Determinants of Sustainability of Micro and Small Enterprises Owned By Youth in Nairobi City County, Kenya

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ABSTRACT

The aim of the study was to establish the determinants of sustainability of micro and small enterprises owned by youth in Nairobi City County, Kenya. The study was guided by the following specific objectives: To assess how competitive environment affects sustainability of youth entrepreneurship in micro and small enterprises in Nairobi City County, Kenya; To find out how entrepreneurial skills affect sustainability of youth entrepreneurship in micro and small enterprises in Nairobi City County, Kenya; To examine how access to funds influence sustainability of youth entrepreneurship in micro and small enterprises in Nairobi City County, Kenya; To explore how technology influence sustainability of youth entrepreneurship in micro and small enterprises in Nairobi City County, Kenya. The conceptual framework assumed that the dependent variable that is sustainability of micro and small enterprises was influenced by a range of other variables, including: competitive environment (product differentiation, competitive edge and fair play); access to finance (credit facility, working capital, collateral); Entrepreneurial skills (record keeping, managerial skills and budgeting) and technology (technology in production, transfer and marketing). The study was built on theories such as porter’s theory of competitive advantage, the rival theory, resource based view theory and economic theory of entrepreneurship. The study was undertaken in Nairobi County and delimited by specifically concentrating on the determinants of sustainability of micro and small enterprises owned by youth. The study adopted a descriptive research design. There were 3330 registered youth enterprises in Nairobi City County in the small and micro enterprises as per Micro and Small Enterprise Authority of Kenya records. The sample size was 97 youth enterprises and questionnaires were used as data collection instrument in order to obtain primary data. The reliability and validity of data collection tool was carried out. Regression analysis was used to establish the direction and strength of the relationship between the independent variables and dependent variable at .05 level of significance. The study found that there was a correlation between the independent variables and dependent variable. This implied that these independent variables were very significant and they needed to be considered to boost sustainability of youth entrepreneurship in Nairobi City County. Based on the findings, the study concluded that sustainability of micro and small enterprises owned by youth in Nairobi City County was affected by competitive environment, access to funds, entrepreneurial skills and technology.

Key Words: Micro and Small Enterprises, Sustainability of Micro and Small Enterprises Owned By Youth, Entrepreneurship
1. INTRODUCTION

Unemployment of the youth is a serious challenge worldwide. Besides, the great population of the youth who are unemployed are hopeless in life. Youth unemployment leads to poverty and provides sanctuaries for deviant patterns of social behavior among the young people, such as the rise of crime in the country (Mwani & Wanjau, 2013). In Africa, there are a high number of youths who have engaged in the entrepreneurial activities in the last decades. This is due to a high rate of unemployment leading to the establishment of youth empowerment projects and policies supported by the government and non-governmental entities (Mwobobia, 2012). Sustainability of youth entrepreneurship development in many of the developing countries has been slow due to the reluctance of governments in these countries to embrace the entrepreneurial culture. Even as these governments awakened to the reality that sustainability of youth entrepreneurship drives the economy, and are now putting establishing the policies and strategies to support youth entrepreneurship, the youth, whose participation in entrepreneurial activities of any country is important, continue to be observers rather than active participants (Ngugi, 2015). Most Kenyan youth, especially those in the SMEs start entrepreneurial activities and collapse in less than three years (Mwangi, 2016).

Studies which have been carried out on the sustainability of youth entrepreneurship have established that it is a solutions for poverty alleviation especially in the developing nations (Kobia & Sikaliah, 2010). It has been established that youth entrepreneurs make about a half of population in developing nations. The studies have established that youth entrepreneurship facilitates the macro and micro economic development in these nations. Further, the youth entrepreneurship in the developing countries has made substantial influence to the growth domestic production (GDP) leading to the improvement in the income of the many households especially in the developing economies (Ngugi, 2015). It has been established that most of the youth entrepreneurs in the developing economies, face the social, political and economic hindrances which affect their economic success (Inter-American Development Bank, 2010). According to Mwangi (2016) the youth entrepreneurs’ efforts of having successful enterprises is slowed down by the political, cultural, economic challenges. According to the International Labour Office (ILO) Seed Program and African Development Bank (ADB) (2014) they found out that youth entrepreneurship especially in the Sub Saharan Africa do not function properly due to bad environments they are operating in. In Africa the youth entrepreneurs are the only source of livelihoods for majority of the households which affect the meager profits and capital of their lowly invested enterprises. Due to this, youth entrepreneurship operates with a minimal investment capital, harsh market conditions and poor profits (Yego, 2015). According to Guerrero (2015) found out that due to lack or inadequate land, poor education levels, business management skills and many more factors which are the resources for the survival of these enterprises, just only three out of five youth owned enterprises cam manage to survive to the three years after their establishment.

Kanyari and Namusonge (2013) reiterates that the youth entrepreneurship in most of the developing nations, sustainability is a major challenges as they are under financed and there is a continual poor performance. They established that it is just 30% of the youth owned enterprises in the Sub-Saharan African nations that are able to access affordable and adequate financial capital to finance their operations (Nafukho & Muyia, 2010). According to Peter (2014) youth owned enterprises especially in the informal settlements in Sub-Saharan Africa are highly deprived to access loans from financial institutions as they are not in control of
major family resources required such as land which in most cases act as a collateral to receive the loans for the establishment and expansion of their businesses. A report by the Republic of Uganda (2011) indicated that most of the youth owned enterprise contributed to 20% and more to employment and GDP. However, the survival rate remains a major obstacle. According to COMESA (2012) report Uganda being one of the East African countries which was observed to established adequate and good business plans the youth enterprises were not sustainable many years. The youth entrepreneurs lack financial resources, poor state of infrastructure in the country, political polarity, low level of technology, diluted system of education and many more (Angwenyi, 2013). Further, it was established that youth owned businesses contribute over 3 times as much as the informal sector in total employment (65%) and GDP (55%) in developed nations such as USA. In most of these developed countries unlike the developing countries, they are establishing the major initiative to enhance many youth enterprises into the formal sector (Nyamu, 2015).

According to Gebrehiwot and Sayim (2015) established that the Kenyan youth-owned enterprises make up to 48 percent of the total enterprises and employs owner or less than five individuals which tends to be informal Kiraka et al. (2013). The SME Baseline Survey (2016), established that up to fifty six per cent of youth owned enterprises are formal enterprises which are majorly situated in Nairobi area especially in the informal urban settings (Wohoro, 2016). According to the Kenya session papers have indicated the major constraints facing the sustainability of the youth owned enterprises as the gender inequality, cultural issues, traditional practices, inadequate education, discrimination and lack of information (Nyamu, 2015). Despite the numerous interventions and policy measures established to eradicate the constraints affecting the sustainability of the youth SMEs, little sustainability of youth owned enterprise has been observed in the informal settlements. According to Nyamu (2015) it has not been well established why the youth enterprises in the informal settlements are showing limited sustainability despite the fact that the government and financiers have put millions of according to the annual national budget through agencies such as the youth enterprise fund (YEF) to alleviate these constraints. This study seeks to establish the determinants of sustainability of micro and small enterprises owned by youth in Nairobi City County, Kenya.

1. STATEMENT OF THE PROBLEM

According to the statistical data on the registration and liquidation, commercial activities worldwide show that for the last 21 years the sustainability of enterprises especially the ones owned by the youths is very low (Wohoro, 2016). Worldbank (2016) report show that the rate at which majority of the youth owned enterprises fail in both the developing and developed economies is alarming. The report indicates that, 33% to 41% of newly established youth enterprises don’t survive after the first five years of their business inception. Davies and Woodwaard (2016); ILO and ADB (2014) reported that despite an increase in young persons owned businesses, youth enterprises in developing countries were not sustainable. Gachuhi (2016) found out that in Sub-Saharan Africa, 50% of the youth enterprises start showing signs of deterioration after the first five months of inception.

According to the report by Lativo (ILO, 2012), for October 2012, 32.8% of the youth enterprises established and registered in the year 2005 did make to the 7th years. Further, in Australia, USA and England showed that approximately 80% to 90% of youth owned enterprises fails within 5 to 10 years of inception (Boah-Boteng, 2016). From the Ministry of
Economic planning report on youth entrepreneurship in Kenya (RoK, 2012), it is indicated that three out of five youth owned businesses fail within their first three years of operation. This has resulted to poor economic development and loss of job opportunities as the youth entrepreneurship is threatened for survival.

According to the data from Micro and Small Enterprise Authority (2016) report, youth owned enterprises have increased from 8780 in the year 2013 to 12560 in the year 2014 especially in the small and micro enterprises (SMEs) in Kenya. Those who were registered as new enterprises in year 2015 were 2350 meaning some youth entrepreneurship did not survive up to year 2015. According to the World Bank (2012), youth entrepreneurship in Kenya rarely survive after two years of establishment due to challenges related to lack of finances, entrepreneurial and management skills, culture and competitive environment they operate. The few studies done locally (Gichuhi, 2016; Hope, 2012; Kanyari & Namusonge, 2013; Kemunto, 2014; Mwangi & Wanjau, 2013) are narrow and suffered from conceptual gaps since they only addressed merits and demerits of youth entrepreneurship. The study by Mwangi and Wanjau (2013) and Mwobobia (2012) also suffered from a contextual gap since it concentrated on growth of youth entrepreneurship while the focus of the current study is on sustainability of youth entrepreneurship in small and micro enterprises (SMEs) in Kenya. The study by Kanyari and Namusonge (2014) also faced methodological issues since it was a case study and explored specific contextual area (Youth Enterprise development fund). It is due to these conceptual, methodological and contextual gaps that the current study intends to investigate the determinants of sustainability of micro and small enterprises owned by youth in Nairobi City County, Kenya. Could access to finance, entrepreneurial skills, competitive environment and technology affect sustainability of micro and small enterprises owned by youth in Nairobi City County, Kenya? This study sought to explore more.

2. RESEARCH OBJECTIVES

The aim of the study was to establish the determinants of sustainability of micro and small enterprises owned by youth in Nairobi City County, Kenya.

The study was guided by the following specific objectives:

i. To examine how competitive environment affects sustainability of micro and small enterprises owned by youth in Nairobi City County, Kenya
ii. To find out how entrepreneurial skills affect sustainability of micro and small enterprises owned by youth in Nairobi City County, Kenya
iii. To examine how access to funds influence sustainability of micro and small enterprises owned by youth in Nairobi City County, Kenya
iv. To explore how technology influence sustainability of micro and small enterprises owned by youth in Nairobi City County, Kenya

3. THEORETICAL LITERATURE REVIEW

Zimmerer & Scarborough (2015) defined sustainability as the ability to endure or continue with a particular behavior indefinitely so as to benefit future generations. Cervone and Pervin, (2015) explains that a theory is a set of interrelated concepts, definitions and propositions, which provide critical analysis of a phenomenon. It guides the study and enables testing of the postulated theory. They state that it is through theory that a research is able to generate ideas for research problem being investigated. The foundation of the research is the theoretical
framework which tries to establish and to provide guidelines on the suggested questions. Therefore, this study seeks to be guided by the Theory of competitive Advantage Rival Theory, Resource Based Theory, Diffusion Innovation Theory and Economic Theory of Entrepreneurship

4.1 Competitive Advantage Theory

Porter (1980) developed the idea of the competitive advantage and explains the competitive strategies as cost leadership, differentiation and market niche. According to porter there is need to have an inside-out business strategy for a firm to survive. In regard to this study a youth enterprise need to organize itself using its internal unique resources and capabilities to outperform its rivals (Barney, 1991). Porters states that every firm has its own internal competencies which can form the basis for strength than its rivals in the market and recommends need to adopt strategies to stay competitive. In this study, similarly, the youth enterprises have generic strategies which can be able to be implemented in the cost reduction, innovation and quality enhancement that need to be adopted strategically to have a better competitive advantage in a cheaper way than the competitors (Johnson & Devonish, 2009).

4.2 Resource Based Theory

Penrose (1959), the advocate of Resource Based View Theory provides the insights of the resource perspective of how a firm can outperform its competitor. According to Wenerfelt (1984) and Barney’s (1991) subsequently popularized the work of Penrose and emphasized the need for the organization resources and its influence on gaining sustainable competitive advantage in the market if the resources are used accordingly. Every firm has its unique resources that can propel it to gain a competitive advantage than its rivals in the ever changing environment (Helfat, 2007). These resources include financial, human, Physical, technological and Information and they are valuable, rare and non-substitutable in these organizations (Crook, Ketchen, Combs & Todd, 2008). Youth owned enterprises like other organizations are faced with scarcity of the resources. Usually they have operating costs which require adequate financial resources to finance their activities and require sustainability of the sources. According to Barney(2005) the critical and fundamental insights on why most of the youth don’t survive is because of lack of sufficient and sustainable source of the resources for the will organized resources to enhance superior performance than their rivals. This study can adopt the Resource-Based perspective, for the youth owned enterprises to gain sustainable competitive advantage from the financial resource by accessing funds to enhance their sustainability.

4.3 Economic Theory of Entrepreneurship

According to Plummer & Acs, (2014), the Mark Casson’s economic theory of entrepreneurship is based on the tenets of favorable economic conditions such as tax policy, industrial policy, easy availability of products, easy access to finance on favorable terms to enhance performance thus sustainability of a firm in the ever changing environment. Naudé (2013) states that usually economic growth and entrepreneurship thrive when the economic conditions are most favorable in well managed economies. Entrepreneurship is a factor of production amongst land, labor, and capital. The survival of the firms require the main motivators for entrepreneurial activities such as infrastructure availability, investment and marketing opportunities, industrial policy, taxation policy, raw material and sources of finance. The entrepreneurial activities thrive well when these conditions are favorable for the
firm. The concept of youth entrepreneurship and sustainability depends on these economic conditions.

4.4 Diffusion of Innovation Theory

To establish the influence of technology on youth entrepreneurship and sustainability, the study will be guided by the Diffusion of Innovation Theory. The theory postulates that the circumstances which decreases or increase the possibility of a new idea, product or practice can be embraced in the society is based on the culture. According to Kaminski (2015) innovation is based on the diffusion (communication) through the social system in a given time. The idea depends on the nature of systems and the views of leaders in the systems to govern the likelihood that novelty can be embraced. The primary focus of the theory in the youth entrepreneurship is on the adoption of the best technology to enhance their sustainability. The approach of the theory has its primary focus on how the owners or the managers adopt the best technology and practices since they are the prime candidates for the early adoption technology and depends with their perceptions and attitudes which affect the interpersonal/inter-business networks to enhance the sustainability of their enterprises.

4. CONCEPTUAL FRAMEWORK

Young (2009) outlines a conceptual framework as a diagrammatic representation showing relationship between dependent variable and independent variables. The proposed conceptual framework assumed that the dependent variable “Sustainability of SMEs” is influenced by a range of other variables, including: competitive environment (product differentiation, competitive edge and fair play); access to finance (credit facility, working capital, collateral); Entrepreneurial skills (record keeping, managerial skills and budgeting) and technology (technology in production, transfer and marketing). This is as illustrated in Figure 1.
Figure 1: Conceptual Framework for the Study

5. RESEARCH METHODOLOGY

The study adopted a descriptive research design to obtain information for the study on the determinants of sustainability of micro and small enterprises owned by youth in Nairobi. It helped the researcher obtain information concerning the current status and thus relate it to the objective of the research making it relevant to the research. The descriptive research design is able to establish association between variables by quantifying relationship between the variables using techniques such as correlations, relative frequencies or differences between means. Kothari & Garg (2014) and Orodho (2004) agree that descriptive research design enables the researcher to gather information, summarize, present and interpret with the aim for clarification and conclusions.

In Nairobi City County, there are 3,330 registered as small and micro enterprises owned by youths according to MSE Authority of Kenya (2017). This was the target population for the study. This forms target population for the study was selected because this is the group that has the right information about the challenges that the youth entrepreneurs face on matters pertaining to sustainability of their enterprises. The unit of analysis was the youth enterprise. The study targeted the entrepreneurs of micro and small enterprises. To arrive at the sample size, Taro Yamane (1973) formula: Sample Size = \( \frac{N}{1 + (N)(e)^2} \) where N is the total...
population (3330), \( e \) is the level of significance(10%) = 3330/ [1 + (3330) (0.01x0.01) = 97. The sample size therefore becomes 97. Thus, the minimum number of respondents required for the study was 97. The study used a structured questionnaire to gather the primary data. It is meant to provide a standardized tool for data collection and attain objectivity in a survey (Yin, 2013). The questionnaires were pilot tested to establish whether the data collection instrument was able to gather the intended information and eliminate ambiguous questions, improve validity and reliability.

The study collected both the quantitative and qualitative data. The quantitative data was analyzed using Statistical Package for Social Sciences (SPSS) computer software. The analyzed data was presented in the form of frequency distribution tables, pie charts and bar graphs where necessary. Qualitative data was analyzed by the use of the content analysis. The quantitative data was analyzed by the use of the measures of dispersion and inferential statistics that is bivariate regression analysis to establish the relationship of the variables at 5% level of significance. In this study, the statistical modelling from the conceptual framework was developed and was as follows: the dependent variable (DV) was the Sustainability of youth Entrepreneurship took the variable \([Y]\), and the independent variables (IV) denoted by \(X_1, X_2, \ldots, X\). The statistical analysis was done using the model: \(Y= \beta_0+\beta_1X_1+\beta_2X_2+\beta_3X_3+\beta_4X_4+ \varepsilon\)

Where: \(Y= \) Sustainability of Youth Entrepreneurship

\(\beta_0 = \) Intercept

\(\beta_1, \ldots, \beta_4 = \) regression coefficients of independent variables

\(X_1, \ldots, X_4 = \) Independent Variables (Competitive Environment, Entrepreneurial Skills, Technology, Access to Funds)

\(\varepsilon = \) Error term

6. DATA ANALYSIS RESULTS

The study assessed the influence of competitive environment on sustainability of informal settlements in Kenya as stated in the first objective. From the study results in Table 1 the researcher presents the results of the relationship and explanatory power of the bivariate model for the influence of competitive environment and sustainability.

<table>
<thead>
<tr>
<th>Table 1: Model Summary Competitive Environment and Sustainability</th>
<th>Performance</th>
<th>Creativity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Performance</td>
<td>Pearson’s (\rho)</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>2-tailed Sig.</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>69</td>
</tr>
<tr>
<td>Creativity</td>
<td>Pearson’s (\rho)</td>
<td>0.267**</td>
</tr>
<tr>
<td></td>
<td>2-tailed Sig.</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>69</td>
</tr>
<tr>
<td>R</td>
<td></td>
<td>0.257</td>
</tr>
</tbody>
</table>
The R value of 0.257 shows a positive linear relationship between competitive environment and sustainability. The \( R^2 \) is the coefficient of determination which indicates that explanatory power of the independent variables is 0.066. This means that 6.60% of the variation in sustainability is explained by the variation of competitive environment in the model. The remaining 93.40% of the variation in the dependent variable is unexplained by this one predictor model but by other factors not included in the model.

Table 2: ANOVA analysis of Competitive Environment and Sustainability of Youth Entrepreneurship

<table>
<thead>
<tr>
<th>Source</th>
<th>Sum of Squares</th>
<th>d.f</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>10.809</td>
<td>1</td>
<td>10.809</td>
<td>22.2133</td>
<td>.000</td>
</tr>
<tr>
<td>Residual</td>
<td>33.090</td>
<td>68</td>
<td>.4866</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>43.899</td>
<td>69</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 2 shows: ANOVA analysis of competitive environment and sustainability of youth entrepreneurship in the informal settlements in Kenya. The ANOVA results show that the influence of competitive environment on sustainability of youth entrepreneurship in the informal settlements in Kenya is significant. The p-value of the F-statistic as shown in the ANOVA table is 0.000 which is less than 0.05 implying general significance of the one parameter model thus implying that competitive environment significantly influences sustainability of youth entrepreneurship in the informal settlements in Kenya. This is in line with the competitive advantage theory that is grounded in a suggestion of competitive environment as the important factor which influence to some goal such as improving the overall performance of a firm (Amabile, 2012).

Table 3: Coefficients Table of Competitive Environment and Sustainability of Youth Entrepreneurship in the Informal Settlements

<table>
<thead>
<tr>
<th>Variable</th>
<th>( \beta ) coefficient</th>
<th>Std. Error</th>
<th>t</th>
<th>P-value.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>0.000</td>
<td>0.066</td>
<td>0.000</td>
<td>1.000</td>
</tr>
<tr>
<td>Competitive Environment</td>
<td>0.257</td>
<td>0.076</td>
<td>3.382</td>
<td>0.000</td>
</tr>
</tbody>
</table>

The study results in Table 3 revealed a statistically significant positive linear relationship between competitive environment and sustainability of youth entrepreneurship in the informal settlements (\( \beta = 0.257, \ t = 3.382 \) and p-value = 0.000). The relationship was statistically significant because the p-value is less than 0.05. The model shows that every unit increase in the levels of competitive environment leads to a 0.257 increase in sustainability of youth entrepreneurship in the informal settlements in Kenya. This implies that youth entrepreneurs that promote elements of competitive environment such as market niche, pricing and differentiation tend to realise better sustainability of youth entrepreneurship in the informal settlements. The resulting regression model that predicts the level of sustainability of youth entrepreneurship in the informal settlements for a given level of competitive environment is given by the equation below:
\[ Y = 0.000 + 0.257X \]

Where

\( X \) is the independent variable, competitive environment

\( Y \) is the dependent variable, sustainability of youth entrepreneurship in the informal settlements

Several other studies also confirm these results. (Lowely, 2011; Rick et al 2015, Hong et al, 2013) also agree that competitive environment ascertain youth entrepreneurs of their survival and improved performance. This is in line with a study by Celynon and Jasper (2011) who indicated that competitive environment facilitates effectiveness and efficiency in an organization. Their findings showed a positive relationship between competitive environment and firm performance.

**Table 4: Model Summary Entrepreneurial Skills and Sustainability**

<table>
<thead>
<tr>
<th>Performance</th>
<th>Creativity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson’s ( \rho )</td>
<td>0.280**</td>
</tr>
<tr>
<td>2-tailed Sig.</td>
<td>0.000</td>
</tr>
<tr>
<td>N</td>
<td>69</td>
</tr>
<tr>
<td>Creativity</td>
<td>1</td>
</tr>
<tr>
<td>Pearson’s ( \rho )</td>
<td>0.280**</td>
</tr>
<tr>
<td>2-tailed Sig.</td>
<td>0.000</td>
</tr>
<tr>
<td>N</td>
<td>69</td>
</tr>
<tr>
<td>R</td>
<td>0.280</td>
</tr>
<tr>
<td>R Square</td>
<td>0.078</td>
</tr>
<tr>
<td>Adjusted R Square</td>
<td>0.074</td>
</tr>
<tr>
<td>Std. Error of the Estimate</td>
<td>0.086</td>
</tr>
</tbody>
</table>

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

The study assessed the influence of entrepreneurial skills on sustainability of informal settlements in Kenya as stated in the first objective. From the study results in Table 4.10 the researcher presents the results of the relationship and explanatory power of the bivariate model for the influence of entrepreneurial skills and sustainability. The R value of 0.280 shows a positive linear relationship between entrepreneurial skills and sustainability. The \( R^2 \) is the coefficient of determination which indicates that explanatory power of the independent variables is 0.078. This means that 7.80% of the variation in sustainability is explained by the variation of entrepreneurial skills in the model. The remaining 92.20% of the variation in the dependent variable is unexplained by this one predictor model but by other factors not included in the model.

**Table 5: ANOVA analysis of Entrepreneurial Skills and Sustainability of Youth Entrepreneurship**

<table>
<thead>
<tr>
<th>Sum of Squares</th>
<th>d.f</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>12.000</td>
<td>1</td>
<td>12.000</td>
<td>18.5845</td>
</tr>
<tr>
<td>Residual</td>
<td>43.909</td>
<td>68</td>
<td>.6457</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>55.909</td>
<td>69</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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Table 5 shows: ANOVA analysis of entrepreneurial skills and sustainability of youth entrepreneurship in the informal settlements in Kenya. The ANOVA results show that the influence of entrepreneurial skills on sustainability of youth entrepreneurship in the informal settlements in Kenya is significant. The p-value of the F-statistic as shown in the ANOVA table is 0.000 which is less than 0.05 implying general significance of the one parameter model thus implying that entrepreneurial skills significantly influences sustainability of youth entrepreneurship in the informal settlements in Kenya.

**Table 6: Coefficients Table of Entrepreneurial Skills and Sustainability of Youth Entrepreneurship in the Informal Settlements**

<table>
<thead>
<tr>
<th>Variable</th>
<th>β coefficient</th>
<th>Std. Error</th>
<th>t</th>
<th>P-value.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>0.100</td>
<td>.066</td>
<td>0.000</td>
<td>.000</td>
</tr>
<tr>
<td>Entrepreneurial Skills</td>
<td>0.280</td>
<td>.055</td>
<td>5.090</td>
<td>.000</td>
</tr>
</tbody>
</table>

The study results in Table 6 revealed a statistically significant positive linear relationship between entrepreneurial skills and sustainability of youth entrepreneurship in the informal settlements ($β = 0.280$, $t = 5.090$ and $p$-value = 0.000). The relationship was statistically significant because the $p$-value is less than 0.05. The model shows that every unit increase in the levels of entrepreneurial skills leads to a 0.280 increase in sustainability of youth entrepreneurship in the informal settlements in Kenya. This implies that youth entrepreneurs that promote elements of entrepreneurial skills such as creativity, risk taking and planning tend to realise better sustainability of youth entrepreneurship in the informal settlements. The resulting regression model that predicts the level of sustainability of youth entrepreneurship in the informal settlements for a given level of entrepreneurial skills is given by the equation below:

$$Y = 0.100 + 0.280X$$

Where

$X$ is the independent variable, entrepreneurial skills

$Y$ is the dependent variable, sustainability of youth entrepreneurship in the informal settlements.

**Table 7: Model Summary Access to Funds and Sustainability**

<table>
<thead>
<tr>
<th></th>
<th>Performance</th>
<th>Creativity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Performance</td>
<td>Pearson’s $\rho$</td>
<td>1</td>
</tr>
<tr>
<td>2-tailed Sig.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>69</td>
<td>69</td>
</tr>
<tr>
<td>Creativity</td>
<td>Pearson’s $\rho$</td>
<td>0.330**</td>
</tr>
<tr>
<td>2-tailed Sig.</td>
<td>0.000</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>69</td>
<td>69</td>
</tr>
<tr>
<td>R</td>
<td>0.330</td>
<td></td>
</tr>
<tr>
<td>R Square</td>
<td>0.109</td>
<td></td>
</tr>
</tbody>
</table>
The study assessed the influence of access to funds on sustainability of informal settlements in Kenya as stated in the first objective. From the study results in Table 7 the researcher presents the results of the relationship and explanatory power of the bivariate model for the influence of access to funds and sustainability. The R value of 0.330 shows a positive linear relationship between access to funds and sustainability. The $R^2$ is the coefficient of determination which indicates that explanatory power of the independent variables is 0.109. This means that 10.90% of the variation in sustainability is explained by the variation of access to funds in the model. The remaining 89.10% of the variation in the dependent variable is unexplained by this one predictor model but by other factors not included in the model.

Table 8: ANOVA analysis of Access to Funds and Sustainability of Youth Entrepreneurship

<table>
<thead>
<tr>
<th>Sum of Squares</th>
<th>d.f</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>11.308</td>
<td>1</td>
<td>11.308</td>
<td>15.3788</td>
</tr>
<tr>
<td>Residual</td>
<td>50.002</td>
<td>68</td>
<td>.7353</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>61.310</td>
<td>69</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 8 shows: ANOVA analysis of access to funds and sustainability of youth entrepreneurship in the informal settlements in Kenya. The ANOVA results show that the influence of access to funds on sustainability of youth entrepreneurship in the informal settlements in Kenya is significant. The p-value of the F-statistic as shown in the ANOVA table is 0.000 which is less than 0.05 implying general significance of the one parameter model thus implying that access to funds significantly influences sustainability of youth entrepreneurship in the informal settlements in Kenya.

Table 9: Coefficients Table of Access to Funds and Sustainability of Youth Entrepreneurship in the Informal Settlements

<table>
<thead>
<tr>
<th>Variable</th>
<th>$\beta$ coefficient</th>
<th>Std. Error</th>
<th>t</th>
<th>P-value.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>0.342</td>
<td>.008</td>
<td>0.000</td>
<td>.000</td>
</tr>
<tr>
<td>Access to Funds</td>
<td>0.330</td>
<td>.060</td>
<td>5.500</td>
<td>.000</td>
</tr>
</tbody>
</table>

The study results in Table 9 revealed a statistically significant positive linear relationship between access to funds and sustainability of youth entrepreneurship in the informal settlements ($\beta = 0.330$, $t = 5.500$ and p-value = 0.000). The relationship was statistically significant because the p-value is less than 0.05. The model shows that every unit increase in the levels of access to funds leads to a 0.330 increase in sustainability of youth entrepreneurship in the informal settlements in Kenya. This implies that access to funds elements such as collateral requirements, payment period and source of funds tend to realise better sustainability of youth entrepreneurship in the informal settlements. The resulting regression model that predicts the level of sustainability of youth entrepreneurship in the informal settlements for a given level of access to funds is given by the equation below:

$$Y = 0.342 + 0.330X$$

Where
X is the independent variable, access to funds
Y is the dependent variable, sustainability of youth entrepreneurship in the informal settlements

Table 10: Model Summary Technology and Sustainability

<table>
<thead>
<tr>
<th></th>
<th>Performance</th>
<th>Creativity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson’s $\rho$</td>
<td>1</td>
<td>0.226**</td>
</tr>
<tr>
<td>2-tailed Sig.</td>
<td></td>
<td>0.000</td>
</tr>
<tr>
<td>N</td>
<td>69</td>
<td>69</td>
</tr>
<tr>
<td>R</td>
<td>0.226</td>
<td></td>
</tr>
<tr>
<td>R Square</td>
<td>0.511</td>
<td></td>
</tr>
<tr>
<td>Adjusted R Square</td>
<td>0.045</td>
<td></td>
</tr>
<tr>
<td>Std. Error of the Estimate</td>
<td>0.052</td>
<td></td>
</tr>
</tbody>
</table>

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

The study assessed the influence of technology on sustainability of informal settlements in Kenya as stated in the first objective. From the study results in Table 4.16 the researcher presents the results of the relationship and explanatory power of the bivariate model for the influence of technology and sustainability. The R value of 0.226 shows a positive linear relationship between technology and sustainability. The $R^2$ is the coefficient of determination which indicates that explanatory power of the independent variables is 0.511. This means that 51.11% of the variation in sustainability is explained by the variation of access to funds in the model. The remaining 94.89% of the variation in the dependent variable is unexplained by this one predictor model but by other factors not included in the model.

Table 11: ANOVA analysis of Technology and Sustainability of Youth Entrepreneurship

<table>
<thead>
<tr>
<th></th>
<th>Sum of Squares</th>
<th>d.f.</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>15.008</td>
<td>1</td>
<td>15.008</td>
<td>25.5108</td>
<td>.000</td>
</tr>
<tr>
<td>Residual</td>
<td>40.008</td>
<td>68</td>
<td>.5883</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>55.016</td>
<td>69</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 11 shows: ANOVA analysis of technology and sustainability of youth entrepreneurship in the informal settlements in Kenya. The ANOVA results show that the influence of technology on sustainability of youth entrepreneurship in the informal settlements in Kenya is significant. The p-value of the F-statistic as shown in the ANOVA table is 0.000 which is less than 0.05 implying general significance of the one parameter model thus implying that technology significantly influences sustainability of youth entrepreneurship in the informal settlements in Kenya.
Table 12: Coefficients Table of Technology and Sustainability of Youth Entrepreneurship in the Informal Settlements

<table>
<thead>
<tr>
<th>Variable</th>
<th>β coefficient</th>
<th>Std. Error</th>
<th>t</th>
<th>P-value.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>0.103</td>
<td>.208</td>
<td>0.000</td>
<td>.000</td>
</tr>
<tr>
<td>Technology</td>
<td>0.226</td>
<td>.034</td>
<td>6.647</td>
<td>.000</td>
</tr>
</tbody>
</table>

The study results in Table 12 revealed a statistically significant positive linear relationship between technology and sustainability of youth entrepreneurship in the informal settlements ($\beta = 0.226$, $t = 6.647$ and $p$-value $= 0.000$). The relationship was statistically significant because the $p$-value is less than 0.05. The model shows that every unit increase in the levels of technology leads to a 0.226 increase in sustainability of youth entrepreneurship in the informal settlements in Kenya. This implies that technology elements such as production, transfer and marketing tend to realise better sustainability of youth entrepreneurship in the informal settlements. The resulting regression model that predicts the level of sustainability of youth entrepreneurship in the informal settlements for a given level of technology is given by the equation below:

$$Y = 0.103 + 0.226X$$

Where

$X$ is the independent variable, technology

$Y$ is the dependent variable, sustainability of youth entrepreneurship in the informal settlements

The study adopted a multiple regression analysis so as to establish the relationship of independent variables and dependent variable. The study applied SPSS to compute the measurements of the multiple regression analysis. According to the model summary Table 13, $R$ is the correlation coefficient

Table 13: Model Summary (Combined Effect Model)

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>$R^2$</th>
<th>Adjusted $R^2$</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.790</td>
<td>.624</td>
<td>.612</td>
<td>.004</td>
</tr>
</tbody>
</table>

It shows the relationship between the independent variables and dependent variable. From the table one it is easy to note that there is a strong positive relationship between the two variables as shown by $R$ value ($0.790$). The coefficient of determination ($R^2$) is used to measure how far the regression model’s ability to explain the variation of the independent variables. The coefficient of determination is between zero and one. The data showed that the high $R$ square is $0.624$. It shows that the independent variables in the study were able to explain 62.40% variation in the sustainability of youth entrepreneurship in informal settlements while the remaining 38.00% is explained by the variables or other aspects outside the model. This implies that these independent variables are very significant and they therefore need to be considered in any effort to boost sustainability of youth entrepreneurship in informal settlements.
F-test is done to test the effect of independent variables on the dependent variable simultaneously. The F-statistic test basically shows whether all the independent variables included in the model jointly influence on the dependent variable. Based on the study results of the ANOVA Test or F-test in Table 4.2 obtained F-count (calculated) was 14.064 greater the F-critical (table) (8.765) with significance of 0.000. Since the significance level of 0.000<0.05 we conclude that the set of independent variables affect the sustainability of youth entrepreneurship in informal settlements (Y-dependent variable) and this shows that the overall model was significant thus implying that access to funds, entrepreneurial skills, competitive environment and technology significantly influences sustainability of youth entrepreneurship in the informal settlements in Kenya.

The general form of the equation was to predict sustainability of youth entrepreneurship in the informal settlements in Kenya from access to funds, entrepreneurial skills, competitive environment and technology is: \((Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \varepsilon)\) becomes: \(Y = 12.220 + 0.354X_1 + 0.238X_2 + 0.458X_3 + 0.320X_4 + \varepsilon\). This indicates that sustainability of youth entrepreneurship in the informal settlements = 12.220 + 0.354*Competitive Environment + 0.238*Entrepreneurial Skills + 0.458*Access to Funds + 0.320*Technology + 0.653. The data findings analysed also shows that taking all other independent variables at zero, a unit increase in competitive environment would lead to a 0.354 increase in sustainability of youth entrepreneurship in the informal settlements. Based at 5% level of significance, entrepreneurial skills was found to have a calculated \(t=5.615\) (greater than the tabulated value of \(t > 1.96\)) and a significance level of 0.001. This indicates that competitive environment influenced sustainability of SMEs owned by youth in the informal settlements.
A unit increase in entrepreneurial skills would lead to a 0.238 increase in sustainability of youth entrepreneurship in the informal settlements. Based at 5% level of significance, entrepreneurial skills shows a calculated $t = 5.948$ (greater than the tabulated value of $t > 1.96$) and significance level of 0.008 thus the value of less than 0.05. This indicates that entrepreneurial skills influence sustainability of SMEs owned by youth in the informal areas.

A unit increase in access to funds would lead to a 0.458 increase in sustainability of youth entrepreneurship in the informal settlements. Based at 5% level of significance, access to funds shows a calculated $t = 9.542$ (greater than the tabulated value of $t > 1.96$) and significance level of 0.000 thus the value of less than 0.05. This indicates that access to funds influence sustainability of youth entrepreneurship in the informal settlements in the study areas.

A unit increase in technology would lead to a 0.320 increase in sustainability of youth entrepreneurship in the informal settlements. Based at 5% level of significance, technology shows a calculated $t = 5.161$ (greater than the tabulated value of $t > 1.96$) and significance level of 0.003 thus the value of less than 0.05. This indicates that technology influence sustainability of youth entrepreneurship in the informal settlements in the study areas. Finally, the constant term is 12.220. The constant term is the value of the dependent variable when all the independent variables are equal to zero. The constant term has a $p$ value of 0.010 which is greater than 0.05. This implies that the constant term is significant. The multiple regression employee sustainability of youth entrepreneurship in the informal settlements is thus an equation through the 12.220. If all the independent variables take on the values of zero, there would be 12.220 sustainability of youth entrepreneurship in the informal settlements in Kenya.

7. Conclusion

From the study findings, the study concludes that sustainability of SMEs owned by youth in Nairobi city county, Kenya is affected by competitive environment, access to funds, entrepreneurial skills and technology as the major factors. The regression coefficients of the study show that access to funds has a substantial influence on sustainability of youth SMES. There is a positive linear relationship between access to funds and sustainability of youth enterprises. This is an indication that increasing levels of access to funds increases the levels sustainability of youth owned SMEs in Nairobi, Kenya. Competitive environment influences sustainability youth owned SMEs. The regression coefficients of the study show that competitive environment has a significant influence on sustainability of SMEs owned by youth. The regression coefficients of the study show that entrepreneurial skills have a significant influence on sustainability of youth owned SMES. There is a positive linear relationship between entrepreneurial skills and sustainability of youth SMEs in Nairobi city county, Kenya as shown by the study findings. This implies that increasing levels of entrepreneurial skills would increase the levels of sustainability. Finally, the regression coefficients of the study show that technology has a significant influence on sustainability of SMEs owned by youth in Nairobi City County, Kenya. The study findings show that there is a positive linear relationship between technology and sustainability of youth owned SMEs. This implies that increasing levels of technology would increase the levels of sustainability of micro and small enterprises owned by youth in Nairobi, Kenya.
8. RECOMMENDATIONS

The study derived various recommendations from the results, findings and conclusion. The management of youth enterprises can use the findings of this study to introduce novel products or they can significantly improve the existing products with respect to their characteristics or intended uses to boost their sales and ultimately improve their sustainability. The managers should embrace entrepreneurial skills and technology to maximize on financial benefits of product innovation. Entrepreneurial skills will not only enable firms to enter the market but will also equip managers with modern technology of marketing their products such as e-commerce, digital and social media. The management of firms should emphasize access to funds, competitive environment, entrepreneurial skills concepts such as commercialization, organizational structure, Research and Development and creativity through incorporating them in their Vision and Mission statements for them to be sustainable.

REFERENCES


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