

Impact Of Information and Communication Technology (ICT) On the Growth of Microfinance Institutions (Mfis) In Zimbabwe

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Abstract

The aim of the study was to evaluate the impact of Information and Communication Technology on the growth of Microfinance Institutions in Zimbabwe. The study used a sample of thirty (30) MFIs registered with the Reserve Bank of Zimbabwe, with operations in Harare Central Business District. A sequential explanatory research design was adopted with the view of adopting a mixed research approach. Purposive sampling technique was adopted. Data was gathered through interviews which were administered to branch managers of MFIs and questionnaires which were administered to MFI employees. The study revealed that most of the MFIs have partially adopted ICT. The study found out that customers' lack of knowledge in the use of ICT, higher costs of setting up ICT, customers' lack of ICT resources, poor network connectivity and ICT related complaints raised by MFI clients are the challenges faced by MFIs in adopting and using technology. The study revealed that adoption and usage of ICT has positively affected the operational growth of MFIs through improving revenue base, customers' touch points, market share, and outreach to previously inaccessible customers, debt recovery and customers' contact points. The study revealed that adoption and usage of ICT has positively affected the business efficiencies of MFIs through improvement in speed of execution of transactions, loan processing, communication with clients and business acumen of MFI employees. The study recommends that MFIs should advocate the institutions of higher learning in Zimbabwe to introduce banking and finance programmes linked with technology. The study also recommended that there should be collaboration between MFIs, technology companies and higher learning institutions to come up with technology driven products that are accessible and affordable to MFI clients.

Keywords: Information and Communication Technology, Microfinance Institutions, business efficiencies, operational growth, adoption and usage, customers' touch points.

1.0 Introduction

Microfinance is an important tool for development around the world (World Bank, 2016). Microfinance is important in ensuring that the section of the population that is not able to get financial services from well-established financial institutions such as banks have access to financial and complimentary non-financial services (Finscope in Zimbabwe Survey , 2012). Various institutions such as government, Non-

Governmental Organisations, private players and communities (through savings and lending cooperatives) have found their way into micro financing (Consultative Group for Assisting the Poor, 2013).

Technology advancement has changed the way in which microfinance institutions conduct their business. There has been a shift from a brick and mortar approach to technologically driven MFIs operations (Joel, 2020). Thus technology is changing the way MFIs provide both financial and complimentary non-financial services to their customers. In response to technological advancement, many MFIs across the world are utilizing ICT in order to promote growth and sustainability (Joel, 2020). According to Dary and Issahaku (2013) some MFIs have adopted ICT so as to promote efficiency, customer satisfaction and outreach thereby spear heading growth. According to Arun and Hulme (2009), the pace of utilisation of ICT by MFIs in Ghana is very slow. They noted that MFIs preferred pre-tried and tested ways to ICT utilisation. They also contended that factors such as inadequate ICT infrastructure and also the pressure from clients are hindering full utilisation of ICT by MFIs in Ghana.

According to Zimbabwe Association of Microfinance Institutions (2020), despite various factors that are hindering MFIs in Zimbabwe from utilizing ICT, MFIs in Zimbabwe are utilizing ICT. Reserve Bank of Zimbabwe (2020) and ZAMFI (2020) were in agreement that Covid 19 induced lockdown restrictions promoted the utilisation of ICT by MFIs in Zimbabwe. They noted that Covid 19 induced lockdowns restricted physical outreach of MFIs and MFIs resorted to the utilisation of ICT in providing financial services. ZAMFI (2020) noted that utilisation of ICT by MFIs was evident by use of accounting packages to execute transactions, electronic loan applications and creation of database for the clients.

Access to financial services by the majority of citizens is a topical issue around the world (Finscope in Zimbabwe Survey, 2012). Banks continue to avoid Small to Medium Enterprises (SMEs) and the poor. Microfinance is the bridge between banks and the poor (Mago and Hofisi , 2016) . Microfinance Institutions are important in ensuring that the poor and small businesses are able to access financial services (credit, savings, remittances and insurance services) and complimentary non-financial services (training and education) Ledgerwood ,2000) . In order for microfinance institutions to grow and continue to avail financial services to the poor and small businesses, they should strike a balance between affordability of their services and their financial sustainability. Technology advancement has brought a change in the way MFIs provide both financial and complimentary non-financial services to their clients .ICT utilisation by MFIs is viewed as a factor that can contribute to the growth and sustainability of MFIs (Joel, 2020) .There is a debate among scholars on the role of ICT utilisation in promoting growth of MFIs for example Yusuf (2015), Sighn and Padhi (2015), Hishingsuren (2010) and Joel (2020). Inconclusive and contradictory evidence emerge. There is very little literature on the role of ICT utilisation in promoting growth of MFIs in Zimbabwe. This study seeks to exploit this knowledge gap by evaluating the role of ICT utilisation in promoting growth of MFIs in Zimbabwe.

2. Literature Review

This section covers both theoretical and empirical literature on the impact of ICT on the growth of Microfinance Institutions (MFIs).

2.1 Theoretical Literature

The study used two theories namely Technology Acceptance Theory and Innovation Diffusion Theory to underpin the impact of ICT on the growth of Microfinance Institutions (MFIs).

2.1.1 Technology Acceptance Theory

According to Omwansa et al (2012), Technology Acceptable Model is based on the fact the intention of the user to use the system determines the adoption of new services. The difference in the intentions of the users is explained by the perceived usefulness of Technology and also the perceived ease of use (Davis, 1989). In the context of this study this shows that the perceived usefulness and perceived ease of use determines the extent to which both MFIs and their clients utilize ICT. Thus the perceived usefulness and perceived ease of use influence the intention of MFIs and clients to use ICT.

2.1.2 Innovation diffusion theory

Innovation diffusion theory is based on how technology is accepted and adopted by a social system (Rodgers, 1995). According to Rodgers (1995) innovation is characterised by compatibility, trialability, complexity, observability and relative advantage. This indicates the social system determines the extent to which MFIs and their clients embrace usage of ICT. Usage of ICT has implications on the growth of MFIs.

2.3 Microfinance

Micro finance definition varies according to products that are being offered, the point of view of the users of the micro finance and also the objective of the scheme (Robison,2001). According to Consultative Group for the Assistance of the Poor (CGAP), 2013), microfinance refers to provision of financial services to the low income people and the poor. Schreiner and Colombet (2001) defined microfinance as the attempt to improve access to small deposits and small loans for poor households neglected by banks. Schreiner (2000) viewed microfinance as a scheme that is in place to make the poor better off by providing financial services such as loans and savings. The scope of the meaning of microfinance was extended by Robison (2001) who stated that microfinance involved financial services in small scale which included savings and credit availed to people who cannot get financial services from the banks. Thus CGAP (2013), Schreiner and Colombet (2001) and Robison (2001) viewed microfinance from the perspective of the minimalist approach. Minimalist approach states that MFIs should provide financial services only to the customers.

According to Ledgerwood (2000), microfinance institutions do not provide only financial services such as remittances, insurance, savings and credit but also complimentary non-financial services which include education and training services to enhance financial literacy. Ledgerwood (2000) viewed microfinancing from the integrated approach perspective which states that microfinance institutions provide both financial and complimentary non-financial services which equip the beneficiaries with financial literacy.

2.4 Information and Communication Technology

According to Mathias (2019) , ICT is an umbrella term that includes any communication device or application, encompassing: radio, television, cellular phones, computer and network hardware and software, satellite systems and so on, as well as the various services and applications associated with them, such as videoconferencing and distant learning. ICT is the broad subject concerned with all aspects of managing and processing information, especially within a large organization or company (Regina 2015).

2.5 ICT usage and Growth of Microfinance Institutions

According to Mwela (2014), many MFIs in Tanzania have embraced the utilisation of ICT. Mwela (2014) noted that MFIs use ICT services to deliver loan services, for marketing, client data capturing and for planning and decision making. ICT utilisation in Tanzania has suffered various challenges such as bad perceptions from stakeholders, lack of ICT skills among staff members of MFIs and inadequate ICT infrastructure. Jepra (2011) was in agreement with Mwela (2014) by stating that most of the MFIs in Tanzania have embraced ICT utilisation by increasing internet usage, adopting accounting packages to manage business transactions and establishing websites to interact with clients. Hishingsuren (2010) contended that many clients ignore ICT and fail to utilize online services availed by MFIs and this reduces the extent to which MFIs utilize ICT. This implies that MFIs have embraced ICT utilisation but the challenges such as lack of adequate infrastructure and opposition from stakeholder hinders the effectiveness of ICT utilisation in promoting growth of MFIs.

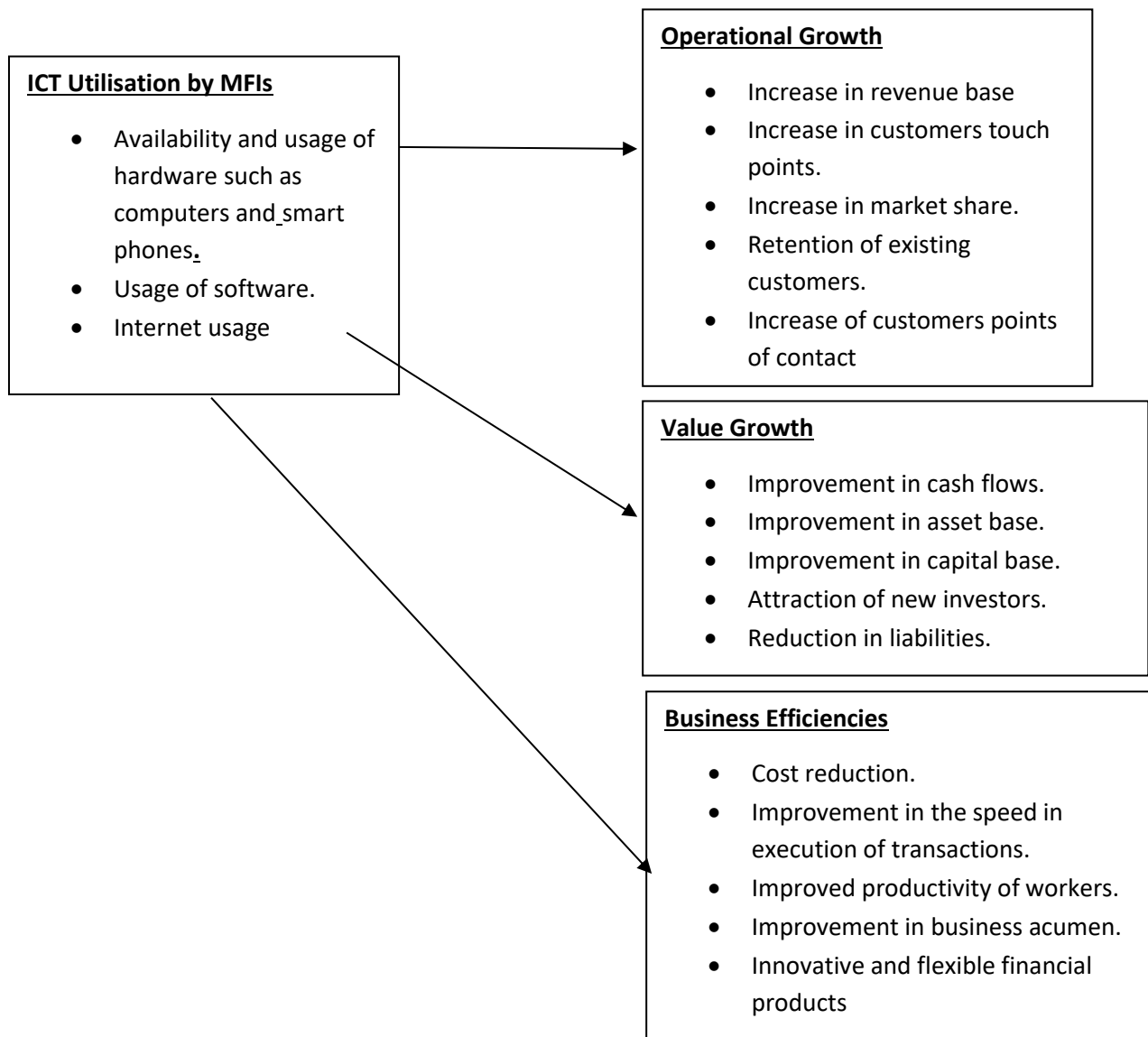
Bradt et al (2010) noted that ICT utilisation by MFIs provide convenience to both MFIs and clients. They stated that ICT utilisation improves outreach of MFIs which results in increase of the customer base. The study which was conducted by Rodgers (2011) in Philippines on the role of ICT in delivering financial services revealed that ICT was used to automate loan processing and tracking. ICT provided the mechanism for MFIs to reach out many clients (Rodgers, 2011). Parikh (2015) was of the view that ICT usage in MFIs has enabled MFIs to reach out to more geographical regions. This implies increase in client base and the capacity of MFIs to generate more revenue .Melville et al (2014) noted that ICT utilisation by MFIs does not increase outreach because clients do not know how to use electronic gadgets such as smart phones and computers and hence they have a challenge in making payments.

ICT utilisation by MFIs improve the capacity of MFIs to monitor loans .This reduces credit risk and improves the cash flows of MFIs (Parikh, 2015). The study which was conducted by Joel (2020) on the contribution of ICTs to the performance of MFIs in Cameroon revealed that ICT usage reduces risk and improves transparency in the Management of MFIs. Risk reduction reduces losses and improves cash flows. Transparency helps in attracting new investors which improves the capital base for MFIs (Joel, 2020).

ICT utilisation by MFIs improves productivity of staff members, speed in executing transactions and the magnitude of institutional activities (Joel, 2020). This implies that ICT utilisation lead to economies of scale in MFIs. According to Fambeu (2017), ICT utilisation enables MFIs to be efficient and better developed. Singh and Padhi (2015) contended that hardware acquisition cost , software acquisition cost and maintenance cost consume a large part of the MFIs' ICT budget .MFIs acquire and utilize technology when they have confidence that technology will contribute to improvement in revenue and cost reduction (Singh and Padhi , 2015) .

2.6 Conceptual Framework

From the literature review it is clear that ICT has a role on the growth of MFIs despite the numerous challenges faced by MFIs in adopting and using ICT. The following diagram, figure 1.1 shows the conceptual framework to explain the role of ICT utilisation on the growth of MFIs.



Source: Researchers’ own compilation

Figure 1: Conceptual Framework

ICT utilisation consists of the usage of hardware (for example computers and smart phones), software and internet by MFIs to provide services to clients and for administrative purposes. It is expected that the usage of hardware, software and internet has a role in promoting operational growth through improving customer touch points, customer base, market share and revenue. It is also expected that the usage of internet, hardware and software by MFIs has an impact on value growth of MFIs as it affects capital bases, the extent to which MFIs attract new investors, capital base, assets and liabilities. Utilization of ICT has also an impact on business efficiencies of MFIs as it affects cost of executing transactions ,volume of transactions , productivity of workers , business acumen of workers and the extent to which an MFI can come up with flexible and innovative products .

3. Research Methods

The study used a sequential explanatory research design with the goal of using a mixed research approach. The members of the target population were managers and employees of microfinance institutions. A

sample of thirty (30) microfinance institutions registered with the Reserve Bank of Zimbabwe and with operations in Harare Central Business District was used. MFIs with operations in Harare were chosen because Harare is the capital city of Zimbabwe and many MFIs are headquartered in Harare. A purposive sampling technique was adopted. Data was collected using questionnaires and interviews. A total of three hundred (300) questionnaires were distributed to the employees of MFIs and two hundred and fifty four (254) questionnaires were returned. A total of thirty (30) interviews were organised with branch managers of MFIs and only twenty three (23) interviews were successful. Pilot test was done before gathering data to ensure validity of the questions in the research instruments.

4. Results and Discussion

The following is data analysis and discussion of results on the impact of ICT on the growth of microfinance institutions in Zimbabwe. Table 1 below shows the work experience of MFIs employees.

Table 1: Work Experience of employees for Microfinance Institutions

		Frequency	Percent
Valid	less than 5 years	79	31.1
	5-10 years	150	59.1
	11 years to 15 years	25	9.8
	Total	254	100.0

Source: Survey Data

About 31% of the employees of MFIs stated that they have been working for MFIs for less than 5 years, about 59% stated that they have been working in the MFIs for between 5 years and 10 years and about 10% of the respondents who were employees of MFIs stated that they have been working for MFIs for 11 years to 15 years. The majority of the respondents stated that they have been working in MFIs for between 5 years and 10 years. This shows that the respondents who were the employees of MFIs are experienced in the MFIs operations and hence they might be observation trends of the usage of ICT by MFIs for some time.

Table 2: Nature of adoption of ICT by MFIs

		Frequency	Percent
Valid	None	19	7.5
	Partial	217	85.4
	Complete	18	7.1
	Total	254	100.0

Source: Survey Data

About 8% of the respondents who were the employees of MFIs stated that their institutions have not yet adopted ICT, about 85% of the respondents stated that their institutions have partial adopted and using ICT in their operations and about 7% respondents who were the employees of MFIs stated that their institutions have completely adopted and using ICT their operations. This implies that the majority of the

MFIs have partial adopted and using ICT in their operations. The implication is that most of the MFIs are still using manual methods in their operations.

Table 3: Frequency of use of ICT

		Frequency	Percent
Valid	Rarely	15	5.9
	Frequently	184	72.4
	Occasionally	55	21.7
	Total	254	100.0

Source: Survey Data

About 6% of the respondents who were MFI employees stated that they rarely use ICT, about 72% of the respondents stated that their institutions frequently use ICT and about 22% of the respondents stated that their institutions occasionally used ICT. This implies that MFIs frequently use ICT for their operations.

Table 4: Training of MFIs employees in ICT

		Frequency	Percent
Valid	Yes	162	63.8
	No	92	36.2
	Total	254	100.0

Source: Survey Data

About 64% of the respondents who were employees of MFIs stated that they have been trained on the use of ICT and about 36% of the respondents who were employees of MFIs stated that they have not been trained on the use of ICT. This implies that the majority of MFIs employees were trained on the use of ICT. The MFIs are concerned with the acquisition of ICT skills by its employees and this has an implication on the efficiency of use of ICT by the employees.

Nineteen out of twenty three (83%) of interviewees who were MFIs managers stated that they regularly trained their employees in the use of ICT. One of the managers said the following words:

We usually organise workshops with the organisations which are providing us with ICT software and equipment whereby our employees are trained on the use of ICT. Our employees have acquired ICT skills as a result of the workshop and this has gone a long way in assisting our institution to reach its growth objectives.

Table 5: Challenges faced by MFIs in the adoption and usage of ICT

	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
Customers lack knowledge in using ICT.	78%	21%	1%	0%	0%

Customers lack access to ICT resources or gadgets.	80%	11%	5%	3%	1%
Poor network or internet connectivity.	76%	20%	2%	0%	2%
Lack of top management support.	20%	23%	30%	20%	7%
Lack of ICT skills in the institution.	65%	20%	7%	5%	3%
Organisational culture which prefers use of manual system.	40%	20%	15%	7%	18%
Huge costs involved with the usage of ICT.	96%	4%	0%	0%	0%
Complaints from customers about ICT problems.	82%	12%	3%	1%	2%

Source: Survey Data

From the table above the responses from the respondents who were employees of MFIs state that the main challenges faced by MFIs in adoption and usage of ICT are customers’ lack of knowledge in using ICT (strongly agree = 78% and agree =21%), customers lack access to ICT resources or gadgets (strongly agree = 80% and agree =11%), poor network connectivity (strongly agree =76% and agree =20%), lack of ICT skills in MFIs (strongly agree = 65% and agree = 20%), huge costs involved with the adoption and usage of ICT (strongly agree =96% and agree = 4%) and complaints from customers about ICT related problems (strongly agree = 82% and agree = 12%).

Seventeen out of twenty three (74%) of the interviewees who were the managers of MFIs stated that huge costs of set up of ICT and regularly training of the employees were the major challenge in the adoption of ICT by MFIs. One of the managers said the following words:

The cash flows of our organisation is very low, the adoption of ICT is very expensive. Buying both the hardware and software requires large sums of money and our employees need to be trained each and every time and this increase ICT adoption and usage budget of our institutions. This is against the harsh economic environment of Zimbabwe whereby our cash flows are seriously strained. Therefore due to high costs involved in adoption of ICT, many MFIs end up being discouraged to fully adopt and use ICT.

This is in agreement with Hishingsuren (2010) who contended that many clients ignore ICT and fail to utilize online services availed by MFIs and this reduces the extent to which MFIs utilize ICT. This implies that MFIs have embraced ICT utilisation but the challenges such as lack of adequate infrastructure and opposition from stakeholder hinders the effectiveness of ICT utilisation in promoting growth of MFIs.

Table 6: The way ICT has affected operational growth of MFIs

	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
Increase in revenue base	73%	20%	5%	2%	0%
The customers’ touch points have improved	65%	25%	9%	0%	1%
The market share has improved	80%	5%	7%	6%	2%
Retention of existing customers have improved.	50%	18%	32%	0%	0%

Outreach of previous unreachable markets has been improved.	90%	5%	0%	3%	2%
The organisation has improved on its debt recovery	95%	2%	2%	1%	0%
The organisation has increased employment of additional staff.	25%	30%	30%	8%	7%
Customers contact points have been improved.	75%	22%	0%	3%	0%

Source: Survey Data

From the table above ICT adoption and usage by MFIs have affected the operational growth of MFIs through increase in revenue base (strong agree =73% and Agree 20%), improved customers’ touch points (strongly agree = 65% and agree =25%), improved market share (strongly agree =80% and agree = 5%), improvement in outreach of previously unreachable markets (strongly agree = 90% and agree =5%), improvement in debt recovery of the MFIs (strongly agree = 95% and agree = 2%) and improvement in customers’ contact points (strongly agree = 75% and agree = 22%).

All the twenty three interviewees (100%) who were the managers of MFIs stated that adoption and usage of ICT has improved their outreach, loan recovery, customers’ base and market share as they can reach out to the clients which were previously not reachable using physical means. This in line with Parikh (2015) who was of the view that ICT usage in MFIs has enabled MFIs to reach out to more geographical regions. This implies increase in client base and the capacity of MFIs to generate more revenue. Melville et al (2014) was in disagreement with the findings of the study and Parikh (2015) by arguing that ICT utilisation by MFIs does not increase outreach because clients do not know how to use electronic gadgets such as smart phones and computers and hence they have a challenge in making payments.

One of the managers of the MFI said the following words:

The use of technology has worked tremendously to our institutions. There were remote areas where we were having difficulties in reaching out them, but due to technology we are now able to reach out to them. The number of our customers have increased and also we are now able to collect loan repayment using electronic means. Therefore there has been an increase in the number of our customers and revenue as a results of using ICT.

Table 7: The way ICT has affected business efficiencies of MFIs

	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
Cost reduction.	90%	7%	0%	3%	0%
There has been improvement in the speed of execution of transactions.	93%	5%	1%	0%	1%

There has been an improvement in the productivity of workers.	50%	20%	10%	18%	2%
Improved processing of loan application.	70%	25%	2%	3%	0%
Improved communication with clients.	83%	12%	2%	1%	2%
Improvement in business acumen (knowledge)	87%	8%	5%	0%	0%
Innovative and flexible financial products.	56%	10%	14%	16%	4%

Source: Survey Data

The majority of the respondents who were employees of MFIs stated that ICT has affected business efficiencies of MFIs through cost reduction (Strongly Agree = 90% and Agree =7%) , improvement in the speed of execution of transactions (Strongly Agree = 93% and agree =5%), improved processing of loan application (Strongly Agree = 70% and agree = 25%) , improved in communication with clients (strongly agree = 83% and agree =12%) and improvement in business acumen or knowledge (strongly agree = 87% and agree =8%).

Twenty one out of twenty three (91%) of the interviewees who were the managers of MFIs stated that the business efficiencies of MFIs has improved as a results of the adoption and usage of ICT. They stated that cost has been reduced, volumes of transactions and speed of execution of transactions have improved, employees have improved their business acumen and communication with customers has improved. This in agreement with Joel (2020) who stated that ICT utilisation by MFIs improves productivity of staff members, speed in executing transactions and the magnitude of institutional activities.

One of the MFI managers stated the following words:

ICT has increased the volume and speed of execution of our transactions. The institution is now able to serve many clients in few minutes. ICT has improved our loan processing and collection speed. Our employees have acquired additional skills as a results of the adoption and usage of ICT. This has reduced mistakes from our employees leading to improved productivity of the employees.

5. Conclusions and Recommendations

The study concludes that most of the MFIs registered with the Reserve Bank of Zimbabwe have adopted ICT. This is indicated by the revelation of the study that most of the MFIs have partially adopted ICT and also frequently use ICT in their businesses. Partial adoption and usage of ICT imply that some of the operations of MFIs are still being conducted manually. This might deprive the MFIs of the benefits which comes with the use of ICT in their operations. Employees of MFIs have more experience in working in microfinance industry and this implies that they have been observing trends of implementation of technology in the industry for some time. The MFIs have trained their employees so as to equip them with technology skills for proper adoption and usage of ICT in their operations. Customers’ lack of knowledge in the use of ICT, higher costs of setting up ICT, customers’ lack of ICT resources, poor network connectivity and ICT related complaints raised by MFI clients are the challenges faced by MFIs in adopting and using technology. Adoption and usage of ICT has positively affected the operational growth

of MFIs through improving revenue base, customers' touch points, market share, and outreach to previously inaccessible customers, debt recovery and customers' contact points. This implies that ICT has improved depth, access and usage of microfinance products. Adoption and usage of ICT has positively affected the business efficiencies of MFIs through improvement in speed of execution of transactions, loan processing, communication with clients and business acumen of MFI employees.

Based on the findings and conclusions from the study, the study makes the following recommendations:

- 1) There should be partnership between MFIs and technology companies. This will enable MFIs to obtain affordable and efficient technologies and technology skills, this might lead to lower cost of adoption and usage of ICT by MFIs.
- 2) The MFIs should advocate that the institutions of higher learning such as universities, colleges and polytechnics should come up with banking and finance programs which are based on technology such as digital banking. This will help in equipping the existing and current employees with technology and banking and finance skills. This will help the MFIs experience growth as a result of usage of ICT.
- 3) MFIs should collaborate with institutes of higher learning and technology companies so that they can come up with affordable technology applications for the services which they provide. This may promote the accessibility and usage of MFI products by the clients.
- 4) MFIs should have a strong in-house ICT team so as to attend to the issues of system breakdown and IT related complaints raised by the customers.

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