**SMALL AND MEDIUM ENTERPRISES BENEFITING FROM GOVERNMENT SUPPORT, THE MODERATING ROLE OF PRODUCT INNOVATION CAPABILITY**

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**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, Ishtiaq, & Anwar, 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, Selassie, & Burnley, (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, Hady, & Arafah, 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, Nordin, & Omar, 2017). Using a dataset of 280 SMEs, Naala, Nordin, & Omar, (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:

H1

H2

H3

H4

GOVERNMENT

SUPPORT

Government

Financial Support

Repeat patronage

Organizational

Performance

Product

Innovation Capability

Repeat patronage

Government

Nonfinancial Support

**Knowledge**

Repeat patronage

H6

H5

H7

FIGURE I: 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), and 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 using500 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 I: 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 II: 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 (χ² = 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 III: 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 (Joseph F Hair, Risher, & Ringle, 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 IV: 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 V: 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 VI: 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 |  |

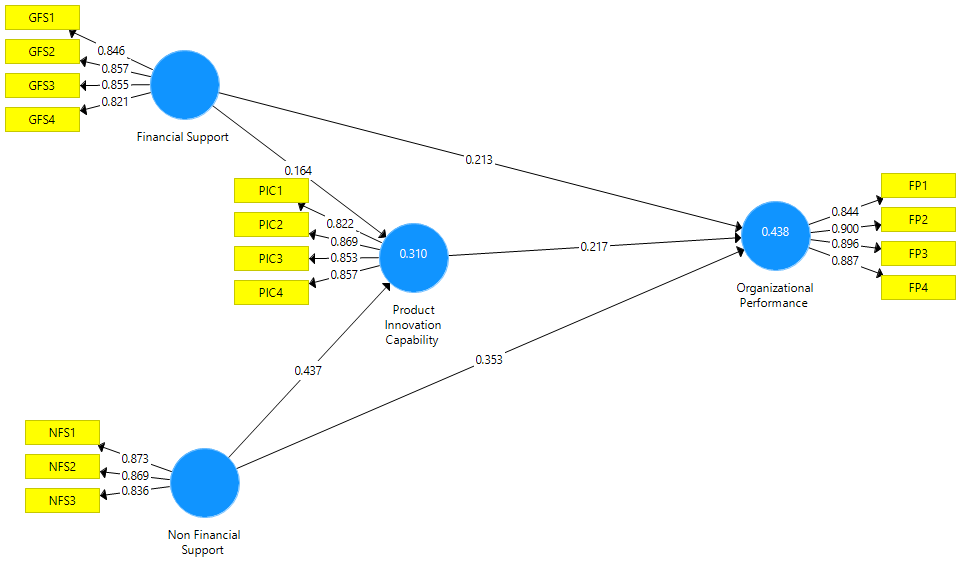


FIGURE II: PLS ALGORITHM

***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 Q2, path coefficients, and significance levels (t-values). We used the blindfolding procedure to estimate the Q2. The result as provided in Table 7 shows that product innovation capacity and organizational performance recorded Q2 values of 0.217 and 0.331 which are above the threshold (>0).

Again, the coefficient of determination (R2) 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 firth 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 VII: PREDICTIVE RELEVANCE

|  |  |  |
| --- | --- | --- |
| **Construct** | **R2** | Q2 |
| Organizational Performance | 0.438 | 0.331 |
| Product Innovation Capability | 0.310 | 0.217 |

### TABLE VIII: 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 |

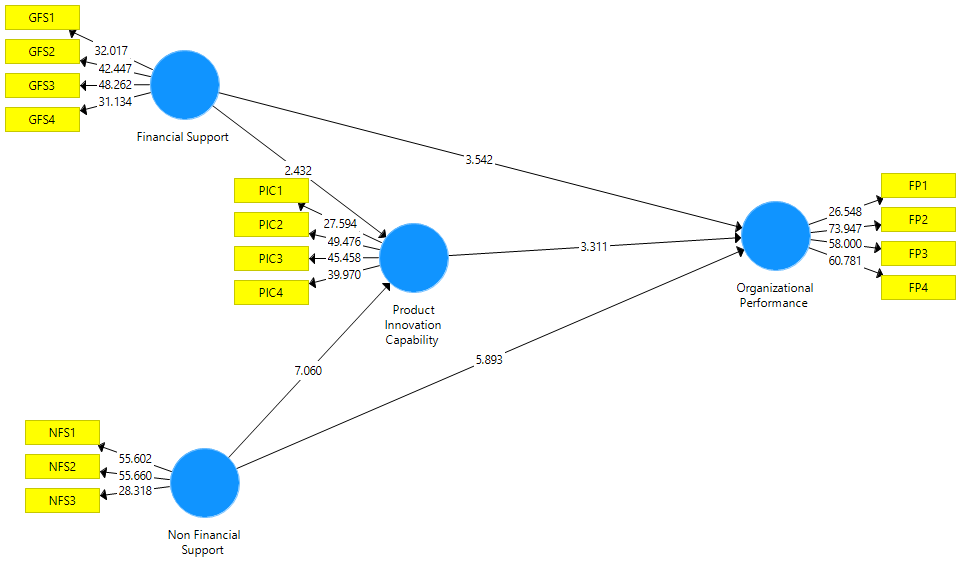


FIGURE III: PLS MODEL

**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, Grabowski, Pamukcu, & Tandogan, 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) and 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.

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