INTERNATIONAL JOURNAL OF ACADEMIC RESEARCH IN ECONOMICS & MANAGEMENT SCIENCES

OPEN ACCESS JOURNAL

Vol 12, Issue 2, (2023) E-ISSN: 2226-3624

Nexus of Government Support, Product Innovation Capability, and Organizational Performance of Manufacturing SMES in Ghana

Dr. Bernice Korkor Gligah

Azman Hashim International Business School, Universiti Teknologi Malaysia, 81310UTM, Skudai, Malaysia, Koforidua Technical University, P.O. Box KF 981, Koforidua, Ghana

Email: bernicekorkor@graduate.utm.my, gkbernice@ktu.edu.gh/ gkbernice@gmail.com

Norzaidahwati Zaidin

Senior Lecturer and Marketing Research Group Leader

Azman Hashim International Business School, Universiti Teknologi Malaysia, 81310UTM, Skudai, Malaysia

To Link this Article: http://dx.doi.org/10.6007/IJAREMS/v12-i2/17577 DOI:10.6007/IJAREMS/v12-i2/17577

Published Online: 13 Jun 2023

Abstract

The study is premised on unveiling the role of government support, innovation capability, and firm performance. This study aimed at examining the relevance of government financial and non-financial support and SME performance. The moderating role of innovation capability was also examined in the study. The data was gathered through convenience sampling method. Using a self-administered questionnaire, 400 SME operators in five major business cities in the Eastern Region of Ghana were understudied. Using PLS Structural Modelling, analyses were conducted. It was revealed that both governments financial and nonfinancial support is significantly linked to organizational performance, while product innovation capability is strongly linked to organizational performance. Meanwhile, product innovation capability exhibited a mixed result for its mediating role in the relationship between government financial support and non-financial support and organizational performance. The study thus reveals the relevance of government support and innovation capability on SME organizational performance.

Keywords: Government Financial Support, Government Non-Financial Support, Product Innovation Capability, Organizational Performance

Introduction

Governments worldwide are widening and increasing their support for enterprises and economic innovation more generally by playing a pivotal role in stimulating small and medium scale firms to generate new activities and promote competitive business growth (Wei & Liu, 2015; Songling et al., 2018). Government supports can be utilized as a stimulus for innovation, depending on the expectations of each country; governments' support such as tax, legal,

subsidization, and non-financial measures will be key factors to address with to promote the innovation process within firms at various stages (Szczygielski et al., 2017). The provision of such support of small and medium enterprises hence leads to creativity and the innovativeness of prospective businesses, for enhanced performance.

Research indicates that SMEs face a myriad of problems such as increased competitive pressure and challenges and inadequate capacities and also do not having adequate resources necessary reflecting in their product innovation capability and subsequently in their performance (Liao & Barnes, 2015; Ramukumba, 2014). Noting that SMEs are bound by a range of resources and capability limitations, SMEs are subjected to increased competition and have a more difficult time responding. government support to encourage small and medium businesses based on financial and technical aspects could lead to these firms introducing innovations in their offerings and their market expansion (Wang, 2018; Lonial & Carter, 2015).

With governments focusing on SME development to promote growth Cant & Wiid (2016), successive governments in Ghana have been trying in several ways to help boost the activities of SMEs through policy interventions (political and economic policies), government divestiture programs, and reforms aimed at encouraging entrepreneurship in Ghana to increase their performance and competitiveness (Hassan & Thurlow, 2010). Governments' role in supporting and nourishing the activities of SMEs is therefore crucial for SMEs' continuous survival due to the enormous benefits associated with the operations of SMEs' establishment to any economy (Wei & Liu, 2015). Expectantly, SMEs are to develop their innovation capabilities to absorb the support from the government in translating their resources into innovative products which can transcend into superior firm performance.

It appears the majority of works in government support and innovation capability have been presented as independent variables (Songling et al., 2018; Wei & Liu, 2015) with sub-sequential results. However, the interactive study of government support and innovation capability on SME firm performance deserves attention. Also, the majority of the research has centered on developed countries as compared to developing nations, particularly in Ghana. This study sought to unravel the nexus effect of government financial and non-financial support and product innovation capability on SME firm performance. This study, therefore, sought to realize the following objectives: (1) To examine government financial support influence innovation capability. (2) To determine the influence of government non-financial support on innovation capability. (3) To study the relationship between government financial support and organizational performance. (4) To determine government non-financial support and organizational performance. (5) To establish the influence of innovation capability and organizational performance. The rest of the paper is organized by the literature review and hypotheses development, methodology, findings and discussions, and conclusion.

Literature Review and Hypotheses Development

Government Support and Organizational Performance

Governments' role in supporting and nourishing the activities of SMEs is crucial for SMEs' continuous survival due to the enormous benefits associated with the operations of SMEs' establishment to any economy (Wei & Liu, 2015). Noting that SMEs also don't have adequate resources necessary for the development of human capital, thereby allowing R&D workers to generate new information themselves (Liao & Barnes, 2015). Because they are hampered by a variety of resources and capacity, SMEs face higher competition and have a harder time responding (Lonial & Carter, 2015). Noting that economies are now knowledge-

based, with entrepreneurship being a crucial driver, government support is needed to promote the activities of SMEs to sustain economic growth (Songling et al., 2018).

Governments should promote new initiatives that are focused on financial and technical components in particular, since those enterprises are, by nature, bringing new technology and products, as well as making new markets. As opined by Giraudo, et al., (2019), larger organizations focus on existing customers, whereas emerging firms, confronted with intense pre-existing competitiveness in established industries, place more emphasis on finding potential new market prospects. However, dominant organizations' control in constrained marketplaces hampers the formation and growth of small business owners (Songling et al., 2018).

In a study by Wei & Liu (2015), the writers argue that government investment in R&D projects can positively impact firm innovation performance; they look at government support in terms of vertical and horizontal supports. According to them, vertical support could be subsidized credit program and manufacturing incentives necessary external support for firms' transformation that are directed towards particular industry sectors subsequently, the advantages generated therein which is sector-specific whilst horizontal support is geared towards creating an enabling environment for transformation in general in increasing benefits generated through R&D investment. However, Songling et al (2018) consider government support in terms of Government Financial Support (GFS) and Non-Financial Support (GNFS). Thus it refers to principal government policies that result in externalities to firms. Governments' role therefore in supporting and nourishing the activities of SMEs is crucial for SMEs ' continuous survival due to the enormous benefits associated with the operations of SMEs ' establishment to any economy (Wei & Liu 2015).

Songling et al (2018) used a data set of 326 Pakistani SMEs to research the role of support from the government in sustainable competitiveness and organizational performance. The findings demonstrate that government financial, as well as non-financial support, have a significant effect on competitiveness and organizational performance. Also, government support and organizational performance are partially mediated by continuous competition. In a related work by Wei & Liu (2015), the writers argue that government investment in R&D projects can positively impact firm innovation performance; they look at government support in terms of vertical and horizontal supports.

Meanwhile, the majority of works in government support have been independent variable with sub-sequential results (Songling et al., 2018; Wei & Liu, 2015), however, government support as a moderating variable deserve investigations. It will thus be presented as a moderating variable on the relationship between product innovation activities and firms' innovation performance. The government's support variable will be simplified and emphasized on the most appropriate dimensions' for this study. Government support will be studied as having an impact on the relationship between product innovation capability and organizational performance. The study, therefore, hypothesizes that:

H1: Government financial support has a significant influence on organizational performance.
H2: Government non-financial support has a significant influence on organizational performance.

Government Support and Product Innovation Capability

Recognizing the link between government support and innovation capabilities, it is proven that a business's ability to evolve and use learning drives its competitive edge to the

emerging market situation (Alkahtani et al., 2020). A previous study (Alkahtani et al., 2020; Chundakkadan & Sasidharan, 2020; Wei & Liu, 2015) has stressed the need and usefulness of government support in promoting and strengthening innovative capabilities. An empirical study by Wang (2018), the study indicated that GS had considerable beneficial influences on both innovation capability in Singapore and Hong Kong. The study in their comparative study between government intervention of Singapore and Hong Kong further establishes that the neglect of government and sufficient policy support in Hong Kong has led to the abysmal competitive performance of firms.

According to Wei & Liu (2015), their study which looked at government support in terms of vertical and horizontal support, established that both vertical and horizontal support exerts a positive influence on firm innovation. The capacity to continuously turn knowledge and ideas into products exhibits the innovative potentials of firms. Innovation capabilities in small firms are mostly generated by efforts to creating innovative outputs (Saunila, 2020). In Pakistani small and medium firms, Songling et al (2018) found that a firm's competitive position and performance are significantly influenced by government financial and nonfinancial support. In a related study by Szczygielski et al (2017) in Turkey and Poland, government support in terms of aid in R&D contributed most to the firms' innovative performance in both countries.

Government support policies, access to finance, and technological innovation according to Appiah et al (2015) will create a positive impact on SME competitiveness. Government R&D subsidies, government scientific research project subsidies, tax credits, and innovation policies can be avenues of the flow of government support to SME firms according to (Wei & Liu, 2015). Also knowledge and technical support, market information, external funding and information on essential regulations presents further avenues of government support interventions (Thongsri & Chang, 2019). As a result, emphasis on SME innovation capability in resource exploitation through government support presents fertile grounds for SMEs to be innovative and competitive.

The study thus presents government support in terms of financial and nonfinancial support on SME innovative capabilities. Despite the fact that there is a favorable association between GS and innovation performance, actual research on how GS connects to SME innovation capability is still lacking (Saunila, 2020) To study the impact of government support on product innovation capability, the following hypotheses are proposed

H3: Government financial support has a significant influence on product innovation capability.
H4: Government non-financial support has a significant influence on product innovation capability.

Product Innovation Capability and Organizational Performance

Given that innovation capability is described as having the potential to influencing SME resources through conversion and reformation into new products and services (Zgrzywa-ziemak, 2015). The ability of firms to engage in innovative activities determines their capacities to employing and absorbing the support mechanisms that come their way in their innovation transformation drive (Santoro et al., 2017).

The potential of SMEs to innovate positions their business to exploit opportunities that come their way in meeting the demands of the market in boosting their economic performance (Bojica & Fuentes-fuentes, 2019). Literature of innovation indicates that any organization needs innovation to succeed and survive in an environment characterized by stiff

competition (Jiménez-jiménez & Sanz-valle, 2011), and gather sustainable competitive advantage (Herman et al., 2018). Innovation can be realized if firms can innovate. The quest for firms to significantly increase their share in the market calls for such firms to be innovative continuously.

The ability of firms to enhance their innovativeness is the potential of firms to create innovative outputs which are directly linked to their innovative capacities (Naala et al., 2017). Using a dataset of 280 SMEs, Naala et al (2017) conducted a study on innovation capability and performance in North-western Nigeria. Their study found out that innovation capability had a significant influence on performance. Several studies have linked innovation to performance (Afriyie, et al., 2018; Calantone, et al., 2002; Saunila, 2020; Tuan, et al., 2016). The competitive environment faced by SMEs coupled with the inadequacies in resources necessary for the development of their activities calls for support from government interventions to providing avenues of support for their growth performance. Attaining enhanced organizational performance by SMEs requires building competencies by SMEs to developing and building their capacities to explore innovation through the support offered by the government. This study thus attempts to examine the SME innovation capability on performance Based on the ongoing discussions, the study hypothesizes that

H5: Product innovation capability has a significant influence on organizational performance.
H6: Product innovation capability mediates the relationship between government financial and organizational performance.
H7: Product innovation capability mediates the relationship between government non-financial support and organizational performance.

The above is represented in the model below

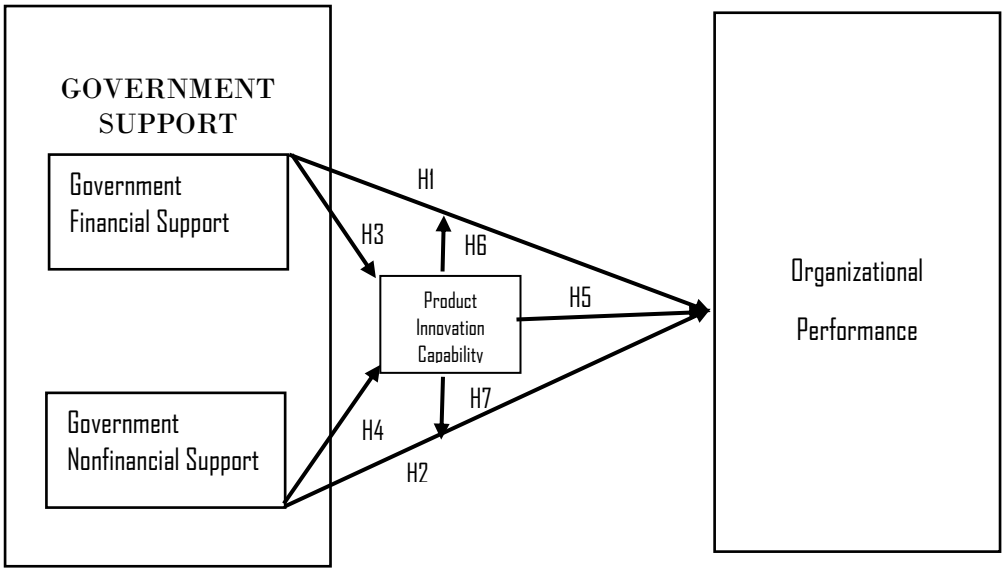

Figure 1: Research Model

From the diagram above, both government financial support and government nonfinancial support are presented as predictor variables while organizational performance is presented as the dependent variable. Product innovation capability is presented as a mediating variable in studying its characteristic influence on the relationship between

government support and organizational performance. Premised on the RBV theory the study presents the ability of SMEs to develop and exploit resources and the effect on their performance abilities. The RBV theory envisages firms have a collection of unique resources and competencies that are valuable; thus the performance of a firm is influenced by how these resources owned by operational processes and external stakeholders are utilized. (Barney, 1991; Lonial & Carter, 2015). The Resource-Based View Theory (RBV) envisages firm involvement and utilization of resources geared towards attaining competitive advantage which will, in turn, enhance business performance (Lonial & Carter, 2015; Davis & Simpson, 2017).

Methodology

Research Instrument: Based on the use of a questionnaire, data were gathered from 400 SMEs in the manufacturing sector. The questionnaires were self-administered in five major operating districts under the Ghana Enterprises Agency (GEA) in the eastern region of Ghana. All 19 items were used in gathering data from the respondents comprising of four items for GFS, three items for GNFS, four items for PIC, and four items for OP. Also, four items were used to gather their demographic responses. Government financial support(GFS) which referred to the financial support available for firm growth performance by the government was measured using items sourced from (Songling et al., 2018; Hong et al., 2016; Ahmad & Xavier, 2011). The present study used three items to measure Government Non-financial support (GNFS) which are adapted from a prior study of Songling et al (2018) and slightly modified. The items to measure product innovation capability were influenced by the study of (Harahap et al., 2017). Finally, the study adapted four measurement items were adapted based on the works of Ma, Yin, Pan, Cui, & Xin, (2018) to measure the performance. We verified multiple sorts of reliability and validity of the measures to assure the outcome, although they already had been verified and evaluated in emerging nations. All the items were measured using 5 points Likert scale ranging from strongly disagree 1 to strongly agree 5.

Sample and Data

Aiming to investigate the influence of GFS and NGFS and manufacturing SMEs ' performance, the study used owner-managers and those in the decision-making level of the SMEs in the New Juaben Municipality, Yilo Krobo District, Akuapem North Distritrict, Asuogyaman District, and Suhum Municipality. Using the convenience sampling method, 400 questionnaires were distributed. A total of 362 responses were received with 341 usable responses setting aside those questionnaires that were incorrectly filled.

The study utilized 341 valid responses representing 85.25%. Further breakdown is provided in Table 1below. Smart PLS 3 software and the Statistical Package for Social Sciences (SPSS) version 23 were utilized to conduct inferential statistics and descriptive statistics respectively.

The data collected was coded, cleaned, and prepared for analysis. SEM's stoutness makes it an appropriate tool capable of testing the entire model simultaneously and assessing measurement errors (Fornell & Larcker, 1981). PLS-SEM algorithm's iterative procedure was utilized using-500 selected values based on the maximum number of iterations to obtain final results. The study's hypotheses were examined based on the measurement model's confidence level.

Table 1
Firm Characteristics/Respondent Data

Variables	**Category**	**Frequency (N = 240)**	**Percent (%)**
Firm Specific Factors			
Industry	Metal Fabrication	41	12
	Food Processing	121	35.5
	Agro-based	78	22.9
	Pharmaceuticals	39	11.4
	Sachet Water Production	17	5
	Electricals	23	6.7
	Others	22	6.5
Firm Size (Employees)	2 – 30	297	87.1
	31 – 99	41	12
	> 99	3	0.9
Gender	Male	174	51
	Female	167	49
Position in the Firm	Owner-Manager	243	71
	Executive	41	12
	Manager	57	17
N=341			100%

Source: Field Survey (2021)

Data Analyses and Result

Data analyses were done using SPSS and Partial Least Squares (PLS). While preliminary tests including descriptive, normality, CMB, none response bias, and EFA, the Smart PLS (i.e., first-generation multivariate path analyses procedure) was done using the SPSS. The PLS involves two main phases: the model measurement (reliability and discriminant validity) and the structural model assessment.

Test for Normality and Missing Values

Since normality test is an essential underlying assumption in parametric studies, determining normality of data is a need for several data analyses. For this study, normality was explored, even though it is not a necessity for using PLS-SEM. This is critical because a dataset with an irregular dispersion can have an adverse influence on the bootstrapping standard error.

The distribution in Table 2 shows that none of the values exceeded the threshold for skewness or kurtosis. The rule of thumb posits that skewness within ± 2.00 standard error of skewness and kurtosis within ± 3.00 standard error of kurtosis is acceptable (Hair et al., 2012). The data also show the absence of missing values in the dataset.

Table 2
Test for Normality and Missing Values

Items	Missing	Mean	Standard Deviation	Excess Kurtosis	Skewness
GFS1	0	3.958	0.83	1.63	-0.903
GFS2	0	4.074	0.751	0.303	-0.535
GFS3	0	4.129	0.767	-0.56	-0.439
GFS4	0	4.164	0.749	0.389	-0.647
NFS1	0	4.122	0.788	-0.151	-0.537
NFS2	0	4.096	0.784	-0.159	-0.494
NFS3	0	3.99	0.831	-0.348	-0.42
PIC1	0	3.916	0.867	1.104	-0.759
PIC2	0	3.932	0.793	0.107	-0.384
PIC3	0	3.804	0.891	0.073	-0.481
PIC4	0	3.891	0.842	0.249	-0.506
FP1	0	3.913	0.876	0.578	-0.666
FP2	0	3.932	0.817	0.859	-0.728
FP3	0	4.026	0.785	0.225	-0.486
FP4	0	3.955	0.809	1.015	-0.687

Common Method Bias and None Response Bias

We evaluated common method bias using Harman's single factor test to validate the suitability of the constructs in the measurement model as recommended by (Eichhorn, 2014). According to Eichhorn (2014) the one-factor test as the Harman considers all the observed variables in exploratory factor analysis (EFA) and assesses whether a single factor accounts for or explains more than 50% of the calculated variance. The result as presented in Table 3 below shows that the largest variance explained by a single factor is 41% which is below the 50% threshold of the EFA using the principal component analysis extraction method. This confirms the absence of CMB in the dataset. The Kaiser-Meyer-Olkin Measure of Sampling Adequacy was 96% while Bartlett's test also showed significantly ($\chi^2 = 3537.533$, df.: 330, $p < 0.000$).

Additionally, the correlation matrix was used to further validate the absence of CMB following the limitations of Harman's one-factor approach. As per the recommendation of Schouten et al (2016), the correlations among the main constructs should not exceed a recommended threshold to confirm the absences of CMB. The result in our study revealed that the correlations among the principal constructs are small ($r<0.9$). This further confirms Harman's one-factor test result, hence there is no issue of CMB in this research model. We test non-response bias to ensure a high quality of data used (Oppenheim, 2001). We followed the procedure suggested by Oppenheim (2001, p.106) to investigate non-response bias in our study. Following the procedure, the first 152 early responses and the last 210 late were generated. T-test analysis was employed to test for non-response bias. The results of the t-test analysis did not indicate any significant difference.

Table 3
Test for Common Method Variance (CMV)

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	11.687	40.813	40.813	11.687	50.813	50.813
2	3.377	24.683	65.496	3.377	14.683	65.496
3	1.790	7.783	73.279	1.790	7.783	73.279
4	1.231	5.351	78.630	1.231	5.351	78.630
5	1.123	4.883	83.513	1.123	4.883	83.513
6	.893	3.884	87.397			
Extraction Method: Principal Component Analysis.						

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.961
Bartlett's Test of Sphericity	Approx. Chi-Square	3537.533
	df	330
	Sig.	.000

Measurement Model

For measurement model validity and reliability, Confirmatory Factor Analysis was conducted using Smart PLS version 3. The process employed the maximum likelihood estimation method for testing the validity and reliability of the constructs. The model measurement evaluation was conducted, as a prerequisite for the structural model analysis.

The model measurement evaluation comprised reliability and validity using Cronbach Alpha (CA), Composite Reliability (CR), and Average Variance Extracted (AVE). The result in Table 4 below shows that all the constructs had good scale reliability (ie. Cronbach Alpha and Composite reliability) were high than 0.7 (Fornell & Larcker, 1981; Henseler et al., 2015), hence all the constructs had acceptable internal consistency and reliability.

Additionally, AVE which was also used to assess the convergent validity of the constructs were found above the 0.5 thresholds. We further used VIF to examine the issue of multicollinearity. The collinearity statistics for both inner and outer (VIFs) meet the <3 threshold as recommended by (Hair et al., 2018; Henseler et al., 2015).

We also employed the Fornell- Larker criterion and HTMT ratio to assess the discriminant validity of the model. The result provides evidence that our model has no issue of discriminant validity, as the square root of the AVEs were higher than the within correlation among the variables in the model (see table 5). The discriminant validity test was further explored using the HTMT ratio, the HTMT threshold (< 0.90) was met which also confirms the discriminant validity of the research model (see table 6).

Table 4
Validity and Reliability

Constructs	Items	Loadings	CA	rho_A	CR	AVE	VIF
Organizational Performance	OP1	0.844	0.905	0.906	0.933	0.778	2.213
	OP2	0.900					1.324
	OP3	0.896					2.823
	OP4	0.887					1.075
Financial Support	GFS1	0.846	0.867	0.871	0.909	0.714	2.150
	GFS2	0.857					2.094
	GFS3	0.855					2.125
	GFS4	0.821					1.937
Non-Financial Support	GNFS1	0.873	0.823	0.823	0.894	0.739	2.054
	GNFS2	0.869					2.030
	GNFS3	0.836					1.640
Product Innovation Capability	PIC1	0.822	0.873	0.881	0.913	0.723	2.038
	PIC2	0.869					2.451
	PIC3	0.853					1.981
	PIC4	0.857					2.180

Table 5
Fornell-Larcker Criterion

	Financial Support	Non- Financial Support	Organizational Performance	Product Innovation Capability
Financial Support	0.845			
Non-Financial Support	0.642	0.859		
Organizational Performance	0.536	0.608	0.882	
Product Innovation Capability	0.445	0.542	0.503	0.850

Table 6
Heterotrait-Monotrait Ratio (HTMT)

	Financial Support	Non-Financial Support	Organizational Performance	Product Innovation Capability
Financial Support				
Non-Financial Support	0.760			
Organizational Performance	0.602	0.703		
Product Innovation Capability	0.506	0.633	0.559	

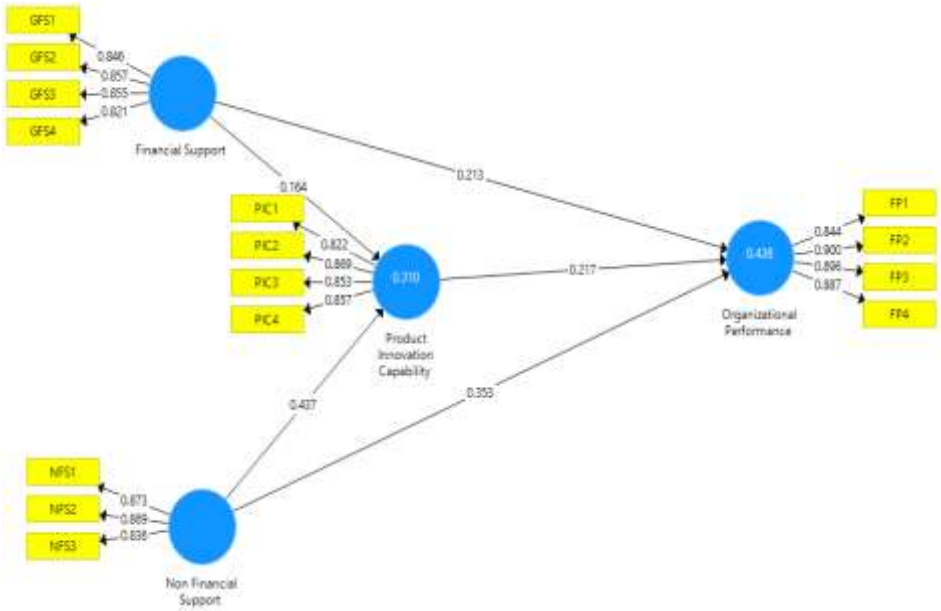

Figure 2: PLS Algorithm

Testing of Hypothesis

Once the measurement model evaluation meets all the reliability and validity thresholds, the next phase of the analysis is the structural model assessment and hypothesis testing via the variances of dependent variables in addition to the model's predictive relevance using stone-Geisser's Q^2, path coefficients, and significance levels (t-values). We used the blindfolding procedure to estimate the Q^2. The result as provided in Table 7 shows that product innovation capacity and organizational performance recorded Q^2 values of 0.217 and 0.331 which are above the threshold (>0).

Again, the coefficient of determination (R^2) was moderate (0.310) and (0.438) for product innovation capacity and organizational performance respectively. The implication is that government support (financial and non-financial support) and product innovation

capacity account for approximately 44% of variations within organizational performance in Ghana.

The outcome of the analysis showed that the first and second hypotheses of the study which sought to examine the effect of government support (financial and non-financial support) on organizational performance were confirmed. Specifically, financial and non-financial support had direct significant effect on organizational performance respectively (B=0. 219; t=3.542; P=0.000; Sig<0.005: B=0. 353; t=5.893; P=0.000; Sig<0.005). The analysis also supported the third and fourth hypotheses, which also envisages a positive significant association between government support (financial and non-financial support) on the product innovation capacity of SMEs was confirmed. Thus, financial and non-financial support had positive significant effect on product innovation capacity of SMEs respectively (B=0. 168; t=2.432; P=0. 015; Sig<0.005: B=0. 434; t=7.060; P=0.000; Sig<0.005).

Again, the fifth hypothesis was also confirmed that product innovation capacity positively influences organizational performance (B=0. 219; t=3.311; P=0. 001; Sig<0.005). We, therefore, conclude that all the five direct hypotheses were supported. Additionally, the study envisaged that the product innovation capacity would play an essential mediating role in the direct link between government support (financial and non-financial support) on organizational performance. The result shows that the product innovation capacity plays a significant indirect role in strengthening the link between non-financial support and organizational performance (B=0. 095; t=2.908; P=0.004; Sig<0.005). However, we also found that the product innovation capacity plays an insignificant indirect role in strengthening the link between financial support and organizational performance (B=0. 037; t=1.764; P=0. 078; Sig<0.005).

Table 7
Predictive Relevance

Construct	**R^2**	Q^2
Organizational Performance	0.438	0.331
Product Innovation Capability	0.310	0.217

Table 8
Testing Results of Relationships

Hypothesis	Path Coefficient	T Statistics	P Values	Results
Financial Support -> Organizational Performance	0.219	3.542	0.000	Supported
Non-Financial Support -> Organizational Performance	0.353	5.893	0.000	Supported
Financial Support -> Product Innovation Capability	0.168	2.432	0.015	Supported
Non-Financial Support -> Product Innovation Capability	0.434	7.060	0.000	Supported
Product Innovation Capability -> Organizational Performance	0.219	3.311	0.001	Supported
Non-Financial Support -> Product Innovation Capability -> Organizational Performance	0.095	2.908	0.004	Supported
Financial Support -> Product Innovation Capability -> Organizational Performance	0.037	1.764	0.078	Not Supported

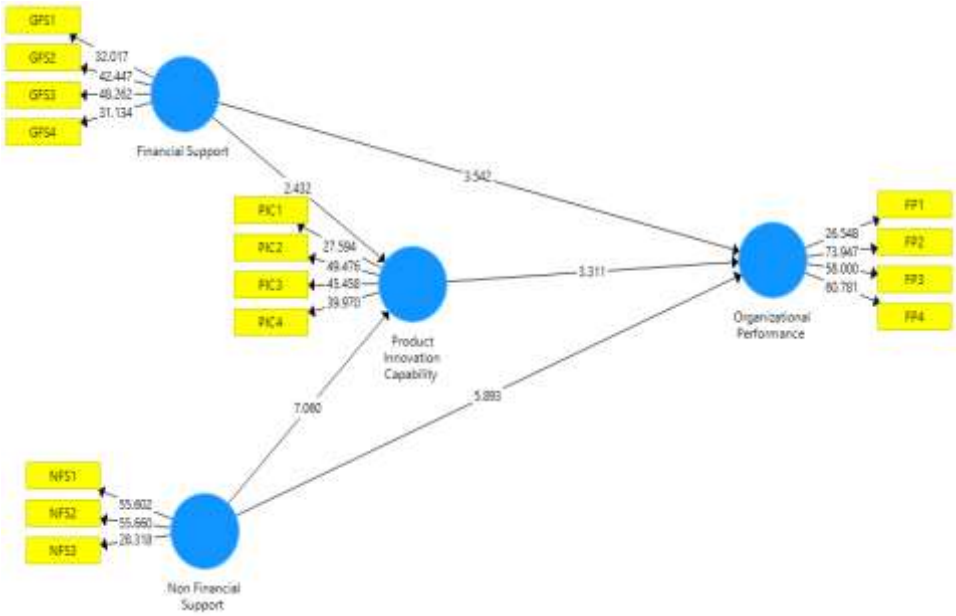

Figure 3: PLS Model

Discussion

The study aimed at unraveling the intervention of Government support (financial and non-financial support) on SME organizational performance. Given that a number of researches focused on advanced countries, this study focused on the developing country particularly Ghana. Drawing on the tenets of the resource-based view theory, the study explored the firm resources and capability to attain organizational performance. The study thus the mediating influence of product innovation capability between the relationship of Government Financial and Government Non-Financial support and organizational performance. The outcome of the research indicated the significant influence of all three direct relationships that are the GFS and GNFS having a significant influence on organizational

performance. The outcome of the analysis showed that the first and second hypotheses (H1 and H2) in examining the effect of government support (financial and non-financial support) on organizational performance revealed a significant positive relationship.

The results emanating from the data gathered further presented a significant positive influence of GFS and GNFS and PIC of manufacturing SMEs. Thus, financial and non-financial support had a positive significant effect on the product innovation capacity of SMEs respectively. This exhibits the potential of SMEs opening up to tap into the available government support to maximize the benefits therein anchored on the RBV theory through the utilization of firm resources. Also, PIC had a significant relationship with organizational performance. This outcome is supported by the work of (Szczygielski et al., 2017; Wei & Liu, 2015) acknowledging the influence of government support on performance.

The study discovered the mediating relationship of PIC between GFS and GNFS that product innovation capacity played a significant indirect role in strengthening the link between non-financial support and organizational performance. However, we also found that the product innovation capacity plays an insignificant indirect role in strengthening the link between financial support and organizational performance. This outcome is in the agreement with Naala et al (2017); Chundakkadan & Sasidharan (2020) outlining the challenges that SMEs encounter in their financial support system associated with Ghanaian SMEs.

Conclusion

This study had presented varied possible beneficial insights, first, the effect of GFS and GNFS bearing on organizational performance has been measured, analyzed, and evaluated. This demonstrates to have never been done before, particularly in Ghanaian manufacturing SMEs context. Second, the mediating prowess of product innovation capability of SMEs measurements used and evaluated in this study reveal the type and extent to which smaller manufacturing firms leverage their capabilities to exert their innovative performance. Third, this is among the few studies that present statistically validated convincing proof interaction among Ghanaian SME product innovation capabilities on GFS on one side and GNFS on the other and how well the aforementioned contributes to the full utilization of the support services available to the Ghanaian manufacturing SMEs.

This work has effectively established a foundation for future studies on SME innovation capability in achieving maximum benefits of government-induced support. This study has further shed light on the relationships which still need to be explored further in the case of developing nations. Finally, the outcome of this study will accord practitioners the opportunity to leverage the supports viability and engaging with the enabling bodies to explore the full potential in accessing and harnessing the inherent opportunities. Policymakers may as well be able to roll out policies and strategies that will best meet the requirement of SMEs.

Limitations and Future Research of the Study

In as much as this work has been done on SMEs, it was conducted in Ghana and might not be reflective of SMEs in other countries. Also while this study was conducted based on government support, the measures used was for only government financial support and government no-financial support giving room for other dimensions of government support to be understudied. Added to that is the PIC not having a mediation relation between GFS and performance. This calls for further studies.

Reference

Afriyie, S., Duo, J., Appiah, K., & Musah, A. I. (2018). The Nexus between Types of Innovation and Marketing Performance of Small Medium-sized Enterprises in an Emerging Economy, International Review of Management and Marketing, 8(6), 78-92.

Ahmad, S. Z., & Xavier, S. R. (2011). Entrepreneurial environments and growth : evidence from Malaysia GEM data. *Journal of Chinese Entrepreneurship, 4(1) 50-69*.

Alkahtani, A., Nordin, N., & Khan, R. U. (2020). Does government support enhance the relation between networking structure and sustainable competitive performance among SMEs ?, *3*.

Appiah, K., Selassie, H., & Burnley, R. (2015). *Determinants of SME international competitiveness: a case of Ghanaian horticultural exporters*. *The Business and Management Review* (Vol. 6).

Barney, J. (1991). Firm Resources and Sustained Competitive Advantage. *Journal of Management*, *17*(1), 99–120.

Bojica, A. M., & Fuentes-fuentes, M. M. (2019). Knowledge Acquisition and Corporate Entrepreneurship : Insights from Spanish SMEs in the ICT Sector, (July 2012).

Calantone, R. J., Cavusgil, S. T., & Zhao, Y. (2002). Learning orientation , firm innovation capability , and firm performance, *31*, 515–524.

Cant, M. C., & Wiid, J. A. (2016). " The use of traditional marketing tools by SMEs in an emerging economy : a South African perspective " The use of traditional marketing tools by SMEs in an emerging economy : a South African perspective. *Problems and Perspectives in Management, 14(1), 64-70*.

Chundakkadan, R., & Sasidharan, S. (2020). Financial constraints , government support , and firm innovation : empirical evidence from developing economies.

Davis, P. J., & Simpson, E. (2017). Resource-Based Theory , Competition and Staff Differentiation in Africa : Leveraging Employees as A Source of Sustained Competitive Advantage, *17*(2012), 19–33.

Eichhorn, B. R. (2014). Common Method Variance Techniques. *Midwest SAS Users Group*, 1–11. Retrieved from http://mwsug.org/2014-proceedings.html

Fornell, C., & Larcker, D. F. (1981). Evaluating Structural Equation Models with Unobservable Variables and Measurement Error. *Journal of Marketing Research*, *18*(1), 39.

Giraudo, E., Giudici, G., & Grilli, L. (2019). Entrepreneurship policy and the financing of young innovative companies: Evidence from the Italian Startup Act. *Research Policy*, *48*(9), 1–68.

Hair, J. F., Sarstedt, M., Ringle, C. M., & Mena, J. A. (2012). An assessment of the use of partial least squares structural equation modeling in marketing research. *Academy of Marketing Science*, 414–433.

Hair, J. F., Risher, J. J., & Ringle, C. M. (2018). When to use and how to report the results of PLS-SEM, *31*(1), 2–24.

Harahap, K., Raharja, J., Abdoellah, O. S., & Muftiadi, A. (2017). Effect of Product Differentiation Implementation on Marketing Performance on Apparel Industry in Bandung City, *19*(5), 41–50.

Hassan, R. Al, & Thurlow, J. (2010). *A NEW ERA OF Lessons from*.

Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling, 115–135.

Herman, H., Hady, H., & Arafah, W. (2018). The Influence of Market Orientation and Product Innovation on the Competitive Advantage and Its Implication toward Small and Medium

Enterprises (UKM) Performance, *04*(08), 8–21.

Hong, J., Feng, B., Wu, Y., & Wang, L. (2016). Technovation Do government grants promote innovation ef fi ciency in China ' s high-tech industries ? *Technovation*, *57–58*, 4–13.

Jimenez-jimenez, D., & Sanz-valle, R. (2011). Innovation , organizational learning , and performance. *Journal of Business Research*, *64*(4), 408–417.

Liao, Y., & Barnes, J. (2015). Knowledge acquisition and product innovation flexibility in SMEs. *Business Process Management Journal*, *21*(6), 1257–1278. https://doi.org/10.1108/BPMJ-05-2014-0039

Lonial, S. C., & Carter, R. E. (2015). Medium and Small Firm Performance : A Resource-Based Perspective, *53*(1), 94–113.

Ma, Y., Yin, Q., Pan, Y., Cui, W., & Xin, B. (2018). Green Product Innovation and Firm Performance : Assessing the Moderating Effect of Novelty-Centered and Efficiency-Centered Business Model Design. *Sustainability, MDPI*.

Naala, M. N. I., Nordin, N. B., & Omar, W. A. B. W. (2017). Innovation Capability and Firm Performance Relationship: a Study of Pls-Structural Equation Modeling (Pls-Sem). *International Journal of Organization & Business Excellence*, *2*(1), 39–50.

Pierre, A., & Fernandez, A.-S. (2018). *Going Deeper into SMEs' Innovation Capacity: An Empirical Exploration of Innovation Capacity Factors*. *Journal of Innovation Economics* (Vol. 25).

Ramukumba, T. (2014). Overcoming SMEs Challenges through Critical Success Factors : A Case of SMEs in the Western Cape Province , South Africa, *16*(1), 19–38.

Santoro, G., Vrontis, D., & Pastore, A. (2017). External knowledge sourcing and new product development: Evidence from the Italian food and beverage industry. *British Food Journal*, *119*(11), 2373–2387.

Saunila, M. (2020). Innovation capability in SMEs: A systematic review of the literature. *Journal of Innovation and Knowledge*, *5*(4), 260–265.

Schouten, B., Cobben, F., Lundquist, P., & Wagner, J. (2016). Does more balanced survey response imply less non-response bias ? *Journal of the Royal Statistical Society. Series A (Statistics in Society*, *179*(3), 727–748.

Songling, Y., Ishtiaq, M., & Anwar, M. (2018). The Role of Government Support in Sustainable Competitive Position and Firm Performance. *Sustanability*, *10*(3495), 1–17.

Szczygielski, K., Grabowski, W., Pamukcu, M. T., & Tandogan, V. S. (2017). Does government support for private innovation matter? Firm-level evidence from two catching-up countries. *Research Policy*.

Szczygielski, K., Grabowski, W., Teoman, M., & Sinan, V. (2017). Does government support for private innovation matter ? Firm-level evidence from two catching-up countries. *Research Policy*, *46*(1), 219–237.

Thongsri, N., & Chang, A. K. H. (2019). Interactions among factors influencing product innovation and innovation behaviour: Market orientation, managerial ties, and government support. *Sustainability (Switzerland)*, *11*(10).

Tuan, N., Nhan, N., Giang, P., & Ngoc, N. (2016). The effects of innovation on firm performance of supporting industries in Hanoi – Vietnam. *Journal of Industrial Engineering and Management*, *9*(2), 413–431.

Wang, J. (2018). Innovation and government intervention : A comparison of Singapore and Hong Kong. *Research Policy*, *47*(2), 399–412.

Wei, J., & Liu, Y. (2015). Government support and firm innovation performance Empirical analysis of 343 innovative, 38–55.

Zgrzywa-ziemak, A. (2015). The Impact of Organisational Learning on Organisational Performance. *Management and Business Administration. Central Europe, Vol. 23, No. 4/2015: P. 98–112*, *23*(4), 98–112.