ENTREPRENEURIAL CAPABILITIES BETWEEN THE CHAGGA AND SUKUMA OWNED SMALL AND MEDIUM ENTERPRISES IN TANZANIA

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ABSTRACT
This study compares Entrepreneurial Capabilities (EC) between the Chagga and Sukuma Owned Small and Medium Enterprises (SMEs) in Tanzania. The Chagga and Sukuma ethnic groups are the first largest and second largest ethnic groups in Tanzania respectively. A cross sectional survey and exploratory case study research designs were used. Purposive and snowball sampling techniques were used to select 254 owner-managers in Kilimanjaro and Mwanza regions. Furthermore, the identified SME owners were selected using systematic sampling in order to get the final respondents to participate in the study. Twelve (12) cases of business owners were purposefully selected and relevant case studies were developed. Semi-structured questionnaires, in-depth interview, focused group discussion and observation were used in collection of primary data. Independent samples T-test was used to compare EC between the Chagga and Sukuma owned SMEs. Content analysis was used to analyze qualitative data. Results from T-test indicate a statistical significant difference in EC between the Chagga and Sukuma owned SMEs whereas the Chagga demonstrated higher EC than Sukuma. The study concludes that the mean of Weighted Average Capital Growth Rate (WACGR) among the Chagga was 1.3 times of the Sukuma; suggesting that the Chagga demonstrated higher EC than the Sukuma owned SMEs. The study recommends that favourable socio-cultural determinants of EC among the Chagga should be embraced and disseminated to other ethnic groups across the country.

Keywords: Entrepreneurial capabilities, Chagga and Sukuma, small and medium enterprises, Tanzania

1.0 INTRODUCTION
Entrepreneurship is a way of thinking, reasoning, and acting that results in the creation, enhancement, realization, and renewal of value for an individual, a group, an organization and a society (Gibb, 2005). Entrepreneurship is, in essence, the perception and exploitation of new opportunities through making different uses of natural resources and transforms them from their traditional form and subjects them to new combinations including introducing new products, methods of production, markets, sources of inputs and organization (Schumpeter, 1934).

ISSN: 2408-7920
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Entrepreneurship development should, therefore, be one of the policy concerns, if poverty is to be alleviated in Africa including Tanzania.

In order to illuminate the concept SMEs and its relationship with entrepreneurship, the definition of SMEs was deemed to be important. The term SMEs is used to mean micro, small and medium enterprises (URT, 2003). According to this definition in Tanzania, micro enterprises engage one up to four people or invest a capital of up to TZS five million. Small enterprises engage between five and 49 employees or invest a capital of between TZS 5 and TZS 200 million; and medium enterprises engage between 50 and 99 employees or invest a capital of between TZS 200 and TZS 800 million. In Tanzania, about 2.75 million SME owners are estimated to own and manage about 3.16 million SMEs; and the sector is estimated to contribute TZS 6.9 Trillion or about 27% of the country’s GDP (URT, 2012). In this study, micro, small and medium enterprises were the only SMEs which were focused due to the fact that there are very few large enterprises existing in Tanzania.

SMEs are operated by SME owners (people) who live in an environment which is composed of a number of determinants which shape their entrepreneurial capabilities (EC) including socio-cultural determinants (SCDs). In this respect, this study sought to define and operationalize the concept of socio-cultural determinants. According to Weatherly (2011), socio-cultural determinants consist of social and cultural variables which include characteristics of the population (e.g. age, sex, or ethnicity), values, and attitudes. Maitah (2010) defined culture as the collective programming of the mind which distinguishes members of one human group from another and is a patterned way of thinking, feeling, and reacting, which is acquired and transmitted mainly by symbols. Cultural factors include values, traits, beliefs, norms, attitudes, social structure, religion, language, economy, and the way people behave (Bradt, 2010). On the other hand, socialization refers to the process through which an individual learns ways of a culture and rules of a society; it is the process of change a person experiences as a consequence of social influence whose major agents include family, ethnicity, class, religion, peers, school, and media (Phil, 2010).

Tanzania exhibits a striking ethnic diversity. Estimates of ethnic groups found in Tanzania vary from source to source, but 120 is the most quoted figure of ethnic groups available in the country (Palmer, 2008). However, Omari (1995) gives the estimated figure of 150 ethnic groups while Nyang’oro (2004) indicates 130 ethnic groups and yet Heilman and William (2012) cite 140 ethnic groups found in Tanzania. The task of providing the official number of ethnic groups and of their population size is greatly restricted by the 1967 legal provision which prohibits registration of Tanzanian population on the basis of ethnicity or religion (Jerman, 1997). The Afrobarometer surveys of 2005, 2008 and 2012 (in Malipula, 2014) lists the ethnic origin of its respondents and gives the estimate of the size of ethnic groups (Table 1).

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1 TZS means Tanzanian Shilling; 1 USD = 2,315.05 TZS as per 9 April, 2019 exchange rates

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In order to be able to carry on the study about socio-cultural determinants of entrepreneurial capabilities, the researcher selected the Sukuma (first largest) and the Chagga (third largest) ethnic groups and considered the Nyamwezi (second largest) ethnic group as being culturally related to Sukuma ethnic group (Malipula, 2014). The selection of these ethnic groups based on the reason that the Sukuma and Chagga are the largest ethnic groups in Tanzania was considered important since the determined valuable, socio-cultural determinants of entrepreneurial capabilities can easily be transferred to other ethnic groups given the fact that the Sukuma and the Chagga represent the largest proportion of the Tanzania population. According to Olomi (2009) out of 120 ethnic groups, the Chagga are ranked the highest in terms of the possession of enterprising capabilities. This trend is attributed to the reason that the Chagga are among the earliest groups which were lucky to have received colonial education. Other ethnic groups such as the Haya and the Nyakyusa were also among the early lucky ones to have received colonial education; however, their enterprising capabilities generally lag behind those of the Chagga. Thus, the privilege of early education alone cannot sufficiently explain the differences in entrepreneurial capabilities. It is therefore argued that, social and cultural determinants regarding entrepreneurship may have strong effect on laying the basis of sound entrepreneurial capabilities (Mashenene, 2016). This study was set to investigate the specific influence of ethnic socio-cultural systems on the motivational antecedents of entrepreneurial capabilities among the Chagga and Sukuma SMEs in Tanzania.

Entrepreneurial capabilities have been revealed elsewhere in the world as a means of capturing a firm’s capacity to sense, select, shape and synchronize its pursuit of opportunities. Its most profound role is the promotion of companies’ proactiveness in managing their business ecosystems in order to gain competitive advantage (Zahra, 2011). The study of Schiebold (2011) show that entrepreneurial capabilities of entrepreneurs are embedded in socio-cultural environment and it is the determinant of success. In Tanzania, entrepreneurial capabilities are not evenly demonstrated across all ethnic groups since certain social groups are more entrepreneurial

### Table 1: Relative Size of Ethnic Groups in Tanzania

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Sukuma</td>
<td>12.4</td>
<td>14</td>
<td>16</td>
<td>17</td>
<td>14</td>
</tr>
<tr>
<td>Nyamwezi</td>
<td>3.3</td>
<td>8</td>
<td>4</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Chagga</td>
<td>3.6</td>
<td>6</td>
<td>5</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>Makonde</td>
<td>3.9</td>
<td>6</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Haya</td>
<td>3.3</td>
<td>6</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Hehe</td>
<td>N/A</td>
<td>6</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Nyakyusa</td>
<td>N/A</td>
<td>5</td>
<td>3</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>26.5+</td>
<td>51</td>
<td>37</td>
<td>33</td>
<td>33</td>
</tr>
</tbody>
</table>

Sources: Malipula (2014)
oriented than others. The implication of this argument is that socio-cultural determinants which are associated with economic growth resulting from entrepreneurial undertaking vary across ethnic groups (Tundui, 2012).

In Tanzania, despite that SMEs play a great role in the economy, they still suffer from a number of constraints including persistent culture that has not recognized the value of entrepreneurial initiative, poor access to financial services, inaccessibility to business information, and lack of training (Mashenene, 2015; Maziku, Majenga and Mashenene, 2014; Shanghvi, 2014; Nkonoki, 2010). In order to address these constraints, the government has taken some initiatives such as improving infrastructure, loan schemes, provision of entrepreneurship training, and access to markets and information. The government also introduced the 2003 SME sector policy development and established Small Industry Development Organizations (SIDO) to promote the sector.

Despite several Government initiatives to promote the SME sector, constraints are still pervasive in the SMEs subsector. For instance, current studies indicate that SMEs are confronted with anti-entrepreneurial culture (53.3%), undercapitalization (53.3%), inadequate business training (80%), and unformalized frameworks (96%) (Mashenene and Rumanyika, 2014; URT, 2012).

Despite the fact that socio-cultural determinants indicate to have great potential in explaining the determinants of entrepreneurial capabilities among SMEs elsewhere in the globe, such as Asia, Spain, and Europe as empirical review shows (Koe and Majid, 2014; Morley, Redman, Stålgren, Tóth, Watson and Zimmer, 2011) to date, a few studies have attempted to explain these determinants in the Tanzanian context. Most of the current studies on antecedents of entrepreneurship tendencies have concentrated on gender, education, growth constraints, microfinance, entrepreneurial networks and business formalization (Mashenene, 2015; Mashenene and Rumanyika, 2014; Tundui, 2012; Utouh, 2013). However, little has been done with respect to socio-cultural determinants of entrepreneurial capabilities. Moreover, most of these studies have been carried out in the urban areas (Tundui, 2012; Ndunguru, 2006) and have tended to use socio-cultural determinants of entrepreneurial capabilities as a residual and not as an explanatory factor of entrepreneurial capabilities (Maziku et al., 2014; Mashenene and Rumanyika, 2014; Nkonoki, 2010). Finally, most of these studies and which have focused on the relationship between socio-cultural determinants and entrepreneurial capabilities, have tended to generalize that the Chagga have overrepresented other ethnic groups in business without comparing such entrepreneurial capabilities among ethnic groups (Mashenene, 2016; Majenga, 2013; Tundui, 2012; Olomi, 2009). The current study therefore intends to increase our understanding on entrepreneurial capabilities between the chagga and Sukuma owned SMEs by carrying out the comparative study. Therefore, the objective of this was to compare Entrepreneurial Capabilities (EC) between the Chagga and Sukuma Owned Small and Medium Enterprises (SMEs) in Tanzania.

2.1 REVIEW OF ENTREPRENEURIAL EVENT MODEL
The Entrepreneurial Event Model (EEM) was developed by Shapero and Sokol in 1982 which assumes that inertia guides human behaviour until some event "displaces" that inertia and unblocks previously undesired behaviours. A displacement, such as job loss, might alter the perception of desirability to become self-employed. The model classifies these life paths changes
into three categories: First, negative displacements such as being fired, insulted, angered, reaching middle age, getting divorced or widowed. Second, involve things such as graduating from university, finishing military duty or released from jail. Third, the positive pulls from a partner, a mentor, an investor or customers. Which behaviour is ultimately performed depends on the credibility of the alternatives and the propensity to act. Credibility in this context applies when there is perceived feasibility and perception of desirability of the specified behaviour. However, this alone is not enough to execute a specified behaviour; what is needed is a displacement event that changes these perceptions and propensity to act in such a way as to eventually perform the behaviour. Thus, if a displacement event triggers cognitive processes and changes the perceived feasibility and perception of desirability, the individual may act if the credibility of the specified behaviour is higher than that of the alternatives and if the individual has general propensity to act on that action. Perceived desirability refers strongly to values and how they will ultimately impact the individual’s perception of what is desirable and what is not. The Entrepreneurial Event Model identifies culture, family, peers, mentors and previous work place as factors that strongly influence personal values and perceived desirability.

The EEM is relevant to the current study as displacements and pulls trigger an individual’s perceived desirability and perceived feasibility which are strongly influenced by the individual’s culture, family, peers, colleagues, mentors, previous work experience, role models, and partners. Both perceived desirability and perceived feasibility lead to company formation which is the measure of entrepreneurial capabilities in this study. This theory was used in this study so as to enable comparison of entrepreneurial capabilities among the Chagga and Sukuma owned SMEs under the influence of the socio-cultural environment.

2.2 Understanding the Chagga and Sukuma ethnic groups

The United Republic of Tanzania (URT) which originated from the union of Tanganyika and Zanzibar in 1964 is one among seven East African Countries. It is bordered by Kenya and Uganda on the north, Rwanda, Burundi and Democratic Republic of Congo (DRC) on the west, Zambia, Malawi and Mozambique on the south and the Indian Ocean on the east. Tanzania has more than one hundred and twenty (120) ethnic groups, the Chagga and Sukuma being among them (Malipula, 2014). Each ethnic group has its own dialect; spoken by particular ethnic group in their specific areas, but Kiswahili language unites all Tanzanians (Lyimo, 2012). Kiswahili language, which is spoken by majority of Tanzanians, originates from a combination of Bantu and Arabic languages.

2.3 Socio-cultural Determinants and Entrepreneurial Capability

Many scholars have examined socio-cultural determinants which fuel entrepreneurial capabilities worldwide. Alwis and Senathiraja (2003) in Sri Lanka used the case study and a questionnaire survey to 175 business units among the Tamil and Sinhalese ethnic groups using quantitative and qualitative approaches. The results show that ethnicity plays a dominant role in determining business practices as opposed to than other attributes. Morley et al., (2011) in Europe concluded that cultural and social factors are the biggest challenges for the start-up and existing businesses. Thornton, Somiaro and Urbano (2011) in Spain concludes that socio-cultural determinants that influence the decisions to create new businesses could be a pertinent framework to be studied.
and analyzed. Empirical research from USA, Italy and other developing countries has shown an unusually large number of entrepreneurs had parents who were self-employed (Shapero and Sokol, 1982).

In Africa, Lucky (2011) in Nigeria involved 500 owner-managers and policy makers in a cross-sectional study using quantitative data, the results show that entrepreneurial approaches which have been abandoned for a long time including socio-cultural ones performed better, and thereby recommended that socio-cultural determinants should, as a matter of fact, be considered as essential and vital aspects in developing entrepreneurship. Fortz and Gajigo (2010) using a model of credit transactions based on ethnic density in the Gambia revealed that, the Serahule-owned enterprises are indeed larger than those owned by other ethnicities.

In Tanzania, Ndunguru (2006) studied entrepreneurial motives and culture using quantitative and statistical techniques in Mtwara, Lindi, Ruvuma, Iringa and Mbeya and found that culture was an important explanatory factor that influences entrepreneurship motivation and start-ups. However, Ndunguru’s study did not relate socio-cultural determinants and entrepreneurial capabilities using specific ethnic groups and combination of quantitative and qualitative approach.

A study by Tundui (2012) investigated gender and small businesses involving 310 owner-managers in Dar es Salaam, Morogoro, Dodoma and Mwanza using qualitative and quantitative approaches. The results of Tundui’s (2012) study showed that social environment, ethnic background, the presence of role models and education levels were significant predictors of SME growth aspirations. Tundui’s (2012) study is different from the current study as the former did not establish the relationship between socio-cultural determinants of entrepreneurial capabilities with the focus of specific ethnic groups.

In another study Maziku et al. (2014) looked at the effects of socio-cultural factors on the performance of women owned enterprises in Tanzania. In contrast to the current study, Maziku’s et al. (2014) study focused on one sex (women) and did not address entrepreneurial capabilities using specific ethnic groups.

Entrepreneurial capability (EC) is the term which is used to refer to growth capabilities and their contributions to a firm’s growth. Specifically, an organization is described as having growth capabilities if overtime it achieves growth along one or more of these dimensions namely, size, market share, profitability, and assets. Furthermore, underlying growth capabilities are resources (e.g. knowledge and financial resources) organizational processes, and managerial decisions with respect to those resources and processes. Moreover, growth capabilities (entrepreneurial capabilities in this study) are evident in one or more dimensions of growth outcome such as an increase in sales revenues, profitability, market share, employment or assets (Roudini and Osman, 2012). The concept entrepreneurial capability refers to an activity that acquires necessary resources to perform up on opportune moments recognized in the market or need market opportunities (Roudini and Osman, 2012). According to literature of entrepreneurship, four dimensions that can be used to describe entrepreneurial capabilities have been suggested (Wielemaker and Gedajlovic, 2011); and these include people, resources (non-human), timing, and opportunity. People and resources are the first two dimensions that influence venture capability. Further the term entrepreneurial capability refers to a means of sensing, selecting, shaping and synchronizing internal and external conditions for exploration and exploitation of opportunities (Zahra, 2011). Indicators of entrepreneurial capabilities include people’s
engagement, market expansion, opportunity recognition, goals setting, the use of feedback, risk taking, market leadership, cost efficiency, profitability, firm’s age, firm’s size, technology, research and development (R&D), venture creation, increased revenues and capital, product innovation, saving and reinvesting earnings, and intrinsic reward (Zahra, 2011; Bascavusoglu-Moreau, 2010; Foltz and Gajigo, 2010). In the current study, entrepreneurial capabilities was measured using capital, sales, number of employees and number of businesses owned by the SME owners.

3.0 RESEARCH METHODOLOGY

The study was carried out in Kilimanjaro and Mwanza regions because the two regions consist of Chagga and Sukuma ethnic groups with different socio-cultural orientations. Moshi urban and Hai districts (Kilimanjaro) and Kwimba and Nyamagana districts (Mwanza) were purposively selected. The Sukuma and Chagga are the largest ethnic groups in Tanzania, the Sukuma being the first and the Chagga the third (Mashenene, 2016; NBS, 2013). The cross-sectional research design using a survey study was used since it allows data to be collected at one point of time and it is considered to be useful because of resources limitation (Kothari, 2009). Additionally, exploratory case study was conducted to collect in-depth information on socio-cultural determinants of entrepreneurial capabilities among the Chagga and Sukuma SMEs. During the field, the researcher purposefully selected SME owners and in some cases where identification of SME owners basing on ethnic origins was difficult, referral was made by local people. However, in township and villages of Kwimba and Hai districts random sampling using lottery was used to get respondents due to the reason that the populations in such areas largely belong to the same ethnic group.

The sample size for this study was calculated using the formula developed by Cochran (1977) as cited by Namwata et al. (2015):

\[
\begin{align*}
n &= \frac{Z^2 \times pq}{e^2} \\
\end{align*}
\]

Whereby:

- \(n\) = the sample size
- \(Z\) = the selected critical value of desired confidence level which is 1.96 for a 95% confidence level
- \(p\) = the proportion in the largest population which is 50%
- \(q\) = 1-\(p\) and \(e\) is the degree of accuracy or acceptable margin of error, set at 0.05.

Then,

\[
\begin{align*}
n &= \frac{1.96^2 \times 0.5 \times 0.5}{0.05^2} = 384 \\
\end{align*}
\]

However, during field work and data analysis 254 (66.2%) questionnaire from business owners were returned and were useful. The proportion of the questionnaire returned was deemed to be adequate for statistical analysis since previous studies treated this situation in a similar way; for instance Namwata et al., (2015) used a sample size of 300 (78.1%) instead of 384 calculated using Cochran’s formula.

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This study was conducted in two phases. In the first phase, the researcher conducted in-depth interview for the purpose of developing 12 case studies of owner managers. The study started with a case study research design because the researcher wanted to explore in depth the concept of socio-cultural determinants of entrepreneurial capabilities among the Chagga and Sukuma SMEs, the concept which has been inadequately studied in the previous studies. Previous studies have indicated that a case study should be used where the phenomenon under study is not well distinguishable from its context (Mariki, 2015; Yin, 2014; Majenga, 2013; Tundui, 2012). A case study is most critical in giving insights to the problem at hand. In the case study, the research can be explanatory, descriptive or exploratory (Yin, 2014). The current study is an exploratory case study because it is intended to understand the effect of socio-cultural determinants on an individual’s entrepreneurial capability. In the second phase, a survey study was carried out using questionnaire, FGD and observation methods. The survey method makes it possible to test the ideas generated from the case study and/ or other studies, as well as those derived from theory on a large sample (Mashenene, 2016).

Content analysis was employed for qualitative data analysis. Different themes were formulated and the researcher tried to understand respondents’ views from case studies and FGD and interpreted them (Tundui, 2012). The explanations and observations were matched with the literature and empirical evidence elsewhere (Mashenene, 2016). Further, inferential statistics involved the use of independent samples t-test in order to compare the differences in entrepreneurial capabilities between the Chagga and Sukuma SMEs. In this study, capital invested and sales/revenues generated from businesses between the Chagga and Sukuma for five years (2009-2013) were used to carry out comparison of entrepreneurial capabilities between the two groups. The choice of t-test in this analysis was due to the fact that the Chagga and the Sukuma were viewed to be independent samples since each ethnic group has unique socio-cultural determinants of entrepreneurial capabilities (Mashenene et al., 2014).

During the field, the capital and sales of SMEs for 2009 and 2013 were collected. Respondents were asked to give the current capital invested and sales in 2013 and the corresponding figures from five years ago in 2009. During the analysis, weighted average capital growth rate (WACGR) and weighted average sales growth rate (WASGR) for a five-year period (2009-2013) were computed. Using WACGR and WASGR helps smooth out yearly fluctuations in the data (Tundui, 2012). To reduce the positive skewness of distribution, the researcher used natural logarithms of capital and sales to make the growth indicator more normally distributed (Tundui, 2012). The formula for the WACGR and WASGR were adopted from Tundui (2012) which are as follows:

\[ \text{WACGR} = \text{Log}(\frac{C_{2013}}{C_{2009}}) \]

\[ \text{WASGR} = \text{Log}(\frac{S_{2013}}{S_{2009}}) \]

Table 2: Study Area and Sample Selection

<table>
<thead>
<tr>
<th>Region</th>
<th>District</th>
<th>Population of SMEs</th>
<th>Sample (n)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kilimanjaro</td>
<td>Moshi Urban</td>
<td>3,494</td>
<td>82</td>
</tr>
<tr>
<td></td>
<td>Hai</td>
<td>1,600</td>
<td>45</td>
</tr>
<tr>
<td>Mwanza</td>
<td>Nyamagana</td>
<td>12,000</td>
<td>80</td>
</tr>
<tr>
<td></td>
<td>Kwimba</td>
<td>1,200</td>
<td>47</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>18,294</td>
<td>254</td>
</tr>
</tbody>
</table>
\[ WACGR = \left( \frac{\ln(\text{capital}_{2013})}{\ln(\text{capital}_{2009})} \right)^{\frac{1}{n}} - 1 \]

... (2)

Where:
- \( WACGR \) = Weighted Capital Growth Rate
- \( \ln \) = Natural Logarithms
- \( n \) = Number of years from which growth was measured (2009-2013).

\[ WASGR = \left( \frac{\ln(\text{sales}_{2013})}{\ln(\text{sales}_{2009})} \right)^{\frac{1}{n}} - 1 \]

... (3)

Where:
- \( WASGR \) = Weighted Sales Growth Rate
- \( \ln \) = Natural Logarithms
- \( n \) = Number of years from which growth was measured (2009-2013).

In this study, the null and alternative hypotheses using WACGR were stated as follows:

Null hypothesis (\( H_0 \)):
- There is no significant difference in the mean of weighted average capital growth rate between the Chagga and Sukuma SMEs (\( p < .05 \)).

Alternative hypothesis (\( H_a \)):
- There is no significant difference in the mean of weighted average capital growth rate between the Chagga and Sukuma SMEs (\( p < .05 \)).

Mathematically, the two hypotheses can be expressed as follows;
\[ H_0: \mu_{1c} = \mu_{2c} \]

(4)
\[ H_a: \mu_{1c} \neq \mu_{2c} \]

(5)

Where: \( H_0 \) is a null hypothesis, \( H_a \) is an alternative hypothesis, \( \mu_{1c} \) is the mean of weighted average capital growth rate for the Chagga SMEs, \( \mu_{2c} \) is the mean of weighted average capital growth rate for the Sukuma SMEs. For this analysis, the significance level is .05.

Like in WACGR, the null and alternative hypotheses using WASGR were stated as follows:

Null hypothesis:
- There is no significant difference in the mean of weighted average sales growth rate between the Chagga and Sukuma SMEs (\( p < .05 \)).

Alternative hypothesis:
- There is a significant difference in the mean of weighted average sales growth rate between the Chagga and Sukuma SMEs (\( p < .05 \)).

Mathematically, the two hypotheses can be expressed as follows;
\[ H_0: \mu_{1s} = \mu_{2s} \]

(6)
H₀: μ₁s ≠ μ₂s

Where: H₀ is a null hypothesis, Hₐ is an alternative hypothesis, μ₁s is the mean of weighted sales growth rate for the Chagga SMEs, μ₂s is the mean of weighted sales growth rates for the Sukuma SMEs. For this analysis, the significance level is .05.

Further, in testing t-test, the Eta Squared was computed in order to estimate the magnitude (size) of the mean difference in entrepreneurial capabilities between the Chagga and Sukuma SMEs in the study areas. The Eta Squared is a good measure for effect size of mean difference within the context of group differences in the given observation (Cohen, 1988). The Eta Squared was computed using the following formula as proposed by Cohen (1988).

\[
\text{EtaSquare} = \frac{t^2}{t^2 + (N_1 + N_2 - 2)}
\]

Whereby: \( t \) = calculated t-statistics and \( N_1, N_2 \) = number of sample size of the Chagga and Sukuma SMEs in the study areas.

Eta squared is the statistical measure of the size of the effects of dependent variable which can range from 0 to 1 and represents the proportion of variance in the dependent variable that is explained by the independent (group) variable. According to Cohen (1988), a value of Eta Squared of 0.14 is interpreted to show a large effect, 0.06 moderate effect and 0.01 small effect.

Moreover, capitals and sales from 2009 to 2013 of 12 case studies were collected and used to support empirical results. During the field, respondents were asked to give capital invested and sales from 2009 to 2013. During data analysis, capital growth rate (CGR) and sales growth rate (SGR) were computed in order to determine the actual growth rates in capital and sales from 2009 to 2013. The formula for CGR and SGR are as follows:

\[
\text{CGR} = \left( \frac{C_{2013} - C_{2009}}{C_{2009}} \right) \times 100
\]

\( .. \) (9)

Where: 
CGR = Capital Growth Rate, C = Capital

\[
\text{SGR} = \left( \frac{S_{2013} - S_{2009}}{S_{2009}} \right) \times 100
\]

\( .. \) (10)

Where: 
SGR = Sales Growth Rate, S = Sales

4.0 FINDINGS AND DISCUSSION

4.1 Testing for t-test assumptions

Before the process of comparing the statistical differences in entrepreneurial capabilities between the Chagga and Sukuma ethnic groups, it was considered important to test the assumptions underlying t-test. The assumptions that were considered crucial and tested were: normality, outliers and Levene’s test for equality of variances.
4.1.1 Normality
As indicated before, the analysis checked for normality of the test variable (average capital of 2009 and 2013). In statistics, normality refers to the data distribution which is a fundamental assumption in measuring the variation of variables. According to Field (2013), the assumption for normality is crucial if findings are to be generalized to the entire population, which is the case of this study. Normality assessment may be conducted using numerical procedures through inferential tests including the Kolmogorov-Smirnov (K-S) and Shapiro-Wilk (S-W). Such tests compare the normality of data to normal distribution and offers advantage of providing objective judgment. The K-S test is considered appropriate for samples larger than 200 whereas S-W is reckoned appropriate for samples ranging from 50 to 2000. As the current study contained a sample size of 254, K-S and S-W tests were considered appropriate. Table 3 presents a summary of results for the formal test for the type of distribution.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Kolmogorov-Smirnova Statistic</th>
<th>df</th>
<th>Sig.</th>
<th>Shapiro-Wilk Statistic</th>
<th>df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average capital in 2009</td>
<td></td>
<td>0.154</td>
<td>254</td>
<td>0.917</td>
<td>254</td>
<td>0.000</td>
</tr>
<tr>
<td>Average capital in 2013</td>
<td></td>
<td>0.173</td>
<td>254</td>
<td>0.950</td>
<td>254</td>
<td>0.000</td>
</tr>
</tbody>
</table>

The K-S and S-W results show that the tested variables are significantly different at p < .000 which reveals that they are significantly different from normal distribution. In other words, the test variables are not normally distributed.

4.1.2 Test of outliers
Following the fact that t-test is sensitive to outliers, before analysis data were tested for presence of outliers. The tested variables (average capital and sales for 2009 and 2013) indicated normal distribution of data which implies absence of outliers.

4.1.3 Levene’s test for equality of variance
In order to further test the sample, Levene’s test (Table 4) was used to assess the assumption of homogeneity in the variances of the population from which samples were drawn. Levene’s test is used prior to interpreting the results of a t-test and basically tests the assumption that the variances are equal (Lawson, 2014). The reason for conducting this t-test is that a t-test is not valid if this assumption is violated (Mashenene, 2018). Since the significance levels of the Levene’s test are 0.314 and 0.219 for average capitals of the two groups (the Chagga and Sukuma owned SMEs) in 2009 and 2013 respectively. These are larger than the cut-off of 0.05. This means that the assumption of equal variances has not been violated; therefore, t-values reported were provided in the first line of the table, which refers to equal variance assumed (Lawson, 2014; Pallant, 2011).
Table 4: Levene’s Test

<table>
<thead>
<tr>
<th>Variable</th>
<th>Variances</th>
<th>Levene’s Test for Equality of Variances</th>
<th>( F )</th>
<th>( \text{Sig.} )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average capital in 2009</td>
<td>Equal variances assumed</td>
<td></td>
<td>1.016</td>
<td>0.314</td>
</tr>
<tr>
<td></td>
<td>Equal variances not assumed</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average capital in 2013</td>
<td>Equal variances assumed</td>
<td></td>
<td>2.427</td>
<td>0.219</td>
</tr>
<tr>
<td></td>
<td>Equal variances not assumed</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4.2 Empirical Results

4.2.1 WACGR T-test results

In this study, means and standard deviations of WACGR were used to show the differences in entrepreneurial capabilities between the Chagga and Sukuma SMEs (Table 5). The findings indicate that the mean of WACGR among the Chagga from 2009 to 2013 was 0.3922 with standard deviation of 0.24061 compared to the mean of 0.2965 with standard deviation of 0.29332 among the Sukuma SMEs. These findings reveal that the mean of WACGR among the Chagga was 1.3 times of the Sukuma and this suggests that the Chagga have demonstrated higher EC than the Sukuma SMEs. Furthermore, the results of t-test for independent samples indicate that there is a significant difference (\( p < 0.05 \)) WACGR between the Chagga and Sukuma SMEs. The implication of these findings suggests that differences in entrepreneurial capabilities exist between the Chagga and Sukuma SMEs. These findings are consistent with those in Mashenene et al. (2014a) which revealed that the entrepreneurial capabilities of the Chagga was higher than that of the Sukuma SMEs. In light of these results, the null hypothesis is rejected and an alternative hypothesis is accepted.

Table 5: T-test for Independent Samples Using WACGR and WASGR

<table>
<thead>
<tr>
<th>Variables</th>
<th>Ethnic Group</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
<th>( t )</th>
<th>( \text{sig. 2-tailed} )</th>
</tr>
</thead>
<tbody>
<tr>
<td>WACGR</td>
<td>Chagga</td>
<td>127</td>
<td>0.3922</td>
<td>0.24061</td>
<td>0.02135</td>
<td>2.843</td>
<td>0.008</td>
</tr>
<tr>
<td></td>
<td>Sukuma</td>
<td>127</td>
<td>0.2965</td>
<td>0.29332</td>
<td>0.02603</td>
<td></td>
<td></td>
</tr>
<tr>
<td>WASGR</td>
<td>Chagga</td>
<td>127</td>
<td>1.1198</td>
<td>3.08865</td>
<td>0.27407</td>
<td>2.684</td>
<td>0.005</td>
</tr>
<tr>
<td></td>
<td>Sukuma</td>
<td>127</td>
<td>0.3704</td>
<td>0.60134</td>
<td>0.05336</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Moreover, the results from t-test were supported by Eta Squared estimates which indicate that the magnitude (effect size) between the Chagga and Sukuma is 0.03 which implies the existence of small effect of socio-cultural determinants on entrepreneurial capabilities between the Chagga and Sukuma according to Cohen (1988). This small magnitude of the effect probably has been due to some intervention programmes like training in entrepreneurship and loan schemes which are available to SMEs. In connection to this, mobility of SME owners from one place to another gives them exposure to exploit entrepreneurial opportunities in a new way. The results from t-test and Eta Square enabled the study to reject the null hypothesis.
Furthermore, researcher used capital invested (2009-2013) from 12 case studies to predict entrepreneurial capabilities trend between the Chagga and Sukuma SMEs. During analysis, the capital invested was computed into capital growth rate. The findings from Figure 5 illustrate that entrepreneurial capabilities of the Chagga is higher than that of their counterpart the Sukuma SMEs. The findings reveal that the difference of capital growth rate between the Chagga and the Sukuma was 0.08 in 2009/10 compared to 0.07 in 2012/13. These findings suggest that the difference of average capital growth rate between the Chagga and Sukuma SMEs remained almost constant despite a slight decrease. The differences in average capital growth rates between the Chagga and Sukuma SMEs suggest that the average capital growth rate among the Chagga was higher than that of the Sukuma SMEs.

![Figure 1: Capital growth rate per annum among the Chagga and Sukuma SMEs](image)

**4.2.2 WASGR T-Test Results**

Table 5 indicates that the mean of WASGR among the Chagga SMEs from 2009 to 2013 was 1.1198 with standard deviation of 3.08865 compared to the mean of WASGR 0.3704 with standard deviation of 0.60134 among the Sukuma SMEs. These findings reveal that the mean of WASGR among the Chagga SMEs was three times of the Sukuma SMEs and it implies that the Chagga demonstrate higher EC than the Sukuma SMEs. Furthermore, the results of t-test for independent samples (Table 5) indicate that there is a significant difference ($p < .05$) among the Chagga and Sukuma SMEs. The implication of these findings suggests that EC between the Chagga and Sukuma SMEs statistically differ significantly. In light of these results, the null hypothesis is rejected and an alternative hypothesis is accepted. These findings are in harmony with those of Mashenene et al. (2014a) which found out that the Chagga demonstrated higher EC than the Sukuma SMEs.

Moreover, the results from t-test were supported by Eta Squared estimates which indicate that the magnitude of difference in EC between the Chagga and Sukuma is 0.03 which implies the existence of small effect of socio-cultural determinants on entrepreneurial capabilities between the Chagga and Sukuma according to Cohen (1988). This small magnitude of the effect probably
has been due to some intervention programmes like training in entrepreneurship and loan schemes which are available to SMEs. In connection to this, mobility of SME owners from one place to another gives them exposure to learn better entrepreneurial practices from SME owners from other ethnic groups. The results from t-test and Eta Square enabled the study to reject the null hypothesis.

The study further used average sales per year (2009-2013) from 12 case studies in order to predict the trend of EC between the Chagga and Sukuma SMEs. During the analysis, average sales growth rate was computed from sales. The findings illustrates that the Chagga demonstrate higher EC than the Sukuma SMEs due to the fact that the average sales growth rate among the Chagga demonstrates a steep slope while that of the Sukuma depicts a gentle slope. The findings reveal that the difference of average sales growth rate between the Chagga and Sukuma in 2009/10 was 0.02 compared to 0.07 in 2012/13. These findings suggest that the difference of average sales growth rate between the Chagga and Sukuma increases with years; as the result, the slope along the line of average sales growth rate of the Chagga continued to be slightly steeper than that of the Sukuma.

![Figure 2: Sales Growth Rate per annum among the Chagga and Sukuma SMEs](image)

### 4.3 Qualitative Results

Table 6 summarizes qualitative results from 12 case studies. The results indicate that 5(83.3%) cases out of 6 cases from the Chagga ethnic group got their start-up capital from personal saving and family/relative support. This was found different from the Sukuma ethnic group whereas only 1(16.7%) of its member solicited start-up capital using both family support and personal savings. These findings imply that the Chagga ethnic group has well established entrepreneurial culture which is supportive to people venturing into business. The same findings imply that the Sukuma culture is not supportive to people venturing to business.

Regarding sources of additional capital, all 6(100%) of the Chagga owned SMEs solicited additional capital using multiple sources including personal savings, retained earnings, trade credit (commonly known in Kiswahili as Malikauli)\(^2\), loans from commercial banks, financial

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\(^2\) Transactions normally involve 30-90 days delayed payment of purchases of goods or services. Normally trade credit is under the trust between the seller and the buyer.

ISSN: 2408-7920
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institutions, family/relatives and Village Community Banks (VICOBAs). For the case of the Sukuma owned SMEs, only personal savings and retained earnings was found to be the dominant sources of additional capital for all 5 (83.3%) cases out of 6 cases. Only 1 (16.7%) case out of 6 cases from the Sukuma ethnic group was found to use multiple sources including loan from a relative, membership of UPATU\(^3\), retained earnings and personal saving. The implication of these findings reveal that the Chagga SME owners have a strong ethnic density in terms of supporting each other in various business funding programmes such as use of trade credit, soft loans from family/relatives and or friends. Further, these findings imply high risk taking behaviour through fund borrowing was demonstrated by the Chagga SME owner. Such a strong ethnic density and high risk taking behaviour have enables the Chagga SMEs to grow their businesses better than their counterparts, the Sukuma SMEs. These findings are similar to those of Mashenene (2016) which found that the entrepreneurial capabilities of the Chagga SME owners was higher than that of their counterparts, the Sukuma SME owners due to differences in socio-cultural determinants of entrepreneurial capabilities. The results further are supported by the Entrepreneurial Event Model in a sense that the Chagga SME owners demonstrated higher entrepreneurial capabilities than the Sukuma SME owners due to strong ethnic density. The evidences were drawn from cases of the Chagga and Sukuma SME owners reflecting strength of ethnic density and risk taking behaviour among them as presented hereunder;

FM, VLA, MGM, WSB, ASA and ESM cases from the Chagga ethnic group each of them exhibited “...we use multiple sources to fund our businesses. Such sources include personal savings, retained earnings, trade credit, loans from commercial banks, microfinance institutions, family/relatives and the Village Community Banks (VICOBAs). We don’t fear anything from borrowing fund for businesses even if we borrow from various sources...”.

YC MK, FZB, SG, JMH, LJM and LSB cases from the Sukuma ethnic group each of them exhibited “... we mainly use personal savings and retained earnings only (except FZB) to finance our businesses. We never borrow money from commercial banks and microfinance institutions as we fear if our businesses fail our properties will be confiscated by money lenders. We also hardly borrow from our families/relatives and or friends since most of us are selfish to support others and we normally say every individual will struggle to grow business capital from his or her own sources...

Table 6: Summary of results from 12 cases

<table>
<thead>
<tr>
<th>Cases</th>
<th>Ethnic Group</th>
<th>Sources of Start-up capital</th>
<th>Sources of additional capital</th>
</tr>
</thead>
<tbody>
<tr>
<td>YCMK</td>
<td>Sukuma</td>
<td>Personal saving</td>
<td>Retained earnings, personal savings</td>
</tr>
<tr>
<td>FM</td>
<td>Chagga</td>
<td>Personal saving</td>
<td>Retained earnings, personal savings, bank loans, microfinance institution loans, family/friends’ loan, trade credit</td>
</tr>
<tr>
<td>FZB</td>
<td>Sukuma</td>
<td>Personal savings and brother’s support</td>
<td>Retained earnings, personal savings, relative’s loan</td>
</tr>
<tr>
<td>VLA</td>
<td>Chagga</td>
<td>Personal saving &amp; relative support</td>
<td>Retained earnings, personal savings, bank loans, microfinance institution loans, Village Community Bank (VICOBA) loan,</td>
</tr>
</tbody>
</table>

\(^3\)A Swahili word referring to an informal revolving credit scheme, mostly used by women in Tanzania

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26
5.0 CONCLUSION AND RECOMMENDATIONS

5.1 Conclusion
The results from independent samples t-test indicate a significant difference in entrepreneurial capabilities between the Chagga and Sukuma SMEs whereas the Chagga demonstrated higher entrepreneurial capability than the Sukuma owned SMEs. This difference in entrepreneurial capabilities between the Chagga and Sukuma was due to differences in socio-cultural determinants of entrepreneurial capabilities between the two ethnic groups. These findings suggest that the Chagga demonstrate a stronger ethnic density than the Sukuma, as the result the Chagga SMEs solicit larger capitals using ethnic density as a competitive advantage than the Sukuma owned SMEs. These findings imply that there are opportunities among Tanzania SMEs to grow their capitals using ethnic density as a paramount variable. Similarly, the Chagga demonstrated higher risk taking propensity than the Sukuma owned SMEs in all variables studied in this study regarding risk-taking propensity. The implication of these findings is that the Chagga have been able to grow their capitals by far compared to their Sukuma counterpart. In addition, the Sukuma SME owners seem to rely too much on personal saving and retained earnings as the main sources of capital compared to the Chagga SME owners.

5.2 Recommendations
i. The study recommends to the Ministry of Industry, Trade and Investment (MITI) in collaboration with local government authorities (LGAs) in the study areas to design special programmes in televisions, radio, newspaper and other media which address socio-cultural determinants of entrepreneurial capabilities in order to communicate them to the public in the study areas. Accordingly, there is a need by the LGAs in collaboration with the MITI to develop entrepreneurial training materials such as video, tapes, magazines, books and others in order to offer harmonized teaching and trainings in the study areas. Also, there is a need for the local government authorities, MITI and NGOs to collectively train as many as possible in the study areas trainer of trainers (TOTs) in order to enable effective dissemination of socio-cultural determinants of entrepreneurial capabilities in the study areas. Furthermore, the study recommends using these findings as prototype, funded projects by MITI, NGOs and donors like ILO to be implemented to the Sukuma
ethnic group whose socio-cultural determinants seem not to be favouring entrepreneurial capabilities. This will help to transform the Sukuma to become the ethnic group with valuable socio-cultural determinants of entrepreneurial capabilities, for example issues like access to financial sources need to be addressed. Consequently, the favourable socio-cultural determinants shown by the Chagga need to be appreciated and maintained by the LGAs, MITI, NGOs and other development partners for sustained entrepreneurial capabilities.

ii. The study further recommends to the LGAs, MITI, NGOs and donors such as ILO to collaborate with the Ministry of Education and Vocational Training (MoEVT) to integrate favourable socio-cultural determinants of entrepreneurial capabilities in school or college/university curricula in order to unfold the understanding of these determinants and their effects to entrepreneurial capabilities. Special strategy of using case studies of successful and unsuccessful individuals covering socio-cultural determinants should be developed and adopted by schools and colleges/universities in order to provide a practical baseline in teaching entrepreneurship subject. Additionally, special campaigns radio, television, newspaper and social media should be implemented in order to discourage anti-entrepreneurial cultures and promote the favourable ones. Specifically, the local government authorities in collaboration with the MITI, MoEVT and development donors should design educative programmes and disseminate them in order to enable people to understand and regard higher valuable socio-cultural entrepreneurial fueling entrepreneurial capabilities. This can be achieved through the establishment of socio-cultural orientation and change agencies that consists of media, sociologists, psychologists, mentors and other stakeholders who can design and implement appropriate and effective culture re-engineering and re-orientation programmes that can shape individuals toward a positive entrepreneurial culture and hence improve entrepreneurial capabilities.

5.3 Areas for Further Research
Based on the findings from this study, the recommended areas for further research will be on the following areas.

i) Compare entrepreneurial capabilities among many ethnic groups across Tanzania instead of using two ethnic groups out of more than 120 ethnic groups.

ii) Compare entrepreneurial capabilities among different sub-cultures among the Chagga and Sukuma owned SMEs in Tanzania. This suggests area for further studies comes out following the fact that the Chagga ethnic group has members with different subcultures; the Wa-Rombo, Wa-Machame, Wa-Old Moshi, Wa-Marangu, Wa-Uru and Wa-Kibosho. Similarly, the Sukuma ethnic group has members with two major subcultures; the Nyantuzu and the Sukuma of Mwanza.
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