.8
	2. Credit Institution	5	4.4
	3. Microfinance deposit-taking institutions (MDIs)	7	6.2
	4. SACCO	99	87.6
3	Number of employees		
	1. 1–99	101	89.4
	2. 100–199	6	5.3
	3. 200–299	0	0
	4. 300–399	1	.9
	5. >=400	5	4.4

Table 1. Sample Characteristics

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	Variables/values (N=113)	Frequency	%
5	Location of head office		
	1. Central	22	19.5
	2. West	22	19.5
	3. East	55	48.7
	4. North	8	7.1
	5. Southwest	6	5.3
6	Nature of organization		
	1. International	3	2.7
	2. Local	110	97.3

Source: Empirical data

As shown in section one of Table 1 above, all 113 institutions had been in existence for more than one year, 73% having been in existence for more than four years and 5.3% for more than 20 years. This implies that the majority of these institutions have survived in the sector for some time.

Additionally, as indicated in section two of Table 1, 87.6% of the institutions involved in the study were SACCOs and only 2% were banks. The two banks involved in the study are the only banks in the country among 24 commercial banks that offer MFIs. This implies that microfinance services are mainly offered by SACCOs yet these are more informal and not regulated by the Bank of Uganda.

Furthermore, it can be seen from section three of Table 1 that about 90% of the organizations, which were mostly SACCOs, had fewer than 100 people. It was the banks and the microfinance deposit taking institutions (MDIs) that employed a large number of people (over 300). This implies that the size of these institutions as indicated by number of employees is small.

Likewise, an attempt was made to collect data from institutions throughout the country, which we divided into north, east, central and west while randomly selecting the SACCOs. Nonetheless, in the actual collection of data, most of the respondents as indicated in section four of Table 1, were from the east of the country (approximately 49%) and the fewest were from the north (7%) while the central and west tied at 19.5%. This was mainly driven by the availability of audited financial statements and the willingness to share them with researchers. This implies that respondents from the eastern region were more willingly to surrender their financial reports.

In the same way, the studied established the nature of the organization in terms of the founding of the institutions: whether local or international. As shown in section five of Table 1, 97.3% were locally founded while only 2.7% were internationally founded. This means that locally founded institutions engage more in providing microfinance services than those that are international in nature.

3.2 Product Range and Diversity

MFIs are generally known to complement mainstream commercial banks in providing financial services that focus on vulnerable communities. By their very nature, they are not expected to provide a wide range of services. The products and services offered by the surveyed MFIs are shown in Table 2 below. The asterisk (*) represents products not previously identified in the

questionnaire as synthesized from existing literature.

Table 2. Product Range

	Product/values N=113	%
Α	Loan Products	
1	Individual business loans	97.3
2	Agricultural loans	92.9
3	Group business loans	92.0
4	School fees loans	78.8
5	Salary loans	45.1
6	Boda Boda Ioans*	32.7
7	Solar loans*	28.3
8	Emergency loans*	27.4
9	Housing loans	24.8
10	Environmental loans*	5.3
11	Home improvement loans*	3.5
12	Health loans*	1.8
13	Asset financing loans*	1.8
14	Funeral loans *	0.9
В	Deposit Products	
1	Ordinary savings accounts	95.6
2	Fixed deposit accounts	76.1
3	Compulsory savings*	61.9
4	Junior savers accounts	28.3
5	Current accounts	16.8
6	Institutional savings account*	4.4
7	Youth Smart start*	0.9
С	Other products offered	
3	Training	92.9
2	Money transfers	22.1
1	Insurance	19.5
4	Mobile money services*	19.5
5	Consultancy services*	7.1

Source: Empirical data

As seen from Table 2 above, over 90% of the institutions provided individual, group and agricultural loans. The table also shows that only six of the fourteen types of loans presented were generally known as being provided by MFIs. This implies that MFIs have come up with various new loan types to offer to their clients.

Among deposit products, 95.6% of the institutions surveyed offered ordinary savings accounts while only 16% offered current deposits and these were banks and MDIs. This implies that the majority of these MFIs mobilize some form of savings from their clients. This finding is similar to the results of Lafourcade et al. (2005), which found that over 70% of African MFIs offer savings as a core financial service to their clients. These results also imply that many of the institutions,

notably the SACCOs, do not offer current deposit products. This is mainly due to regulation limitations though they are devising ways to mobilize savings from members.

It had been expected that the institutions surveyed would offer only four deposit products. However, three additional products were identified, one of which (Youth Smart Start) was offered by only one institution. Among the other financial services offered by the surveyed MFIs, training was undertaken by 93% of the institutions, money transfers by 22%, insurance and mobile money services by 20%, and consultancy by 7%. This implies that MFIs are slowly moving away from offering just micro credit to offering a wide range of financial services.

3.3 Interest Rates

Interest is the charge made on the loans extended and the reward for the deposits in financial institutions. For those borrowing, it is the cost of borrowing, and for depositors, it is the reward for depositing the money, among other reasons, like security. A summary of interest rates is provided in Table 3 below.

Mean	Median	SD	Min	Max
36.7	36	7.98	22	60
4.05	0	6.04	0	24
	36.7	36.7 36	36.7 36 7.98	36.7 36 7.98 22

Table 3. Interest Rates Charged

Source: Empirical data

From the results in Table 3 above, it can be noted that average interest rates charged by the surveyed MFIs was 36%, with a maximum rate of 60%. This is above the average interest rate (21%) charged by banks in Uganda (World Bank, 2017). The reported average interest rate on savings was 1.49%. This implies that savings in these MFIs hardly attract any interest.

3.4 **Descriptive Statistics**

Descriptive Statistics on Intrapreneurial Environment and Innovation

These results revealed average values for the intrapreneurial environment and innovation as 4.07 and 3.94 respectively, as shown in Table 4 below. This implies that the responding MFIs perceived themselves as having a highly intrapreneurial environment with high levels of innovations.

Skewness and Kurtosis of the intrapreneurial environment and innovation

To understand the probability to which the investigated MFIs were promoting an intrapreneurial environment and innovating, the resulting skewness and kurtosis were also run. The results are shown in Table 5 below.

Table 5 indicates that skewness results show negative values for all constructs of intrapreneurial environment and innovation. It means that among the MFIs investigated, intrapreneurial environment and innovation were highly and negatively skewed. It implies that there was a high probability that investigated MFIs were promoting an intrapreneurial environment and coming up with innovations, and that these were actually taking place within these MFIs. This is in line with the other results from the descriptive statistics and could be attributed to the changes that were taking place in the industry that encouraged MFIs to innovate.

1	Variable/construct	Mean	Median	SD	Min	Max
	Intrapreneurial management practices	4.37	5.00	0.59	2.17	5.00
	Intrapreneurial resources	3.64	4.00	0.81	1.40	5.00
	Organizational motivation to innovate	4.21	4.50	0.65	1.75	5.00
	Intrapreneurial environment	4.07	4.34	0.52	2.55	4.87
	Product innovation	3.97	4.50	0.79	1.13	5.00
	Process innovation	4.21	4.63	0.62	1.75	5.00
	Administrative innovation	3.63	3.86	0.98	1.00	5.00
	Innovation	3.94	4.45	0.68	1.43	5.00
ourc	e: Empirical data					

 Table 4. Descriptive Statistics on Intrapreneurial Environment and Innovation

 Table 5. Skewness and Kurtosis for Intrapreneurial Environment and Innovation

	Variable/construct	Ν	Skewn	ess	Kurtos	sis
		Statistic	Statistic	Std. Error	Statistic	Std. Error
1	Intrapreneurial Environment	113	583	.227	335	.451
i	Intrapreneurial Management Practices	113	-1.345	.227	2.068	.451
ii	Intrapreneurial Resources	113	645	.227	394	.451
ii	Organizational Motivation	113	-1.190	.227	1.654	.451
2	Innovation	113	-1.030	.227	1.175	.451
i	Product innovation	113	-1.190	.227	1.308	.451
ii	Administrative innovation	113	786	.227	065	.451
iii	Process innovation	113	-1.561	.227	2.909	.451

Source: Empirical Data

3.5 Cross Tabulation of Key Sample Characteristics and Study Variables

To further appreciate the data, the study investigated the associations between the various sample characteristics and the key study variables through cross tabulation. The results are shown in the Tables 6 and 7.

A cross tabulation of sample characteristics with intrapreneurial environment indicated that there were significant differences in the level of intrapreneurial environment across the years of existence and nature of the organization since p < 0.05. This implied that intrapreneurial environment changes over the years of existence within MFIs. However, the differences in intrapreneurial environment amongst the number of employees, type of organization and location were insignificant since p > 0.05. This means that the number of employees, type of organization or location do not much matter when it comes to promoting an intrapreneurial environment. An organization can promote this kind of environment irrespective of where it is located, its number of employees or whether it is a bank, MDI or a SACCO.

It was also noted that innovation did not differ significantly with the various sample char-

	Characteristic	Pearson chi square value	df	sig.
1	Years of existence	19.021	8	0.015
2	Number of employees	9.567	6	0.144
3	Type of organization	11.217	8	0.190
4	Location	8.855	8	0.355
5	Nature of organization	6.872	2	0.032
Carrie	o, Empirical data			

Table 6. Characteristics * Intrapreneurial Environment Cross Tabulation

Source: Empirical data

Table 7. Characteristics * Innovation Cross Tabulation

	Characteristic	Pearson chi square value	df	sig.
1	Years of existence	12.396	16	0.716
2	Number of employees	7.236	12	0.842
3	Type of organization	20.350	16	0.205
4	Location	38.440	16	0.001
5	Nature of organization	2.146	4	0.706
<u> </u>				

Source: Empirical data

acteristics except for the location where the p-value is less than 0.05. This implies that any organization can innovate in terms of new products, services or systems irrespective of its years of existence, number of employees, type or nature. However, the cross-tabulation results showed that organizational innovation could differ due to location. This could be explained by factors in the external environment that could change in different locations.

3.6 Structural equation modelling

Structural equation modelling was intended to confirm the item measures of the constructs used confirm the constructs of the study variables and also test for the hypotheses. The results of the study and the hypotheses were tested using the partial least square model (PLS-PM) that produced a measurement model and a structural model.

The measurement Model

Use of the partial least square modelling method generated the measurement model shown in Table 8.

Latent variables / Manifest variables	ltem loadings	Cronbach Alpha	D.G. Rho (PCA)	AVE
Intrapreneurial Environment		0,823	0,862	0,583
Intrapreneurial Management Practices		0,586	0,829	0,707
Managers provide direct support to their employees	0,842			
New ideas are formally supported in this organization	0,84			
Intrapreneurial Resources		0,796	0,86	0,55
There is active flow of ideas in this organization	0,648			
We have physical facilities set aside for generating new ideas	0,806			
Time for generating new products or services is available	0,746			

Table 8. Measurement Model

Latent variables / Manifest variables	ltem loadings	Cronbach Alpha	D.G. Rho (PCA)	AVE
A special budget is provided for new ideas	0,804			
Staff are equipped with skills to come up with new products	0,69			
Organizational Motivation		0,733	0,834	0,556
Staff in this organization often work in groups	0,759			
Constructive criticism is common in this organization	0,77			
There is a good blend of skills in various work groups	0,777			
There is open communication in this organization	0,671			
Innovation		0,905	0,921	0,538
We have launched new products and services in the recent past	0,704			
We have received awards for our new products/services	0,722			
There is wide use of our new products /services	0,753			
Our new products/services lead the industry	0,752			
Our organization uses modern equipment in delivering services	0,731			
We have developed new methods in our business processes	0,72			
Our welfare systems are adjusted to the needs of our employees	0,734			
We adjust our processes as our customer needs change	0,757			
We apply new knowledge in our operations continuously	0,755			
We prefer using our new policies because they work well	0,703			

Source: Empirical data analysed using PLSPM

The measurement model was used to assess the adequacy of the measurements used in the study. It enabled the researcher to understand the relationship between latent and manifest variables. The measurement model was assessed on the following criterion as explained in Henseler et al., (2009).

- a) Item loadings: item loading values greater than 0.7 are considered adequate although loadings of 0.5 are acceptable.
- b) The composite reliability showing the internal consistence of the items used should be above 0.7. Here we based the composite reliability on Cronbach's Alpha.
- c) Convergent and discriminant validity: For convergent reliability the average variance extracted (AVE) by each latent variable should be above 0.5, and for discriminant validity, the square root of the AVE must be greater than the zero-order correlation coefficients with all other constructs in the model.

Most of the item loadings in the measurement model shown in Table 8 above were over 0.7. The few below 0.7 were above 0.5 and are therefore acceptable (based on Henseler et al., (2009)). Therefore, the manifest variables can be construed to adequately represent the latent variables used in the study. The composite reliability of the model is also high since for most of the items, the Cronbach's Alpha is above 0.7 except for intrapreneurial management practices, which is 0.586. However, the DG Rho for intrapreneurial management practices is 0.829, therefore it is also reliable. This notion was based on Chin (1998) who noted the Dillon Goldstein's measure of reliability (DG Rho) to be a better indicator of reliability than the Cronbach Alpha.

Examining convergent and discriminant validity, the square roots of the AVE for all the

constructs are above 0.7. In addition, the square roots of the AVE for each latent variable are greater than the correlation coefficients with other constructs. It is therefore construed that the model has adequate convergent and discriminant validity. A summary of the validity results is shown in Table 9 below:

Tuble 51 convergen		t valialty		
	IMP	IR	OEN	IN
IMP	0.702			
IR	0.349	0.741		
OEN	0.462	0.396	0.744	
IN	0.360	0.542	0.439	0.857

Table 9.	Convergent	and	Discriminant	Validity
	convergent	unu	Discriminant	vanarcy

Source: Empirical data analysed using PLSPM

The Structural Model

Structural modelling revealed that intrapreneurial environment factors explain 42% of the changes in innovation within the MFIs ($R^2 = 0.416 \text{ p} < 0.001$). Out of the 42%, intrapreneurial resources significantly explain 27%, organizational motivation significantly explains 9% and intrapreneurial management practices explains 6%, which is not significant. Therefore, intrapreneurial resources explain more of the changes than the other intrapreneurial environment factors. In addition, the following relationships were observed from the model:

- 1. Organization motivation had a positive significant relationship with innovation (γ =0.205** p<0.05). This implies that a unit change in the organizational motivation to innovate will bring about 21% changes in innovation while holding all other factors constant.
- 2. Intrapreneurial resources had a positive significant relationship with innovation (γ =0.450*** p<0.01). This implies that a unit change in the intrapreneurial resources will bring about 45% significant changes in innovation while holding all other factors constant.
- 3. Intrapreneurial management practices did not have a significant relationship with innovation (γ =0.140 p>0.05). This implies that a unit change in the intrapreneurial management practices will not bring about significant changes in innovation while holding all other factors constant.
- 4. Overall, intrapreneurial environment had a positive significant relationship with innovation $(\gamma=0.538^{***}, p<0.05)$. This implies that a unit change in the intrapreneurial environment will bring about 54% significant changes in innovation while holding all other factors constant.
- 5. A summary of path coefficients and the resulting model are shown in Table 10.

4 Conclusion

In summary, the results presented show that MFIs need to nurture an environment that allows them to continuously innovate. This requires the support of top management for innovative ideas from all units of their organization. Innovation should not be a one-off activity in some areas of the organization but instead should be embedded within the overall organizational vision where there is support, recognition and reward for innovative ideas through promotion of an intrapreneurial environment. Such reorientation will enable MFIs to be relevant for the newly emerging target groups like youth, the disabled and the corporate class.

There is also a need to tap into the industry changes with regard to use of technology and information processing. Today many Ugandans own phones and this fact could be used to the advantage of MFIs, including those in rural areas. As they make these changes, MFIs should

Hypothesis	Independent variable	Dependent variable	Path co- efficient	t- statistic	Hypothesis supported?
H ₁ : Organizational motivation positively relates to innovation in MFIs	Organizational motivation	Innovation	0.205	2.482**	Yes
H ₂ : Intrapreneurial resources positively relates to the innovation in MFIs	Intrapreneurial resources	Innovation	0.450	4.877***	Yes
H ₃ : Intrapreneurial management practices positively relate to innovation in MFIs	Intrapreneurial management practices	Innovation	0.140	1.278	No
H ₄ : Intrapreneurial environment positively relates to innovation in MFIs	Intrapreneurial environment	Innovation	0.538	6.732***	Yes

 Table 10. Estimated path coefficients for the Research Model

Source: Empirical data analysed

be mindful of the risks that come with an overall orientation towards innovation and therefore incorporate risk management into their new strategies.

It can also be deduced that intrapreneurial resources remain key drivers of organizational innovation, even amongst MFIs. This is based on the significant relationship between intrapreneurial resources and innovation. However, the environment within which MFIs operate is characterized by scarcity of resources or even lack of resources for innovation with the exception of a few that can access donor and government funding. Therefore, MFIs need to improve their systems of governance and operation so that they can tap into the resources provided by donors and government. The microfinance industry Apex bodies like AMFIU and UCSCU can also come on board to assist in training of managers and staff from these institutions in managerial and innovative skills and also enable them access to relevant information. The increasing demand for the services of MFIs provides another opportunity to create additional financial resources that can be used for innovation. However, this is limited by the regulatory framework where some MFIs are not permitted by law to mobilize savings, an act that would otherwise enable them expand their services.

It can be further concluded that intrapreneurial management practices though important may not always significantly relate to innovation. This inference is based on the non-significant relationship between intrapreneurial management practices and innovation. This is because the relationship between intrapreneurial management practices and innovation is highly context driven. Given the context of Ugandan MFIs, it is important to appreciate the low level of managerial and innovative skill among many of their managers, especially in the unregulated and informal MFIs that are in the majority in Uganda.

Overall, this paper shows that intrapreneurial environment factors are the key thrust of organizational innovation. They provide an internal force that stimulates innovation throughout the organization. Therefore, such an environment should be nurtured within MFIs so they are

able to ignite innovations within the competitive atmosphere in which they operate.

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