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ABSTRACT

The aim of this study is to assess the effect of interest rates on the financial performance of SMEs in urban informal settlements in Kenya. This study adopts the descriptive survey design. Data were collected from 120 SMEs in the 6 wards of Mathare Sub-County. Data was collected using semi-structured questionnaires. It was analysed using descriptive and inferential statistics. The findings show that low interest rates could influence the propensity of SMEs to apply for these loans. The ability to pay mobile loans without problems due to low interest rates enhanced the performance of the respondents’ businesses. This goes on to contribute to poverty alleviation in urban informal settlements through enhanced access to capital; one of the goals of the world bank. This has further ripple effects since it can contribute to income diversification for the inhabitants of poor urban areas. The following recommendations were made. The government should also reduce interest rates to lower the cost of mobile phone interests as well as the interest rates of other loan products. Mobile loan lenders should also ensure that their loan products are affordable for the urban poor.

Keywords: Interest Rates, Financial Inclusion, Poverty Alleviation, Financial Performance, SMEs, Urban Informal Settlements

I. INTRODUCTION

Mobile Loans have, for the last close to three decades, been taking centre stage in financing processes. According to Muller (1995), mobile lending is “the ability to use your smartphone or tablet to apply for, gain approval on, and check the status of a loan.” With the rise and rise of mobile phones, it is not possible to apply for loans ubiquitously and at lower costs. In essence, mobile loans are based on the bank focused theory which argues that by adopting technologies, commercial banks can reap more benefits in serving their customers (Lyman, 2006). Similar findings were also recorded in Pakistan by Fatima and Kiran (2011) who found out that between 2006 and 2010, the introduction of mobile banking contributed to improvement in the financial performance of the Commercial banks. However, their study did not focus on the associated effect of mobile loans within the mobile banking framework on such performance. However, the converse influence of mobile loans on the financial performance of SMEs was not studied by the former studies.

In the United Kingdom, Pollard et al. (2017) posit that one of the challenges facing the financing of the firms studied was the high-interest rates. This was also affirmed by a study in the Libyan City of Gharian by Samawi et al. (2016) that shows that between 2007 and 2012; some of the major challenges facing SMEs were poor funding, poor liquidity, and high-interest rates. Samawi et al. (2016) show that the inability to access financing was a significant constraint to the growth of small firms in Libya. This was also attested in Rambe and Mosweunyane (2017) in South Africa that shows that the inability to secure sustainable financing affected the financial performance of SMEs. It can be inferred by these findings that access to financing has significant influences on the performance of SMEs. In Ghana, a study by Tobbin and Kuwornu (2012) shows that mobile money systems were bridging a very important financial gap for SMEs. In the context of challenges related to access to credit were increasingly being mitigated through mobile money systems. Concurrently, old and transitional systems of saving were being replaced. This shows the promises of mobile loans on financing SMEs in the African continent. However, the level to which mobile loans have been applied in the financing of SMEs and the direct contributions of such financing to the performance of these SMEs is largely unexplored.

By the turn of the last decade, Kenya had started to largely adopt mobile lending. According to the Central Bank of Kenya (CBK, 2010), mobile lending was increasingly emphasized by commercial banks as a strategic tool for realizing profit maximization and cost minimization. It was playing a pivotal role in enhancing access to banking services such as loans for SMEs. Mobile lending services such as M-shwari (Commercial Bank of Africa); KCB-MPESA (KCB), M-Co-op cash (cooperative bank of Kenya), and Equitel (Equity Bank) created immense opportunities in which geographical barriers were eliminated; enhancing convenience for customers.
Kenya Credit Bureaus show that as of 2019, 19 million Kenyans had active mobile loans. At the same time, most of these borrowers (40%) had loans from about 6 out of 10 mobile money lending services. Regrettably, there were high default rates (2%) of the borrowers, which amounted to over 380,000 Kenyans as posited by Credit Bureau Reference Kenya (CRB). This shows that there were high levels of adoption of mobile loans in the country which could enhance the performance of SMEs. However, the nexus between the use of mobile loans to finance SMEs and the associated performance effects are largely undocumented.

Nyaga (2013) that since the launch of mobile money services in 2007, close to 50% of the population had adopted the service. This was attributable to affordability (due to low interest rates) and accessibility of the service for low-income earners. The adoption of the service had positive impacts on the growth of SMEs. Though the former study is closely related to this current study, it does not expressly relate to the direct effect of loans on financial performance among SMEs. It is also quite dated and might not reflect the current situation in which myriad mobile loan services have been launched.

There has been a sharp increase in mobile phone-based lenders in Kenya in the last decade. These include M-Shwari by Safaricom, Fuliza-Safaricom, Berry, Tala, KCB M-Pesa, Timiza-Barclays, Branch, Shika, iPesa, Zenka, Zidisha, Okash, Jazika, Utunzi, Kopakash, HF Whizz, Saida, and Haraka (Onamu, 2020). These apps make it possible for individuals and SMEs to access quick unsecured loans, sometimes up to KSH. 1,000,000. This current study sets out to find out the level to which the interest rates of mobile loans influences poverty in Kenyan’s urban informal settlements through enhanced financial performance of SMEs.

1.1 Statement of the Problem

SMEs play a crucial role in Kenya’s economy. They contribute to 18% of the GDP and employ about 80% of Kenya’s population (Kithae et al., 2012). However, the cost of borrowing often discourages SMEs in urban informal settlements from borrowing. This has negative effects on them since financing is panacea to the growth problems of any firm. However, the nexus between the interest rates of mobile loans and the financial performance of SMEs is scantily studied. This study sets out to find out the level to which interest rates affects the performance of SMEs in poor urban neighborhoods and the overall impact on poverty alleviation in these areas. Without studies such as this one, it would be untenable to make empirically informed recommendations on ways in which mobile loan products can be utilized to alleviate poverty in poor urban areas. This ought not to be so in areas faced with immense growth challenges. In this light, this study sets out to bridge these literature gaps by investigating the effect of the interest rates of mobile loans on the financial performance of SMEs in urban informal settlements in Kenya with reference to Mathare Slums.

1.2 Research Objectives

The general objective of the study is to assess the effect of mobile loan interest rates on the financial performance of SMEs in urban informal settlements in Kenya

II. LITERATURE REVIEW

2.1 Theoretical Framework

This study is pegged on the resource-based theory. The Resource-Based Theory was advanced by Grant (2015). The theory is based on the assumption that financial resources are limited. As such organizations do not have enough resources – financial resources to finance their operations. The Resource-Based Theory of Competitive Advantage (RBCTA) also postulates that organizations (SMEs) in the case of this current study are often unable to identify and use potential resources effectively. This leads to a lack of appreciation of existing resources; or at least those at their disposal such as mobile loans. This goes on to affect the financial performance of such firms.

Grant (2015) classified resources into six categories viz. physical, human, technological, financial, reputation, and, organizational resources. The joint application of these resources would contribute to the overall performance of the firm. The Resource-Based Theory has been applied in various studies. Jarkko (2016) for example in a study in Finland shows that successful use of resources enhances a firm to access the resources it did not have. This shows that the resources of a firm can be a bridge to other resources. A study by Coplin (2002) in Spain shows that having similar resources did not always result in similar success outcomes. Success was pegged to the level to which firms were able to efficiently use the resources at their disposal. Aaker (1992) reiterates this the levels to which a firm decides to deploy its resources to enhance competitiveness will determine its level of success.

In Kenya, the RBCTA has been employed in a study titled, “Resource Configurations on Sustainable Competitive Advantage of Food and Beverage Firms in Kenya: A Resource-Based View of the Firm” (Mutunga, Minja, & Gachanja, 2014). The study shows that resource-based views have been pivotal in business theorizing. In this case,
competent use of resources has had positive influences on financial performance in organizations in the manufacturing theory (GOK, 2010; 2011; 2013). The impact of the application of resources on the performance of organizations has thus increased its application in contemporary studies in the last decade or so. In line with this current study, it can be argued that if SMEs could leverage financial resources from mobile loans in the context of the other resources they have, they can maximize their profits. This would go on to contribute to competitiveness in SMEs.

2.2 Empirical Review

Amsi et al. (2017) sought to investigate the effects of microfinance credit factors such as credit amount, interest rate, collateral requirement, credit repayment, and entrepreneur orientation on SME financial performance in Kenya by the use of stratified and random sampling to come up with a sample size of 210 SMEs. The findings achieved after analysis showed that a large number of SME owners have not received entrepreneurial training and that interest rates, collateral requirements, and repayment periods factors have had a negative impact on SME financial performance, especially in Kenya’s informal settlements.

Pollard, Richter, Down, and Ram (2017) in “Financialisation and small firms” undertook a longitudinal qualitative analysis of bioscience and film and media firms in the United Kingdom (UK). The study established that one of the challenges facing the financing of the firms studied was the high-interest rates of the products studied. This current study sets out to find out the level to which interest rates limited access to funding by SMEs in Kenya and how mobile loans played mitigation roles.

Samawi, Mdanat, Yosef, and Abutayeh (2016) investigated methods for funding SMEs. This was based on data from a field study involving a sample drawn from the Trade and Development Banks as well as selected SMEs. The study period was between 2007 and 2012. The findings show that some of the major challenges facing SMEs were poor funding and poor liquidity. This was aggravates by high-interest rates. This current study investigates the level to which these challenges can be alleviated by low-interest rates through mobile loans in Kenya. This is pertinent since the former study was neither focused on Kenya nor mobile loans.

Mutie, Muturi, and Njeru (2019) in “Effect of equity finance on the financial performance of SMEs in Kenya” used quantitative and qualitative primary and secondary data. This entailed a sample of 384 respondents drawn from 291,449 licensed SMEs selected from 6 counties in Kenya namely: Nairobi, Mombasa, Machakos, Makueni, Kajiado, and Kitui Counties. The findings show that SMEs faced challenges related to choosing the best source of finance to enhance their performance due to attributes such as interest rates and repayment periods. Since the former study was not focused on mobile loans, it is pertinent to investigate the level to which low-interest rates in mobile loans militated against these challenges.

Bernard, Sare, and Musah (2014) sought to investigate the effects of interest rates on micro, small and medium enterprises (MSMEs) access to funds and their financing decision in Wa Municipality of Ghana by using multiple research method and descriptive survey which made it possible to use qualitative and quantitative data collection techniques and data analysis methods. The findings of this study show that MSMEs rely on equity financing to carry out their operations due to various factors such as interest rates, which affect the choice of financing decisions in the study area. To achieve the purpose of providing financing to MSMEs, there is a need for lending institutions to review the cost of credit downwards to enable smooth repayment and to increase loan demand for MSMEs growth, which in turn plays a major role in economic advancement. Though not focused on Kenya, the findings of this study can be used to understand the effect of interest rates on SMEs in Kenya’s informal settlements.

Osano and Languitone (2016) sought to establish that there are other factors which when coupled with high-interest rates affect SME growth. This study used simple random sampling to come up with a sample of 485 SMEs in Maputo city, Mozambique. Data collection was done through the face-to-face interview which made use of structured questionnaires. The findings of this study show that the SMEs that accessed credit did not find interest rates as a challenge, but the insistence on collateral and poor structural system existing in the country was a major challenge to their growth and sustainability and can be applied in the Kenyan context to better understand the factors which influence access to finance by SMEs in informal settlements.

III. RESEARCH METHODOLOGY

3.1 Research Design

This study was based on descriptive survey design. This design is preferable since it helps explain causal relations based on various data sources such as questionnaires, interviews, and document analysis; all of which are possible to deploy in this study. The design is also able to apply multiple methods of analysis such as correlation and simple as well as multiple regression analysis to test the relationship between the study variables.
### 3.3 Population

Mugenda and Mugenda (2008) point out that a population is a large group of participants from which a sample is drawn. This study targets SMEs in the six wards of Mathare Sub-County namely: Hospital, Mabatini, Huruma, Ngei, Mango Kubwa, and Kiamaiko. There are about 3500 SMEs in the Sub-County with turnovers of over Ksh.50,000 per month. A sampling frame is a list of the sampling units that are used in the selection of a sample (Bryman & Cramer, 1994). In this study, the sampling frame was the SMEs operating in each Ward of Mathare Sub-County. These SMEs undertake activities in various sectors such as construction, tailoring and dress-making, food and hospitality activities, health services, general supplies, vegetable sales, and transport among others. In Each SME, the proprietor/manager was targeted.

### 3.4 Sample

Cooper & Schindler, (2014) points out that sampling is suitable where it’s not practical to study a whole population. The sample size for this study was obtained from a sampling formula by Yamane as shown below:

\[ n = \frac{N}{1 + N(\epsilon)^2} = 97.1 \]

Where:
- \( n \) = the sample size
- \( N \) = the size of the population
- \( \epsilon \) = the error of 10%

The calculation from a population of 3500 is 98.

This study used the proportionate stratified sampling procedure and snowballing techniques to obtain the sample from each Ward in Mathare-Sub County. Therefore, the sample of 98 respondents was chosen proportionately from each Ward. This ensured that the true picture of the subject under investigation in the study areas is captured. The respondents were also obtained proportionately from different kinds of SMEs using the snowballing non-probabilistic sampling method. Participants from each category were asked to refer their colleagues in similar businesses to participate in the study. This also made it easy to recruit study participants.

### 3.8 Data Processing and Analysis

Data was collected using semi-structured questionnaires and data collection forms. This study used descriptive and inferential statistics (Cooper & Schindler, 2014). Descriptive statistics entailed frequency, percentages, and means. Inferential statistics involved correlation and regression analysis. The findings were presented in Tables and Figures. Diagnostic tests were carried out before inferential statistics to ascertain whether the data is properly modelled by a normal distribution included tests for normality, multicollinearity, and Heteroscedasticity.

### IV. FINDINGS

#### 4.1 Response Rate

The study sampled 98 the proprietors/managers of SMEs. Out of these, 86 responded. The return rate was thus 88% which was deemed sufficient for analysis.

#### 4.2 Pilot Testing

The study tested the data collection tool for reliability and validity before the administration of the tool. When all the tests were successfully done then the tool was administered. In this study, Cronbach alpha valued of 0.752 and 0.811 were obtained for interest rates and financial performance respectively as presented in Table 1. Since these were more than 0.7, the research instrument was deemed sufficient for use in data collection.

<table>
<thead>
<tr>
<th>Table 1 Reliability Test</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Item</strong></td>
</tr>
<tr>
<td>Interest Rates</td>
</tr>
<tr>
<td>Financial Performance</td>
</tr>
</tbody>
</table>

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This study utilized content validity. The respondents could easily understand and respond to the study questions. The tool was thus deemed adequate for use in data collection.

4.3 Demographic Information of the Study Participants

The study sought to find the gender of the respondents. The findings show that close to two-thirds of the respondents were female (66.3%) while males were 33.7%. This implies that both genders were significantly represented in the study. The major businesses were restaurants, shops, chemical sales, transport (rider/taxi), sales, farming, barbershop, plumbing, manufacturing, carpentry, general supplies, legal practice, cyber, mechanics shop, phone shops, outdoor films, stationery, and saloon/hairdressing among others. This shows that the respondents were from divergent businesses. As such, the findings obtained could adequately represent SMEs in the study area.

The findings show that more than a third of the respondents had diplomas (36%). These were followed by close to a fifth (19.8%) who had degrees. Those who had certificates and high school qualifications followed at 15.1%. These findings show that the respondents had divergent education levels and could make significant contributions to the study.

Further, the findings show that most of the respondents (45.5%) had been in business for periods ranging between 2 and 5 years. These were followed by close to a third (32.6%) who had been in business for 6 to 10 years. These findings show that most of the respondents had been in business long enough to understand the contribution of mobile loans to the financial performance of businesses.

The respondents were asked to indicate the frequency of borrowing various mobile loans they had used. The responses were captured on a scale of 1 to 4 where 1=Often (Several times a year); 2=Always (Every Month); 3=Rarely (Sometimes in 2 years) and; 4=Never (Never borrowed). Weighted means were used to indicate the average agreeability with the different frequencies of borrowing. The findings show that M-Shwari and Fuliza-Safaricom were used always (M=2). Other popular loans were Tala and KCB M-Pesa were where used rarely or sometimes in 2 years (M=3). These findings show that only four mobile phones were mostly used. These were M-Shwari, Fuliza-Safaricom, Tala, and KCB M-Pesa. The other mobile loans (Berry, Timiza-Barclays, Branch, Shika, iPesa, Zenka, Zidisha, Okash, Jazika, Utunzi, Kopakash, HF Whizz, Saida, Haraka, M-Co-op cash, and Equitel loans) were never borrowed (M=4). This was due to the fact that they were hard to apply for and obtain. In some cases, borrowers were turned back based on CRB ratings. Furthermore, some of the respondents had never heard about some of them.

4.4 Descriptive Statistics
4.4.1 Interest Rates and the Financial Performance of SMEs

The second objective of the study was to assess the effect of mobile loan interest rates on the financial performance of SMEs in urban informal settlements in Kenya.

Table 2 Interest Rates and the Financial Performance of SMEs

<table>
<thead>
<tr>
<th>Statement</th>
<th>Mean</th>
<th>Std. Dev.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The interest rates of loans affect the performance of businesses</td>
<td>3</td>
<td>1.50</td>
</tr>
<tr>
<td>2. I have a challenge getting loans from banks due to high-interest rates</td>
<td>4</td>
<td>1.30</td>
</tr>
<tr>
<td>3. I prefer mobile loans because they have lower interest rates</td>
<td>4</td>
<td>1.38</td>
</tr>
<tr>
<td>4. Different mobile loans have different interest rates so I can choose the one I want</td>
<td>4</td>
<td>1.27</td>
</tr>
<tr>
<td>5. Due to lower interest rates in mobile loans, I can borrow more and this enhances the performance of my business</td>
<td>3</td>
<td>1.32</td>
</tr>
<tr>
<td>6. It is to service multiple loans because of lower interest rates which enhance the performance of my business</td>
<td>3</td>
<td>1.36</td>
</tr>
</tbody>
</table>

N=86

The respondents either agreed to high or moderate extents to the statements presented to them. To begin with, they agreed to a high extent (WM=4) that they had a challenge getting loans from banks due to high-interest rates and that they preferred mobile loans because they had lower interest rates. They also agreed to a high extent (WM=4) that different mobile loans had different interest rates so they could choose the one they wanted. These findings agree with Pollard et al. (2017) who posit that interest loans affected the performance of SMEs.

The respondents agreed to a moderate rate (WM=3) that the interest rates of loans affected the performance of businesses and that due to lower interest rates in mobile loans, they could borrow more and this enhanced the
performance of their business. They also agreed to a moderate extent that interest rates led to the ability to service multiple loans because of lower interest rates which enhanced the performance of their businesses. The findings show that interest rates had a moderate and high influence on mobile loans which agrees with Samawi et al. (2016) who posit that interest rates affected funding and liquidity in businesses.

The respondents pointed out that low-interest rates were better since one could borrow more. On their part, high-interest rates meant that one had to pay more so there was a challenge in the business. Low-interest rates also made decision-making easy due to ease in financing which is the goal of most businesses. Interest rates led to easy and reliable cash. These findings agree with those of Kiptoo et al. (2017) who posit that interest rates affected the financing of SMEs.

4.4.2 Financial Performance of SMEs

The dependent variable of the study was the financial performance of SMEs in urban informal settlements in Kenya. This section presents the findings obtained.

Table 3 Financial Performance of SMEs

<table>
<thead>
<tr>
<th>Statement</th>
<th>Mean</th>
<th>Std. Dev.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Since I started using mobile loans my business has been making more sales</td>
<td>3</td>
<td>1.32</td>
</tr>
<tr>
<td>Since I started using mobile loans my business has been making more profits</td>
<td>3</td>
<td>1.35</td>
</tr>
<tr>
<td>My business has more assets since I started using mobile loans</td>
<td>3</td>
<td>1.31</td>
</tr>
<tr>
<td>My business has less debts since I started using mobile loans</td>
<td>3</td>
<td>1.38</td>
</tr>
<tr>
<td>I have expanded my business to other areas since I started using mobile loans</td>
<td>3</td>
<td>1.45</td>
</tr>
</tbody>
</table>

The dependent variable of the study was the financial performance of SMEs in urban informal settlements in Kenya. The respondents agreed to a moderate extent (WM=3) with all the statements presented to them. In this regard, they agreed to a moderate extent that since they started using mobile loans, their businesses had been making more sales and that since they started using mobile loans; their business had been making more profits. Also, their businesses had moderately more assets since they started using mobile loans. Their businesses also had fewer debts since they started using mobile loans (WM=3). They had also expanded their business to other areas since they started using mobile loans. These findings show that the businesses started seeing positive performance since the start of using mobile loans.

Financial data was collected from the businesses. The findings show that there were include increases in total sales from an average of Ksh. 2.4 million to 3.336 million and Profit and loss, from Ksh. 0.6 million to 0.996 million. Debt value also increased at the same time from 0.348 million to 0.504 million. Assets (Buildings/Equipment) also increased from Ksh. 0.533 million to Ksh. 0.721 million as shown in Figure 1. The number of new branches remained at an average of 1 branch per business (Figure 2). These findings show that mobile loans among other financial sources led to increases in the performance of businesses. These findings agree with Denis and Rodgers (2007) who pointed out that increases in the size of assets and positive operating income (firm’s total assets or sales) for two consecutive years at the base year (time of measurement) indicated positive financial performance.

4.4.2.1 Financial Performance from Financial Records

Financial data was collected from the businesses. The findings show that there were include increases in total sales from an average of Ksh. 2.4 million to 3.336 million and Profits from Ksh. 0.6 million to 0.996 million. Debt value also increased at the same time from 0.348 million to 0.504 million. Assets (Buildings/Equipment) also increased from Ksh. 0.533 million to Ksh. 0.721 million as shown in Figure 1. The number of new branches remained at an average of 1 branch per business (Figure 2). These findings show that mobile loans among other financial sources led to increases in the performance of businesses.
4.5 Inferential Statistics

This section presents correlation analyses.

4.5.1 Pearson Correlation

Pearson correlation analysis was carried out to test the significance of the relationships between the independent and dependent study variables. The findings show that there were significant relationships between financial performance in SMEs and all independent variables as follows: loan accessibility, \( r=0.924, p<0.05 \); Interest Rates, \( r=0.879, p<0.05 \) and; repayment timelines \( r=0.874, p<0.05 \).

Table 6 Pearson Correlation

<table>
<thead>
<tr>
<th></th>
<th>Correlations</th>
<th>Interest Rates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial Performance</td>
<td>Pearson Correlation</td>
<td>.879**</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>86</td>
</tr>
</tbody>
</table>

**. Correlation is significant at the 0.01 level (2-tailed).
V. CONCLUSIONS AND RECOMMENDATIONS

5.1 Conclusions
The findings show that low-interest rates could influence the propensity of SMEs to apply for these loans. The ability to pay mobile loans without problems due to low interest rates enhanced the performance of the respondents’ businesses. This goes on to contribute to poverty alleviation in urban informal settlements through enhanced access to capital; one of the goals of the world bank. This has further ripple effects since it can contribute to income diversification for the inhabitants of poor urban areas.

5.1 Recommendations
The study recommends as follows: The government should also reduce interest rates to lower the cost of mobile phone interests as well as the interest rates of other loan products. Mobile loan lenders should also ensure that their loan products are affordable for the urban poor.

REFERENCES


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