Financial determinants of SMEs performance. Evidence from Kenya leather industry

Determinantes financieros del rendimiento de las PYME. Datos en la industria del cuero en Kenia

Arthur Benedict*a, Jackline Kinya Gitonga*b, Annette Serwaa Agyeman*c, Baffour Tutu Kyei*d

a, c, d) School of Finance, Zhongnan University of Economics and Law, Wuhan (China)
b) National Land commission, Nairobi (Kenya)

* Primary Contact: arthurbenedict99@hotmail.com (Arthur Benedict)

Abstract
Small and medium-sized enterprises (SMEs) are one of the buoyant businesses in the global economy with abundant resources that have not been fully exploited. Despite several revelations on the challenges of SMEs, little to none have comprehensively captured financial factors affecting the performance of SMEs, particularly, in the Kenyan leather sector. This study explores financial factors that are affecting the performance of SMEs using the case of the leather industry sector in Kenya. The study data was collected by administering questionnaires to 300 respondents who were randomly chosen from SMEs within Kenyan leather sector. The study found that financial literacy, credit access and tax are statistically significant financial factors affecting the performances of SMEs. As a result, the study recommends that Government should increase its commitment to develop SMEs by offering favorable tax rates and tax exemptions to SMEs especially those in the leather sector of Kenya. Also, SMEs should heighten their financial literacy which will help augment their access to credit.

Keywords: SMEs; performance; taxation; financial literacy; credit access

JEL Classification: E22; E43; E52; F21; G24; G32

Resumen
Las pequeñas y medianas empresas (PYMES) son uno de los negocios más boyantes de la economía mundial, con abundantes recursos que no han sido explotados en su totalidad. A pesar de las diversas publicaciones sobre los retos de las PYME, casi ninguna ha captado de forma exhaustiva los factores financieros que afectan al rendimiento de las PYME, en particular, en la industria del cuero en Kenia. Al parecer, este estudio explora los factores financieros que afectan al rendimiento de las PYME utilizando el caso del sector de la industria del cuero en Kenia. Los datos del estudio se recogieron mediante la administración de cuestionarios a 300 encuestados elegidos al azar entre las PYME del sector del cuero de Kenia. El estudio concluyó que los conocimientos financieros, el acceso al crédito y los impuestos son factores financieros estadísticamente significativos que afectan a los resultados de las PYME. En consecuencia, el estudio recomienda que el Gobierno aumente su compromiso con el desarrollo de las PYME ofreciendo tipos impositivos favorables y exenciones fiscales a las PYME, especialmente a las del sector del cuero de Kenia. Además, las PYME deberían aumentar sus conocimientos financieros, lo que contribuiría a aumentar su acceso al crédito.

Palabras clave: PYMEs; rendimiento; tributación; educación financiera; acceso al crédito

Clasificación JEL: E22; E43; E52; F21; G24; G32
1. Introduction

Small and medium-sized enterprises (SMEs) are undoubtedly the key drivers of the global economy. In both third world and developed nations, small and medium enterprises (SMEs) are frequently viewed as an engine that fuel the prosperity of the economy based on their crucial role they play in terms of employment generation (Staelens et al., 2018). Thus, the capability of SMEs to ignite economic growth cannot be overemphasized because they do not only lead to generation of employment opportunities, increment of tax revenue collection, but also act as incubators of innovation.

Recent empirical studies indicate that SME’s contributes to over 55% of GDP and over 65% of total employment in high-income nations. In the European Union countries, for example, there are some 25 million small businesses, constituting 99% of all businesses; they employ almost 95 million people, providing 55% of total jobs in the private sector. Key contribution is also on productivity growth and exports expansion (OECD, 2004). SMEs and informal firms in low-income nations represent over 60% of GDP and over 70% of aggregate employment, while in middle-income countries, SMEs contribute over 95% of aggregate employment and approximately 70% of GDP. For instance, SMEs in several sub-Saharan African countries accounts for not less than 78% of employment opportunities which forms a greater percentage of job opportunities in a developing economy (KNCCI, 2018). According to Wanjohi (2010), SMEs in Kenya form about 80 percent of the country’s total employment. Thus, if an economy fails to include SMEs in its country’s industrialization process and economy sustainability prowess, the undesirable resultant effects are obvious. In accordance with SME Performance Review (European Commission, 2009), between the years of 2002 and 2008, the total of jobs in SMEs grew at an average yearly rate of 1.9 percent while the total of jobs in large companies rose by only 0.8 percent. In absolute terms, 9.4 million jobs were created in the SME sector in EU-27 between 2002 and 2008.

Given the profound position of SMEs in championing sustainable, long-term and diversified economic growth, they have, in fact, attracted revived attention after the 2008 financial crisis. As such, the creation and growth of SMEs are currently at the heart of many economic policy agenda. It is evident that considerable resources are needed to run any business most especially SMEs efficiently in order to cushion them from collapsing. Good performance enhances enterprises’ ability to lower production costs and enhance customer satisfaction and wade off the competition.

Despite the prominence of SMEs in creation of jobs coupled with other profound economic benefits, most of the SME literature opines that unlike larger corporations, SMEs face more diverse prime obstacles which are dependent on their region of establishment. These obstacles include insufficient market demand, securing finance, unfavorable government regulations, competition and macroeconomic instability (Ayyagari et al., 2007; International Finance Corporation (IFC), 2009; Rocha et al., 2011). European Commission (2009) expounds evidence indicating insufficient market demand as the prime obstacle faced by SMEs in the European countries, followed by difficulties in accessing finance. Similarly, a study published by Statista Research Department on January 20, 2021, named attracting customers as the key challenges for SMEs in the United States. Senegal and Botswana are classical example of countries in sub-Saharan African that possess conducive conditions for the survival of private-sector growth. However, inadequate financial system and absence of sound policy remain the biggest impediment (Carbó-Valverde et al., 2016).

Certainly, the term “SME” can be defined from different perspectives. Previous studies reveal that different organizations together with different countries establish their definitive guidelines for classifying SMEs is normally pegged on the size of the workforce employed, the worth of intangible and tangible property and sales. World Bank defines SMEs as enterprises with less than or equal to 300 workforce, and assets value and annual revenue pegged at $15 million each. Specifically, in Kenya context, according to the Micro and Small Enterprises Act 2012, a Micro enterprise must attain average annual sales of less than Ksh.500,000 (approximately $4,600) and engages fewer or exactly 10 individuals. A Small sized enterprise must achieve annual sales level of between Ksh.500, 000 and Ksh. 5 million (approximately $4,600 - $46,000) and employees more than 10 but less than 50 persons. Lastly, a medium enterprise engages more than 50 persons and less than 99 persons accompanied with an average yearly turnover of between Ksh.5 million to Ksh.800 million ($45,646.85 - $ 7,304,442.42) and with employees ranging between 50 and 99.

Interestingly, in Kenya, SMEs involvement is not restricted to a single segment of the economy but rather operates virtually in every sector of the economy since they are the source of sustenance for the larger portion of the citizen. However, very little is known regarding the operations, ownership structure, source of finance and other impediments that these SMEs face in their effort to realize full potential. It is against this backdrop that the study is enthralled in investigating the financial factors (access to credit, financial literacy and tax) and other impediments that these SMEs face in their effort to realize full potential. It is against this backdrop of the citizen. However, very little is known regarding the operations, ownership structure, source of finance and other impediments that these SMEs face in their effort to realize full potential. It is against this backdrop of the citizen. However, very little is known regarding the operations, ownership structure, source of finance and other impediments that these SMEs face in their effort to realize full potential.
For this study, access to credit can be seen as the absence of both price and non-price barriers in the use of financial services. Due to the inability of most SMEs to access the formal financial services, they end up going to the informal financial institutions such as Savings and Loan Companies, traditional money lenders, friends and relatives for credit. This subsequently reduces their access to credit for expansion and growth (Nkuah et al., 2013). Financial literacy is the familiarity of all the basics of finance and understanding of financial concepts which is used by an individual or company for decision-making (Remund, 2010). Previous research suggests that managers with a good financial literacy participate more actively in financial markets, by reducing information restrictions and achieving more favourable access to credit. Financial literacy, therefore, alleviating financial constraints, may be an important antecedent of technological innovation (García-Pérez-de-Lema et al., 2021). Taxation is an imposition of compulsory levy on individuals or entities by governments of a given economy. The readjustment of the tax system to the particular SME growth needs can be viewed as critical plan for the policy makers because high tax and tax complicity can stagnant the growth of SMEs which in turn affect economic growth of the country (Akinboade & Kinfack, 2012).

The main objective of this study is to examine whether these three financial factors, access to credit, financial literacy and tax affect the performance of SMEs in the Kenyan leather industry. The study makes use of primary data which was attained through distribution of questionnaires to targeted respondents. The use of questionnaires provided the researchers with first-hand and detailed information on matters underpinning the research objectives. Using the random sampling without replacement technique, 300 respondents were drawn from the population of all SMEs in Kenya, and with the help of statistical tools, analysis were made to establish the impact of access to credit, financial literacy and tax on the performance of SMEs in Kenyan leather industry.

Many researchers have focused on performance by looking at profitability of firms and industries using the DuPont analysis which include ROI and ROA. However, inadequate studies have been carried out on SMEs which is the major driver of today's economy, and whose contribution cannot be ignored. Thus, this study contributes to literature firstly by estimating performance in terms of quality and cost minimization. Previous studies focused on ROA or ROI as the proxy for performance. However, SMEs are characterized with a lot of inefficiencies which may be attributed to the use of unskilled labour, inadequate technological equipment and others. Hence measuring SMEs performance in terms of quality and cost minimization appears to be appropriate especially in the leather industry where customers place much priority on quality instead of price. In addition, quality and efficient cost minimization mechanisms ensured by firms will translate into higher ROA or ROI. Therefore, the study deployed quality and cost minimization proxy which happens to be the root ingredients translated into ROA or ROI in the Kenyan SMEs leather industry. The study therefore sheds light on the association between quality practices and cost reduction strategies which eventually influence business practices and performance.

Lastly, this study adds to the literature on the challenges of SMEs in the developing countries using the case of Kenyan leather industry. Though a considerable number of studies have been conducted on the challenges of SMEs, a great deal of research work focused essentially on developed economies (Hutchinson et al., 2009; Wickramasekera & Oczkowski, 2004). Given the huge dichotomy in economic conditions, and systems between advanced and developing country it remains difficult in drawing a general conclusion on the challenges SMEs face. Thus, this study is tailored to help bridge this gap since studies in the developing countries particularly in the Sub-Saharan regions are scarce.

The succeeding section offers the supporting theoretical outline, review of pertinent literature and hypothesis development. Section 3 chats the research methodology, comprising the empirical model, data sources, and data sampling. Section 4 covers the analysis of empirical outcomes, and the last section contains the conclusion and recommendation.

2. Literature Review

The review in this section seeks to offer a synopsis of the previous body of knowledge on issues especially related to challenges of SMEs. It encompasses the theories underpinning the study and hypothesis thereof.

2.1 Theoretical framework

Given the purpose and nature of this research, a review of theoretical ideas underpinning the three financial factors are not misplaced.

2.1.1 Effects of credit access on performance of SMEs

The business environment today is influenced by strategic managerial decisions that firms implement to achieve competitive advantage. The managerial framework that helps businesses to exploit the resources available to them and remain competitive in the market is that resource-based view. The resource-based view of the firm emphasizes the resources firms need to develop to compete. Two forms of resources exist, property-
based and knowledge-based. Property-based resources contribute most in stable settings, while knowledge-based resources have the greatest utility in uncertain environments (Levallet & Chan, 2016; Levy & Powell, 2005). This understanding provides the basis for development of new competencies that will support innovation and growth in an organization.

The resource-based view in the context of SMEs is of great concern for many researchers as SMEs are faced with lot of constraint in accessing both property-based and knowledge-based resources. Specifically, SMEs face lot of challenges in accessing credit and due to their small capital, are not able to invest more in capital equipment. They are mostly unable to hire a lot of skilled labour and therefore find it difficult to compete with large firms. This clearly indicate that, based on the resource-based view, SMEs are lacking both knowledge-based and property-based resources that will help improve their performance and growth. Since access to capital and credit play a significant role in meeting firms’ objective, this paper focused on how access to credit minimizes SMEs cost and improve quality.

The cost and availability of credit is a major issue facing SMEs (Mwangi, 2014). In Kenya, most SMEs are discouraged from obtaining bank loans due to the transaction costs charged by financial institutions which comprise administrative costs and default costs making the loans expensive. In addition, small enterprises do not own sufficient assets for collateral which in most cases is a requirement for borrowing. A study carried out by (Pais, 2004), revealed that most owners of small enterprises do not own enough capital assets or even maintain formal accounts that can act as security for bank loans. Moreover, those with accounts have no clear separation between the owner's account and that of the business and this makes credit access difficult (Wayua & Kagunyu, 2008).

According to Olatokun and Ayanbode (2009), the accessibility of funds influences the ability of firms in different manner especially the deciding the technology to be adopted, access to markets, and access to necessary resources which in turn incredibly influence the suitability and success of a business. When SMEs are able to access financial assistance from financial institutions and when terms of payments are favorable, business performance becomes good. Adequate finances enable businesses to obtain the capital needed for expansion, cover daily expenses, purchase inventory, hire additional staff and allows businesses to conserve the cash on hand to cover cost of doing business. Also, a study carried out in Nigeria to evaluate access of credit on tomato market performance by Oladejo (2015) revealed that finance is one of the most widely recognized difficulties facing tomato dealers in the study area. Similarly, the study (Dong et al., 2010) advocated for the removal of credit constraints in order to improve agricultural productivity rural household income since it is evident that credit constraints can negatively affect the agricultural productivity and rural household.

Banerjee et al. (2004) examined detailed loan data of 253 small and medium-size borrowers from a financial institution in India both before and after joining the e program. In 1998, the program was reformed to allow a new group of SMEs obtain loans at lower rates that had been subsidized. Normally these firms started to take up loan under this supported program, but instead of simply substituting subsidized credit for more exorbitant finance, they grew their sales to correspond with the additional loan sources which show that the firms must have previously been credit constrained. This is in line with the work of Barrett (2008), Fan et al. (2015), Demirgüç-Kunt et al. (2008) who found out that performance enhancement through financial access is central for SMEs in escaping poverty traps.

Hence, in line with these arguments, we propose the following hypothesis:

**H1**: Credit access have a positive effect on performance of SMEs.

### 2.1.2 Effect of financial literacy on performance of SMEs

Financial literacy is the familiarity of all the basics of finance and understanding of financial concepts which is used by an individual or company for decision-making (Remund, 2010). Aribawa (2016) explains further that financial literacy is the knowledge of financial concepts, abilities and skills in business management. The ability to make strategic business decisions comparatively precise and rapid in certain situations. Moreover, Financial Services Authority of Indonesia (OJK) in 2016 defines that financial literacy is not limited to the understanding the product and services in financial institutions. Thus, financial literacy is the capability of people to orchestrate the financial goals, to assemble financial planning, to oversee finances and be able to make a great financial decision in utilizing financial products and services.

In analyzing how SMEs performance could be enhanced through financial literacy, we integrate the human capital theory and upper echelon theory in support of our argument. Based on the human capital theory, as employees accumulate skills and other abilities through education and training, their value in the work environment is expected to increase as they bring their expertise on the job. The improvement in workers skills and ability could translate into better performance by the firm (Becker, 1962; Rosen, 1976; Xu & Fletcher, 2017; Garcia-Pérez-de-Lema et al., 2021). Again, the upper echelons theory asserts that, top
executives analyze situations based on their personalities, experiences, values and other human factors. This shows that, top executive personal attributes and believes affects the performance of the firm (Hambrick, 2007; Hambrick & Mason, 1984; Liu et al., 2021). Therefore, SMEs are more likely to be affected by leadership attributes, believes and experiences based on established norms and routines. Since entrepreneurs or the executives of SMEs are the key decision makes of SMEs, their personal attributes and thinking which are also influence by their financial knowledge, impact the performance of the firm.

As such businesses and in this case SMEs with good financial literacy will be able to make the proper business decisions, create a good business development orientation and be able to stay alive in their business. By implication SMEs will be able to improve their performance through the acquisition and application of financial knowledge by management and be able to survive business competition. Specifically, SMEs will be able to devise strategies to minimize cost and achieve financial stability which includes being able to invest and make proper financial decisions.

Financial literacy involves the ability to manage financial matters efficiently. Financial literacy equips business owners with the knowledge of making proper financial decisions, such as those on investment, insurance, budgeting and tax planning. As such, business owners that are financially educated are likely to have easier access to formal credit than owners with less financial education. Halabi et al. (2010) found in her study that financial management skills are beneficial for the survival of small firms and lack of financial literacy could be the reason for the failure of SMEs. This is because financial illiterate owners find it difficult to apply for financial assistance due to lack of financial records. Business owners with no skills on bookkeeping lack confidence of borrowing. Mostly, financial institutions require to know how SMEs are performing by analyzing their financial records before they can offer financial assistance. Halabi et al. (2010), Atkinson and Messy (2014) possession of financial literacy is one of the key determinants to great performance for small and medium size enterprises.

On the other hand, individuals with financial knowledge have easier access to finances that can make them acquire good quality raw materials, purchase modern machineries and expand their businesses which can lead to the enterprise’s growth (Kumar & Francisco, 2005). Business owners with financial literacy have improved knowledge of investment and also proper money management skills which helps them to manage money effectively leading to reduced costs (Allen & Miller, 2010). According to the study of Chepngetich (2016), financial literacy is also associated with improved inventory management that leads to reduced costs and increased profit margins and in turn production of quality products. In Kenya, local innovations within the leather sector fail to be noticed in the global market because in most instances the innovators lack financial education to enable them to have a solid foundation for success. This results to poor performance that limits leather sector in commercializing their products. Therefore according to Musah and Muazu (2014), in order to produce products of good quality, SMEs need financial education that can help to improve financial decisions and minimize costs to boost their performance. The findings of Musah and Muazu (2014) is consistent with the work of several authors (Lusardi & Mitchell, 2014) who also found that financial knowledge has a positive effect on business performance within an economy.

Consequently, in formal terms, we predict as follows:

**H2:** Financial literacy has a positive effect on performance of SMEs.

### 2.1.3 Effect of tax on performance of SMEs

Numerous theories pertaining taxation are present in the study of public economics (Erreygers, 1995; Kaplow, 2010; Mankiw et al., 2009). All forms of governments in all levels must raise adequate revenue from different sources to finance public spending. Adam Smith in The Wealth of Nations (1776) stated that it is the duty of the government to defend its country and provide essential service such social system and governance for the benefit of the public. Thus, citizens are legally obliged to contribute towards meeting such expenditure in form of tax cost. The Taxation theory is anchored on the triple concepts of taxation demonstrated by ability to pay principle, benefit approach and equal distribution principle. However, for the purpose of this very study, we pay more attention to the first principle that involve financial resource; ability to pay principle. Ability to pay principle is one of the canons of taxation that suggestively means that taxation ought to be charged based on a person capability to pay. In other words, it states that public revenue should originate from those who have and not from those who do not have. The argument behind this principle is that the poor have nothing to be taxed as such the government can only collect so much from those with ability. By implication, relatively SMEs should be excused from huge tax burdens and better still should be given some level of subsidies or tax holidays.

Taxation is an imposition of compulsory levy on individuals or entities by governments of a given economy. Taxation plays a very vital function in the development of SMEs and especially in a middle-income economy such as Kenya where the SMEs are at the forefront in driving forward the socioeconomic development of the nation. Evaluating the impact of tax systems on SMEs normally capture various dimension such as rates,
burden, incidence, timing, and multiple taxes. The considerations of these enterprises are to reduce administrative cost, observe compliance, and impacts of carrying out operations in the informal market. In this manner, readjustment of the tax system to the particular SME growth needs can be viewed as critical plan for the policy makers because high tax and tax complicity can stagnant the growth of SMEs which in turn affect economic growth of the country (Akinboade & Kinfack, 2012).

Tax incentives, such as tax exception enables individuals and businesses to reduce the costs of production since it reduces the amount of tax that business have to pay. Through the reduced tax costs, SMEs can have more money that they can use to improve the quality of their products. Business owners within the leather sector can purchase high quality hides and skins which would be used in production of high-quality leather products to boost their performance. High taxes can demean the performance of a business enterprise. According to the nexus theory of taxation, taxes should be progressive in nature. Mature SMEs with huge income should be charged more than those that are young and with low profit margins. Taxes reduce the profit margins and increase the operation costs of SMEs. High costs of production drain the finances of businesses most especially SMEs which might lead to production of poor-quality products. This proposition is affirmed by the studies of Klemm (2010), Tomlin (2008), Atawodi and Ojeka (2012), Tee et al. (2016), Mnenwa and Maliti (2008) who established that tax burden are major hurdles of SMEs because they increase operational costs of the business whereas tax incentives are great boosters for smaller firms.

Therefore, in line with these arguments, we propose the following hypothesis:

**H3**: Tax payment has a negative effect on performance of SMEs.

### 3. Research Methodology

This section describes the research design, area of the study, the sample and sampling procedures. It also discusses data collection methods employed in answering the research questions, research quality and data credibility, and data analysis techniques.

#### 3.1 Research Design

The study principally applied primary data. This primary data was attained through distribution of questionnaires to targeted respondents. The use of questionnaires provided the researchers with first-hand and detailed information on matters underpinning the research objectives. The study was carried out among SMEs in the leather manufacture industry of Kenya. A sample of 300 respondent or firms were drawn from the population of all SMEs in the leather manufacturing industry following the random sampling without replacement techniques. The respondents drawn were mainly entrepreneurs or business owners, managers and employees whose responsibilities are directly or indirectly link to the managerial operations of the enterprises and mostly involves some level of financial/monetary roles. The sample posits a fair representation of the SMEs in the leather manufacturing industry of Kenya. Only around 1% of MSMEs (7.41 million) in Kenya are involved in leather-related manufacture (1,786 firms) of which about 50% of leather-producing firms are categorized as medium-sized. The study primarily utilized questionnaires and interviews. The questionnaire was tailored to contain both closed and open-ended questions. Interviews aided in cases where questionnaires couldn’t serve the purpose. The data collection covered a period of eight months (from July 2020 to February 2021). Descriptive statistical tools (SPSS and STATA statistical software) were applied on the primary data collected and inferential statistics was used to analyze, interpret, and draw conclusion from the results.

#### 3.2 Demographic characteristics of respondents

The socio-economic features of the respondents were examined according to gender, age, marital status and educational level. The analysis is offered in table below. Table 1 shows that more males 154 (51.3 %) than females 146 (48.7 %) participated in this study which possibly suggests that SMEs in the Kenyan leather industry are males dominated. Men have greater economic needs since they are considered as bread winners, and they have invested more in small and medium enterprises in leather sector to meet their daily needs of providing to their families. It is also evident from Table 1 that most of the respondents are within the middle age between 32 years and 50 years. This is due to their physical strength and possibilities to compete in terms of skills within the leather sector. Also, Table 1 indicates that most, 162 (54%) of the respondents are married followed by respondent who were divorced 96(32%) and 42 (14%) were single. With regards to their educational level, represented by 5 (4.20%). The table also shows that more than half, 156 (52%) of the respondents had certificates followed by respondent with no education 105 (35%). The respondents who have bachelors were represented by 33 (11%) whiles those who masters were also represented by 6 (2%). In summary Table 1 shows that most of the respondents are not well educated. Up to 52% have only certificate levels and 35% are not educated at all. This may pose problems when it comes to doing technical things in the small and medium enterprises in leather sector because education gives people the knowledge and technical
skills, they require to carry out their daily chores efficiently.

### Table 1. Demographic characteristics of the sample

| Variable          | Type | Frequency | Percent | Cumulative percent |
|-------------------|------|-----------|---------|--------------------|
| **Gender**        |      |           |         |                    |
| Male              |      | 146       | 48.7    | 48.7               |
| Female            |      | 154       | 51.3    | 100.0              |
| Total             |      | 300       | 100.0   |                    |
| **Age (Years)**   |      |           |         |                    |
| 16-20             |      | 23        | 7.7     | 7.7                |
| 21-30             |      | 59        | 19.7    | 27.4               |
| 31-40             |      | 103       | 34.3    | 61.7               |
| 41-50             |      | 83        | 27.7    | 89.4               |
| 51-60             |      | 31        | 10.3    | 99.7               |
| 61 and above      |      | 1         | 0.3     | 100.0              |
| Total             |      | 300       | 100.0   |                    |
| **Marital Status**|      |           |         |                    |
| Single            |      | 42        | 14.0    | 14.0               |
| Married           |      | 162       | 54.0    | 68.0               |
| Divorce           |      | 96        | 32.0    | 100.0              |
| Total             |      | 300       | 100.0   |                    |
| **Education level**|     |           |         |                    |
| No education      |      | 105       | 35.0    | 35.0               |
| Certificate       |      | 156       | 52.0    | 87.0               |
| Bachelors         |      | 33        | 11.0    | 98.0               |
| Masters           |      | 6         | 2.0     | 100.0              |
| Total             |      | 300       | 100.0   |                    |

Source: Own elaboration

#### 3.3 Financial factors

Specific responses were also drawn from the respondents on the three main financial factors being investigated namely, access to finance, financial literacy and taxation (see appendix for full details on the questionnaire). The results are offered in Table 2.

Table 2 shows that 231 (77%) of SMEs sources of credit comes from borrowing from friends and relatives while 45 (15%) from personal savings and 24 (8%) from loans. This is a clear indication that SMEs are financially constraint. This kind of sources of funds is little that’s most of SMEs still remain small since investing in leather sector require adequate capital especially for start-ups. Out of the 300 respondents, 144 (48%) of respondents indicated that the business requires external source of funding sometimes not always.

This is so because SMEs revenue is little such that they are done in such a way that people should earn money just to support their families. Also, results from Table 2 indicates that 89% of respondents are of the view that credit access offered by financial provider in not effective as it just makes the SMEs to run on high debt level.

It is also evident from Table 2 that people in SMEs do not have or lack finance knowledge. This is because more than half of the study sample 216 (72%) in SMEs indicated that they do not have knowledge of finance while 84 (28%) said that they have financial knowledge. This is because most SMEs in the Kenya leather industry are mainly family ownership based. Thus, they hire family members for decision-making positions in the firm without proper training. This outcome affirms the conclusions from the study of Molina-Garcia et al. (2020) who posits that the greater the degree of family ownership, the lower the level financial literacy of the family business.

Furthermore, 156 (52%) out of the 300 respondents indicated that outsourcing for financial expertise cost large amount of money, and 87 (29%) respondents also indicated that it cost moderately large amount of money to outsource people to do SMEs finances. This is a clear indication that outsourcing is a bad option as it is an extra cost for a small profit enterprise.

With regards to taxation, 246 (82%) out of the 300 respondents see tax as a huge financial burden for the SMEs. This is an obvious indication that people in SMEs are most often than not tax overburden. Taxes are classified as operational costs and therefore when taxes are high for SMEs, they may hurt the income of the business. In view of the tax burden, more than half of the 30 respondents believe that tax exemption would be of great help to the SMEs growth. As such, 126 (42%) of respondents said that tax exemption would bring a very large change to their business and 69 (23%) said that that tax exemption would bring a large change. This is a strong hint that indeed tax exemption to SMEs would be a game changer in the SMEs industry and in this case the Kenyan leather industry. This is affirmed further by the results as 75% of respondents indicated that after tax SMEs have small and sometimes very small profits to plough back into the business for expansion which is part of the growth of SMEs.
## Table 2. Responses on the three financial factors

| Variable                        | Type                  | Frequency | Percent | Cumulative percent |
|---------------------------------|-----------------------|-----------|---------|--------------------|
| **Access to credit**            |                       |           |         |                    |
| Major Sources of Finance        | Savings               | 45        | 15.0    | 15.0               |
|                                 | Loans                 | 24        | 8.0     | 23.0               |
|                                 | Friends and relatives | 231       | 77.0    | 100.0              |
|                                 | Total                 | 300       | 100.0   |                    |
| Seek External Funding           | Never                 | 6         | 2.0     | 2.0                |
|                                 | Rarely                | 24        | 8.0     | 10.0               |
|                                 | Sometimes             | 144       | 48.0    | 58.0               |
|                                 | Not sure              | 18        | 6.0     | 64.0               |
|                                 | Very often            | 3         | 1.0     | 65.0               |
|                                 | Often                 | 84        | 28.0    | 93.0               |
|                                 | Always                | 21        | 7.0     | 100.0              |
|                                 | Total                 | 300       | 100.0   |                    |
| Effectiveness of Credit Access  | Never                 | 126       | 42.0    | 42.0               |
| offered.                        | Rarely                | 90        | 30.0    | 72.0               |
|                                 | Sometimes             | 51        | 17.0    | 89.0               |
|                                 | Not sure              | 6         | 2.0     | 91.0               |
|                                 | Very often            | 12        | 4.0     | 95.0               |
|                                 | Often                 | 12        | 4.0     | 99.0               |
|                                 | Always                | 3         | 1.0     | 100.0              |
|                                 | Total                 | 300       | 100.0   |                    |
| **Financial Literacy**          |                       |           |         |                    |
| Financial Knowledge             | No                    | 216       | 72.0    | 72.0               |
|                                 | Yes                   | 84        | 28.0    | 100.0              |
|                                 | Total                 | 300       | 100.0   |                    |
| **Cost of Outsourcing Financial works** | Very small          | 6         | 2.0     | 2.0                |
|                                 | Small                 | 9         | 3.0     | 5.0                |
|                                 | Moderate              | 30        | 10.0    | 15.0               |
|                                 | Not sure              | 12        | 4.0     | 19.0               |
|                                 | Moderately large      | 87        | 29.0    | 48.0               |
|                                 | Large                 | 156       | 52.0    | 100.0              |
|                                 | Total                 | 300       | 100.0   |                    |
| **Taxation**                    |                       |           |         |                    |
| High Tax burden                 | Yes                   | 246       | 82.0    | 82.0               |
|                                 | No                    | 54        | 18.0    | 100.0              |
|                                 | Total                 | 300       | 100.0   |                    |
| Effects of tax exemption        | Very small            | 9         | 3.0     | 3.0                |
|                                 | Small                 | 24        | 8.0     | 11.0               |
|                                 | Moderate              | 33        | 11.0    | 22.0               |
|                                 | Not sure              | 3         | 1.0     | 23.0               |
|                                 | Moderately large      | 36        | 12.0    | 35.0               |
|                                 | Large                 | 69        | 23.0    | 58.0               |
|                                 | Very Large            | 126       | 42.0    | 100.0              |
|                                 | Total                 | 300       | 100.0   |                    |
| Profit after tax                | Very small            | 159       | 53.0    | 53.0               |
|                                 | Small                 | 75        | 25.0    | 78.0               |
|                                 | Moderate              | 33        | 11.0    | 89.0               |
|                                 | Not sure              | 3         | 1.0     | 90.0               |
|                                 | Moderately large      | 18        | 6.0     | 96.0               |
|                                 | Large                 | 9         | 3.0     | 99.0               |
|                                 | Very Large            | 3         | 1.0     | 100.0              |
|                                 | Total                 | 300       | 100.0   |                    |

Source: Own elaboration
3.4 Variable Definition

3.4.1 Dependent variable

**Performance.** Firm performance at SMEs can be viewed from the corporation's success in product quality, cost minimization, human resource management, customers, innovation, and finance (Kurnia Fitriati et al., 2020; Mukson & Prabuwono, 2021). Business performance describes the amount at which a certain task of the business was attained in comparison to the final output at the end of a business period (Yıldız et al., 2014). Hence, in this study, SMEs performance is measured in line with product quality and cost minimization. Since operational performance deals with design and management of products as well as utilization of resources that firms need to deliver the goods and services their client wants. As such, using a Likert scale, we examine the firms’ product quality and cost minimization techniques by a set of questions as to: 1. Whether the business carry out model-based analyses to identify and fix quality problems in order to minimize the overall cost of production 2. Does the business have clear-cut quality goals strategically and precisely based on customer requirement; 3. To what extent are available resources dedicated to the quality practice; 4. Does the business carryout customer satisfaction survey to monitor customer satisfaction; 5. Do the business enjoy reduction in cost of production without a corresponding decrease in product quality.

3.4.2 Independent variable

**Access to credit** in this study is defined as the absence of both price and non-price barriers in the use of financial services. Due to the inability of most SMEs to access the formal financial services, they end up going to the informal financial institutions such as Savings and Loan Companies, traditional money lenders, friends and relatives for credit. This subsequently reduces their access to credit for expansion and growth (Nkuah et al., 2013). As such, this variable measure encompasses all the price and non-prices barriers SMEs faces in attempt to secure formal credit. This variable measurement is in line with previous studies (Eton et al., 2017; Le, 2012). Using a Likert scale, respondents indicated the extent to which they agree or disagree to these questions; 1. Banks have outlet or branches closer to the business center. 2. Interest rate charge on loans are moderately low. 3. All formal credits offered require collateral. 4. Credit services offered by the financial institution(s) affect my business performance. 5. Access to formal credit improves my product quality and cost minimization goals.

**Financial literacy** here is a measure of the familiarity of all the basics of financial information and understanding of financial concepts which is used by an individual in this case SMEs for decision-making. This variable measure is similar to that of Remund (2010). Previous research suggests that managers with a good financial literacy participate more actively in financial markets, by reducing information restrictions and achieving more favorable access to credit. Thus, this variable measures the degree to which the SMEs are financially informed. Therefore, in line with previous studies’ definition and measurement of financial literacy (Molina-García et al., 2020; Remund, 2010), these questions where couched using a Likert scale for SMEs to indicate their degree of agreement or disagreement. 1. Trainings have enabled me run my business effectively and I have realized an increase in sales and profitability. 2. I am able to keep proper records of income and expenditures. 3. Management and employees attend training programs related to financial management. 4. My level of education has positive influence on where/how to get loans to improve the business. 5. Financial literacy or knowledge improves cost minimization and product quality goals of your business?

**Tax payment.** Taxation is an imposition of compulsory levy on individuals or entities by governments of a given economy. With this variable, we explored the degree to which taxation affect SMEs performance. The survey included a set of questions to examine how SMEs perceive tax levy from government and its inherent effect on their business. Accordingly, the following questions among others were asked for respondent to indicate their degree of agreement or disagreement. 1. The nature of the taxation system in Kenya is favorable to my business? 2. To what extent does taxation affect cost minimization of your business? 3. To what extent does taxation affect quality of your products? 4. To what extent do you think taxes have affected productivity of the business? This study variable measurement is similar to the previous work of Tee et al. (2016) measurement of tax payment

3.4.3 Control variable

Firm age is estimated by subtracting the number of years the firm has been in operation or deducting the business setup year from the year 2020 which the survey was carried out. Firm size is also measure by the number of permanent employees hired by the business. Growth is the growth of the firm and is estimated by a question indicating whether the business experience an increment in sales in the current year of the study as against the previous years.
3.5 Model Specification

\[ \text{Performance}(y) = \beta_0 + \beta_1 T_i + \beta_2 Z_i + \beta_3 X_i + \beta_4 D_i + \varepsilon_i \quad (1) \]

Where; \( \beta_0 \) is constant term, \( \beta \) is coefficient of explanatory variable, \( T_i \) is taxation, \( Z_i \) is credit access, \( X_i \) is financial literacy, \( D_i \) is control variable (firm idiosyncratic characteristics) and \( \varepsilon_i \) is the error term (assumed to have zero mean and independent across period). A comprehensive break down of the study model is given below as

\[ \text{Quality}(q) = \beta_0 + \beta_1 CA_i + \beta_2 FL_i + \beta_3 TP_i + \beta_4 Firmage + \beta_5 Growth + \beta_6 Firmsize + \varepsilon_i \quad (2) \]

\[ \text{Cost}(c) = \beta_0 + \beta_1 CA_i + \beta_2 FL_i + \beta_3 TP_i + \beta_4 Firmage + \beta_5 Growth + \beta_6 Firmsize + \varepsilon_i \quad (3) \]

Where in the above two equations; \( \beta_0 \) is constant term, \( \beta_1 \) to \( \beta_6 \) are coefficients of explanatory variables, \( TP_i \) is taxation, \( CA_i \) is credit access, \( FL_i \) is financial literacy, Firmage, Growth and Firmsize are control variables (firm idiosyncratic characteristics) and \( \varepsilon_i \) is the error term (assumed to have zero mean and independent across period).

4. Results and Discussion

This section offers the analysis of the data gathered and the discussion of the results thereof. It covers the response on the 3 main financial factors deployed for this very study.

4.1 Regression analysis

As a culmination of the analysis in this study, separate regression models were built using quality and cost minimization as the two dependent variables. For the two regression models, three independent variables were included, namely: credit access, financial literacy, and taxation and three control variables were also included in each of the two models. The control variables included in the models are firm age, firm growth, and firm size.

| Table 3. The influence of financial factors on performance measured by quality and cost minimization |
|-------------------------------------------------|-----------------|-----------------|
| Financial literacy                              | Quality         | Cost minimization |
|                                                 | 0.398***        | 0.673***        |
|                                                 | (0.189)         | (0.122)         |
| Credit Access                                   | 0.435***        | 0.273***        |
|                                                 | (0.126)         | (0.057)         |
| Tax payment                                     | -0.316**        | -0.682**        |
|                                                 | (0.111)         | (0.288)         |
| Growth                                          | 0.125**         | 0.211**         |
|                                                 | (0.062)         | (0.024)         |
| Firm age                                        | 0.211**         | 0.132**         |
|                                                 | (0.102)         | (0.117)         |
| Firm size                                       | 0.184***        | 0.297***        |
|                                                 | (0.054)         | (0.101)         |
| CONSTANT                                        | 3.256***        | 5.970***        |
|                                                 | (0.812)         | (0.428)         |
| R                                               | 0.953           | 0.853           |
| Adj. R\(^2\)                                    | 0.914           | 0.801           |
| F Test                                          | 169.860         | 129.620         |
| CHI value                                       | 0.000           | 0.000           |

Source: Own elaboration
Standard errors in parentheses and significant levels 1%(***), 5%(**) and 10%(*)

From Table 3, it is evident that the effect of financial literacy on both quality and cost minimization were found to be positive and empirically significant at 5% and 1% respectively controlling for firms’ heterogeneous characteristics. This indicates that if all variables are kept constant a unit increase of the financial literacy of SMEs will result in an increase of the product quality by 39% as well as an increment in production cost minimization by 67%. In addition, credit access and tax payment on both cost minimization and quality of the leather produce have been found to be statistically significant. The slope coefficient of credit access on quality is positive indicating that if all variables are kept constant a unit increase of the level of credit access will
result into an increase in the leather quality products produced by 44%. Also, a unit increase in credit access will result in a 27% increase in minimization of the production cost of SMEs firms. In contrast, the slope of the coefficient of tax payment on cost minimization and quality are negative indicating that the higher the tax payment, the lower the cost minimization of SMEs firms and quality. Meaning, tax payment on the average, adversely affect SMEs quality and cost minimization methods by 31% and 68% respectively when all other factors are held constant.

The results further revealed that all the control variables deployed by the study have an empirical significant impact on both SMEs product quality and production cost minimization. Firm age, firm size and firm growth were found to have a positive effect on performance of SMEs within the leather manufacturing industry of Kenya. Firm size was established to be statistically significant at 1% whereas both firm age and firm growth were established at 5% percent level of significance. In line with these results, a unit increase in the age, size and growth of SMEs will have a corresponding increase in the product quality and cost minimization, ceteris paribus.

Furthermore, the value of R-Squared on quality was found to be 0.951 with an adjusted R-Square of 0.914. This therefore can be interpreted that the variation of the dependent variable which is percentage of how good quality is, is explained by its explanatory variables by 91 % proving that the fitted model was of good fit and there is no presence of misspecification or adoption of wrong functional form. The value of R-Squared on cost minimization was found to be 0.853 with an adjusted R-Square of 0.801. This therefore can be interpreted that the variation of the dependent variable which is percentage of how good cost minimization is, is explained by its explanatory variables by 80% proving that the fitted model was of good fit and there is no presence of misspecification or adoption of wrong functional form. The value of F-Statistic on quality was 169.86 with a p-value of 0.000, indicating that the fitted independent variables were jointly statistically significant at 5% level of significance based on p-value. The value of F-Statistic on cost minimization was also established at 129.620 with a chi value of 0.000, indicating that the fitted independent variables were jointly statistically significant at 1 % level of significance based on p-value.

4.2 Discussion

The regression results give a clear indication that the financial factors deployed by the study are significant factors that influence SMEs performance and, in this case, SMEs in the Kenya leather manufacturing industry. The findings reveal that credit access has a significant positive impact on performance of SMEs. This result corroborates the findings of Fan et al. (2015) and Olatokun and Ayanbode (2009) who posited that the accessibility of funds influences the ability of firms in different manner especially the deciding the technology to be adopted, access to markets, and access to necessary resources which in turn incredibly influence the suitability and success of a business. Hence, performance enhancement through financial access is central for SMEs in escaping poverty traps.

In terms of cost minimization by SMEs, credit access has a significant impact of up to 27 % whereas credit access has up to 43% impact on quality. By implication, SMEs can attain some level of cost minimization as and when they are able to access and secure credit. In the same vein, they can improve on their product quality when they are able to attain credit. Therefore, hypothesis 1 which captures the effect of credit access on performance proxied by cost minimization and quality respectively were found significantly positive. The possible reason could be the Kenyan financial institutions coming up with initiatives such as UWEZO funds to ensure that they offer cheap credit facilities to SME owners as a means of boosting economic growth. Also, affordable, and available access to credit ensures that the SMEs have adequate finances that they can use to purchase quality raw materials on timely basis and ensure proper planning of inventory that can lead to cost minimization. The inventory of skins and hides is very delicate since they can rot when not well preserved and hence lead to products of poor quality. Hence, the availability of credit access is therefore very important in leather manufacturing industry to ensure smooth running of SME.

The study results also confirm that the possession of financial knowledge by SMEs tend to boost their cost minimization strategies and product quality decisions which enhances their overall performance. Our study affirms the conclusion of previous study which remark that financial management skills are beneficial for the survival of small firms and lack of financial literacy could be the reason for the failure of SMEs (Altman, 2012; McDaniel et al., 2002; Halabi et al., 2010). As we showed above, hypothesis 2 which examines the positive effect of financial literacy on SMEs performance is established to be true. Hence, the study agrees full with the conclusion of Atkinson and Messy (2014) who reported that possession of financial literacy is one of the key determinants to great performance for SMEs.

Similarly, the study findings on taxation validate the point that tax payment adversely affect SMEs performance in terms of both quality and cost minimization strategies. As we displayed above, the research hypothesis 3 which says that tax payment has a negative impact on SMEs performance was found to be true. This outcome is fully in line with the conclusions of previous studies such as Tee et al. (2016), Atawodi and Ojeka (2012), Klemm (2010), Tomlin (2008), Mnenwa and Maliti (2008) who stipulated that tax burden is a
major hurdle of SMEs because they increase operational costs of the business whereas tax incentives are great boosters for smaller firms. Therefore, by implication, alignment of the tax system in favor of SMEs dealing with leather needs in this case, can be considered an important agenda for the policy makers in order to help SMEs produce quality products that can compete globally.

5. Conclusion and Recommendations

The study sought to investigate financial factors that affect performance of SMEs using SMEs in the Kenya leather manufacturing industry as a case. A sample of 300 respondents or firms was utilized for the study. To realize the set objectives, frequency tables and ordinary least squares regression estimate were employed on the dataset. The financial factors considered in the study are access to credit, financial literacy, and tax payment. Performance was proxied by cost minimization and product quality.

This study contributes to previous literature in several ways. First, our findings revealed that better credit access and financial literacy exert a positive influence on SME performance, while tax payment has a negative impact on SME performance. Particularly, our results confirmed that credit access affects positive and significantly on both quality and cost minimization. This meant that credit is a strong determinant of performance of SMEs in Kenya. Also, the effect of financial literacy on performance, that is, product quality and cost minimization was found to be significantly positive. This suggests that financial literacy is also a strong determinant of performance of SMEs in Kenya. Lastly, the regression results further showed that tax payment adversely affects SMEs businesses by increasing operational cost which in turn hurt the quality of products and performance of SMEs as whole.

Second, this study contributes to literature by estimating performance in terms of quality and cost minimization. Previous studies focused on ROA or ROI as the proxy for performance. However, SMEs are characterized with a lot of inefficiencies which may be attributed to the use of unskilled labour, inadequate technological equipment, and others. Hence measuring SMEs performance in terms of quality and cost minimization appears to be appropriate especially in the leather industry where customers place much priority on quality instead of price. In addition, quality and efficient cost minimization mechanisms ensured by firms will translate into higher ROA or ROI. Therefore, the study deployed quality and cost minimization proxy which happens to be the root ingredients translated into ROA or ROI in the Kenyan SMEs leather industry. The study therefore sheds light on the association between quality practices and cost reduction strategies which eventually influence business practices and performance.

Lastly, this study adds to the literature on the challenges of SMEs in the developing countries using the case of Kenyan leather industry. Though a considerable number of studies have been conducted on the challenges of SMEs, a great deal of research work focused essentially on developed economies (Hutchinson et al., 2009; Wickramasekera & Oczkowski, 2004). Given the huge dichotomy in economic conditions, and systems between advanced and developing country it remains difficult in drawing a general conclusion on the challenges SMEs face. Thus, this study is tailored to help bridge this gap since studies in the developing countries particularly in the Sub-Saharan regions are scarce.

As a result, the researchers first and foremost, advise that SMEs should strive to attain sufficient financial knowledge which will go a long way to affect their business performances positively. Also, educational programs could also be prearranged for the SMEs as most of the workers have no education and financial literacy which could impede their cost minimization capability and for that matter performance. Lastly, the study recommends that the government should offer accessible, inexpensive, and enough loans to small and medium enterprises. Furthermore, government should also increase its commitment to develop strategies for small and medium enterprises through favorable tax rates and tax exemptions especially to small and medium enterprises dealing with leather products in Kenya.

Our study poses a few limitations and opens the prospect for different lines of future research. The first constraint is about our sample. Most of the firms captured in our study sample are not registered and as such are not required to publish their accounts. Hence not every entrepreneur was willing to provide us with accurate financial information through interview or questionnaire. A future line of fascinating research could be to repeat this same study using registered SMEs where financial information is readily available to the public. Secondly, our variable measure of firm growth is too simple and thus, can be improve upon with a more robust measure of growth. Moreover, future studies can also control for more idiosyncratic firm characteristics to account for possible differences in SMEs. Lastly, the study examined firms in the leather manufacturing industry, so it can be checked whether the results are generalizable to other industries and other countries at large. Therefore, future studies can also consider same variables in different industries such as food and beverage industries from different countries.

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### Appendix A

#### Table 4. Diagnostic test for R Test

| R       | R Square | Adjusted R Square | Std. Error of the Estimate | Durbin-Watson |
|---------|----------|-------------------|----------------------------|---------------|
| 0.990a  | 0.981    | 0.976             | 0.22513                    | 1.879         |

Source: Own elaboration  

a. Predictors: (Constant), TX, AC, FL  
b. Dependent Variable: PQ

#### Table 5. Diagnostic test for F Test

| Model   | Sum of Squares | DF | Mean Square | F     | Sig.  |
|---------|----------------|----|-------------|-------|-------|
| 1 Regression | 28.409       | 3  | 9.470       | 175.674 | 0.000a |
| Residual       | 0.593       | 11 | 0.054       |        |       |
| Total           | 29.002      | 14 |             |        |       |

Source: Own elaboration  
a. Predictors: (Constant), TX, AC, FL  
b. Dependent Variable: PQ

#### Table 6. Item Reliability (Convergent and Discriminant validity)

| Factors                        | Items                      | Loadings | Indicator Reliability (loading^2) | Cronbach | Composite reliability |
|--------------------------------|----------------------------|----------|----------------------------------|----------|-----------------------|
| Access to Credit (AC)          | AC1                        | 0.916    | 0.8396                           | 0.915    | 0.937                 |
|                                | AC2                        | 0.922    | 0.8500                           |          |                       |
|                                | AC3                        | 0.855    | 0.7315                           |          |                       |
|                                | AC4                        | 0.873    | 0.7630                           |          |                       |
|                                | AC5                        | 0.753    | 0.5665                           |          |                       |
|                                | AC6                        | 0.970    | 0.9417                           |          |                       |
|                                | AC7                        | 0.970    | 0.9413                           |          |                       |
|                                | AC8                        | 0.974    | 0.9484                           |          |                       |
|                                | AC9                        | 0.880    | 0.7744                           |          |                       |
| Financial Literacy (FL)        | FL1                        | 0.898    | 0.8069                           | 0.938    | 0.956                 |
|                                | FL2                        | 0.939    | 0.8816                           |          |                       |
|                                | FL3                        | 0.946    | 0.8941                           |          |                       |
|                                | FL4                        | 0.891    | 0.7941                           |          |                       |
|                                | FL5                        | 0.988    | 0.9761                           |          |                       |
|                                | FL6                        | 0.893    | 0.7974                           |          |                       |
|                                | FL7                        | 0.864    | 0.7465                           |          |                       |
|                                | FL8                        | 0.819    | 0.6708                           |          |                       |
| Taxation (TX)                  | TX1                        | 0.974    | 0.9484                           | 0.970    | 0.981                 |
|                                | TX2                        | 0.970    | 0.9413                           |          |                       |
|                                | TX3                        | 0.932    | 0.8686                           |          |                       |
| Performance - Quality (PQ)     | PQ1                        | 0.957    | 0.9167                           | 0.867    | 0.919                 |
|                                | PQ2                        | 0.747    | 0.5587                           |          |                       |
|                                | PQ3                        | 0.95     | 0.9022                           |          |                       |
|                                | PQ4                        | 0.794    | 0.6304                           |          |                       |
| Performance - Cost minimization (PC) | PC1                | 0.916    | 0.8394                           | 0.877    | 0.916                 |
|                                | PC2                        | 0.753    | 0.567                            |          |                       |
|                                | PC3                        | 0.873    | 0.7626                           |          |                       |
|                                | PC4                        | 0.874    | 0.7633                           |          |                       |
|                                | PC5                        | 0.861    | 0.741321                         |          |                       |
|                                | PC4                        | 0.912    | 0.831744                         |          |                       |

Source: Own elaboration

#### Table 7. Explanatory Factor Analysis

| KMO and Bartlett’s Test |          |
|-------------------------|----------|
| Kaiser-Meyer-Olkin Measure of Sampling Adequacy. | 0.773    |
| Bartlett’s Test of Sphericity | Appro. Chi-Square | 241.544 |
|                          | df       | 276     |
|                          | Sig.     | 0.034   |

Source: Own elaboration
Table 8. Questionnaire

**Background of Respondent**

1. Gender: a. Male b. Female
2. Age (in years): a. 16-20 b. 21-30 c. 31-40 d. 41-50 e. 51- 60 f. Above 61
3. Marital status: a. Single b. Married c. Divorced
4. Level of education: a. Master’s degree b. Bachelor’s degree c. Certificate d. Not educated
5. How many years has your business been in operation: a. 1-5 years b. 6-10 years c. 11-15 years d. 16-20 years e. More than 20 years
6. Estimate how much start-up capital did you invest in Kenya shillings (thousand)?: a. Below 10 b. 50-100 c. 101-200 d. 201-300 e. Above 301

**Access to credit**

1. What was your major source(s) of startup capital?: a) Savings b) Bank Loan c) Borrowings from friends/relatives d) Other source
2. Please use the following scale to answer the questions below. (1).Never (2).Rarely (3).Sometimes (4).Not sure (5).Very often (6).Often (7).Always
   a. Does the business require external source of funding?
   b. Does the credit services offered by the financial institution(s) affect your business performance?
   c. Is the credit services offered by your financial provider (s) effective?
   d. Which source of informal or formal credit do you prefer for your business?
   e. Is the employer/employees well trained on cost effective management programs?
   f. Does the technological knowhow used in production process help to optimize costs while achieving the quality goals?
   g. Does the business carryout customer satisfaction survey to monitor customer satisfaction?
   h. Does the business effectively manage the environmental and community needs by ensuring that they shouldn’t suffer for you to do business?
   i. Does the business ensure that people know what work they should do through well-established job descriptions?
   j. Does the business carryout quality management process to optimize the balance between cost and quality?
   k. Is the employer/employees well trained on cost effective management programs?
   l. Does the technological knowhow used in production process help to optimize costs while achieving the quality goals?
   m. Does the business carryout customer satisfaction survey to monitor customer satisfaction?
   n. Does the business effectively manage the environmental and community needs by ensuring that they shouldn’t suffer for you to do business?

**Performance**

1. Please use the following scale to answer the questions below. (1).Never (2).Rarely (3).Sometimes (4).Not sure (5).Very often (6).Often (7).Always
   a. Does the business carry out simulation-based analyses to identify and fix quality problems early in the manufacturing process in order to minimize the overall cost?
   b. Does the business have clear-cut quality goals strategically and precisely based on customer requirements?
   c. Are all the resources, including time, tools, and materials, dedicated to the quality process through developing and sustaining supplier or vendor relationships?
   d. Does the technological knowhow used in production process help to optimize costs while achieving the quality goals?
   e. Is the employer/employees well trained on cost effective management programs?
   f. Does the business carryout quality management process to optimize the balance between cost and quality?
   g. Does the business use simulation-based analysis to identify and fix quality problems early in the manufacturing process in order to minimize the overall cost?
   h. Does the business effectively manage the environmental and community needs by ensuring that they shouldn’t suffer for you to do business?

**Note:** 1 dollar is equivalent to 109.05 Kenyan Shilling

**Financial literacy**

1. To what extent does financial literacy affect cost minimization of business?
   a. To what extent does financial literacy affect cost minimization of business?
   b. To what extent does financial literacy affect cost minimization of your business?
   c. To what extent does financial literacy affect cost minimization of your business?
   d. To what extent does financial literacy affect cost minimization of your business?
   e. To what extent does financial literacy affect cost minimization of your business?
   f. To what extent does financial literacy affect cost minimization of your business?
   g. To what extent does financial literacy affect cost minimization of your business?
   h. To what extent does financial literacy affect cost minimization of your business?
   i. To what extent does financial literacy affect cost minimization of your business?
   j. To what extent does financial literacy affect cost minimization of your business?

**Taxation**

1. Does the business always meet its tax obligations?
   a. Yes b. No
   b. Is the industry normally assessed for tax purposes?
   a. Yes b. No
   c. Is nature of the taxation system in Kenya favorable to your business?
   a. Yes b. No
   d. Do the business see taxation as a burden?
   a. Yes b. No
   e. If yes? What kind of tax charge do the SMEs see as a burden?
   a. Income Tax b. Corporate tax c. Exercise duty
   f. After tax expenses do you have enough profits to plough back into the business?
   a. Yes b. No c. Neutral
   g. Do the business see taxation as a burden?
   a. Yes b. No
   h. Is nature of the taxation system in Kenya favorable to your business?
   a. Yes b. No
   i. If yes? What kind of tax charge do the SMEs see as a burden?
   a. Income Tax b. Corporate tax c. Exercise duty
   j. After tax expenses do you have enough profits to plough back into the business?
   a. Yes b. No c. Neutral

**Formal finance**

1. Does the business require external source of funding?
   a. Yes b. No
   b. Does the credit services offered by the financial institution(s) affect your business performance?
   a. Yes b. No
   c. Is the credit services offered by your financial provider (s) effective?
   a. Yes b. No
   d. Which source of informal or formal credit do you prefer for your business?
   a. Yes b. No
   e. Is the employer/employees well trained on cost effective management programs?
   a. Yes b. No
   f. Does the technological knowhow used in production process help to optimize costs while achieving the quality goals?
   a. Yes b. No
   g. Does the business carryout customer satisfaction survey to monitor customer satisfaction?
   a. Yes b. No
   h. Does the business effectively manage the environmental and community needs by ensuring that they shouldn’t suffer for you to do business?
   a. Yes b. No
   i. Does the business ensure that people know what work they should do through well-established job descriptions?
   a. Yes b. No

**Table 8. Questionnaire**

| Question                                                                 | Scale                                    | Options                                                                 |
|-------------------------------------------------------------------------|------------------------------------------|------------------------------------------------------------------------|
|Was your major source(s) of startup capital?                             | (1).Never (2).Rarely (3).Sometimes (4)...  | a) Savings b) Bank Loan c) Borrowings from friends/relatives d) Other source |
| Is the industry normally assessed for tax purposes?                      | a. Yes b. No                             |                                                                         |
| Is nature of the taxation system in Kenya favorable to your business?   | a. Yes b. No                             |                                                                         |
| Does the business see taxation as a burden?                             | a. Yes b. No                             |                                                                         |
| What kind of tax charge do the SMEs see as a burden?                    | a) Income Tax b) Corporate tax c) Exercise duty |                                                                         |
| Do the business see taxation as a burden?                               | a. Yes b. No                             |                                                                         |
| After tax expenses do you have enough profits to plough back into the business? | a. Yes b. No c. Neutral                  |                                                                         |
| Does the business require external source of funding?                   | a. Yes b. No                             |                                                                         |
| Does the credit services offered by the financial institution(s) affect your business performance? | a. Yes b. No |                                                                         |
| Is the credit services offered by your financial provider (s) effective?  | a. Yes b. No                             |                                                                         |
| Which source of informal or formal credit do you prefer for your business? | a. Yes b. No                             |                                                                         |
| Is the employer/employees well trained on cost effective management programs? | a. Yes b. No                             |                                                                         |
| Does the technological knowhow used in production process help to optimize costs while achieving the quality goals? | a. Yes b. No |                                                                         |
| Is the employer/employees well trained on cost effective management programs? | a. Yes b. No |                                                                         |
| Does the business carryout customer satisfaction survey to monitor customer satisfaction? | a. Yes b. No |                                                                         |
| Does the business effectively manage the environmental and community needs by ensuring that they shouldn’t suffer for you to do business? | a. Yes b. No |                                                                         |
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