

Determinants of SME international competitiveness: a case of Ghanaian horticultural exporters

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Abstract

Ghana's Non-Traditional Export (NTE) sector is central to her export and economic growth. Dominated by SME exporters, the sector has historically underperformed (GEPC, 2005). Therefore, this paper aims to evaluate the determinants of SME international competitiveness by addressing the question: To what extent are horticultural SME exporters in Ghana, competitive in the international market? In the framework part of the study five hypotheses were tested on the key issues of the paper. The study was conducted using a quantitative approach which involved surveying data of 105 Ghanaian horticultural SMEs which were statistically analysed employing SPSS.

The main findings suggest that Government support policies, Access to finance, Technological Innovation, Entrepreneurial Factors, and the number of exporting destinations of the SME had a positive impact on the competitiveness of SME horticultural exporters in international markets. The findings also contribute to the advancement of the empirical, theoretical and managerial understanding of SME international competitiveness in developing economies.

1. Introduction

Export promotion has been identified as a priority for the Ghanaian government; accordingly its focus is on developing the necessary set of policies and measures to improve enterprise competitiveness which will eventually lead to increases in the volumes and revenues of exports. In this context, in order to enhance the non-traditional export sector, the government has offered support to the sector since the 1980s (Owusu Frimpong and Mmieh, 2007). Ghana import-export Act 1995/Act 503 defines non-traditional export as products include all other export products and services, such as fruits, vegetables (fresh and processed) and other food items, handicraft products, clothing and textiles, and services.

In spite of the efforts of support, the Ghana's Non Traditional Export sector received from government and other stakeholders, the sector has not performed as expected. Similarly, the studies of Buatsi, (2003); Harvie, (2007); UNIDO, (2007), revealed that many horticultural SME exporters in Ghana lack the necessary export knowledge and financing, have failed to meet foreign regulatory requirements, standards, produce products in quantities or quality that are adequate for foreign buyers. To date, thorough investigation of the determinants of horticultural SME competitiveness in Ghana has not been carried out. Given the importance of the role of horticulture exports in Ghana's economy, this paper attempts to contribute in filling the research gap.

2. Theoretical Perspective on SMEs Competitiveness

SMEs are more vulnerable to changes in the business environment than larger organisations due to their size. According to Bili & Raymond (1993), the vulnerability demands managers in an organisation to assess industry's environment in order to identify the opportunities and

threats facing the organisations. Porter (1998) developed the concept of five market forces influencing firm competitiveness.

In contrast, Resource Based View argues on the premise that firms' tangible and intangible resources are the most important sources of competitiveness (Wernerfelt, 1995). Further, firms have advantages if their resources are valuable, rare, immobile, and non-substitutable (Barney, 2001); if they have capabilities to combine resources in a unique way; and if they continuously improve their resources and capabilities base (Peteraf, 1993). According to some authors, intangible resources affect more significantly firm success (e.g. Mathur *et al.*, 2007). Similarly, the SMEs best function in a highly volatile environment is dependent on their entrepreneurial orientation, which is characterised by innovativeness, proactiveness and the capacity or willingness of the firm to take risks (Patel and D'Souza, 2001; Balabamis and Katsikea, 2003). In the new international business environment, it is the possession of unique entrepreneurial characteristics that influence SMEs to enter international markets while others remain in the domestic market (Oviatt & McDougall, 1994).

Mainly, Porter's (1998) framework reveals the external (industry-level) characteristics; however, RBV underlines the role of the firms' internal resources. RBV further developed a more dynamic perspective named "dynamic capabilities" (Eisenhardt & Martin, 2000). In the context of emerging and transition economies, the institutional factors become increasingly important (Welter & Smallbone, 2011). Developing this view further, Cook (1996) identified four major agents as support to enhance the competitiveness: (1) Governments channelling support through macro policy and direct assistance programmes; (2) Informal and formal arrangements within small-scale sectors and through linkages between large and small-scale enterprises and sectors; (3) Local agents such as local associations, nongovernment agencies, and private commercial organizations; and (4) International donors.

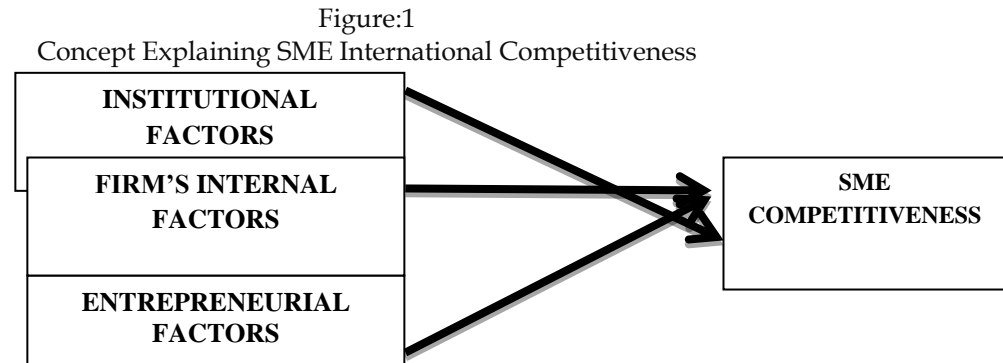
Based on the complexity of the competing drivers, many authors (e.g. Toppinen *et al.*, Szerb and Terjesen, 2010) adopted combinations of the two theories. As noted by Sarasvathy (2004), there is a need to overcome the separation of analysis of internal and external factors to examine the performance of SMEs, and work towards their integration. This suggests the need to combine external and internal factors to determine the SME competitiveness. As a result, many researchers have combined factors such as: performance, competitive potential and competitive process (Buckley *et al.*, 1988); Man *et al.* (2002), covers four constructs of SME competitiveness (external factors, internal factors, entrepreneur profile, and firm performance); three competitiveness dimensions (potential, performance process); Sirikrai & Tang (2006) proposed a framework of competitiveness which combines external drivers, internal drivers (RBV-based), and financial and non-financial firm's performance indicators. The external factors were divided into industry conditions and governmental roles, while the internal factors were mainly operational. Chew *et al.* (2008) built up a framework for the Chinese SMEs' competitive strategies, which included strategic alliances, innovation and differentiation. Yan (2010) showed the significance of cost reduction, differentiation, innovation, strategic alliances and the environment. Awuah & Amal (2011) considered the drivers for SME competitiveness in less developed countries such as innovation, learning, and internationalization.

The above discussions on non-traditional exports in Ghana and the role of horticultural exports, leads us to pose the question: *To what extent are horticultural SME exporters in Ghana competitive in the export markets?*

To address the broader question, the following sub questions were set;

- What factors determine SMEs' competitive advantages in international markets?

- To what extent do these factors determine the competitiveness of horticulture exporting firms in Ghana?
- What specific roles do firm's resources such as finance, level of information and technology, play to facilitate Ghanaian SMEs of horticulture sector international competitiveness?



Source: Developed by the authors based on the literature reviewed

3. Methodology

Stratified sampling technique was adopted due to the classification of the horticultural products into groups such as mangoes, pineapples, bananas, Papaya etc. Overall a list of 160 active horticultural SME exporters with their addresses was obtained from the Ghana Export Promotion Authority, which served as the sampling frame. This is in line with Stutely's (2003) advice of a minimum number of 30 for statistical analyses in each category of an overall sample.

a) Selection Criteria

As the part of the initial contacts, a prospective firm must meet criteria as set out below;

- The firm must be small or medium-sized in order to adhere to the definition of SMEs as put forward by Ghana government.
- The firm must be engaged only in the horticultural non-traditional exports (because it is the only sector of interest) and located in Accra.
- The exporting firm must have a minimum of five years of experience, excluding domestic market experience.

This is based on the criteria set by the Regional Project on Enterprise Development (RPED) for SMEs in Ghana. In the context of Ghana, Mensah (2004) defined SME as the following: micro enterprises—those employing up to 5 employees with fixed assets not exceeding the value of \$10,000; small enterprises—employ between 6 and 29 employees with fixed assets of \$100,000; and medium enterprises—employ between 30 and 99 employees with fixed assets of up to \$1 million.

b) Research Hypotheses

Research hypotheses have been formulated on the relationship between the determinants of competitiveness and competitiveness in order to allow for the empirical testing of the relationship between these two variables. The following research hypotheses address the objectives of this study:

The literature reviewed indicate that firms that are capable of innovating and learning in interaction with other actors are able to internationalise their activities, exploit opportunities and handle challenges emerging from globalisation (Awuah and Amal, 2011). Therefore, the following hypothesis is generated:

H1. *There is a strong relationship between innovative adoption and SME competitiveness*

The Institutional theory suggests that firms operate in different economies with different environments face diverse challenges. Martins (2010) posits that foreign country support to Ghanaian SME exporters was inadequate and untimely, and that more required by the government to resolve SME exporters' problems abroad. Upon this premise hypothesis was formulated:

H2. Government support for horticultural exporters positive influence SME competitiveness

The following hypothesis was derived from entrepreneurial characteristics such as risk-taking, proactiveness, innovativeness and competitiveness required by SME horticultural exporters to be competitive in international markets. In addition, the international business environment is constantly changing as well as markets and consumers' needs (Prajogo and Ahmed, 2006). It is an imperative SMEs exhibit risk taking, product innovation and behave proactively. Miller (1982) argues that firm develops an entrepreneurial orientation if it constantly demonstrates the entrepreneurial dimensions such as proactiveness, innovativeness, and risk taking. In this context the hypothesis as follows:

H3. The higher the level of entrepreneurial orientation of SME exporter, the better the SME competitiveness and performance

Hypothesis 4 was formulated based on the stage theory. The theory predicts the need for prior experiential knowledge in the export business. It implies that older firms will possess more experience than new firms in the same export industry. According to Williams, (2006); Autio, (2000) posit that as firms grow in years, they face structural inertia, which makes them relax. In contrast, Hall and Cook (2009) also found that years in business was not a significant predictor of export success.

H4. Firm's number of years in business positively influences SME competitiveness

The size of the firm is one of the determinants of export competitiveness. Previous research has shown the impact of firm size on its export competitiveness (Kasikas & Morgan 1993). The study concluded that the size has a positive influence on export competitiveness. Studies have demonstrated that larger firms are more likely to be effective exporters; therefore we propose size has a significant impact on SME competitiveness.

H5. The size of the firm positively influences SME competitiveness and performance

4. Results and Discussion

This section presents the analysis of quantitative data and is divided into two sub-sections; Descriptive statistics, and the inferential statistics. The data were analysed statistically by employing SPSS.

a) Descriptive Statistics of the Data Set

Respondent's position	Frequency	Percentage
Managing Director	50	47.6%
Assistant Managing Director	21	20.0%
Production Manager	4	3.8%
Export Manager	29	27%
Administration Officer	1	1%
Total	105	100%

Table 1 Respondents' Position

The most popular title of respondents surveyed was Managing Director followed by Export Manager with a percentage frequency of (47.6%) and (27%) respectively. This means that (74.6%) of responses were obtained from key informants presumed to have deep knowledge and insight into the export business who were likely to have provided reliable and authentic responses.

Number of years in the business	Frequency	Percentage
Less than 5yrs	7	6.7%
5 - 10 yrs	17	16.2%
11 - 15 yrs	48	45.7%
16- 20yrs	23	21.9%
Over 20 yrs	10	9.5%
Total	105	100%

Table 2: Years in Export Business

The analysis revealed that 48 respondents (representing 45.7%) have been in the export business between 11 - 15 years, followed by 23 respondents stated between 16 - 20 years (representing 21.9%). Thus 71 percent of respondents have a considerable number of years in export business, suggesting that horticultural SMEs exporters of the NTE sector in Ghana currently dominated by experienced exporter. Penrose's (1995) contends that, international knowledge is subjective and mainly based on experience gained from market activity. In connection with the view of Blunck & Martin, (2011) most firms slowly proceed from the "known" to the "unknown". Similarly, Simon, (2007) states that organizations slowly gain experience and subsequently develop them further into a methodical approach centred on organisational learning.

Number of employees	Frequency	%
< 5	5	4.8
5 - 10	1	1.0
11 - 15	14	13.3
16 - 20	14	13.3
21 - 30	30	28.6
31 - 40	4	3.8
>40	37	35.2
Total	105	100.0

Table 3 The Size of the Firm

As indicated in Table 3, the majority of the respondents stated that their companies have over 40 employees, followed by those with between 21 - 30 employees; the next were between 11 - 15 employees and 16 - 20 respectively. The least percentage was between 31 - 40 and under 5. One of the reasons the activities of SMEs on international markets are seen to deserve special attention is the challenges SMEs with limited resources face competing in international markets. However, a study conducted by Bonaccorsi (1992), in an analysis of data from five national studies of small exporters in Italy, questioned the assumption that there was a direct relationship between a firm's resources, export behaviour and performance. He argued that this was misleading on the basis that firms with the same amount and quality of resources may well choose different export strategies and thus strategy must be a mediating variable in the relationship between a firm's resources and export behaviour, not the size of the firm. This agrees with the view of Knight & Cavusgil (2004), who stated that even resource deficient firms can demonstrate superior performance when entrepreneurial capability are combined with extant resources. Even in the face of limited tangible resources, SMEs can leverage knowledge based capabilities to perform well in the international market.

Innovative Activities	N	Range	Min	Max	Mean	SD
Availability of R & D unit	105	3	1	4	2.06	1.09
Availability of specialized staff for R & D	105	4	1	5	1.81	1.03
Application of research findings of research institutes	105	4	1	5	4.19	.097
Professional training of R & D specialized staff	105	4	1	5	1.77	0.94
Cooperation with universities and other research organisations are actively pursued	105	4	1	5	3.57	1.252

Table 4 Innovative activities adopted by SMEs

Table 4 indicates an innovative strategy for competitive advantages by respondent's company. Respondents were asked to rate the items on a scale from (1) strongly disagree to (5) strongly agree. The innovative activities with the highest mean value (4.19) was Application of research findings of research institutions, with a range of 3. The second most adopted innovative activity of the SME's was Cooperation with University and other research organisations with a mean value of 3.57.

Financial Instruments	N	Range	Min	Max	Mean	SD
Investment bank loan	105	3	1	4	1.37	0.62
Bank loan for working Capital	105	4	1	5	2.15	1.67
Bank loan for special Purpose such as research	105	2	1	3	1.08	0.37
Overdraft	105	2	1	3	1.43	0.69
Credit card;	105	1	1	2	1.25	0.43
Financial leasing (for purchase of equipment, automobiles,	105	1	1	2	1.42	0.80
Venture capital;	105	2	1	3	1.06	0.31
Loan from family and friends;	105	4	1	5	1.92	1.39
Owner(s) own finance	105	3	2	5	4.69	0.59
Government funding	105	3	1	4	1.89	1.19

Table 5: Sources of Finance

The study revealed that most of the SMEs used their own sources of funding for their activities. This is indicated by the highest mean value of 4.69 with a range of 3. Also in this case, respondents were asked to rate the items on a scale from (1) hardly ever to (5) almost always. The next major source of funding for SME's was bank loan for working capital with a mean of 2.15 followed by government funding 1.89 and other sources of finance 1.85 respectively. In Table 5, Bank loan for research and venture capital were the least source of finance for SME with mean values of 1.08 and 1.06 respectively.

Entrepreneurial Orientation	N	Range	Min	Max	Mean	SD
Innovative	105	4	1	5	3.85	0.82
Proactiveness	105	3	2	5	3.81	1.1
Risk Taking	105	3	2	5	4.42	0.73
Competitiveness	105	4	1	5	4.19	0.67

Table: 6 Ranking of Entrepreneurial Orientation Components

To measure the nature and level of the entrepreneurial orientation (EO) of horticultural SME exporters, four components of EO as delineated by Zara and George (2002) were considered. SME Exporters were required to rate these components based on their perceptions of EO on their respective firms on a scale from 1 (very low) to 5 (very high). Entrepreneurial level of SME considers the decision making activities, practices and processes towards international business. From Table 6, the analysis reveals that almost all the managers mentioned that entrepreneurial level characteristics such as innovativeness, risk taking, proactiveness and competitiveness. Among the EO components, exporters perceived Risk taking as the highest EO factor within their international operation (mean=4.42, SD= 0.73). Risk taking is associated with a willingness to commit more resources to projects where the cost of failure may be high Miller and Friesen, (1982). It also implies committing resources to projects where the outcomes are unknown. This largely reflects that the company is willing to break away from the tried-and-true and venture into the unknown.

The link between risk taking and performance is less obvious. However, there is research to suggest that while tried-and-true strategies may lead to high mean performance, risky strategies leading to performance variation – because some projects fail while others succeed – may be more profitable in the long term (McGrath, 2001).

What could be implied here is that an exporter must possess risk taking behaviour when doing business in Ghana and an exporter must be prepared to show a higher amount of risk taking behaviour beyond the borders of Ghana. The findings concerning the attitudes towards international risk taking support what was found in Vietnam (Thai & Chong, 2008) and in China (Zheng et al., 2009). Proactiveness (mean=3.81 SD=1.1) was the least factor. Wood & Robertson (1997) examined the relationship between proactive and reactive strategic orientation and export success in a sample of 137 SME manufacturers in the USA. They suggested a proactive strategic orientation was the starting point for the export success of a firm and that the commitment of a firm to analysing its foreign markets combined with a desire to beat domestic competition was a demonstration of a proactive strategic orientation.

Internet usage by SME Exporter

The analysis revealed that internet usage by SME horticultural exporters is only at a peripheral level, implying that SME exporters are not utilising the competitive advantage offered by the internet, in contrast to Newbert's (2008) view that the key to attaining a competitive advantage is the exploitation of a valuable resource-capability combination. From Table 7 the most important reason for Internet usage by small exporters is to send and receive mail (mean=4.64, SD=0.59), followed by identifying buyers and marketing opportunities with (mean values of 3.69, SD=0.72). The evidence supports that the horticultural SME exporters in Ghana are not deriving maximum benefits from the internet as suggested by Newbert. It is imperative that efforts should be made by SME exporters to utilize the internet as a key competitive advantage among SME exporters.

Impact purpose of internet Usage	N	Range	Min	Max	Mean	SD
Send and receive e- mails and documents	105	4	1	5	4.64	0.59
Communicating with buyers abroad through Skype	105	4	1	5	3.24	1.1
Tracking shipments to destination markets	105	4	1	5	3.19	1.32
Company's websites and online sales	105	4	1	5	3.61	0.83
Identifying buyers and marketing opportunities	105	3	1	5	3.69	0.72

Table 7 Internet usage by SME Exporter

The SMEs were asked to rate the usefulness of government policies on a scale from (1 not useful, to 5, very useful). The government policy with the highest mean value is receiving export trade information (mean value of 3.63) followed by support from export association (3.59) and advice from government centres (3.51). The government policies of least importance according to the SME were support from high commissions abroad.

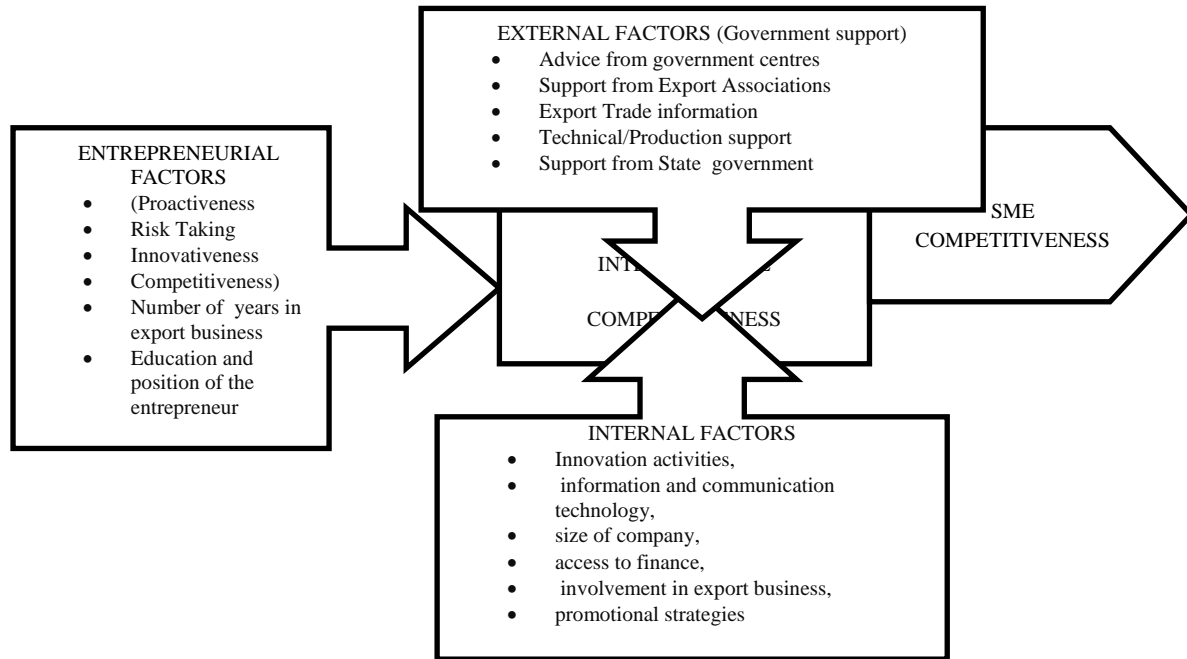
From Table 8, based on the government claims, it was expected that SMEs ranked the service offered by the government in the form of trade facilitation as the most useful to them. This is however not as what expected from the SMEs horticultural exporters. SMEs mentioned services such as advice from government centres, export trade information, technical/production support and support from export association. Export finance and support from state government were rated with the mean values of 1.94 and 1.99 respectively.

Government Support

Government policies	N	Range	Min	Max	Mean	SD
a) Advice from government centres	105	4	1	5	3.51	1.02
b) Support from Export Association	105	4	1	5	3.59	0.89
c) Export Trade Information	105	4	1	5	3.63	8.84
d) Technical/Production support	105	4	1	5	3.27	1.07
e) Support from the state Government	105	3	1	4	1.99	1.06
f) Participation in exhibition	105	4	1	5	3.08	1.27
g) Sourcing export finance	105	3	1	4	1.94	1.04
h) Support from Ghana High Commissions Abroad	105	3	1	4	1.65	0.79
i) Solving problems abroad	105	3	1	4	1.66	0.78
j) Others: (e.g. Support from foreign countries)	105	4	1	5	1.95	1.21

Table 8 Government Support

Figure2
Conceptual framework of Determinants of SME International Competitiveness



b) Inferential Analysis

This section presents an inferential analysis, which validates whether relationships portrayed by the descriptive analyses are scientifically acceptable or not. Appropriate tools such as Pearson and Chi-square test have been used to describe the extent of relationships among variables.

i) Reliability of the Research Constructs

To examine the reliability of the scales used in the analysis the Cronbach Alpha test was performed. According to Nunnally and Bernstein (1994), a Cronbach Alpha of 0.7 or higher is considered appropriate. The figure 0.82 is typically employed for an acceptable level of internal reliability, and the reliability of 0.7 or higher is considered to be satisfactory in most social science studies.

Factor	N	Cronbach's α	Mean	SD
Innovative activities	4	0.66	9.06	3.06
Access to finance	10	0.68	14.13	4.6
Trade promotion	4	0.61	13.66	3.26
Technology	6	0.69	22.02	3.4
Government Policies	10	0.82	27.0	6.3

Table 10 Cronbach Alpha Test

ii) Correlation Estimates for Selected Relationships

Pearson correlation was used to explore the strength and direction of the relationship between the variables.

	Constant	INV	FIN	TRP	ENT	GOVT	TECH	NOC
Constant	1.000	-.037	-.544	0.046	-0.753	0.133	-0.494	0.355
INV	-0.037	1.000	0.142	-0.037	-0.117	-0.196	-0.267	-0.212
FIN	-0.544	0.142	1.000	0.125	0.414	-0.225	-0.122	-0.167

TRP	0.046	-0.037	0.125	1.000	-0.185	-0.124	-0.309	0.154
ENT	-0.753	-0.117	0.414	-0.185	1.000	-0.354	0.160	-0.078
GOVT	0.133	-0.196	-0.225	-0.124	-0.354	1.000	-0.068	0.179
TECH	-0.494	-0.267	-0.122	-0.309	0.160	-0.068	1.000	-0.592
NOC	0.355	-0.212	-0.167	0.154	-0.078	0.179	-0.592	1.000

Table: 11 Correlation Matrix

Results of Hypotheses Testing

In hypothesis1, it was predicted that; there is a strong relationship between innovative adoption and SME competitiveness.

From the regression analysis Innovation (INV) had no correlation with SME competitiveness. This first hypothesis is rejected based on the results and it is concluded that there is no strong relationship between innovative adoption and SME competitiveness.

In hypothesis2, it was predicted that; Government support for horticultural exporters has a positive influence on SME competitiveness.

From the regression analysis Government support had a positive relationship with SME competitiveness. Therefore, we concluded that there is a relationship between Government support and SME competitiveness.

In hypothesis3, it was predicted that; Entrepreneurial factors have significant impact on SME competitiveness

The results from the regression analysis reveal that Entrepreneurial factors do not significantly impacts on SME competitiveness. The hypothesis is rejected based on the results.

In hypothesis4, it was predicted that; Firm's number of years in business positively influences SME competitiveness.

Chi-Square test is used to test this hypothesis

	Value	df	P-value
Pearson Chi-Square	27.748 ^a	4	.000
N of Valid Cases	104		

Table:12 Chi-Square Tests

The Chi-square test conducted shows a Chi-Square value of (27.748) degree of freedom df(4) and p-value (0.00). Since the p-value computed ($p < 0.00$) is less than the significant value of 0.05 the hypothesis is supported. Thus the firm's number of years in business positively influences SME competitiveness

In hypothesis5, it was predicted that; the firm's size of the firm positively influences SME competitiveness.

Chi-Square test was used to test this hypothesis

	Value	Df	P-value
Pearson Chi-Square	31.138 ^a	5	0.000
N of Valid Cases	103		

Table: 13 Chi-Square Tests

The Chi-square test conducted shows a Chi-Square value of (31.13) degree of freedom df(5) and p-value (0.00). Since the p-value computed ($p < 0.00$) is less than the significant value of 0.05 the hypothesis is supported. Thus the firm's size or number of employees positively influences SME competitiveness

In hypothesis6, Horticultural SME exporters' competitiveness depends on exporters' access to finance

Access to finance (FIN) from the regression results had a positive coefficient of (0.149) and also statistically significant at the 5% level of significance ($p < 0.05$). We accept this hypothesis and conclude that Horticultural SME exporters' competitiveness depends on exporters' access to finance.

Regression Analysis and Results

The quantitative data set was analysed through using Logistic regression. Here, the purpose was to determine the main determinants of SME international competitiveness.

The model below was used;

The Logit Theoretical model

$$\text{Logit}(p) = b_0 + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + \dots + b_kX_k$$

Where p is the probability of the characteristic of interest

$$\text{Odds} = \frac{p}{1-p} = \frac{\text{Probability of presence of characteristic}}{\text{Probability of absence of characteristic}}$$

And

$$\text{Logit}(p) \text{ is } \ln\left(\frac{p}{1-p}\right)$$

Dependent Variable

In this study, the exporters level of involvement in the export business is used as the dependent variable. Therefore, whether the exporter is **Active** in export business takes the value =1 and the exporter **not active** in export business takes the value=0, consistent with previous studies (Mittelstaedt et al., 2003). This implies that horticultural SME involve in export business are expected to remain competitive than their counterparts who are not engaged in export business.

Independent Variables

In line with the previous studies, the Independent variables used in this study include:

- a) Innovation specific factors (INV)-
- b) Technological Factors (TECH),
- c) Entrepreneurial Factors (ENT),
- d) Government Policies (GOVP),
- e) Access to Finance (FIN), and
- f) Trade Promotional Campaigns (TRP),
- g) Number of countries the SME export to (NOC),

Variable	B	S.E.	Wald X ²	df	P-value	Exp (B)
INV	-0.164	.098	2.822	1	0.093	0.849
FIN	0.149**	.077	3.760	1	0.052	0.861
TRP	-0.018	.075	.056	1	0.812	0.982
ENT	0.200	.158	1.602	1	0.206	1.221
TECH	0.251*	.083	9.262	1	0.002	0.778
GOVTP	0.024	.047	.269	1	0.604	1.025
NOC	0.810*	.271	8.928	1	0.003	2.248
Constant	4.886	3.368	2.105	1	0.147	132.484

Source: Authors computation **Table 14 Regression Results**

*Significant at the 5% level of significance

**Significant at the 10% level of significance

The regression results show that four variables, thus Government support policies (GOVTP), Access to finance FIN, Technological Innovation (TECH), Entrepreneurial Factors (ENT), and the number of export destinations (NOC) of the SME had a positive impact on the level of involvement of the SME in export trade while the other factors such as Innovation (INV),

and Trade Promotional Campaigns (TRP) had a negative relationship with the level of involvement in export business.

Innovative factors (INV) from the regression results had a coefficient of (-0.164) and statistically not significant within the 5%-10% level of significance ($P > 0.09$). This result indicates that the Innovative factors of the various SME do not impact significantly on the level of involvement of the SME in the export market. It also indicates that the SME may not innovative enough to make them competitive in the international market.

Access to finance (FIN) from the regression Table 14 had a positive coefficient of (0.149) and also statistically significant at the 5% level of significance ($p < 0.05$). The coefficient of the Fin variable 0.149 implies that all things being equal, a 1% increase in finance for the SME will increase their level of involvement in the export sector by 1.4%. The significance of financial factors brings to fore the need for finance for the SME to enable them participate actively in the export market to remain competitive. The results support that Many of these SME are not actively engaged in the export trade and meeting their importers demands due to lack of finance. Participation in trade events (TRP) had a coefficient of (-0.018) and statistically not significant within the 5-10% level of significance ($p > 0.81$). This result implies that the horticultural SME's are not doing enough in the area of trade promotions to be competitive on the international market.

Entrepreneurial factors also had a positive coefficient of (0.20) however, statistically not significant within the 5-10% level of significance ($p > 0.20$). Entrepreneurial factors are important in determining how active the SME entrepreneur is in the export business.

Technological factors in the regression analysis had a coefficient of (-0.251) but statistically significant at the 10% level of significance. Technological factors play important roles in the competitiveness of SME. Government policies (GOVP) also had a positive coefficient of (0.024) however statistically not significant. The positive relationship of government policies indicates how important government policies are in ensuring that SME's in the export sector remain competitive.

The number of countries the horticultural SME's export to (NOC) had a coefficient of (0.810) and statistically significant at the 10% level of significance ($p < 0.003$). This implies that for SME to remain active and competitive in the export business they need to expand the number of exporting destinations.

Conclusion

The study revealed that Ghana's NTE horticultural export sector are dominated by resource-constrained SME exporters. In the face of enormous challenges posed by globalization to SME Exporters due to the highly competitive export trade, thus Government support policies, Access to finance, Technological Innovation, Entrepreneurial Factors, and the number of export destinations of the SMEs are critical to the competitiveness of SMEs horticultural exporters in Ghana in the international markets. The evidence could serve SMEs policy makers and managers of SMEs as the study suggests specific determinants of SME competitiveness.

The proposed conceptual framework allows a further analysis regarding the determinants of SME competitiveness in different economic contexts.

The results interpretation should be treated with caution since the study was conducted only on horticultural produce. Perhaps including other SME exports groups in Ghana would have been beneficial. Another limitation comes from the fact that, the literature on the NTE export in Ghana was limited and that made it difficult to obtain secondary data.

Despite the limitations, we believe that the paper identifies key factors that determine international competitiveness of NTE in an African context, indicates areas for formulating

government policies for supporting SME internationalisation, and lays the ground for a more in-depth and comprehensive research in the area.

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