Joint Ventures for SMEs Competitiveness and Inclusive Growth: A Comparative Analysis of SMEs in Mbeya, Tanzania

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ABSTRACT

The inclusive growth of SMEs has recently gained much recognition from scholars and policymakers. However, the pertinent question is, what is the best approach toward SME growth? This article examines the effects of Joint Venture (JV) undertaking on SMEs’ competitiveness and inclusive growth in Tanzania’s business setting. 192 (87 JV firms and 105 sole proprietors) were sampled from Mbeya City, Tanzania using a stratified systematic sampling technique for analysis. Data was collected using the survey method. The effects of JV on the SMEs’ competitiveness and growth were established by the pattern of percentages and the level of significance (p-values) using the independent t-test. It was found that SMEs operating as JV were more competitive, with a higher ability to meet financial, cost, quality, innovation, time and market requirements compared to sole proprietors. Nevertheless, JV firms revealed higher significant growth indicators in terms of sales volume, profit margin, market share, number of employees, working assets, production volume and business diversification than sole proprietors. Limited financial resources, inadequate production facilities, limited experience, unfavourable trade laws and socio-cultural factors constrain SMEs from JV undertaking. To policymakers and scholars, this article highlights the role and the determinants of JV undertakings as an important approach toward improved SMEs’ competitiveness and inclusive growth.

Keywords: Joint ventures, SMEs’ competitiveness, inclusive growth, Mbeya-Tanzania.

INTRODUCTION

Despite the complexities, SMEs play a prominent role in today’s global economic transformation. SMEs alleviate poverty and create employment and wealth for the public and government.1 About 90% of global firms are SMEs employing over 70% of the workforce.2 In China and the EU, SMEs constitute about 99% of all business firms, employ over 80% of the workforce and contribute about

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1 A. Gurría, SMEs are key for more inclusive growth, (Berlin: Heinrich Boll Foundation, 2020). 1-3
60% of GDP. In Sub-Saharan Africa, SMEs account for 65% of employment and contribute up to 40% of GDP. In emerging economies, SMEs are less competitive and productive, mainly struggling for survival and growth. A firm’s competitiveness is one of the important drivers of sustainable growth and development. The ITC demonstrated SME’s competitiveness as the ability to design, produce and commercialise unique products, services and work of the required quality and standards, meeting market demand at optimal cost and time. SMEs’ ability to draw human and financial resources within their environments, the ability to connect, network and respond quickly to over changing environments and demand in the business ecosystem are defined as an integral part of competitive characteristics. Business firms’ access to trade opportunities and growth chiefly depends on their competitive position in their market setting.

In Tanzania, 95% of business firms are SMEs, employing about 4 million people and contributing about 35% of GDP. Table 1 presents categories of SMEs as defined by the Tanzania SMEs development policy (2003). Mostly, SMEs engage in formal and informal activities (provision of services, farming, construction activities and supply of goods in public and private entities). Towards enhanced SMEs competitiveness and sustainable growth, the Tanzania Chamber of Commerce, Industry and Agriculture (TCCIA) in collaboration with the Small Industrial Development Organisation (SIDO), World Trade Organization (WTO) and International Trade Centre (ITC) play a significant role through capacity building, partnerships, subsidies, networking and information sharing. Part 278(1) of the Public Procurement Regulations (PPR, 2013) provides mandatory requirements for JV undertaking between foreign, large firms and SMEs when accessing public procurement opportunities. Despite the reforms, SMEs are still ranked bottom, are less competitive, have low growth rates and have high decline rates. On average, SMEs grow at 3% annually, which is significantly low compared to large firms’ 11% annual growth rate. 60% of the SMEs decline within six months of their operation and only 20% have access to reliable markets. This results in ultimate unemployment and poverty. These inefficiencies are against the fifth UN-SDG (2015-2030) which emphasises inclusive and sustainable economic growth, increased productivity, decent work and employment for all.

Table 1: Classification of SMEs in terms of investment

<table>
<thead>
<tr>
<th>Firm category</th>
<th>Number of Staff</th>
<th>Amount of Capital Invested(Tsh)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Micro enterprises</td>
<td>1 – 4</td>
<td>Up to 5 million</td>
</tr>
<tr>
<td>Small enterprises</td>
<td>5 - 49</td>
<td>Above 5 to 200 million</td>
</tr>
<tr>
<td>Medium enterprises</td>
<td>50 - 99</td>
<td>Above 200 – 800 million</td>
</tr>
<tr>
<td>Large enterprises</td>
<td>100+</td>
<td>Above 800 million</td>
</tr>
</tbody>
</table>


To assess the strength of SMEs’ competitiveness for inclusive growth, the need for solid frameworks and approaches should be emphasized. This article regards JVs as a formal framework and approach for relieving SMEs from less competitiveness and low growth. JV is an enterprise established by two or more legal parties with different resources and expertise to implement a specific contract for a set

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4 World Bank, Improving Access to finance for SMEs, 33.
6 ITC, Promoting SME Competitiveness in Africa, 62.
10 WTO, Joint declaration on trade and economic empowerment, 44.
period. The arguments for JVs stem from the need to access and penetrate global markets, expansion and business diversification. Singapore, South Africa, Ethiopia, and Ghana experienced significant improvement in SMEs’ competitiveness and growth under mandatory requirements on JVs undertaking between SMEs and large and foreign firms. Malaysia has been implementing a JV strategy between its local firms, Australian and Singaporean firms since the 1990s. As a result of the JVs undertaking, over 75% of SMEs have experienced significant growth in revenue, market shares, working capital, production volume, profit margins and business diversifications due to reliable markets and access to trade opportunities. Israel and Kazungu cited limited access to finance and market information, legal difficulties, inadequate operational resources, political, cultural factors and limited business experiences, corruption and nepotism in the distribution of trade opportunities as the complexities that face SMEs toward JVs undertakings, market access and growth. The substantial factors that influence SMEs toward JVs undertaking should be identified and accounted for. In their studies, Peprah et al accounted for physical assets, legal and economic factors as the key determinants of JVs undertaking. In this study, the growth of SMEs refers to substantial increases in sales volume, profit margin, market share, number of employees, working assets, production volume, and business diversification. Despite more emphasis by policymakers on JVs undertaking among SMEs when accessing trade opportunities, there is no adequate literature that addresses the role of JVs undertaking in enhancing SMEs’ competitiveness and inclusive growth. Previous studies have focused on addressing the link between SMEs and trade opportunities, the economic transformation of SMEs and accessibility to procurement opportunities. It is from this stance, that this article enriches the literature by documenting the determinants and the role of JVs undertaking towards SME’s competitiveness and inclusive growth with insight from Mbeya City, Tanzania.

Theoretical Background and Conceptual Framework

The concept of JV undertaking stems from Resources Based View Theory (RBV) and Networking Perspective. The RBV Theory answers the key questions in business operations as to why some firms perform better than others. RBV theory holds that a business firm performs better and outperforms its competitors when it develops and possesses better internal resources. A firm’s resources and capabilities are the core competencies of business firms and they serve as the tools for competitive advantages, growth and sustainability. In this study, RBV theory was employed to measure SMEs' competitive advantages and growth based on heterogeneous resources and capabilities. SMEs encounter several inefficiencies in accessing and harnessing trade and investment opportunities in terms of limited human and financial resources, operational facilities and inadequate skills and experience. Despite its contribution, RBV theory fails to explain how business firms can strategize to enhance their resources toward competitive advantages and sustainable growth. It is from the

12 ITC, Promoting SME Competitiveness in Africa, 54.
17 L. Fox, Economic transformation and SMEs economic development in Tanzania, 13.
18 Peprah et al, Small and medium sized enterprises accessibility to public procurement, 39.
deficiencies of RBV Theory, Networking Perspective was used to explain how SMEs can strategize to create competitive advantages, growth and sustainability.

The networking perspective ascertains how business firms can achieve a competitive position, perform better in their market place and outperform their competitors through networking. Sharing of resources, skills, competencies and intense collaboration among SMEs is the express rule of Networking Perspectives toward achieving a competitive position and ultimate growth. Nevertheless, networking and interaction of firms with other players in a marketplace is an important tool for outfitting socio-economic, political and legal trade barriers. JV undertakings and networking improve SMEs’ competitive position through sharing and exchange of market information, goods and services, financial and human resources, risks, skills, business experience, access to new market niche/trade opportunities and market saturation. Firms with remarkable competitive positions are more likely to access and harness trade, investment and procurement opportunities. In turn, these enhance SMEs’ sustainable growth and development in terms of increased sales volume and gross profit, production volume, number of employees and ultimate business diversifications.

This study adopted the competitive characteristics of firms as set forth by the ITC (2018) (figure 1 & Table 5). The ability to meet market requirements (standards, time, cost, quality and innovative changes) are essential for SMEs’ competitiveness in local and foreign markets. Nevertheless, for SMEs to become competitive, they need to connect to potential customers, suppliers and financial institutions and become experts in ICT use. JV plays an important role in connecting and enhancing SME competitiveness. However, the practice (JV undertakings) is influenced by several factors. Figure 1 regards JVs undertaking as a function of socio-economic, legal, political and strategic factors. Age, education level, marital status, sex, firm size, market share, access to market opportunities, trade policies and tariff barriers, among others, form an integral part of the factors influencing SMEs toward JVs undertaking. These attributes are perceived as favourable or adverse in influencing SMEs toward JVs undertaking. From RBV Theory and Networking Perspective, this article establishes how SMEs can empower themselves, outfit trade barriers and complexities in accessing and harnessing trade opportunities through JVs, for sustainable growth and development.

Empirical Review and Hypothesis Development
The role of SMEs in socio-economic growth and sustainability of families, communities and the government has gained much recognition in recent days. Despite their role, SMEs have reported having less involvement in accessing and harnessing trade and investment opportunities. A report by the WTO revealed about 80% of local and global trade and investment opportunities are being harnessed by large foreign firms. Rizos et al connected the inability of SMEs to compete with large firms and harness trade opportunities with limited operational resources, technology and legal complexities. Toward SMEs’ business liberations, enhanced competitive position and sustainable growth, Islam recommended the need to overcome SMEs’ inefficiencies through strategic JVs, partnerships and collaboration among SMEs or with large firms. A Study by Mohamed revealed that SMEs pursuing strategic JVs, linkages and partnerships with larger firms tend to grow more quickly than individual firms. Singapore, South Africa, Ethiopia and Ghana have experienced significant growth and competitiveness among SMEs under mandatory requirements on JV undertakings between local SMEs and large foreign firms. Ibrahim et al revealed the remarkable impact of JVs on SME growth among dairy farmers in Tanzania. Through JVs, dairy farmers revealed a 35% increase in production volumes and a 39% increase in sales volume/gross profit between 2014 and 2015. Kweka and Sooi reported an average of 25%-30% growth in the number of employees for SMEs pursuing JVs and strategic partnerships. This was appropriately higher than 5% of the growth rate reported in sole proprietorships. SMEs engaging in strategic JVs and linkages had a relatively higher likelihood of achieving growth than sole proprietorships due to shared resources, marketing information, skills and experience.

H01: The mean scores of the sales volumes between SMEs operating under JV and sole proprietorships are the same

H02: The mean scores of gross profit margin between SMEs operating under JV and sole proprietorships are the same

H03: The mean scores of production volume between SMEs operating under JV and sole proprietorships are the same

H04: The mean scores of numbers of employees between SMEs operating under JV and sole proprietorships are the same

Malaysia has been implementing strategic JVs and partnerships between its local firms, Australian and Singaporean firms since the 1990s. As a result of JVs, over 75% of Malaysian SMEs have experienced significant growth in market shares and working capital. Moreover, local SMEs have diversified their operations to export due to reliable markets and trade opportunities in partnering countries. In the European Union, a study by the Organization for Economic Co-operation and

24 WTO, Joint declaration on trade and economic empowerment, 25.
27 Mohamed, “Performance in international construction joint ventures.” 621.
28 Peprah et al. Small and medium sized enterprises accessibility to public procurement, 35.
Development (OECD) on SMEs and entrepreneurship strengthening for productivity and inclusive growth reported that 60% of SMEs have diversified their business through JVs and strategic partnerships compared to 15% of sole proprietorships. Addressing the performance of SMEs in the European Union, Ravanera and Kaplan revealed that SMEs pursuing strategic partnerships and JVs have grown in market share by 37% compared to sole proprietorships. This growth rate is significantly higher compared to the 8% of growth rate in sole proprietorships found and reported by Kweka and Sooi in Tanzania. In Bangladesh, a study by Islam found a positive and significant impact of strategic JVs on the growth of SMEs in terms of working assets (capital), gross profits and market share. Strategic JVs provide a significant impact on the economic performance of SMEs. JVs provide a platform in which SMEs share resources and marketing information, collaborate and network to improve their competitive positions, which is otherwise difficult to be achieved when SMEs operate individually.

H05: The mean scores of market share between SMEs operating under JV and sole proprietorships are the same

H06: The mean scores of working capitals between SMEs operating under JV and sole proprietorships are the same

H07: The mean scores of business diversification between SMEs operating under JV and sole proprietorships are the same

SMEs' sustainable growth depends on their ability to compete in their marketplace and access the available trade and investment opportunities. In their studies, Adnan et al recommended strategic JVs as one of the important frameworks that can enhance SMEs' competitive position, have access to trade and investment opportunities and ultimate growth. A firm’s competitiveness is the ability to meet the requirements of the target market. Delivery of better-quality goods and services at the right prices, within a prescribed time and quantities, form an integral part of a firm’s competitiveness. Moreover, the firm’s ability to change and innovate according to the changing environments and technology and the ability to secure financial resources and manage its return are also some essential characteristics of the firm’s competitiveness. Despite several recommendations to improve the competitive position of SMEs through JVs, SMEs take little or no account in JVs. Wadhwa et al listed nepotism, legal complexities, inadequate knowledge, bureaucratic practices, trust and commitment and limited resources as the key obstacles that impede SMEs from JVs undertaking. Strategic JVs eliminate market access and growth deficiencies among SMEs by enhancing shared market information, resources and trade opportunities among the trading partners.

MATERIALS AND METHODS

The study employed a cross-sectional research design. With a cross-sectional research design, the data was collected in a single period to establish the role of JVs on SMEs’ competitiveness and growth. The study was conducted in Mbeya City, Tanzania. The City was purposively considered for the study because it has an appropriately large number of registered SMEs compared to other districts. About

34 Kweka and Sooi, Partnerships for inclusive growth, 10.
35 Islam, SMEs Development, inclusive growth, and poverty alleviation in Bangladesh.
36 Adnan et al, Success criteria for international joint ventures, 5259.
37.7% of SMEs are based in Mbeya City, leaving 62.3% of SMEs scattered in the other six districts.\textsuperscript{38} The target population was 416 formal registered SMEs, 177 being JVs firms and 191 sole proprietors. A stratified systematic sampling technique was used to select SMEs from each stratum [JV firms and sole proprietorships] for analysis and comparisons. Yamane’s formula\textsuperscript{39} \( n = \frac{N}{1 + N(\varepsilon)^2} \) for the finite population was used to determine the sample size. From Yamane’s formula, a sample size of 204 SMEs was generated. \( K^{th} \) formula was used to determine the sampling interval (\( K^{th} \) elements), where the first observation (\( L \)) was randomly selected from a list that was generated. Out of 204 of the sampled SMEs, only 192 responses [87 JV firms and 105 sole proprietorships] equivalents to 96.6% of responses were received. The survey was used to collect primary and quantitative data using closed and open semi-structured questionnaires. Questionnaires were distributed to SME owners or representatives and were collected after seven days. Quantitative data were coded in a common theme to generate descriptive and inferential statistics using Statistical Package for Social Sciences (SPSS). Binary Logistic Regression (equation 1 & table 3) was employed to examine the determinants of JV undertakings among SMEs.

\[
\text{Logit}[p(Y_i)] = \log \left( \frac{p(y)}{1 - p(y)} \right) = \beta_0 + \beta_1 x_1 + \ldots + \beta_3 x_3 + e \ldots \ldots \ldots \ldots \ldots \text{(1)}
\]

Table 2: Definition of Model Variables

<table>
<thead>
<tr>
<th>Variables</th>
<th>Definition and unit of measurement</th>
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</thead>
<tbody>
<tr>
<td>Dependent Variables: JV undertaking</td>
<td>1 = Joint Venture Undertaking, 0 = Otherwise</td>
</tr>
<tr>
<td>Independent Variables: Determinants of JVs undertaking</td>
<td></td>
</tr>
<tr>
<td>( x_1 )</td>
<td>Training on JVs undertakings (1 = knowledgeable, 0 = otherwise)</td>
</tr>
<tr>
<td>( x_2 )</td>
<td>Marital status (1 = married, 0 = single)</td>
</tr>
<tr>
<td>( x_3 )</td>
<td>Sex of household head (1 = male, 0 = female)</td>
</tr>
<tr>
<td>( x_4 )</td>
<td>Age (Age of SMEs owner/representative)</td>
</tr>
<tr>
<td>( x_5 )</td>
<td>Firm’s market share (1 = small, 2 = average, 3 = large)</td>
</tr>
<tr>
<td>( x_6 )</td>
<td>Firm-firm relationship (1 = long term, 0 = short term)</td>
</tr>
<tr>
<td>( x_7 )</td>
<td>Laws and policies on JVs undertaking (1 = favourable, 0 = otherwise)</td>
</tr>
<tr>
<td>( x_8 )</td>
<td>Firm’s operating experience (years of SMEs in operations)</td>
</tr>
<tr>
<td>( x_9 )</td>
<td>Production capacity/facilities (1 = adequate, 0 = otherwise)</td>
</tr>
<tr>
<td>( x_{10} )</td>
<td>Trade association (1 = member of trade association, 0 = otherwise)</td>
</tr>
<tr>
<td>( x_{11} )</td>
<td>Firm’s financial position (1 = stable, 0 = otherwise)</td>
</tr>
<tr>
<td>( x_{12} )</td>
<td>Access to market (1 = have access to market opportunities, 0 = otherwise)</td>
</tr>
</tbody>
</table>

Networking and RBV theories were used to test the implications of JV in enhancing SME competitiveness and inclusive growth between JV firms and sole proprietorships. Networking and RBV theories emphasise the importance of resources and networking among business firms as the key drivers of sustainable performance. In this study, networking and RBV theories were used to ascertain the determinants of JV undertaking, competitive abilities and growth between JV firms and sole proprietorships. A pattern of three-point scaled questionnaires coded 1 = low, 2 = moderate and 3 =

\textsuperscript{39} T. Yamane, Statistics: An introductory analysis (3\textsuperscript{rd} ed), (Harper and Row, 1973).
high were used. An independent t-test was further used to estimate the magnitude of mean differences in growth indicators of SMEs between JV firms and sole proprietorships. The study compared sales volume, gross profit margin, market share, number of employees, working assets, production volume and business diversification as the prime indicators of a firm’s growth.\(^{40}\) The comparative analysis focused on determining whether JVs play a significant role in enhancing SME growth. Based on the identified SMEs growth indicators, the null hypothesis (H\(_0\)) was that the mean differences of the identified growth indicators between JV firms and sole proprietorships are the same (\(\mu_1 = \mu_2; p > \alpha\)).

\[
H_0: \mu_1 = \mu_2 \quad \ldots \quad (2)
\]

Where \(\mu_1\) = mean score of growth indicators (sales volume, gross profit margin, market share, number of employees, working assets, production volume and business diversification) for JV firms. \(\mu_2\) = means score of growth indicators (sales volume, gross profit margin, market share, number of employees, working assets, production volume and business diversification) for sole proprietorships. The Eta squared was used to estimate the magnitude of the size of the effects in terms of mean differences in the perceived indicators of SMEs growth using Cohen’s formula (Equation 3).

\[
\text{Eta Squared} = \frac{t^2}{t^2 + (n_1 + n_2 - 2)} \quad \ldots \quad (3)^{41}
\]

Where: \(t^2\) = test statistics, \(n_1\) = sample size of JV firms, \(n_2\) = sample size of sole proprietorships. The value of eta squared statistics ranges between 0 and 1 and it is interpreted as 0.2 = small effect, 0.5 = moderate effect and 0.8 = large effect. Before data collection, research tools were tested to check their content validity and whether suited the study objectives. A pilot study was conducted among eight SME owners who were not a part of the target population. The test-retest method was used, where the questions in questionnaires were asked twice in a twisted way within three days. Changes were made where necessary. Cronbach’s Alpha was used to test the reliability of the research tools. Cronbach’s Alpha is essentially used in evaluating internal consistency when the data are extracted using Likert-scaled questionnaires.\(^{42}\) The value of Cronbach’s Alpha varies between 0 and 1. However, a Cronbach’s Alpha value greater than 0.7 is recommended.\(^{43}\) The analysis revealed an average Cronbach’s Alpha value of 0.837, implying the internal consistency and suitability of the data.

RESULTS AND DISCUSSION

Characteristics and Profiles of Sampled SMEs

Table 3 presents the characteristics and profiles of SMEs, both operating as JVs and sole proprietorships. From the age categories generated, it was found that 29.2\% being the majority of the sampled SMEs owners were aged between 41-50 years followed by 26.6\% with the age between 31-40 years. This indicates that the majority of sampled SME owners were young and energetic, aged between 20-50 years. By academic qualifications, 35.4\% were secondary school leavers, 27.1\% and 25.5\% were diploma and first-degree holders respectively. 12.0\% of the sampled SME owners were postgraduate holders. This implies that all sampled SME owners had at least basic knowledge, preferably in the areas of business practices and operations. Regarding the SMEs’ working or operational experience, the study showed that about 26.6\% of SMEs have existed and operated for six to ten years. 23.4\% of SMEs had 11 to 15 years since their establishment.

\(^{40}\) ITC, Promoting SME Competitiveness in Africa, 32.


\(^{43}\) Field, Discovering statistics using IBM SPSS statistics, 21.
The smallest number of SMEs (14.6%) had more than 21 years of operational experience. This result implies that the sampled SMEs had reasonable working experience in their business operations and practices. SMEs were drawn from different sectors and sizes to give their views on the status of JV undertakings and their implications on the firm’s competitiveness and growth. The majority of SMEs (about 20.3%) which participated in this study were manufacturing firms, followed by import and exporter (17.2%) and construction firms (15.1%). The smallest number of SMEs was in real estate which accounted for about 8.3%. As shown in Table 3, 31.8% of the types of SMEs involved in this study were micro-enterprises, 38.0% were small enterprises and 30.2% were medium enterprises.

**Determinants of JV undertakings among SMEs**

Table 4 presents the results on the determinants of JV undertaking among SMEs. The determinants towards JV undertaking among SMEs were ascertained using exp(β) generated from Binary Logistic Regression (BLR). The exp(β) tells the likely impact of explanatory variables on the outcome variable. The model fitting tests were conducted and revealed that BLR tied well with the data, and the explanatory variables were consistent with BLR ($\chi^2 = 0.019 < \alpha$; Hosmer and Lemeshow Test = 0.191 $> \alpha$; Nagelkerke $R^2 = 0.635$). Regarding the determinants of JVs undertaking among SMEs, all examined determinants revealed significant influence, except for the firm-firm relationship. Training had 64.6% more likely to influences SMEs toward JV undertakings ($\beta = 0.492$; exp($\beta$) = 1.646; $p < \alpha$).
This finding concurs with Wadhwa et al.’s findings which asserted that training on JVs exposes SMEs to the perceived benefits of linkages and networking, which in turn drives SMEs’ willingness to undertake JVs. Marital status, particularly married women was 27.0% less likely influenced by their marriage (husbands) to participate in JVs ($\beta = -1.309; \exp(\beta) = 0.270; p < \alpha$). Likewise, male-headed household was 37.6% less likely in influencing SMEs from participating in JVs ($\beta = -0.976; \exp(\beta) = 0.376; p < \alpha$). In line with these findings, Peprah et al. reported that the majority of SMEs are owned by women who face discrimination and cultural barriers which impede their willingness to engage in JVs especially when men-women business deals are involved.

Age was 28.9% more likely ($\beta = 1.456; \exp(\beta) = 4.289; p < \alpha$) to influence SMEs towards JV undertakings. This implies that as the age of the SME owners increases, the ability to engage in JVs also increases. This is in line with Morgan and Sisak’s findings who found and posited that as the age increases, SMEs owner becomes more contractual independent and competent to participate fully in business associations. Market share was 25.5% more likely ($\beta = 0.227; \exp(\beta) = 1.255; p < \alpha$) to influence SME owner’s willingness towards JV undertaking. This indicates that the need to increase market share for SMEs plays a positive and significant role in influencing SMEs to participate in JVs.

According to Fox, SMEs engage more in linkages and business associations when they need to increase their market share, penetrate new markets and access market opportunities. Unfavourable laws and policies pertaining to JVs was 17.8% less likely in influencing SMEs to JVs undertaking ($\beta = -1.728; \exp(\beta) = 0.178; p < \alpha$). This indicates that SMEs are constrained by trade laws and policies toward the formation of JVs. In line with this finding, Tanzania’s SMEs policy and Section 278(1) of the Public Procurement Regulation (2013) regard firm capabilities and work experience in accessing trade opportunities, the attributes which have never been met by SMEs, thus becoming unable to engage in JVs.

The level of education revealed positive and significant influences on SMEs’ participation in JVs. Increases in the level of education also increases a chance for SMEs to participate into JVs by 30.6% ($\beta = 1.196, \exp(\beta) = 3.3069, p < \alpha$). Training and education expose SME owners to different business approaches (including JVs) and their perceived benefits, thus increasing their desire to participate in the same.

### Table 4: Determinants of JV undertaking among SMEs

<table>
<thead>
<tr>
<th>Construct Variables</th>
<th>Coefficients ($\beta$)</th>
<th>Exp($\beta$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Training on JVs undertakings (1 = knowledgeable, 0 = otherwise)</td>
<td>0.492*** (0.0634)</td>
<td>1.646</td>
</tr>
<tr>
<td>Marital status (1 = married, 0 = single)</td>
<td>-1.309* (0.0937)</td>
<td>0.270</td>
</tr>
<tr>
<td>Sex of household head (1 = male, 0 = female)</td>
<td>-0.976** (0.0745)</td>
<td>0.376</td>
</tr>
<tr>
<td>Age (years of SMEs owner/representative)</td>
<td>1.456** (0.0845)</td>
<td>4.289</td>
</tr>
<tr>
<td>Firm’s market share (3 = large, 2 = medium, 1 = small)</td>
<td>0.227** (0.0531)</td>
<td>1.255</td>
</tr>
<tr>
<td>Firm-firm relationship (1 = long term, 0 = short term)</td>
<td>1.220</td>
<td>1.245</td>
</tr>
</tbody>
</table>

44 Wadhwa et al, Corporate venture capital portfolios and firm, 101.
45 Peprah et al, Small and medium sized enterprises accessibility to public procurement, 12.
47 Fox, Economic transformation and SMEs economic development in Tanzania, 5.
48 Israel and Kazungu, The role of public procurement in enhancing SMEs, 25.
49 Adnan et al, Success criteria for international joint ventures, 525.
Laws and policies on JVs undertaking (1 = favourable, 0 = otherwise) & (0.0874) & (0.0955) & 1.728** & 0.178 \\
Firm’s operating experience (Years of SMEs in operations) & -1.422* & (0.0615) & 0.241 \\
Production capacity/facilities (1 = adequate, 0 = otherwise) & 0.912*** & (0.0756) & 2.489 \\
Trade association (1 = member of trade association, 0 = otherwise) & 1.025** & (0.0900) & 2.787 \\
Firm’s financial position (1= stable, 0 = otherwise) & 0.627* & (0.0775) & 1.872 \\
Access to market (1 = have access to market opportunities, 0 = otherwise) & 0.572*** & (0.0818) & 1.772 \\
Level of education (years spent in school) & 1.196** & (0.0982) & 3.3069 \\
Constant & 0.487* & (0.0620) & 3.173 \\

$\chi^2 = 0.019 < \alpha$; Hosmer and Lemeshow Test p-Value = 0.191 > \alpha; Nagelkerke $R^2 = 0.635$

Note: *, **, *** Donates Statistic Significance level at p < 0.1; p < 0.05 and p < 0.01 respectively. Standard errors in parentheses.

SMEs’ working experience was negative and statistically significant ($\beta = -1.422; \exp(\beta) = 0.241; p < \alpha$), implying that the lesser the experience, the less likely SMEs participate in JVs undertaking. This is in line with Kweka and Sooi’s\textsuperscript{50} view who regarded inadequate experience as one of the constraints facing SMEs from involving in business associations and JVs. SMEs with modern production facilities was 48.9% more likely to engage in JVs ($\beta = 0.912; \exp(\beta) = 2.489; p < \alpha$). This concurs with Klofsten et al’s\textsuperscript{51} arguments which connected the failure of SMEs in JVs undertaking with large firms with inadequate production facilities and resources. Nevertheless, being a member of a particular trade association with a strong financial position revealed a positive and significant contribution toward JVs undertaking among SMEs ($p < \alpha$). In line with the assumption of NT, SMEs prefer JVs when they encounter weaknesses and threats when they strive for strategic objectives and business opportunities.\textsuperscript{52} Towards effective networking through JV, SMEs should be free from socio-cultural and economic hindrance factors.

### JV undertakings and SMEs Competitiveness

Table 5 shows the results of the perceived indicators of the SMEs’ competitiveness grasped from the JVs undertaking. The responses were collected and analysed from SMEs that have been involved in JVs and sole proprietorship firms. Nine (9) SMEs’ competitive characteristics as put forward by the ITC were considered for comparison.\textsuperscript{53} The findings revealed that SMEs operating as JVs had much better competitive advantages than sole proprietorships. The study revealed about 58.6% of JV firms with higher ability to meet local and regional standards and certification of goods and services compared to 7.2% of sole proprietorships. More than 63.2% of the sampled SMEs under JV had a significantly higher ability to meet cost requirements than 20% of sole proprietorships. This implies

\textsuperscript{50} Kweka and Sooi, Partnerships for inclusive growth, 12.
\textsuperscript{51} Klofsten et al, “New and small firms in a modern working life,” 760.
\textsuperscript{52} Rizos et al, Implementation of circular economy business, 8.
\textsuperscript{53} ITC, Promoting SME Competitiveness in Africa, 28
that failure to design, meet standards and commercialise at optimal costs is one of the complexities facing SMEs. According to Kweka and Sooi, such deficiencies can be minimised through linkages, business associations, JVs and partnerships. About 70.1% of SMEs operating as a JV had a higher ability to meet time requirements compared to 2.3% of sole proprietorships. The findings concur with Rizos et al who revealed that JVs enhance SMEs’ performance in terms of timely delivery of the project’s deliverables and outcomes due to shared skills, technology and resources.

Regarding the financial position of SMEs, 67.8% of JV firms and 8.1% of sole proprietorships had a higher ability in meeting financial requirements. This implies that JVs play a significant role in enhancing SMEs’ financial capacity. Under JV, SMEs share resources, which improve the firm’s capacity to access financial loans and establish new sources of revenue streams essential for the firm’s competitiveness. About 74.7% of the sole proprietorships revealed a low ability in meeting quality requirements for goods, works and service delivery followed by 19.4% with moderate scores and 5.9% with high scores. About 55.2% of the JV firms revealed a significantly higher ability to meet quality requirements. This indicates the significant role of JVs in enhancing SMEs’ operational capacity in terms of meeting quality standards. In their studies, Wadhwa et al spotted inadequate technology, skills and experience as the main constraints facing sole proprietorships from meeting quality goals.

Table 5: Implications of JV on SME’s Competitiveness

<table>
<thead>
<tr>
<th>SMEs Competitiveness</th>
<th>Joint Venture Firms [n = 87]</th>
<th>Sole Proprietorships [n = 105]</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Percent [%] L</td>
<td>M</td>
</tr>
<tr>
<td>Certification &amp; standard requirements</td>
<td>10.3</td>
<td>31.1</td>
</tr>
<tr>
<td>Ability to meet financial requirements</td>
<td>3.5</td>
<td>28.7</td>
</tr>
<tr>
<td>Ability to meet cost requirements</td>
<td>1.2</td>
<td>35.6</td>
</tr>
<tr>
<td>Ability to meet quality requirements</td>
<td>3.4</td>
<td>41.4</td>
</tr>
<tr>
<td>Ability to meet time requirements</td>
<td>8.1</td>
<td>21.8</td>
</tr>
<tr>
<td>Ability to change and innovate</td>
<td>35.6</td>
<td>64.4</td>
</tr>
<tr>
<td>Ability to access intellectual property</td>
<td>24.2</td>
<td>54.0</td>
</tr>
<tr>
<td>Ability in networking &amp; connectivity</td>
<td>11.5</td>
<td>39.1</td>
</tr>
<tr>
<td>Credibility within the target market</td>
<td>24.1</td>
<td>35.7</td>
</tr>
</tbody>
</table>

Legends: L = Low, M = Moderate, H = High

The ability to connect and network in the business ecosystem was significantly low at 57.3% in the sampled sole proprietorships, compared to 11.5% of JV firms. Connectivity and networking abilities were moderate (39.1%) and higher (49.4%) in the sampled SMEs under JVs. The findings concur with Esaku’s findings that through networking and connectivity, SMEs share market information, resources and technology as vital tools for firms’ competitiveness. Nevertheless, 35.6% and 64.4% of JV firms had moderate and higher innovative ability (respectively), compared to 42.8% and 16.5% of sole proprietorships. This implies that SMEs operating as JVs are highly innovative with a higher ability to meet changing environments than sole proprietorships. In line with the propositions of RBV and NT theories, JVs enhance the SME’s competitive position through shared resources, information and technology. Through Networking, JV eliminates socio-economic, legal and political barriers.

54 Kweka and Sooi, Partnerships for inclusive growth, 6.
55 Rizos et al, Implementation of circular economy business, 8.
56 Wadhwa et al, Corporate venture capital portfolios and firm, 109.
toward enhanced innovation, business diversification and access to global trade and investment opportunities among SMEs.

**Effects of JV undertakings on SMEs Growth**

This part presents the results of the independent t-test on the perceived effects of JVs undertaking on SME growth. The study comparatively analysed the growth indicators (sales volume, gross profit margin, market share, number of employees, working assets, production volume and business diversification) between SMEs operating as JVs and sole proprietorships. The study hypothesised that the mean differences between JVs and sole proprietorships are equal to zero ($\mu_1 = \mu_2; p > \alpha$). To ensure homogeneity of variables, the assumption for Leven’s test for equality variance for all variables revealed $p > 0.05$. Therefore, the homogeneity of variance assumption was met. From this stance, the equal variance assumed was retained for interpretation using a t-test for equality of means. Kolmogorov-Smirnov (K-S) Shapiro-Wilk (S-W) tests were conducted to determine whether the sample drawn from the two populations was normally distributed. The null hypothesis under the K-S and S-W test is that there is no significant departure from normality ($p > \alpha$). Since the study employed more than 200 sample sizes, interpretation of the normality was based on both K-S and S-W. From table 6, both K-S and S-W revealed $p > \alpha$, thus the null hypothesis was retained, meaning that the two groups, JV firms and sole proprietorships were normally distributed.

**Table 6: Normality Test**

<table>
<thead>
<tr>
<th>JV undertaking Status</th>
<th>Kolmogorov-Smirnov$^a$</th>
<th>Shapiro-Wilk</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Statistics</td>
<td>df</td>
</tr>
<tr>
<td>JV firms</td>
<td>0.304</td>
<td>28</td>
</tr>
<tr>
<td>Sole Proprietorships</td>
<td>0.293</td>
<td>28</td>
</tr>
</tbody>
</table>

The results of the Independent t-test (Table 7) revealed a statistic and significant contribution of JVs undertaking to SMEs growth ($\mu_1 \neq \mu_2; p < \alpha$). The study revealed significant difference on sales volume between JV firms and sole proprietorships ($t = 3.037; p = 0.003; \text{MD} = 12,408,995.05$). Cohen’s $d$ of 0.7382 implies significant larger effects of JV on SME sales volume. In line with this finding, Ibrahim et al.\(^{59}\) revealed a significant increase in sales volume among small daily farmers in Tanga, Tanzania as a result of JV undertakings. The analysis of the two groups indicated that JV firms had better profit margin by 4,049,955.98 in average than sole proprietorships ($t = 5.105; p = 0.002; \text{MD} = 4,049,955.98$). This was interpreted as a larger effect of JV on SME’s profit margin depicted from a Cohen’s $d$ of 0.8304. This is in line with Klofsten et al.\(^{60}\) findings which asserted that through JV, SMEs improve their ability to access trade and investment opportunities, thus increasing their sales volume and profits. The study revealed significant and small effects of JV undertaking on SMEs market share for JV firms (MD = 11.030; $t = 1.923; p = 0.008$; Cohen’s $d = 0.3105$). This implies and concurs with Adnan et al.\(^{61}\) that JV firms are more capable of accessing and penetrating new market niches due to the networking benefits of JVs than sole proprietorships.

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\(^{59}\) Ibrahim et al, Analysis of marketing performance of the dairy value chain, 65.

\(^{60}\) Klofsten et al, “New and small firms in a modern working life;” 761.

\(^{61}\) Adnan et al, Success criteria for international joint ventures, 5259.
Table 7: Perceived effects of JVs on SMEs growth

<table>
<thead>
<tr>
<th>Attributes of SMEs’ growth</th>
<th>T-test for equality of means</th>
<th>Cohen’s d</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>T</td>
<td>p-Value</td>
</tr>
<tr>
<td>Sales volume/revenue</td>
<td>3.037</td>
<td>0.003</td>
</tr>
<tr>
<td>Gross profit margin</td>
<td>5.105</td>
<td>0.002</td>
</tr>
<tr>
<td>Market share</td>
<td>1.923</td>
<td>0.008</td>
</tr>
<tr>
<td>Number of employees</td>
<td>4.605</td>
<td>0.021</td>
</tr>
<tr>
<td>Working capital/assets</td>
<td>3.964</td>
<td>0.004</td>
</tr>
<tr>
<td>Production volume</td>
<td>2.985</td>
<td>0.001</td>
</tr>
<tr>
<td>Business diversification</td>
<td>2.516</td>
<td>0.006</td>
</tr>
</tbody>
</table>

Note: Equal variances assumed, p > 0.05, thus retained for interpretation at t-test for equality of means.

The mean difference in the number of employees between JV firms and sole proprietors was 6.125. This implies a significant and moderate growth in the number of employees for SMEs operating as JVs (t = 4.605; p = 0.021; Cohen’s d = 0.5018). In their studies, Ibrahim et al.\(^62\) revealed significant growth in SMEs’ number of employees under partnerships and associations due to increased production capacity, sales volume, and market share. The results further revealed significant growth in SMEs’ working capital (t = 3.964; p = 0.004; 9,500,848.45) and production volume (t = 2.985; p = 0.001; MD = 6.983) for JV firm in comparison to sole proprietorships. For working capital, the growth [effects] was moderate (Cohen’s d = 0.4599) and small for production volume (Cohen’s d = 0.2319). These imply that JVs enhance SME capacity in terms of production and working capital due to increased demand, access to financial resources and shared production resources among JV firms.\(^63\) Nevertheless, SMEs under JV revealed better ability in business diversification compared to their counterpart (t = 2.516; p = 0.006; MD = 2.309), despite the small growth effects (Cohen’s d = 0.1025). This means that JV eliminates inefficiencies that hinder SME growth when acting individually. These results concur with the propositions of RBV, Networking theory\(^64\) and Kweka and Sooi’s\(^65\) findings that a firm performs better when possesses better resources and capacities, which can be achieved through a JVs undertaking which emphasises resource sharing and networking.

Summary of Hypothesis Testing
The study examined the effects of JV undertakings on SMEs’ competitiveness and growth. Seven (7) growth indicators (table 8) were examined and compared between SMEs operating as JV and sole proprietorships using an independent t-test. The null hypothesis (H\(_0\)) was that the mean scores of the identified growth indicators between JV firms and sole proprietorships are the same (\(\mu_1 = \mu_2; p > \alpha\)). The results of the independent t-test revealed statistical and significant differences from the mean scores of JV firms and sole proprietorships for all compared growth indicators (\(\mu_1 \neq \mu_2; p < \alpha\)), therefore, the null hypothesis was rejected. This is an indication that JVs play a significant role in the growth and sustainability of SMEs.

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\(^{62}\) Ibrahim et al., Analysis of marketing performance of the dairy value chain, 67.

\(^{63}\) Islam, SMEs Development, inclusive growth, and poverty alleviation, 121.

\(^{64}\) Barney, Is a resource-based view a useful perspective for strategic management research? 109.

\(^{65}\) Kweka and Sooi, Partnerships for inclusive growth, 11.
Table 8: Summary of Hypothesis Testing

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>H₀₁: The mean scores of sales volumes between SMEs operating under JV and sole proprietorships are the same, ( p = 0.003 &lt; 0.05 ).</td>
<td>Rejected</td>
</tr>
<tr>
<td>H₀₂: The mean scores of gross profit margin between SMEs operating under JV and sole proprietorships are the same, ( p = 0.002 &lt; 0.05 ).</td>
<td>Rejected</td>
</tr>
<tr>
<td>H₀₃: The mean scores of production volume between SMEs operating under JV and sole proprietorships are the same, ( p = 0.001 &lt; 0.05 ).</td>
<td>Rejected</td>
</tr>
<tr>
<td>H₀₄: The mean scores of the number of employees between SMEs operating under JV and sole proprietorships are the same, ( p = 0.008 &lt; 0.05 ).</td>
<td>Rejected</td>
</tr>
<tr>
<td>H₀₅: The mean scores of market share between SMEs operating under JV and sole proprietorships are the same, ( p = 0.004 &lt; 0.05 ).</td>
<td>Rejected</td>
</tr>
<tr>
<td>H₀₆: The mean scores of working capitals between SMEs operating under JV and sole proprietorships are the same, ( p = 0.004 &lt; 0.05 ).</td>
<td>Rejected</td>
</tr>
<tr>
<td>H₀₇: The mean scores of business diversification between SMEs operating under JV and sole proprietorships are the same, ( p = 0.006 &lt; 0.05 ).</td>
<td>Rejected</td>
</tr>
</tbody>
</table>

POLICY IMPLICATIONS

Policy implications under this study call for the operationalisation of trade policies for SMEs and large firms when accessing trade and investment opportunities. The study recommends the need to place mandatory requirements for JV's undertaking or partnerships between SMEs and large firms when accessing trade, investment and procurement opportunities. This will improve SMEs’ competitive position through resources and technology sharing and have access to trade opportunities for sustainable growth. The study also calls on the need to revise and disregard possession of experience in similar businesses as one of the criteria for JV undertaking. This will enable new and less experienced SMEs to take part in JV, learn from a large firm, have access to trade opportunities and enhance economic growth. Giving special treatment to SMEs, such as tax holidays and eradication of bureaucratic formalisation requirements, bring SMEs close to trade opportunities. Limited financial resources and inadequate production equipment are the constraints towards JVs undertaking among SMEs. To uncover these challenges, the government should subsidize SMEs in terms of long and short-term loans and operational equipment. This in turn will enhance SMEs’ capacity and take full participation in JVs. Nevertheless, regional and district trade officers should offer regular training to SMEs specifically on the perceived benefits of JVs undertaking or other forms of business linkages.

LIMITATIONS OF THE STUDY

The study aimed to examine the role of JVs undertaking improving the SMEs’ competitive advantages and ultimate growth with insight from Mbeya City – Tanzania. The study focused only on formal registered SMEs. Informal SMEs were not regarded due to their ineligible business operations. Therefore, JV’s implications in this study should not be generalised to informal SMEs. Future studies should explore the contributions and implications of other business approaches and marketing strategies such as partnerships, licensing and franchising in enhancing the SMEs’ competitive positions and sustainable growth.

CONCLUSION

The study examined the role of JV undertakings in enhancing SME competitiveness and inclusive growth. The status of the SME’s competitiveness and growth indicators were examined and compared between JVs firms and sole proprietorships. The study’s findings are that JV firms had higher and more significant competitive advantages than sole proprietorships. 67.8% of SMEs operating as JV
revealed a higher ability to meet financial requirements compared to 8.1% of sole proprietorships. The ability to meet time requirements in service delivery was reported higher by 70.1% of JV firms and 2.3% of sole proprietorships. About 74.7% of the sole proprietorships revealed a low ability to meet quality requirements for goods compared to 3.4% of the JV firms. Regarding the effects of JV on SMEs’ growth, the results of the independent t-test revealed positive and significant differences between the mean scores of JV firms and sole proprietorships. This is an indication of growth indicators in terms of sales volume, profit margin, market share, number of employees, working assets, production volume and business diversification for SMEs achieved through JVs undertaking than sole proprietorships. The study concludes that JVs play a significant role in enhancing SMEs’ competitive position, and have access to and harness trade and investment opportunities for sustainable growth and development. JVs eliminate inefficiencies (limited resources and experience, information asymmetry, inadequate operational equipment and outdated technology) that hinder SME competitiveness when acting individually.

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