INFLUENCE OF SKILL BASED MANAGEMENT CHARACTERISTICS ON THE EXPORT PERFORMANCE OF AGRI-BASED EXPORT ORIENTED SMALL AND MEDIUM ENTERPRISES IN KENYA

MULYUNGI,P.M1, MUKULU,E2, WAITITU,A,G3
Jomo Kenyatta University of Agriculture and Technology, Kenya
e-mail gabrios2006@gmail.com

Abstract
The purpose of this study was to determine the influence of skill based management characteristics on the performance of agri-based export oriented SMEs in Kenya. A survey was conducted on 96 agri-based export-oriented SMEs using a questionnaire. Descriptive statistic results confirmed that export experience, professional experience and level of education with mean scores of 4.13, and 3.97 respectively were major managerial characteristics influencing export performance. A Regression and an Analysis of Variance on management characteristics against export performance confirmed a strong, positive linear relationship and that the management characteristics explained for 53.6% of the variation in export performance with R=0.72 and R²=0.56. It was thus concluded that the skill based management characteristics are predictors for the export performance of agri-based export oriented SMEs. It’s therefore imperative for Kenyan based agri-based SMEs to develop and embrace these management characteristics as a prerequisite for entry into and subsequent performance in the export market.

Key words
Skilled based characteristics, Knowledge based theory, Export performance

1.0 Introduction

Exporting once a domain of the large manufacturing firms from developed nations is now a main stay for the agriculture-based SMEs from African nations (Battisti et al 2009). This phenomenon is in part attributed to the SMEs desire to exploit the financially stable market opportunities offered by the European Union Community (Battisti et al, 2009 & FPEAK, 2005). In Kenya for example over 1000 agri-based SMEs in pursuit of the European market have sought registration to participate in export market (HCDA, 2009). Although a large number of SMEs have declared their interest to participate in this lucrative market, empirically only 24% of the licensed SMEs are actively involved in the international markets (Nzomo et al, 2007). The disparity between the licensed and the active SMEs in the export market leaves marketing scholars wondering of what makes some SMEs more successful in the international market than others.

It’s now acknowledged that the SMEs survival and expansion in the export market is strongly contingent upon a better understanding of the determinants of export performance (Coelho et al, 2008). Consequently, over the last two decades many scholars have focused their attention on identifying the variables that explain for the export performance of SMEs (Ahmed et al.,(2004);

Under the Kenyan context EP for the agri-based export oriented SMEs has been explained more on external determinants manifested in laws and regulations (Mwangi, 2009; HCDA, 2009; KEPHIS, 2009; FPEAK, 2005). The assumptions are that export licensing, the private standards and policies are key determinants of export performance for the agri-based SMEs. These explanations true as they may be have ignored the role of the decision maker as manifested in managerial characteristics (Maurel, 2009). The current study therefore focused on managerial factors here in classified as controllable determinants (Sousa et al., 2008). Although there is an enormous amount of literature available on this area of study there is a need for a systematic analysis of the management determinants of export performance in regard to agriculture based exports oriented SMEs in Kenya. This is in recognition of the critical role played by the agri based SMEs in terms of employment creation, increased incomes at both the national and enterprise level and the overall contribution to the economic growth (Minot & Ngugi, (2004) & Jaffee, (2003)).

1.1 The overall objective of this study was therefore to determine the influence of the skill based management characteristics on the export performance of the agri-based export oriented SMEs

1.2 Theoretical background
Empirically SMEs export performance (EP) has been explained on several theories including the international entrepreneurship theory (IET) (Oviatt, & McDougall, 2005) and social network theory (SNT) (Vermeulen & Barkema, 2001; Matthias & Sascha, 2007; & Mort & Weerawarda, 2006). Other studies have explained EP on the bases of the knowledge (KBT) and resource (RBT) based theories (Vermeulen & Barkema, 2001; Urban & Shaw, 2010). Earlier studies embraced the Stage Theory (ST)/ the U-model (Johanson & Vahlne, 1990) to explain for SMEs EP. Recent studies have brought on board the institutional based theory (IT) (Hessels & Terjesen, 2010) to explain for SMEs EP.

1.2.1 Knowledge Based Theory
Drawing from the foregoing propositions, this study examined skilled based managerial characteristics as postulated under KBT (Vermeulen & Barkema, 2001). Learning theorists have examined the role of accumulated knowledge and experience in the context of global marketing (Vermeulen & Barkema, 2001). Zahra et al., (2000) building on (KBT) suggested that international ventures are, as a rule, knowledge-intensive and that repeated exposure to situational uncertainty associated with the process of international markets presents growth opportunities for the entrepreneurial firm. West head, et al., (2002), in support of KBT, posits that human capital of entrepreneurs that is based on past experiences may be an important factor underpinning the participation of SMEs in the international markets. Recent studies have broadened the concept of human capital to embrace an individual’s cognitive as well as accumulated work habits that may...
have a positive or negative influence on the performance of the enterprise (Alvarez & Busenitz, 2001).

The KBT further observes that, SMEs could leverage learning from their experiences to build on enterprise capabilities, which in turn could help overcome challenges associated with the SMEs short organizational patterns, small sizes and resource constraints (West head, et al., 2002). Building on the foregoing propositions, the study examined the influence of human capital (entrepreneurs level of education, export experiences and previous professional experience) on the export performance of agri-based export oriented SMEs in Kenya. Incorporating the KBT in to this current study was consisted with previous studies by Ibeh, (2003) and Suárez-Ortega et al., (2005).

Drawing from the KBT it is therefore hypothesized that: (Ho1) Skill based managerial characteristics (level of education, export experience and professional experience) have a positive influence on the export performance of the agri-based export oriented SMEs.

2.0 Literature Review

Skill based characteristics have been linked to the entrepreneur’s; export experience, level of education, proficiency in foreign language, and prior professional experiences(Autio et al., (2000) Snow & Kandemir, (2003), Fernández-Ortiz & Carrillo (2005)). Pursuant to prior studies, entrepreneurs level of education (Maslach, 2005), export experience (Nazar & Saleem, 2009) and professional experiences (Bell et al., 2004) were explored for their influence on export performance.

2.1 Entrepreneurs level of education and Export Performance

Previous studies posit that high education level enhances the entrepreneur’s awareness and understanding of international issues and helps grasp better the reality of export business (Maslach, (2005); Mavrogiannis et al., (2008); Julien & Ramangalary, (2003) and West head, (2002)). West head, (2002) agrees that entrepreneurs with high educational are more open to business opportunities in foreign markets. Indeed Swift & Lawrence (2003) confirmed that, entrepreneurs have now turned to higher education to overcome social cultural barriers associated with the export market. Julien & Ramangalary, (2003) agree that high education imparts entrepreneurs with knowledge that can be used to leverage on the international opportunities and thus help overcome threats associated with international markets. Maslach, (2005) confirmed a positive relationship between higher education and export performance. In contrast, Suárez and Vera, (2005) identified a positive but, a weak correlation between educational level and export performance.

2.2 Export experience and export performance

Entrepreneur’s international experience is defined as the degree to which the entrepreneur has attained international experience, acquired by either having lived or worked in foreign countries, as well as the skills, abilities and information accrued as result of the experience (Nazar &Saleem, 2009). It is viewed as the entrepreneur’s intangible resource that enables a firm to implement export strategies (Barney, 2001). As an intangible resource, it adds valuable experience, enhanced reputation, and access to finance institutions and broader social and business networks which can be leveraged to exploit international business opportunities (Shane & Khurana, 2003). Moreover, the entrepreneur’s experiences have been known to affect the ability to perceive risks or threats and opportunities in international markets and to come up with effective solutions in the export market (Nassimbeni, 2001).Further, previous experiences, capabilities, knowledge and learning may lead to
the creation; discovery and exploitation of opportunities in foreign markets (Jones & Coviello, 2005). Indeed, Hutchinson et al., (2006), confirmed that by traveling abroad, entrepreneurs may learn about foreign business practices, meet prospective business partners and identify market opportunities designed to improve on export performance. In concurrence a number of studies have identified a significant and positive relationship between the level of education and export performance (Katsikea & Skarmeas, (2003); Ibeh, (2003) & Suárez -Ortega & Vera, (2005)).

In contrast, Contractor et al., (2005). Argue that prior export experience is no longer a determinant of export performance since SMEs are now able to build international business networks on line by which they can leverage to exploit the international markets. In fact Contractor et al., (2005) found a negative relationship between export experience and export performance. In support Brouther & Nakos (2005) posited for a negative correlations between experience and export performance. While, Mavrogiannis et al. (2008) found no relationship between export experience and export performance. Very recent studies however, support the former arguments (Alaoui & Makrini, (2013) and posit that managers with international experience have better understanding of target foreign market needs and wants and are thus, able to respond appropriately to changing market environment.

2.3 Professional Experience and export performance

Empirical findings seem to suggest that entrepreneurs with pre-professional experience are endowed with knowledge of the task environment and are aware of the possibilities and practices of exporting (Westhead et al., 2001). Langes & Montgomery, (2005) concede that entrepreneurs with greater professional experience have better comprehension on the effective factors in export markets and therefore, apply appropriate marketing strategy to avoid threats and seize opportunities. Recently, Moghaddam et al, (2012) associated extensive professional experience with improved export performance. This agrees with earlier findings (Bell et al., (2004); Ibeh, (2003)) that entrepreneur’s previous occupations may contribute to exporting. In contrast (Ruzzier et al, 2007) did not find evidence for a relationship between previous professional experience and export performance.

3.0 Methodology

A survey was conducted using a closed ended questionnaire on a sample of 96 agri-based export oriented SMEs from a population of 196 SMEs. A response rate of 64% was achieved and was thus adequate for analysis (Souse, 2008). The study sought to collect qualitative and quantitative data on the managerial characteristics and their influence on export performance of agri-based export oriented SMEs, Kenya. The data was analyzed for descriptive and inferential statistics to determine and describe the respondent’s opinions and test for correlation of the managerial characteristics and export performance.

4.0 Results

4.1 Export Performance

This construct was measured in terms of annual sales volumes for the last five years and the market share. Export volume trends are as demonstrated in Fig 4.1 and market share is shown in table 4.1
Results on export trends for the last five years at the date of collecting data suggest that the export sales for a majority 62% increased by a margin of 5%. It’s also evident from table 4.1 that a majority 75% of the agri based SMEs exported to between one and five market channels in the five years duration and only a very small minority 3.3% managed to reach more than 10 market channels. These results do indeed confirm that the agri-based SMEs recorded some growth when evaluated in terms of annual export volumes and market share. The study therefore endeavoured to investigate if this performance could be explained on the bases of entrepreneur’s level of education, export experience and previous professional experience.

4.2 Entrepreneurs Skill based characteristics

a) Level of education

Fig 4.2 shows education levels achieved by the respondents. It’s evident that 80% of the exporters had attained tertiary level of education, 51% diploma certificates, 26% bachelor’s degree, while 3% had a master’s degree. The participation of highly educated entrepreneurs in the export market could be explained on the entrepreneur’s expectations about potential returns from international activities (West head, 2002). This observation is consisted with (Battisti et al, 2009 & FPEAK, 2005). That the high participation of SMEs in the export market could be attributed to the SMEs desire to exploit the financially stable market opportunities offered by the European Union Community (Battisti et al, 2009 & FPEAK, 2005). Moreover, Nassimbeni (2001) observes that the level of education influences the impartation of both managerial and entrepreneurial skills of most entrepreneurs. Hence, many agri-based SMEs may have pursued higher education to overcome difficulties related to foreign language skills and cultural barrier in the export market (Swift & Lawrence (2003). This study infers that a majority of the active agri-based export oriented SMEs in Kenya are managed by very educated entrepreneurs.

b) Entrepreneurs experience in the export market

Results in Table 4.2 reveal that a sum of 54% of the respondents has had an international market experience of more than five years out of which 21% had more than 10 years. 46% have had an experience of two to five years. It is therefore evident from the results that all the entrepreneurs of the agri-based export oriented SMEs had some level of experience in the international markets. Shane & Khurana, (2003) agree that international experience of entrepreneurs is important as it adds to the entrepreneur’s managerial experience, enhanced reputation, access to finance and broader social and business networks which can be leveraged to exploit international business opportunities. It could thus, be inferred that the majority of the agri-based export oriented SMEs may have acquired the experience to improve on their marketing skills. The impact of the international market experience is confirmed by the increased volumes of export sales and number of market channels in figure 4.1 and table 4.1 respectively.

b) Previous Professional (PP)

Results in Table 4.3 suggest that 57% had prior professional experience before entering the export market. These findings confirm that previous profession (PP) may have had an influence on the export performance of the agri-based SMEs as exhibited by results of sales volumes and the marketing channels in fig 4.1 and table 4.1. Indeed, Bell et al., (2004) confirm that professional experience of the entrepreneur, including previous occupations, technical experience, or product
knowledge, has always been associated with exporting. It can therefore be inferred that a majority of the agri-based export oriented SMEs where managed by entrepreneurs with experiences derived from prior profession. Hence, the good results of export volumes and marketing channels in fig 4.1 and table 4.1

c) Ranking of the influence of the skill based characteristics

It’s evident from Table 4.4 that export experience with a mean score of 4.13 and a Std.0.246 was ranked first while the level of education with a mean score of 3.77 and Std.deviation of 0.146 was ranked last. The ranking implies that entrepreneurs export experience is the main determinant of export performance for the agri-based SMEs followed by previous professional experience. The fact that a majority of the respondents were highly educated did not count much as a determinant of EP compared to the other two. This could be explained on the assumptions that the experience and previous professional experiences were geared towards exports unlike the educational background which may have been very general. It can thus be inferred from the ranking that export experience was a key determinant of export performance amongst the skill based characteristics of the agri-based SMEs in Kenya.

4.3 Test for the hypothesis

A regression analysis was run against the skill based managerial characteristics and the export performance as illustrated in table 4.5. The coefficient $R^2 = 0.732$ confirms a strong, positive, and linear relationship between the skill based managerial characteristics and export performance for the agri-based export oriented SMEs. The value of the coefficient of determinant $R^2 = 0.536$ suggests that the skill based managerial characteristics can explain for 53.6% of the variation observed in the export performance for the agri-based export oriented SMEs. An analysis of variance (ANOVA) for test of significance revealed that the coefficients $\beta_1 = 0.25141$, $\beta_2 = 0.43132$ and $\beta_3 = 0.25434$ are significantly different from 0, with p values 0.007, 0.000, and 0.000 respectively which are all less than $p = 0.05$. These results indicate that the variation in Export Performance due to the predictor variables (level of education, export experience and previous professional experience) is significant at 95% confidence level. However, the effect of the constant is insignificant since the constant $\alpha = 0.028$ is not significantly different from 0, and as the p value $p = 0.366$ is greater than $p = 0.05$

Empirically the findings are consisted with Ortega & Vera (2005) who identified a positive and significant relationship of skill based characteristics with EP when evaluated in terms export experience but a weak relation when assessed on the basis of educational level. Lange’s & Montgomery, (2005) and (Moghaddam et al, 2012) also conceded for a positive and significant relationship between skill based managerial characteristics and EP when determined on the basis of the entrepreneur’s previous profession. The study findings however, disagree with Brouther & Nakos (2005), who posited for negative relationship between the skill based management characteristics and EP. It further disagrees with Mavrogiannis et al., (2008), who argued for a non-relationship between skilled based management characteristics and EP. Hence, the study infers that skilled management characteristics are a determinant of export performance (EP) for the agri-based export oriented SMEs in Kenya.
5.0 Summary of results, conclusions and recommendations

5.1 Summary

All the skilled based management characteristics (level of education, prior experience and previous professional experience) with a mean score of 3.96 were rated as highly influencing the export performance of the agri-based export oriented SMEs Kenya. Amongst the three, export experience with a mean score of 4.13 was ranked 1st and thus influence EP very highly. The results further showed that 54% of the agri-based export oriented SMEs (respondents) had an export experience of more than 5 years and a majority 57% of the respondents had previous professional experience. The findings further revealed that cumulatively over 80% the agri-based export oriented SMEs were managed by college and university graduates.

The regression analysis for the skilled based management characteristics against export performance coefficient(R) was 0.732 while the coefficient of determination was $R^2 = 0.536$. Implying that, there was a strong, positive and linear relationship between the skilled management characteristics and the export performance (EP). Similarly, the skilled management characteristics could explain for a 53.6% variation in export performance. The relationship of was found to be highly significant at 95% confidence level.

Drawing from the summary of the study findings it has been empirically established that there exists a very strong, positive linear relationship between the skilled based management characteristics and EP of the agri-based export oriented SMEs in Kenya. Moreover, it has been determined that the skilled management characteristics for a 53.6% variation in export performance of the agri-based export oriented SMEs in Kenya. Similarly, entrepreneur export experience (EE) with a mean score of 4.13, previous professional experience (PE) and level of education (LE) with mean scores of 3.97 and 3.77 respectively were perceived to influence EP highly.

5.2 Conclusions

On the basis of the findings, this study concludes that skilled management characteristics, measured in terms of export experience, previous professional experience and level of education is a key determinant of the agri-based export oriented SMEs in Kenya. The results are consisted with prior studies Ortega & Vera (2005), Shoobridge, (2004), Watson, (2001)and Lange’s & Montgomery, (2005) who conceded for a strong, positive and linear relationship between skilled management characteristics and export performance when assessed in terms of export experience, previous profession and level of education.

5.3 Recommendations

5.3.1 To the agri-based export oriented SMEs.

The results suggest that skilled management characteristics manifested in export experience, previous professional experiences and in the level of education, significantly influence the export performance of the agri-based export oriented SMEs in Kenya. Its therefore imperative for Kenyan based agri-based SMEs to develop and embrace these elements of entrepreneur’s management characteristics as a prerequisite for entry in to and subsequent performance in the export market. In this regard, there is a need for the SMEs to develop a strong organizational learning culture through
continuous improvement of the entrepreneur’s and employee’s formal education as this would enable the entrepreneurs take advantage of the opportunities to interact with international sources thus, improving on export performance. Pre-export visits to intended market destinations and foreign missions coupled with participation to the international trade fairs and trade missions is recommended as it would significantly help the experiential knowledge of the exporters.

Integration of previous professional experiences and especially those related to export marketing, is also vital as it helps understand better the intricacies and dynamics of the export market. The findings and recommendations of the current study are consisted with the prepositions of the Knowledge base theory which, presuppose that international ventures are, as a rule, knowledge-intensive and that repeated exposure to situational uncertainty associated with the process of international markets presents growth opportunities for the entrepreneurial firm (Vermeulen & Barkema, 2001; Zahra et al., 2000).

3.2 To the Policy Makers

In view of the critical influence of entrepreneurs management characteristics on export performance the government should come up with appropriate export programmes that would foster better understanding of international markets. Similarly, a strong institutional framework is imperative for proper information flow and understanding of the international market conditions.

5.3.3 Recommendation for further research

The current study was conducted under the Kenyan context and did not take into cognizance the changes arising from the current dispensation of the East African Community integration. Future studies should therefore broaden their scope to validate the findings across the countries of East African Community. A replication of this study is also recommended but, this time using a larger sample and embracing more of the management’s skill based characteristics.

References


**APPENDICES**

![Fig 4.1 Trend of Export Volumes for the last 5 yrs.](image_url)
Table 4.1: Marketing channels accessed

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>5</td>
<td>8.2</td>
</tr>
<tr>
<td>2</td>
<td>22</td>
<td>36.1</td>
</tr>
<tr>
<td>3</td>
<td>10</td>
<td>16.4</td>
</tr>
<tr>
<td>4</td>
<td>9</td>
<td>14.8</td>
</tr>
<tr>
<td>5</td>
<td>4</td>
<td>6.6</td>
</tr>
<tr>
<td>6</td>
<td>3</td>
<td>4.9</td>
</tr>
<tr>
<td>7</td>
<td>3</td>
<td>4.9</td>
</tr>
<tr>
<td>8</td>
<td>2</td>
<td>3.3</td>
</tr>
<tr>
<td>9</td>
<td>1</td>
<td>1.6</td>
</tr>
<tr>
<td>&gt;10</td>
<td>2</td>
<td>3.3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>61</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Figure 4.2: Level of education
Table 4.2: Experience in the export market (Years)

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Per cent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-2</td>
<td>9</td>
</tr>
<tr>
<td>3-4</td>
<td>13</td>
</tr>
<tr>
<td>5-6</td>
<td>11</td>
</tr>
<tr>
<td>7-8</td>
<td>11</td>
</tr>
<tr>
<td>9-10</td>
<td>4</td>
</tr>
<tr>
<td>&gt;10</td>
<td>13</td>
</tr>
<tr>
<td>Totals</td>
<td>61</td>
</tr>
</tbody>
</table>

Table 4.3: Previous professional experiences

<table>
<thead>
<tr>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>35</td>
</tr>
<tr>
<td>No</td>
<td>26</td>
</tr>
<tr>
<td>Total</td>
<td>61</td>
</tr>
</tbody>
</table>
Table 4.4: Ranking of Skill based characteristics

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level of education (LE)</td>
<td>61</td>
<td>1</td>
<td>5</td>
<td>3.77</td>
<td>.146</td>
</tr>
<tr>
<td>Export experience (EE)</td>
<td>61</td>
<td>1</td>
<td>5</td>
<td>4.13</td>
<td>.246</td>
</tr>
<tr>
<td>Previous profession(PP)</td>
<td>61</td>
<td>1</td>
<td>5</td>
<td>3.97</td>
<td>.048</td>
</tr>
<tr>
<td>Valid N (listwise)</td>
<td>61</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total</td>
<td></td>
<td>11.87</td>
<td>1.382</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Average</td>
<td></td>
<td>3.96</td>
<td>0.2764</td>
</tr>
</tbody>
</table>
Table 4.5: Model: Skill based determinants: EP of agri-based export oriented SMEs

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted-R Square</th>
<th>Std. Error of Estimate</th>
<th>Durbin-Watson</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.732a</td>
<td>.536</td>
<td>.532</td>
<td>.09308</td>
<td></td>
</tr>
</tbody>
</table>

a) Predictors: (Constant), level of education, export experience, previous professional experience
b) Dependent Variable: Export Performance of agri-based export oriented SMEs.

Coefficients ANOVA

<table>
<thead>
<tr>
<th>Model</th>
<th>Coefficients B</th>
<th>Std. Error</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>.02808</td>
<td>.031</td>
</tr>
<tr>
<td></td>
<td>LE</td>
<td>.25141</td>
<td>.05512</td>
</tr>
<tr>
<td></td>
<td>EE</td>
<td>.43132</td>
<td>.05232</td>
</tr>
<tr>
<td></td>
<td>PE</td>
<td>.25434</td>
<td>.04213</td>
</tr>
</tbody>
</table>