Influence of Quantitative approach on Entrepreneurial Orientation and Financial Performance under Small and Medium Enterprises (SMEs): A Case of the Ghanaian Manufacturing Sector

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Abstract

the fundamental objective of this study was to quantitatively examine the influence of entrepreneurial orientation on financial performance under Small and Medium Enterprises (SMEs) in Ghana. This study centred on the SMEs in the manufacturing subsector of the Ghanaian economy. The study employed a quantitative research approach because there was a need to generate numerical evidence and data sets that depict the current situation and trend of the SMEs operations in Ghana. Research data sample of two hundred and sixty-seven (246) SMEs owners and managers in the manufacturing subsector were used in the study. Data collected was coded using Statistical Package for Social Sciences (SPSS V22.0) and Structural Equation Modelling (SEM) was used to evaluate the proposed model for a clear understanding of the relationships that exist among SMEs and its constructs. The study found out that, there is statistically a significant relationship between entrepreneurial orientation and SME financial performance quantitatively. Specifically, the result highlights SME innovativeness, autonomy, proactiveness and competitive aggressiveness as the dimensions of entrepreneurial orientation that have a significant positive effect on SME financial performance in Ghana's economy. The study seeks to discover how the dimensions of entrepreneurial orientation result in SME financial performance of manufacturing firms in Ghana. The manufacturing companies selected for this study are based in the capital of Ghana, Accra. These manufacturing companies were selected due to proximity and most importantly Accra seems to be the host of many small and medium enterprises (SMEs) in Ghana.

Keywords: Entrepreneurial orientation, Structural Equation Modelling, quantitative approach, financial performance, Small Medium Enterprises

Introduction

Entrepreneurship is generally considered as an avenue or engine of sustainable economic growth and development in both developed and developing economies (Taheri, Bititci, Gannon, &Cordina, 2019). One of the important elements relevant in achieving the benefits associated with a concept is entrepreneurial orientation which is concerned with the behaviour of entrepreneurs like innovation, risk taking and proactive (Titus Jr, Parker, &Covin, 2019). With entrepreneurial orientation, it is expected that there will be a reduction in the unemployment rate, a rise in better standards of living and alleviation of poverty (Wales, 2016). In fact, in the case of small and medium businesses, there are a plethora of examples to suggest that entrepreneurial orientation is a crucial success factor (Janssen, Vandemaele, Voordeckers, &Vancauteren, 2019). This is the case because entrepreneurial orientation among these businesses led Brouthers, Nakos and Dimitratos (2015) to empirically establish that small and medium enterprises with a high level of entrepreneurial orientation often perform better than small and medium enterprises with no or lesser of entrepreneurial orientation. This being the case, entrepreneurship is expected to result in considerable socio-economic development and growth.

This long essay is valuable to three separate bodies namely academia, industry and practice in a number of ways. To academia, the study provides a better understanding of the concept of entrepreneurial orientation and how it impacts SME performance. This is done by adducing empirical data from developing context to ascertain this relationship. Again, the few existing studies on the concept of entrepreneurial orientation pertaining to SME performance appears narrowed. This current study addresses the identified anomaly by examining a comprehensive framework as an embodiment of entrepreneurial orientation. In effect, this

current study contributes to the entrepreneurial orientation literature with a broader understanding of the concept.

The small and medium enterprise landscape of Ghana especially the manufacturing subsector is gone through a lot of reforms such as standardization and protocol requirements and with players with endowed resources. The current study will contribute to the manufacturing subsector of the SME economy by informing players on the relevance of entrepreneurial orientation and which dimension significantly contributes to firm performance.

As part of measures to promote economic growth and development through entrepreneurial orientation, the Ghana government has instituted a number of agencies such as Enablis Ghana, Empretec Ghana Foundation, the Intermediate Technology Transfer Unit (ITTU), Ghana Venture Capital Trust Fund, Technoserve and the National Board for Small Scale Industries (NBSSI) with a clear mandate of achieving this objective. Some of the interventions made so far include the organization of workshops to educate Small Scale Entrepreneurs (SSEs) on simple book-keeping of business transactions, accounting principles, customer service, and the provision of credit facilities (Quaye, Acheampong &Asiedu, 2015). Some other interventions aimed at promoting entrepreneurial orientation includes the establishment of Rural Enterprise Project and the Enhancing Growth in New Enterprise and the Support Program for Enterprise Empowerment and Development, Rural Enterprise Project, as well as the National Entrepreneurship and Innovation Plan (NIEP). Essentially, these institutions have a clear mandate of providing small and medium enterprises with the ability to discover new business opportunities and pursue risks in order to differentiate them from competitors (Acheampong, 2019).

The adoption of an entrepreneurial orientation as a prerequisite requirement to the growth-oriented small and medium firms seems germane because it is an important contributor to a firm's financial success (Rehan, Block & Fisch, 2019). In fact, high entrepreneurial orientation among small and medium enterprises boosts the development and activation of personal strategies affecting business growth and performance (Wales, 2016). Small and medium enterprises have what it takes to provide the ideal environment for enabling entrepreneurs to exercise their talents optimally, and to attain their personal and professional goals (Adams, Quagrainie&Klobodu, 2017). However, many small and medium enterprises operate in a very competitive environment with increased risk and inability to forecast in the current unstable economy (Quaye, Acheampong &Asiedu, 2015).

Problem Statement
The past decade has witnessed a gradual growth of a research stream investigating financial outcomes of the concept of entrepreneurial orientation (Jiang, Liu, Fey & Jiang, 2018; Yu, Wiklund& Pérez-Luño, 2018).

However, it still remains in its embryonic stage, compared to plethora of existing or extant literature investigating other nuggets of the concept, for example motivation and gender nuances (e.g. Adams, Quagrainie, &Klobodu, 2017; Quaye, Acheampong &Asiedu, 2015), dimensions and capabilities (e.g. Hartsfield, Johansen & Knight, 2017), family and nonfamily firms (e.g. Boling, Pieper &Covin, 2016) and rhetoric and franchise system size (e.g. Short, Zachary &Ketchen Jr, 2018).

A careful perusal of the literature on the relationship between entrepreneurial orientation and firm financial performance reveals a handful number of reasons. First and foremost, there are inconclusive findings in some cases and mixed findings as far as empirical studies concerning the relationship between entrepreneurial orientation and firm financial performance are concerned (see for instance Amankwah Amoah, Danso, & Adomako,2019; Fairoz, Hirobumi& Tanaka, 2010). For example, a study by Chung-Wen (2008) on the relationship between entrepreneurial orientation and firm financial performance of the small business in Taiwan, found a significant positive association between proactiveness, innovation and firm financial performance. In a different study by Matchaba-Hove, Farrington and Sharp (2015) it was established that there exists a positive relationship between entrepreneurial orientation and SME financial performance.

The main objective of this study is to glean insights from owners and managers of the small and medium enterprise (SME) with regards to their perspective on the relationship between entrepreneurial orientation and SME financial performance. To be able to achieve this overriding objective; the following sub-objectives have been developed.

1. To ascertain the relationship between entrepreneurial orientation and SME financial performance.
2. To ascertain the dimensions of entrepreneurial orientation that significantly impact SME financial performance

Entrepreneurial Orientation and SME Financial Performance

Prior existing empirical researches concerning the relationship between entrepreneurial orientation and business financial performance increasingly indicate that there exists a positive relationship (Lomberg et al., 2017 Shan, Song, & Ju, 2016; Semrau, Ambos & Kraus, 2016; Lisboa, Skarmeas&Saridakis, 2016).

Another study by Bahula (2012) found a moderate and positive significant relationship between entrepreneurial orientation and business financial performance in metals and engineering subsectors of the South Africa economy. Another empirical study in the manufacturing sector of Pakistan found a significant positive entrepreneurial orientation and business financial performance (Haider, Asad& Fatima, 2017). Chung-Wen's (2008) study on leadership style, entrepreneurial orientation and business effectiveness of the small business in Taiwan found a significant positive link between two dimensions of entrepreneurial orientation namely proactiveness, innovation and business financial performance. It is equally important to state that some other scholarly works on the relationship between entrepreneurial orientation and business financial performance had inconclusive and mixed outcomes (Moreno & Casillas 2008; Fairoz, Hirobumi& Tanaka, 2010; Frank, Kessler & Fink, 2010). More specifically, Moreno and Casillas (2008) stress that no significant relationship exists between entrepreneurial orientation and business financial performance. On the basis of these conflicting findings, this current study is positioned to contribute to that body of literature.

Literature Review

To comprehensively understand the concept of entrepreneurial orientation, it is important to trace the genesis of entrepreneurship by way of having a better understanding of the concept. That, a famous French Economist known as Richard Cantillon is celebrated as unearthing and giving meaning to the concept of entrepreneurship (Carlsson, Braunerhjelm, McKelvey, Olofsson, Persson &Ylinenpaa, 2013). In fact, the term entrepreneurship first came about in the legendary article by Cantillon in 1955 titled "Essai sur la nature du commerce en general" which means "Essay on the nature of the trade in general". In this article, the term entrepreneur was first used as a French term "entre prendre" meaning "to undertake" (de Bakker, 2019). It is also important to state that Cantillon described an entrepreneur as a person who equilibrates the demand and supply in an economy, hence assuming all the uncertainties or risks involved (Bula, 2012).

Then in the 1800s, Jean-Baptiste, another French Economist validated or confirmed the use of the term "entrepreneur" (Ovaska& Sobel, 2005). In Jean-Baptist's scholarly article the term entrepreneur is defined as someone who generates value by turning productive resources from unproductive areas to more creative areas in order to generate economic benefits (Buame, 2012). By this definition, Sobel, Clark, and Lee (2007) and Sobel and King (2008) labeled the term entrepreneur as a protagonist of economist activity.

Fast forward to the 20th century, two Economists namely Joseph Schumpeter and Israel Kirzner, redefined further expatiated the two definitions offered on the concept of entrepreneurship. The definition offered by these economic scholars refined the term entrepreneurship, which has become widespread in contemporary literature. Even though similar views and definitions of the concept have emerged, the recent definitions of the concept only exhibit minor and quite negligible variations to the two (Buame, 2012). Because of the widespread nature of the definition offered by Joseph Schumpeter and Israel Kirzner, entrepreneurship scholars largely refer to definition as the Schumpeterian and Kirznerian schools of thought.

Over the past few decades, scholars attempt to conclusively draw a clear and unified line of delineation of the true and wholesale definition of entrepreneurship and whom an entrepreneur remains inconclusive (Bridge, Hegarty & Porter, 2010). This development is largely due to the argument advanced by Davidsson

(2004) that entrepreneurship is a multifaceted subject that involves critical consideration of global, national, sectoral and industrial issues. From a global standpoint, global institutions, agencies, and organizations have defined the concept of entrepreneurship with varied descriptors. For instance, the concept of entrepreneurship represents a human activity involved in search of exclusively and distinctly new products, ideas, practices and markets (Ahmad & Hoffman, 2008). Also, the Global Entrepreneurship Monitor (2007) defined entrepreneurship as the process through which new businesses are created, whether formal or informal.

Since the concept of entrepreneurial orientation emerged in the strategy-making process literature in the early 80s, it has always been regarded by social science scholars as a prominent thought (Anderson, Kreiser, Kuratko, Hornsby & Eshima, 2015). It is important to state that strategy development or conception is a firm or corporate decision that requires the integration of planning, analysis, decision making, and many dimensions of an organization's culture, value system, vision and mission (Hartsfield, Johansen & Knight, 2017). In tandem with Eshima and Anderson (2017: p. 246) who argued that strategy making is "important, in terms of the actions taken, the resources committed, or the precedents set". In line with this, entrepreneurial orientation connotes the policies and practices that are fundamental for entrepreneurial decisions and actions (Shan, Song & Ju, 2016). This suggests that entrepreneurial orientation may be considered as the entrepreneurial strategy-making process that important decision-makers employ to pursue their firm's organizational purpose, sustain its vision, and create competitive advantages.

Definition of Small and Medium Enterprise (SME)
To put the study in its rightful context, it is important to provide a broad description of the small and medium enterprise environment. Suffice to state that the term small and medium enterprise (SME) has global, national, regional and even industry connotations. As a result, it is important to delve into its classification nationally and globally. From a national perspective, Registrar General Publication suggests that 90% of businesses registered in Ghana are micro, small and medium ventures (Odoom, Narteh& Rand, 2017). It is also the cases that about 70% of businesses in Ghana are private micro and small businesses and contribute about 40% of Ghana's Gross National Income (Ntiamoah, Opoku, Abrokwah, Baah-Frimpong & Agyei-Sakyi, 2014). By virtue of this contribution, SMEs are generally regarded as the impetus for economic growth and development as they are a key birthplace of revenue employment.

In defining SME, some scholars conceptualize the concept in terms of their aggregate income; other scholars conceptualize on the basis of employee strength. This disparity is based on the argument that organizations vary on the basis of the capital structure of the firm, sales figures and employee strength (Erastus, Stephen &Abdullai, 2014). on the strength of the above argument, Ghana Investment Promotion Centre defines SME as a venture with turnover more prominent than US$200,000 and not more than US$5 million equivalent (GIPC, 2015). Another Ghanaian institution, Venture Capital Trust Fund Act, 2004 of Ghana, defines the term as businesses that engage not more than 100 workforces and whose aggregate asset base, excluding land and building does not surpass the cedi equivalent $1 million in value. Furthermore, Ghana Statistical Service (GSS) conceptualize the concept of SME as a firm with less than ten (10) workforces as small-scale ventures and their colleagues with more than ten (10) workforces as medium and large-sized enterprises. From a global standpoint, the World Bank, an institution that has to lend various financial and technical to the sector defines SME as a venture employing up to 300 workforces with US$15 million in yearly revenue, and US$15 million in assets. The European Union defines SMEs as an enterprise that employs fewer than 250 workforces and which has a yearly turnover not outperforming 50 million euro, and also a yearly asset report not outperforming 43 million euros. Notwithstanding this definition, there are organizations in Egypt utilizing in the vicinity of 5 and less than 50 employees yet considered SME. Again, in Vietnam, they are firms utilizing 10 and 300 workers and likewise considered SME.

Business Financial Performance
The quest to improve financial performance is an overarching decision or objective of every entrepreneurial firm (Hartsfield, Johansen & Knight, 2017). To put it in a better perspective, entrepreneurship is meaningless unless there is a macroeconomic outcome (Eshima & Anderson, 2017). In other words, financial performance is an indispensable consideration for entrepreneurial firms (Brouthers et al., 2015). In

order to better understand the concept of business financial performance, it's important first to understand the concept of business performance. this is because financial performance is a dimension of business performance. Accordingly, business performance is a multidimensional construct; hence, it has been conceptualized differently by scholars to achieve various business goals. Two main streams of thought namely, objective and subjective measurements underpin the conceptualization of the concept (see for instance; Fernández-Mesa & Alegre, 2015). The objective measurement paradigm uses absolute values as the basis for performance evaluation (Wall et al. 2004), while the subjective method requires respondents to assess performance using various items that may be financial or non-financial (Kirca, Jayachandran, & Bearden, 2005).

Methodology

Conceptual Framework and Hypothesis Development

The conceptual framework represents the research study by stressing on patterns of elements and their relationship with major concepts in research (Fisher, Kulindwa, Mwanyoka, Turner &Burgess, 2010). Basically, the conceptual framework provides an understanding of the research study. The conceptual framework explains the relationship between the dimensions of entrepreneurial orientation and SME financial performance. Entrepreneurial orientation is the ability of an organization to innovate, take risks, be proactive, competitive and autonomous. This implies that the constructs for effective entrepreneurial orientation in this study are five namely firm proactiveness, innovativeness, risk taking, competitiveness and autonomous. Liquidity ratios, profitability ratios, efficiency ratios and leverage ratios are boxed or generally conceptualised as SME financial performance.

Therefore, in a dynamic business environment, SMEs are regularly required to innovate, take the risk, give room for autonomy, be proactive and aggressively compete for market shares.

H1: SME proactiveness has a significant positive effect on firm financial performance
*H2: Risk taking by SME has a significant positive effect on firm financial performance*
H3: There is a significant positive relationship between competitive aggressiveness and SME financial performance
H4: Autonomous dimension of entrepreneurial orientation positively influences SME financial performance

H5: Innovativeness dimension of entrepreneurial orientation positively influences SME financial performance

The diagram as presented in the conceptual framework below indicates that entrepreneurial orientation influences SMEs owners and managers in their engagement in product innovation and market development leading to sound financial performance. This suggests that firms adopting more entrepreneurial orientation perform financially better than those that lack orientation.
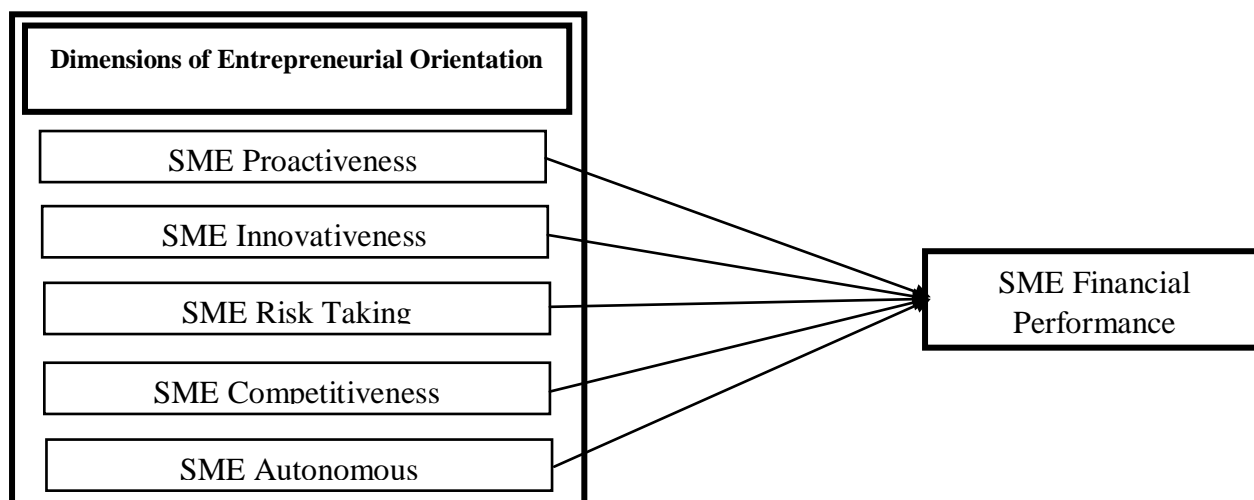
The Research Design

According to Cooper and Schindler (2011), a research design serves as a blueprint for achieving the research objectives and obtaining knowledge to answer the research purpose. Creswell et al. (2007) identify five different strategies of collecting and analyzing data to provide empirical evidence, namely experiments, surveys, archival analyses, history and case studies. Creswel (2009) further asserts that each of the strategies could be used for descriptive, exploratory and explanatory studies. The survey approach was selected for the current study as it is appropriate for verification of the hypotheses. The survey design was also selected because it fits well with the study's objectives and it is widely used in quantitative research (Saunders & Lewis, 2012).

Target Population

Maxwell (2010) opines that a target population denotes the total set of units for which a research finding is meant to generalize. The population for this study consisted of owners and managers SMEs in the manufacturing subsector of the Ghanaian economy, based in Accra. Accra was selected due to the heterogeneity of the metropolis. The rationale for selecting this population is that respondents from the Accra metropolis can to some extent be generalized to depict the general overview of entrepreneurial orientation and its impact on SME financial performance in Ghana.

Sample Size

Sampling involves the selection of some elements in the population as the population will be too enormous for the researcher to attempt to study all its elements (Cooper & Schindler, 2014). Thus, a sample is the reflection of the features of the population and it could be used to draw conclusions about the entire population (Cooper & Schindler, 2014). With regard to sample size, a sample of three hundred (300) owners and managers of SMEs in the manufacturing subsector of the Ghanaian economy. According to Hair et al. (2010), utilizing a sample size of two hundred (200) or more is enough to provide statistical power for data analysis.

Sampling Technique

Probability and non-probability sampling techniques remain the two broad sampling techniques recognized by most researchers (Bowen, 2009). Then again, Bowen (2009) clarifies probability sampling techniques to mean "giving each member of the population an equal chance of being selected to form part of sample".

Some probability sampling techniques include "simple random sampling, systematic sampling, cluster sampling and stratified sampling". According to Saunders et al. (2012), "non-probability sampling involves the selection of a sample based on the researcher's discretion and judgment". Non-probability sampling techniques include purposive sampling, convenience sampling, snowball sampling and quota sampling (Saunders et al., 2012). Bowen (2009) asserts that, in instances where it is impossible to get an appropriate sampling frame to undertake a study, non-probability sampling techniques are ideal. No probability sampling techniques offer researchers the opportunity to choose from a variety of choices that facilitate the choosing of respondents based on subjective judgment (Saunders et al., 2012). In line with this, this study chose a non-probability sampling technique due to the lack of a suitable sampling frame. The researcher relied on the purposive sampling technique to select the three hundred (300) owners and managers of SMEs in the manufacturing subsector of the Ghana economy. According to Bowen (2009) purposive sampling techniques strive for the researcher's judgment on whom to include in the study.

Data Source

Generally, there are two main sources of data, that is, primary and secondary sources (Saunders & Lewis, 2012). "Secondary data refers to data that has been gathered for purposes other than the present research" (Saunders et al., 2012). Primary data relates to data collected for the "purpose of tackling the research problem at hand" (Saunders et al., 2012). Specifically, this study made use of primary data, which were attained through self-administered questionnaires distributed to the three hundred (300) owners and managers of SMEs in the manufacturing subsector of the Ghanaian economy.

Data Analysis Techniques

Data were organized and processed using IBM Statistical Package for Social Sciences (SPSS 22) version 22 and AMOS version 22. The IBM SPSS was used for descriptive statistics, frequency tables, measures of central tendency and regression analysis. The IBM SPSS was further used to generate the Cronbach alpha values. AMOS 22 was used to perform confirmatory factor analysis and structural equation modelling. Structural equation modelling (SEM) was chosen for this study as a result of the fact that it enables researchers to model relationships among several independent variables and dependent variables (Hair Jr et al., 2014).

Results and Discussing

Characteristics of Respondents

This section of the analysis presents information pertaining to the demographic characteristics of the sampled respondents. Variables such as gender, age, educational background and number of years in business were assessed. This information is relevant because according to Amankwah Amoah, Danso and Adomako (2019) these variables have the propensity of influencing financial performance. The demographic characteristics are therefore presented below

Table 1: Demographic Profile of Respondents

Details	Measurement	Frequency	Percentage
Gender	Male	109	44.3
	Female	137	55.7
Age	20 – 30	46	18.7
	31 – 40	68	27.6
	41 – 50	92	37.4
	Over 50	40	16.3
Education	Secondary	*71*	28.9
	Tertiary	55	22.4
	Professional	69	28.0
	Others	51	20.7
Years in business	Less than 1 year	34	13.8
	2 – 4 years	53	21.5
	5 – 7 years	90	36.6
	Over 7 years	69	28.1
N = 267			

Source: Field Data (2019)

A total of 300 questionnaires was distributed to respondents who are owners and managers of SMEs in the manufacturing subsector of the Ghanaian of which 260 was retrieved out of which 246 was considered usable for the study. Thus, the study obtained an 82.0% response rate. One of the critical issues examined on SME ownership is the gender of the owners.

The findings indicate that the majority representing 137 (55.7%) of the small-scale manufacturing businesses considered in the study are owned and managed by females. The other category of the gender variable is male representing 109 (44.3%) of the sampled respondents. This finding confirms the works of prior studies that females constitute the majority of SME owners (see for instance Watson, Newby &Mahuka, 2009; Robichaud, Cachon& McGraw, 2017). Regarding the age distribution of respondents, the results revealed that the lowest age group are those over 50 years constituting 40 (16.3%), followed closely are those in the age brackets of 20 – 30 years representing 46 (18.7%) of SME owners and managers. SME owners and managers between the age brackets of 31 -40 years constitute 68 (27.6%) of the sampled population. The majority of the respondents for this study are between the ages bracket of 41 –50 constituting 92 (37.4%). This means that the majority of SME owners and managers are between the ages of 41 – 50.

Confirmatory Factor Analysis (CFA)

Confirmatory factor analysis is an important condition in structural equation modeling meant to test how perfectly the measured variables represent the number of constructs (Schreiber et al., 2006). That said, Hair

et al. (2010) state the acceptable threshold as a necessary condition for CFA to be 0.50 before factor loadings are accepted. Accordingly, all the factor loadings met and satisfied with this condition. Additionally, the internal consistencies of the measured variables were evaluated using Cronbach's alpha. All constructs had Cronbach's alpha values greater than 0.6 as the recommended threshold (Nunnally & Bernstein, 1994).

Table 2 Factor Loadings

	Loadings	T-value	Cronbach's Alpha	CR	AVE
Risk-Taking			.90	.94	.84
RT1	0.85	Fixed			
RT2	0.94	25.76			
RT3	0.95	26.15			
Innovativeness			.85	.92	.69
INN1	0.89	Fixed			
INN2	0.87	22.99			
INN3	0.88	23.61			
INN4	0.72	16.74			
Pro-Activeness			.92	.92	.58
PRO1	0.77	Fixed			
PRO2	0.77	15.62			
PRO3	0.84	17.48			
PRO4	0.71	14.19			
Competitive Aggressiveness			.90	.94	.81
CA1	0.83	Fixed			
CA2	0.67	13.25			
CA3	0.77	15.57			
Autonomy			.95	.96	.57
AUT1	0.79	Fixed			
AUT2	0.82	17.96			
AUT3	0.80	17.42			
AUT4	0.78	16.70			
AUT5	0.79	16.93			
AUT6	0.77	17.77			
Financial Performance			.95	.92	.75
FP1	0.78	Fixed			
FP2	0.91	19.85			
FP3	0.83	17.64			
FP4	0.92	17.48			
FP5	0.92	33.05			

Source: Field Data (2019)

CR as shown in the table 2 means internal consistency or composite reliability and is the measurement of the construct unidimensionality, which is also used to determine the measure of Cronbach Alpha (Chin, 1998). The values obtained as indicated above shows that the unidimesionality of the constructs was apt for the study (Peterson & Kim, 2013). Another issue of relevance is the Cronbach alpha of the constructs which indicates that a very strong internal consistency was achieved considering that all the values were within the acceptable range. As argued by Gliem and Gliem (2003) the coefficient for Cronbach's alpha reliability test usually ranges between 0 and 1 and most importantly, the closer the coefficient is to 1 the greater the internal consistency of scale items. Going by these results from the factor loadings, it can be confirmed that there is convergent and discriminant validity (Fornell&Larcker, 1981).

Assessment of Measurement Fitness

The model fit results in the table below show how well the conceptual model fits after the analysis (McDonald & Ho, 2002). Assessment of the measurement model help to ensure that statements (unobserved variables) are truly measuring constructs (observed variables). Out of the plethora fit indices in existence, the "Cutoff Criteria for Fit Indexes in Covariance Structure Analysis" by Hu and Bentler (1999) was adopted in the study. This fit index is unique in the sense that its calculation is not dependent on caparison with a baseline model. Instead, it's measured based on how well the model fits on its own (Jöreskog&Sörbom, 1993). Model fit criteria mostly used in this category are the Chi-Squared test (χ^2), Root-Mean-Square-Error of Approximation (RMSEA), Goodness-of-Fit Index (GFI), Adjusted Goodness-of-Fit Index (AGFI), Root-Mean-Square Residual (RMR) and the Standardised Root Mean Square Residual (SRMR).

Table 3 Model Fit Assessment

Measure	Estimate	Acceptable Threshold	Interpretation
CMIN	1420.74	--	--
DF	742	--	--
CMIN/DF	1.92	Between 1 and 3	Excellent
CFI	0.95	>0.95	Excellent
SRMR	0.05	<0.08	Excellent
RMSEA	0.05	<0.06	Excellent
PClose	0.50	>0.05	Excellent

Source: Field Data (2019)

Going by Hu and Bentler (1999), the figures recorded in the model fit assessment indicates that the fitness model was excellent, with each obtaining the acceptable values: chi-square (CMIN/DF) is 1.92, Comparative Fit Index (CFI) is 0.95, Standardised Root Mean Square Residual (SRMR) is 0.05 and the Root Mean Squared Error of Approximation (RMSEA) is 0.05.

Correlation Analysis

To establish the relationships that exist between the variables (independent and dependent variable), Pearson's correlation was conducted. The results from Table 4 show positive and significant relationships among all the variables. By this, discriminate validity was catered for and also demonstrated that the variables were different from each other and not measuring the same variables.

Table 4 Correlation Matrix

	RT	INN	PRO	CAA	ATT	FPP
RT	**0.76**					
INN	0.74	**0.76**				
PRO	0.74	0.47	**0.92**			
CAA	0.82	0.69	0.75	**0.83**		
ATT	0.73	0.81	0.65	0.72	0.84	
FPP	0.69	0.66	0.51	0.71	0.75	**0.86**

Source: Field Data (2019). *The diagonal refers to the construct AVE (average variance extracted).*

In order to fulfil the main purpose of this study by specifically examining the exact relationship between the dimensions of entrepreneurial orientation and SME financial performance, correlation analysis was conducted. The correlation analysis confirmed four of the hypothesized relationships developed out of the literature review. Based on the structural modelling, the study could not wholly support a significant positive relationship between risk taking and financial performance as previously established by Gautam (2016). However, the established negative relationship between risk thinking and financial performance which confirms the works of Wang (2008). Suffice to state that risk taking is concerned with exploration and unearthing of new and profitable ideas. But this study posit that firms must strike a balance between exploration and exploitation, and that firms engaging in exploration to the exclusion of exploitation are likely to suffer the costs of experimentation.

Structural Model

Model testing is the second phase and most important stage in structural equation modelling and this is done after all constructs have been validated and the measurement model is fit for purpose (Kline, 2005). The relevance of the structural model is anchored on establishing the causal relationship among latent variables and also structural model testing aims to ascertain which latent variable directly or indirectly influences the outcome variable in the model (Schreiber et al., 2006; Schumacker, 2017).

Accordingly, the structural model conducted was principal to test the hypothesis developed in accordance with the conceptual framework composed of risk taking, innovativeness, pro-activeness, competitive aggressiveness, autonomy and financial performance as the outcome variable.

Table 5 Hypothesised Path

Independents	Values
Innovativeness	0.23 (***)
Competitive Aggressiveness	0.23 (***)
Risk Taking	-0.16 (**)
Pro-Activeness	0.36 (***)
Autonomy	0.55 (***)
Goodness-of-fit Indices	**Full Model**
CMIN	2.13
DF	5
CMIN/DF	0.53
CFI	1.0
SRMR	0.03
RMSEA	0.00
PClose	0.92
R^2	0.69

Source: Field Data (2019)

In the study model, a chi-square (CMN/DF) is 0.53; the Comparative Fit Index (CFI) is 1.00 and the standard root mean square residual (SRMR) is 0.03. The root-mean-square-error of approximation (RMSEA) is 0.00.

These values from the structural model validation indicate that, the acceptable model fit has been achieved and therefore accomplished an excellent level of nomological validity (Hu &Bentler, 1997).

Furthermore, juxtaposing the individual relationships among the construct as seen in Table 5, it was established that the relationship between innovativeness and financial performance was statistically significant ($\beta = 0.23$, $p < 0.00$). It was also established that there was a statistically significant relationship between competitive aggressiveness and financial performance at ($\beta = 0.23$, $p < 0.001$).

This was followed by autonomy and financial performance where a statistically significant relationship was established ($\beta = 0.55$, $p < 0.001$). Then also, pro-activeness has a statistically significant effect on financial performance with an estimate of 0.36 ($p = 0.000$).

But there was a negative relationship between risk taking and financial performance at ($\beta = -0.16$, $p < 0.00$). Based on these results, all hypothesised relationships were accepted except risk taking and financial performance which were negative.

Conclusion

The purpose of this study is to examine the relationship between entrepreneurial orientation (EO) and financial performance in the context of SMEs in the manufacturing subsector of the Ghanaian economy. Specifically, the target population for this study was SME owners and managers in the manufacturing subsector of the Ghanaian economy. After over a month period of data collection, two-hundred and sixty-seven (246) questionnaires were usable for statistical analysis. Structural equation modelling was used to test the hypothesis. The research makes a tremendous contribution to the entrepreneurship orientation (EO) literature by successfully examining the five dimensions of entrepreneurial orientation and how it impacts the financial performance of manufacturing firms in the Ghanaian SME economy.

The findings of the study provide evidence for the justification of the use of entrepreneurial orientation as a tool to grow SMEs. The financial performance and entrepreneurial orientation practices among Ghanaian manufacturing SME firms are moderate.

Expect to state that excessive risk taking was established to have a negative effect on SME financial performance. But largely, entrepreneurial orientation significantly influences SME financial performance, and specifically, innovativeness, competitive aggressiveness, pro-activeness and autonomy dimensions positively determine SME financial performance. The level of influence is growing as SME firms are involved with the manufacturing sector since the entrepreneurial orientations better and contributed more to the firm's financial performance in this sector.

Limitations

First and foremost, the study was conducted in specific sectors within a developing country. Especially, this study was conducted in Ghana with a precise focus on SMEs within the manufacturing Subsector.

However, understanding the relationship between entrepreneurial orientation and SME financial performance would have been reached if other SME sectors within the Ghanaian economy were included in the study. The point is that because the study area from which primary data gathered was limited to the capital of Ghana, when it could be more representative by expanding the study area, a holistic understanding of the impact of entrepreneurial orientation on SME financial performance cannot be stated emphatically.

Secondly, the study was center played on only the used of a quantitative approach. Lastly, the study adopted only Structural Equation Modeling (SEM) for its testing.

Recommendation

The research recommends that, further studies should be conducted in SMEs located in other regions of Ghana and the data should be compared to another part of the world. This would enhance a true base of comparison. Secondly, both quantitative and qualitative approaches should be used to test and validate the research data. Lastly, other research models and data testing approaches should be used to test and validate the data obtained.

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