

EFFECTS OF MOBILE MONEY TRANSFER OPERATIONAL COSTS ON PROFITABILITY OF MEDIUM AND SMALL ENTERPRISES IN OYUGIS TOWNSHIP, HOMABAY COUNTY, KENYA

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ABSTRACT

Micro and Small Enterprises (MSE) are considered a vital engine in national growth it terms of employment and national income. As noted by Arianoff, (2010), MSEs is a source of employment as well as an instrument for poverty reduction within our communities. This study focused to establish effect of Mobile Money Transfer (MMT) services on profitability of MSEs operating in Oyugis Town of Homabay County, Kenya.. In its attempt to establish the effect of MMT operational cost on profitability of MSEs in Oyugis Town the study adopted Technology Acceptance Model (TAM). Data was obtained using questionnaires from MSEs owners. From target population of 133 a sample of 52 MSEs owners provided information through a structured questionnaire which was analyzed using descriptive and inferential statistics aided by Statistical Package for Social Science (SPSS). The findings of the study revealed that MMT operational cost had positive and significant effect on profitability of MSEs in Oyugis Town. Operational cost reduction of mobile money transfer services has a significant effect on profitability ($\beta = .219$; $p < .05$). The study recommended that MSE should adopt mobile money transfer in managing transactions, administrative management, managing credit and overheads. Secondly, it will create easy access credit, transferring payments to increase efficiency in working customers and suppliers, better staff utilization will lead to reduced operational cost and increased convenience and maintaining liquidity value of cash within virtual network. On further research, the study recommended the need to look on the effect of adoption of MMT on sustainability of MSEs.

Keywords: *Mobile Money Transfer, Operational Costs, Medium and Small Enterprises*

INTRODUCTION

Business performance is easier measured by return per given investment. Adams and Buckle (2003) referred to return per given investment as profitability and an indication of efficiency in management resources available within a market situation. Knowledge of business profitability

determinant is key in developing an effective performance strategy for any enterprise, including Medium and Small Enterprises (MSEs). Profitability of MSEs is a show of ability to generate earnings for a certain period from a given capital stock. To improve profitability, MSEs need to have a steady flow of cash. Supporting this position Cho, Park and Choi (2011) encouraged Indonesian MSEs that the use information and communication technology (ICT) would make them have a steady cash flow to pay the bills and employees, as well as purchase materials to scale their services or build products. Through ICT platform MSEs can save on cost, reduced number of times of going to the bank including time saving on queuing to carry out simple business in the bank. Over the last two decades, Kenya has experienced tremendous growth in ICT resulting in it being a major driver of economic growth (ROK, 2015). One ICT enabled financial service for MSEs that has proved useful in maintaining steady cash flow is Mobile Money Transfer (MMT).

MMT is an electronic money accounts that can be accessed via mobile phone, which Zutt (2010) considered secure and convenient means of sending and receiving money. In Kenya, both the for banked and unbanked people have sent and received money with mobile phones at home and abroad; anywhere at any time. According to Nyaga (2013), MMT contains features that enable the subscriber to receive, store, send or pay money anywhere any time from a mobile account to a different subscriber anywhere anytime. In this regard, MMT banking works closely with banks to provide banking transfer to subscribers of mobile money. To improve their profitability, there are a range of services the MSEs could benefit from using mobile money technology. According to Nyaga (2013) mobile money transfer include mobile money transfers, mobile ATMs, mobile ticketing, mobile vouchers, loyalties and coupons, content purchases and deliveries, information services, mobile banking, mobile purchases, and mobile marketing and advertising. Through these services MSEs could have their profitability improved by using MMT to reduce cost of business, increase efficiency, reliability and quality of services. CGAP (2006) suggests that MMT has affected MSEs performance on profitability which can be realized through reduction of overheads and transaction- related costs. This would enable MSEs to access new customers thereby increasing their market, operating costs minimization and operating revenues maximization.

Deloof (2003) noted that profitability of firms is influenced primarily by the business' accounting results. Thus, an increase in turnover often leads to an increase in profitability and the same can be said if thus a decrease of production costs, so a reduction in variable or fixed costs. Operational cost is day-to-day expenses incurred in running a business, such as sales and administration can be reduced through mobile money transfer. Vong, Fang & Insu (2012) in a pilot study on the impact of mobile money transfer in MSEs in rural Cambodia noted that a number of benefits, including reduction of cash "leakage" and corruption. In this case MSEs

would realize a reduction on business cost hence profitability. Further, Aker and Mbiti (2010) noted that microfinance institutions (MFIs) and insurance companies are increasingly using mobile money transfer for cash disbursement and repayment in Kenya. This is actively being replicated in MSEs and according to Jack and Suri (2014) such organizational users of mobile money are reporting reduced cost of cash disbursement compared to other current options, such as cost of cash handling and associated security, reduced staff costs and better utilization of staff. This study focused to establish how reduction in business cost would influence profitability in MSEs in Oyugis Township.

Profitability of MSEs are influenced primarily by the business' accounting results. According to Deloof (2003) an increase in turnover as well as a decrease of production costs often leads to improved profitability. A reduction in variable or fixed costs as established by Nguyen (2001) in study on focusing on policy reforms and building a multi-sector market economy is significant in profitability of MSEs. Nguyen (2001) findings echoed Vong, Fang and Insu (2012) assertions from a pilot study on the impact of MMT on profitability that with sufficient working capital MSEs in Cambodia strongly contribute to creating employment, increasing GDP, and raising the nation's volume of exports. In Africa, MSEs have found difficulties on the way to development due to high cost of doing business in many parts of the world. As a result, MSEs often face challenges in their operations. For example, Chimucheka and Mandipaka (2015) studied challenges faced by MSEs in Nkonkobe Municipality, South Africa and found out that lack of access to finance and inadequate government support is their greatest impediment. In his study Nguyen (2001) focused on financial management practices as challenges and established that working capital is significant on profitability of MSEs. On his part Nyang'au (2013) in a study on challenges facing MSEs in Kisii Town, Kenya looked at inventory management and established that a relationship between inventory cost and management of MSEs. Kisii and Nkonkobe Municipality, South Africa could be larger urban centers than Oyugis, but this study expects MSEs in these three urban areas to face similar challenges towards profitability.

There are a range of services MSEs could benefit from using MMT technology. Nguyen (2001) singled out that business cost can be reduced through use of MMT in managing transactions, administrative management, managing credit and overheads. MMT act as a banking services which allows keeping or storing money valued in local currency, converting stored money into cash and transferring stored money between accounts. As mentioned by Donner and Tellez (2008), business transactions costs involve transferring money between accounts either in cash or virtual. MSEs transfer money through from their mobile accounts by either getting cash or sending both of which involves some cost. This concurs with Deloof (2003) assertion that increased savings transferring money to a supplier or in making any payment often leads to more profit. Further, adoption of MMT as mode of payment by MSEs is not only restricted to paying

for supplies. According to Mbogo (2010) many MSEs in Kenya are using MMT to pay wages, bills such as for electricity and internet because they consider it affordable. MSEs can use MMT a variety of transactions conveniently without involving employees as noted by Saleem (2012). A number of business operations can be carried through mobile form payment and as noted by Chimucheka and Mandipaka (2015) this can reduce socioeconomic challenges in managing MSEs. Acknowledging that challenges facing MSEs include access to finance and managing credit, this study sort from respondents how MMT reduces reliance on informal sources of credit.

STATEMENT OF THE PROBLEM

The emergence of ICT has provided a platform for MMT which in turn has made MSEs to have a steady cash flow to pay the bills and employees, as well as purchase materials to scale their services or build products. This ICT enabled platform can make MSEs save on cost, reduced number of times of going to the bank including time saving on queuing to carry out simple business in the bank. Scholars have studied various aspects of mobile telephony and their effects to MSEs and have established that mobile money transfer have a significant role on performance of MSEs in various parts of the world. As much as literature reveals that MMT is faster, cheaper, more reliable, and safer, there is a need to establish the extent it influences profitability of MSEs within Oyugis Township. Specifically, this study focused on influence of MMT operational cost on profitability of MSEs found within Oyugis Township in Homabay County, Kenya.

PURPOSE OF THE STUDY

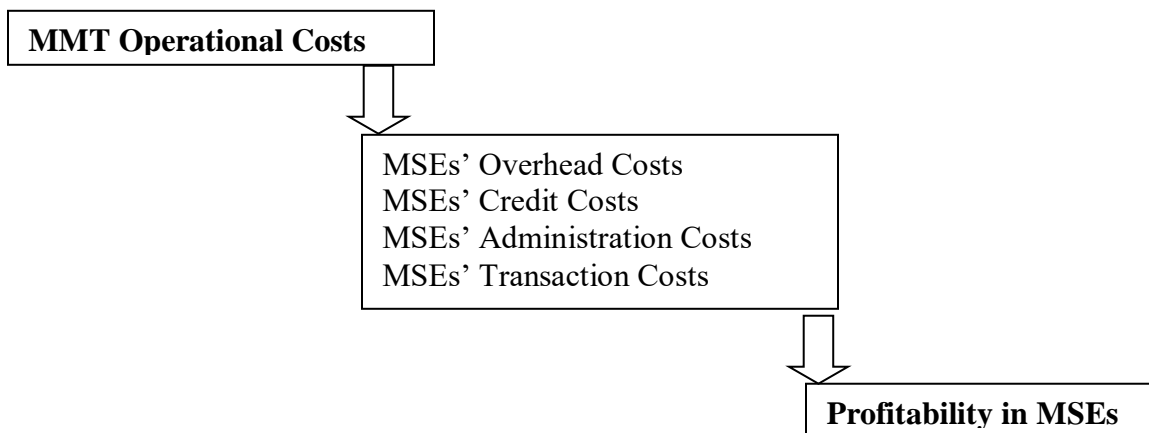
The purpose of this study was to establish the effect of operational costs of mobile money transfer services on profitability of MSEs within Oyugis Town in Homabay County, Kenya

THEORETICAL FRAMEWORK

The study on the influence of MMT operational cost influence on profitability of MSEs I Oyugis Township adopted Technical Acceptance Model that that explains how users come to accept and use a technology (Lai 2017). TAM model suggests that when users are presented with a new technology, several factors influence their decision about how and when they will use it. These factors are perceived usefulness defined as the degree to which a person believes that using a system would enhance performance, and perceived ease of use defined as the degree to which a person believes that using a system would be free from effort (Lai 2017). These two factors are the primary determinants for adopting and using a new technology and are influenced by other variables such as security concerns, cost, convenience, and satisfaction (Lu, Yu, Liu and Yao, 2003). Perceived ease of use directly affects perceived usefulness, and both determine the user's attitude towards use, (behavioral intention to use -BIU) and eventually to the actual use of the

system (Viehland and Leong, 2007). TAM has been widely used to predict user acceptance and use based on perceived usefulness and ease of use (Ndubisi and Richardson, 2002). Consequently, TAM is chosen as the appropriate model and is extended to include other factors such as perceived ease of accessibility of the mobile payment services, perceived low cost of the mobile payment services, perceived convenience, perceived security, perceived support from the mobile services provider and from the government, perceived satisfaction and actual usage of the mobile payments.

CONCEPTUAL FRAMEWORK



METHODOLOGICAL APPROACH

This study employed an exploratory research designs to provide a statistical measure on the effect of MMT operational cost on profitability of MSEs. Targeting registered MSEs found within Oyugis Township with designated business sites, with trading licensed and have been in operation for five years. Using stratified random sampling a sample of 52 owners of MSEs out of 133 provided information through structured questionnaires. Data analysis use frequency distribution tables and graphs plus Spearman's Rank correlation to establish linear relationship between MMT operational cost and profitability of MSEs and multiple regression analyses to establish the effect of MMT on profitability

FINDINGS AND DISCUSSIONS

Out of 52 questionnaires distributed to owners of MSEs, 47 were returned fully filled making up to 90.4% response rate which demonstrated a willingness of the respondents' to participate in the study.

Demographic Information

MSEs constitute the largest part of the private sector with specific reference to their numbers and employment figures. Many of these enterprises are self-employment activities that operate informally and may not have the capacity to grow into formal enterprises. It was prudent therefore to understand demographic characteristics of MSEs within Oyugis Township. This study considered gender, educational background and age as key demographic factors that would influence use of mobile money transfer among MSEs owners.

Table 1: Demographic Background of MSEs Owners

Variable	Indicators	Frequency	Percentage
Gender	Male	28	59.60
	Female	19	40.40
Age	Below 25	3	6.40
	26-36	20	42.60
	36-45	17	36.20
	Above 45	7	14.90
Educational background	Primary School graduates	8	17.0
	Secondary Schools Drop-Outs	6	12.80
	Secondary Schools Graduates	11	23.40
	College Certificate	4	8.50
	College Diploma	4	8.50
	University Graduate	8	17.0
	Post-Graduate	6	12.480

Analysis for gender of individuals owning MSEs in Oyugis Township according to Table 1 revealed that that 59.60% (28) are run by men while women own 40.40% (19) of them. These findings are indications that MSEs are appreciated and run by men and women as source of income and employment. In terms of age, findings in Table 1 indicates that majority of MSEs in Oyugis Township are owned by individuals falling between ages 26 and 35 years old. Specifically, 42.60% (20) owning MSEs in Oyugis Township are aged 26-35 years old, 36.20% (17) fall between 36-45 years, 14.90 % (7) were over 45 years of age and 6.40% (3) below 25 years old. These results are an indication that majority MSEs in Oyugis Township belong to the youth bracket. Youths embrace technology easier and would benefit more from MMT in running MSEs. The presence of more youthful entrepreneurs is a confirmation of dwindling formal employment chances and the fact that government is no longer expected to be the principal providers of jobs.

Emergence of ICT based factor in business management through MMT have increasingly created job for many Kenyans irrespective of age and educational background through MSEs. Table 1 results on educational background of owners of MSEs in Oyugis Township majority (23.4%) are university graduates, who previously would be waiting for white collar jobs. The same results in Table 1 indicates that nearly half of MSEs in Oyugis Township are owned by individuals who did not make it beyond secondary schools but managed to complete primary education. They include 17 % (8) primary school and 12.8 % (6) secondary school dropout. The other half have post-secondary level of education which include 8.50 % (4) with college certificate, 8.50 % (4) college diploma, 17% (8) university graduates and 12.8 % (6) post-graduate qualifications. These findings show that SME sector apart from having the potential to contribute immensely to employment creation can even propel the formal sector to higher productivity because of the level of knowledge entrepreneurs possess.

MSEs in Oyugis Township

Oyugis Township like the rest of the county have great diversity as far as MSEs are concerned in term of their characteristics. There are several ways to characterize MSEs including workshops for woodwork, metalwork and automobile mechanical work. Others are wholesale and retail stores, cyber cafes, advertising agencies professional and personal service firms, tailoring shops, hotels, restaurants, bars, boutiques, saloons, day care centers and commercial agencies for farm produce. The study concentrated on businesses that use MMT services. In this study MSEs ownership, number of employees, possibility of branches, size in terms of sales volume, mobile money transfer service provider and ventures was considered.

Table 4.3: Characteristics of MSEs

Variable	Indicators	Frequency	Percentage
MSEs Ownership	Sole Proprietorship	33	70.20
	Partnership	14	29.80
	Company LTD	0	0
Number of Employees	10 Employees and Below	39	82.90
	11-50 Employees	6	17.10
Branches	Yes	41	87.20
	No	6	12.80
Annual Turnover	Less Ksh:500,000	26	55.30
	Ksh: 500,001-1,000,000	16	34.00
	Above Ksh: 1,000,000	5	10.60
MMT service Providers	Mpesa	43	91.50
	Airtel Money	4	8.50

	Orange Money	0	0
Other Businesses	Yes	32	68.10
	No	15	31.90

Results in Table 1 indicates that 70.20% (33) of MSEs in Oyugis Township are owned by single individuals, while 29.80% are partnership enterprises. The fact that majority of MSEs entrepreneurs are sole proprietors' shows easy dependence on MMT services because decision making process is simple, unlike companies or joint ventures which require consultations. In Kenya, micro-enterprises are considered to have 10 employees or less; a small enterprise 11-50; and a medium enterprise more than 50-100. Results presented in Table 1 indicate that are 82.90% (39) microenterprises, 17.10 % (8) small enterprises and no medium enterprises. With 10 or less employees, most of enterprises in Oyugis Township can effectively use MMT to pay salaries and allowances among others services. To reach more customers entrepreneurs expand business within a given geographical area MSEs need to enhance market share. Table 1 shows that only 12.80% (6) of have branches indication that majority of MSEs concentrate operations at premises and this would enable mobile money transfer at the same point.

According to The Micro and Small Enterprises Bill, 2011 annual turnover can be used to classify MSEs. Findings in Table 1 indicates that 55.30% (26) of MSEs have less than Kshs: 500,000 as annual turnover making them to qualify as microenterprises and 34.00 % (16) make between Kshs: 500,000 and Kshs: 1,000,000 yearly qualifying to be small enterprises. However, 10.60% (5) making more than Kshs: 1,000,000 would not qualify as medium enterprise because none of MSEs in Oyugis Township employ more than 50 workers. MMT service providers offer MSEs electronic money accounts that can be accessed via mobile phone to securely and conveniently send cash to suppliers and receive from their customers (Zutt, 2010). Specifically, MMT services enable entrepreneurs to send and receive money with mobile phones at home; anywhere at any time at their convenience. Table 1 shows that 91.50% (43) use Safaricom Mpesa services, 8.50% (4) prefer Airtel Money and none uses Orange Money. As much as all MMT service providers enable the subscriber to receive, store, send or pay money anywhere any time, Mpesa seem to be more popular among MSEs in Oyugis Township. Oyugis Town is fairly populated with diverse communities and apart from sampled MSEs, entrepreneurs could be having other businesses. Finally, from Table 1 31.90 % (15) of entrepreneurs in Oyugis Township own other businesses beyond the sampled MSEs.

Effects of MMT Operational Cost on MSEs Profitability

MMT options enables MSEs to send money from their phone account to a different subscriber anywhere anytime just like transferring airtime. To improve profitability, these are a range of

services MSEs could benefit from using mobile money technology. Among these services include using MMT to reduce cost of business. To establish relationship between business cost reduction and profitability of MSEs in Oyugis Township Spearman’s Coefficient index was run and the results posted in Table 2.

Table 2: Spearman’s Correlation Coefficient (2-tailed)

		Business Cost Reduction	MSEs Profitability
Business Cost Reduction	Correlation Coefficient	1.000	.659**
	Sig. (2-tailed)	.	.000
	N	47	47
Profitability of MSEs	Correlation Coefficient	.659**	1.000
	Sig. (2-tailed)	.000	.
	N	47	47

**Correlation is significant at the level 0.01(2-tailed)

From Table 2 it is shown that a 2-tailed significant correlation coefficient of 0.659. This is a positive correlation between business cost reduction and MSEs profitability. These results indicate that MMT services enhances profitability in MSEs through reducing operational costs. Reduction of operational cost through MMT is possible because it acts as a banking services which allows keeping or storing money valued in local currency, converting stored money into cash and transferring stored money between accounts. Further descriptive analysis presented in figure 1 revealed reduction in operational costs.

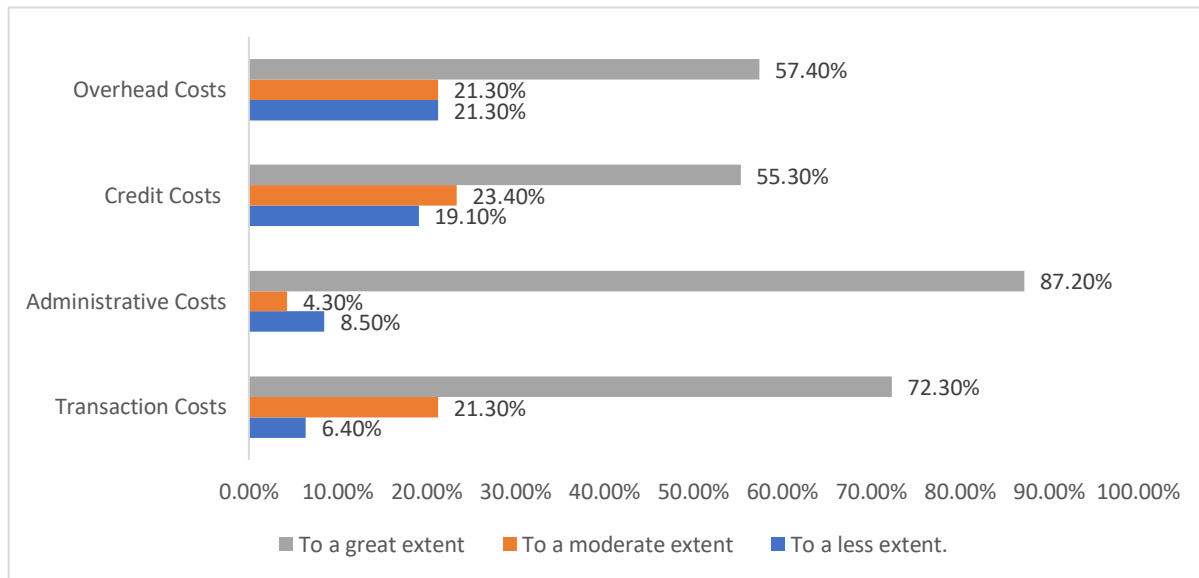


Figure 1: Reduction on Operational Costs

Findings in figure 1 indicates that 72.30% (34) of MSEs acknowledged that to a great extent mobile money transfer reduces cost of doing business through transactions, 21.30% said to moderate extent and 6.40% to a less extent. This is an indication that MSEs in Oyugis Township improve profitability through savings in transferring money from their mobile phone accounts. This concurs with Deloof (2003) assertion that increased savings transferring money to a supplier or in making any payment often leads to more profit. Business transactions costs involve transferring money between accounts in cash or virtual and MSEs transfer money to get cash or send cash both of which involves some cost. Adoption of mobile money transfer as mode of payment by MSEs is not only restricted to paying for supplies. According to Mbogo (2010) many MSEs in Kenya are using mobile money transfer to pay wages, bills such as for electricity and internet because they consider it affordable. Results in figure 1 shows that 87.20% (41) of MSEs agreed that savings can in terms of staff size to a great extent, 4.30 % (2) to a moderate extent and 8.50 % (4) to a less extent in Oyugis Township. These results are an indication that emergence of mobile money transfer has made many MSEs to reduce on the money of staff in operating their businesses. MSEs can use mobile money transfers to a variety of transactions conveniently without involving employees as noted by Saleem (2012). Several business operations can be carried through mobile form payment and as noted by Chimucheka and Mandipaka (2015) this can reduce socioeconomic challenges in managing MSEs.

MSEs have experienced difficulties in their operation due to high cost associated with of doing business. This was noted by Chimucheka and Mandipaka (2015) when they asserted that lack of access to finance is their greatest impediment. Acknowledging that challenges facing MSEs

include access to finance and managing credit, this study sort from respondents how mobile money transfer reduces reliance on informal sources of credit. Figure 1 reveals that 55.30% (26) MSEs in Oyugis Township agreed that they have improved profitability resulting from reduced over reliance on informal and often expensive source of credit. Figure 1 also shows that 23.40% (11) said that to a moderate extent they have increased profitability while 19.10% (9) to a lesser extent their profit improved due to a reduction of over reliance on informal credit sources. These findings are in tandem with Sarma (2008) argument that reliability on mobile money transfer can also be seen in the ease with which MSEs access credit for business. Services like M-Shwari, has helped to reduce the growth of informal sources of credit such as money lenders which are often found to be exploitative as noted by Easy access to credit will enable MSEs to stock up and reliably offer services when they are low on financing capital thereby saving them from vicious cycle of high cost finance borrowed from money lenders. In a study focusing on financial management practices Nguyen (2001) established that working capital is significant on MSEs profitability because of overhead costs. In figure 1 it is shown that 57.40% (27) of MSEs agreed that to a great extent adoption of mobile money transfer has influence on their profitability, 21.30 (10) said to moderate extent and another 21.30% (10) said to a less extent. These findings indicates that MSEs in Oyugis Township are saving on overhead costs to improve on their profitability. The results obtained in this study concurs with Deloof (2003) assertion that reduction of overheads often leads to an increase in profitability. In general this study established that overheads are business operational cost and influences profitability of MSEs.

CONCLUSION

This study establish that MMT operational cost has an effect on profitability of MSEs Oyugis Township within Homabay County. In this study, size of MSEs in terms of annual sales volume was used to analyze effect of mobile money transfer on profitability of MSEs in Oyugis Township. Spearman's Coefficient index 0.659 is an indication of a positive correlation between business cost reduction and MSEs profitability through mobile money transfer. This was further confirmed by the fact that at $p < 0.05$ there is significant relationship between operational cost reduction and MSEs profitability in Oyugis Town, since the corresponding coefficients of operational cost reduction is equivalent to 0.219. This is an indication that there is significant relationship between operational cost reduction and MSEs profitability in Oyugis Town. MSEs have found difficulties on the way to development due to high cost of doing business in many parts of the world. However, in this study it was established that business cost can be reduced through use of mobile money transfer in managing transactions, administrative management, managing credit and overheads. First, this study established that 72.30% (34) of MSEs acknowledged that to a great extent mobile money transfer reduces cost of doing business

through transactions. This is an indication that MSEs in Oyugis Township can improve their profitability through savings in transferring money from their mobile phone accounts.

Secondly, this study established that 87.20% (41) of MSEs agreed that savings can be in terms of number of staff and to a great extent improve their profitability. This is an indication that emergence of mobile money transfer has made many MSEs to reduce on the money of staff in operating their businesses. Thirdly, it was established that 55.30% (26) MSEs in Oyugis Township have improved profitability resulting from reduced over reliance on informal and often expensive source of credit after adopting mobile money transfer. This was an indication that reliability on mobile money transfer can also be seen in the ease with which MSEs access credit for business. Easy access to credit will enable MSEs to stock up and reliably offer services when they are low on financing capital thereby saving them from vicious cycle of high cost finance borrowed from money lenders. Lastly, the study found out that 57.40% (27) of MSEs to a great extent through adoption of mobile money transfer have their profitability improved by reducing overhead costs, 21.30 (10) said to moderate extent and another 21.30% (10) said to a less extent. These findings indicate that through mobile money transfer MSEs in Oyugis Township are saving on overhead costs to improve on their profitability.

Financial management practices as challenges on growth of MSEs can be mitigated through reduction on cost of doing business cost by adoption of mobile money transfer in managing transactions, administrative management, managing credit and overheads. Mobile money transfer enables savings in transferring money to a supplier or in making any payment often leads to more profit. Ideally, emergence of mobile money transfer has made many MSEs to reduce on the money of staff in operating their businesses. MSEs are using mobile money transfers a variety of transactions conveniently without involving employees. Managing business operations through mobile form payment reduce socioeconomic challenges in managing MSEs. Further, reliability on mobile money transfer has enabled MSEs to easily access credit for business instead of relying on informal sources of credit such as money lenders which are often exploitative. Easy access to credit will enable MSEs to stock up and reliably offer services when they are low on financing capital thereby saving them from vicious cycle of high cost finance borrowed from money lenders. Finally, through mobile money transfer has helped MSEs to save on overhead costs to improve on their profitability.

RECOMMENDATIONS

The study recommended that MSEs should adopt mobile money transfer in managing transactions, administrative management, managing credit and overheads. Adoption of MMT creates easy access credit for business instead of relying on informal sources of credit such as

money lenders which are often exploitative. It also recommended further research on the effect of cost reduction through adoption of MMT on sustainability of MSEs.

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