VOL. 29 NO. 7
ISSN: 2190-2099
JUNE, 2023

African Scholar Publications & Research International

African Scholars Journal of Business Dev. and Management Res. (JBDMR-7)

Effect of Entrepreneurial Competencies and Religiousity on the Performance of MSMEs in Adamawa State

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Abstract

Understanding the competencies of the entrepreneurs is important to solve lingering problems that affect the performances of the MSMEs especially in the less developed countries and specifically some less performing states in Nigeria. The main objective of this study was to investigate the moderating role of religiousity in the relationship between entrepreneurial competencies and the performance of MSMEs in Adamawa State. Based on the objectives of the study, six hypotheses were formulated for testing. Cross sectional method was used to collect data from 265 respondents who are mainly owners and managers of MSMEs in Adamawa State, Nigeria. Data analysis was carried out using Statistical Package for Social Science (SPSS) and Partial Least Square-Structural Equation Model (PLS-SEM) i.e. PLS3. Given the results obtained from statistical analysis of the moderation relationships, 1 of the 3 null hypotheses was rejected while 2 were supported. Hence, religiousity was found to have significant moderating role between entrepreneurial technical competency and performance of MSMEs in Adamawa State while the moderating role on personal competency and ethical competency were empirically insignificant. Among the major recommendations of the current study is that stakeholders in entrepreneurship development need to invest in

capacity building for the MSMEs owners and managers to boost their competencies and performance of their enterprises; and that owners and managers of enterprises should be mindful of their religiousity, as religiousity have significant implication on the delivery of their managerial technical functions. Finally, the study concludes by highlighting **some** suggestions that open up ways for future research.

Keywords: Competencies, Religiousity, MSMEs, Performance.

Introduction

The strategic role played by Micro, Small and Medium Scale Enterprises (MSMEs) in jobs and wealth creation, economic transformation and national development cannot be overemphasized. MSMEs are one of the engines of growth and catalysts for socio-economic transformation of any country. MSMEs have been identified as catalysts for the attainment of economic objectives of any nation through the development of entrepreneurship culture, indigenous technology and promotion of social welfare. These important roles of MSMEs are acknowledged in the economic growth and development of developed as well as developing countries of the world (Eniola, 2018; Chukwuma and Ogbeide, 2017).

Micro, small and medium enterprises (MSMEs) play a big role in the Nigerian economy and economies around the globe. MSMEs outnumber large companies by a wide margin and also employ many more people. SMEs are important for economic and social reasons, given the sector's role in employment (Ali & Abdulganiyu, 2021). Most economies, particularly those of developing countries like Nigeria, march on the shoulders of small and medium-sized businesses (Asikhia, 2018). This is because MSMEs are characterized by dynamism, innovations, efficiency, and their small size allows for a faster decision-making process. SMEs are believed to be the engine room for the development of any economy because they form the bulk of business activities in a growing economy like that of Nigeria (Eze, 2020).

Small and Medium Scale Enterprises (MSMEs) form the bulk of the businesses in Nigeria (SMEDAN, 2019). The attraction to the owners includes being less capital intensive and flexibility in filling the need in niche markets. Their contribution to the

growth of the Nigerian economy cannot be understated as they drive the economic and industrial transformation of the country (Central Bank of Nigeria, 2017).According to Central Bank of Nigeria (2017), SMEs are very important economic catalyst in developing and industrialized countries, in developed countries 92% or more than belong to the Micro, Small and Medium scale sector. In Japan, 80% of industrial labour force is employed by small firms, 50% in Germany and 46% in USA are employed by smaller businesses.The performance of any firm or its employees primarily depends on capability of the individual owners or management of the firm (Chukwuma and Ogbeide, 2017). This shows that performance is expected of relative input from individual business owners and entrepreneurs based on their initiative, ability, timeliness and readiness. Shehnaz, Farhad, Zuhaib, Mohammad & Ramayah (2019) argued that the entrepreneurial competencies are linked with growth and sustainability of enterprises. Bendary and Minyawi (2015) also argued that competency can lead to outstanding performance and profit maximization.

The Nigerian government recognized the indispensable role of MSMEs to economic growth and national development and has always taken steps to create some enabling environment to nurture entrepreneurial development, through establishment of various agencies to provide financial resources to MSMEs operators and entrepreneurs (SMEDAN, 2019, Remeikiene & Startiene, 2013; Central Bank of Nigeria, 2020). Despite the agencies interventions and the provision of financial resources to these entrepreneurs and MSMEs operators, there is still a high rate of entrepreneurial failure especially in the performance and survival of the enterprises (Chukwuma & Ogbeide, 2017). Despite their many performance contributions to Nigerian economy, MSMEs are still beset by the high level of collapses and substandard performance (Eniola, 2018). MSMEs are failing to create expected effects on theeconomy of Nigeria even of getting government andadministrative support. This is because of the existenceof some basic inherent problems or complexities that MSMEs come across that have not been tackled yet (Radda, Akanno, Abba, Isa & Mangal, 2016).

The underperformance of business enterprises in Nigeria and the less develop nations are results of competencies problem of the business owners and managers and could also be the superstitions and bigotry that were born out of traditions and religious misbeliefs of the developing nations (Eniola, 2018; Radda et al, 2016). Religiousity and cultural values militate against financial knowledge acquisition that in turn affects the performance of MSMEs in Sub-Sahara Africa(Delgado,

Cruz and Pedrozo, 2018). Nigerians MSMEs operators pay less attention to critical competency issues such as management, planning, business technicalities and performance of social roles(Radda et al, 2016). Rather most attentions are always on financial resources and a lot of their decisions in business are influenced by culture and religious norms (Johnson, George, Owoyemi & Adegboye, 2014). Many entrepreneurs in Nigeria still believe that failures in business are caused by the devil and spiritual enemies rather than physical and scientific factors (Eniola, 2018). They look out for solutions to business failure from men of God rather than business experts and consultants (Johnson et al, 2014).

The religiousity of the MSMEs owners in Nigeria therefore could have being the factor that moderates the competencies of the business owners and the performance of the MSMEs in Nigeria; especially in Adamawa State where religiousity is high among individuals and institutions (Eze, 2020) and religion is a sensitive social factor(International Religious Freedom Report, 2017); yet MSMEs performance in the state and their contributions to GDP is one of the lowest in the country (SMEDAN, 2019). Whether the religiousity of abusiness owner could be a moderating factor between entrepreneurial competencies and the performance of MSMEs is what this research work therefore seeks to find out.

Statement of the Problem

Inadequate capability of business owners and entrepreneurs in Nigeria is one of the critical factorsagainst the success of entrepreneurship and survival of MSMEs in the country(Muhammed, 2016). Previous studies on the relationship of the entrepreneurial competencies and firms' performance however had relatively inconsistent results (Haque and Kozlovski, 2018; Muhammed, 2016, Rutiyomba, 2015).The general assumption is that entrepreneurial competencies have positive relationship with a firm's performance. The conflicting submissions were on the degree to which entrepreneurial competencies affect a firm performance using different dimensions.

Malgharni, Wan-Yusoff and Arumugan (2011) through the intermediary effect of financial leverage; found that Entrepreneurial Competencies has no connection with MSMEs' performance in Italy and Austria. To Haque and Kozlovski(2018), although growth, number of employees and sales outcomes are significantly related to skills of the entrepreneurs or firm owners, profit and other financial and qualitative measures are not connected to competencies; they are more connected to business environmental factors. Their work found a weak connection between

Entrepreneurial Competencies and firms' performance in the developed countries of Germany, Switzerland, Spain and the United States.

According to Chukwuma and Ogbeide (2017), the missing link in MSMEs performance in Nigeria is Entrepreneurial Competencies because it has strong indications; they did not support their opinion with scientific facts of using statistical tools. Muhammed (2016) however revealed that entrepreneurial skills and entrepreneurial characteristics as variables of entrepreneurial competencies have significant effect on the performance of MSMEs in Kaduna State but entrepreneurial motives have insignificant effect on MSMEs performance. This divergence in the extant literature needs to be critically and more scientifically looked into(Shehnaz et al, 2019).The divergence is derived from a lack of exploration of the indirect effect of entrepreneurial competencies. In particular, prior studies predominantly have overlooked the mediating and moderating effects in the relationship between strategic and ethical competencies on the growth of MSMEs.

Competencies alone may not be the determinant factor for the success of an enterprise (Shehnaz et al; 2019). Some environmental factors, especially psycho-social and cultural values are capable of influencing competencies from performance (Khurana, Ghura & Dutta, 2021; Dougherty et al, 2019). Religiousity is one of the psycho-social factors researchers have found relevant to the study of Entrepreneurship and Business Management (Dougherty et al, 2019) (Malgharni et al., 2011).

Religiousity to an extent determines the values and norms that may affect the formation of behavior including leadership and participation (Khurana et al. 2021). It is a psycho-social environmental element that defines for an individual or a society what is permitted to accomplish and also influences the development of attitudes and entrepreneurial intentions (Dougherty et al, 2019). Thus, changes in religiousorientation and values have implication on attributes that ushers a new understanding of entrepreneurship and business management (Delgado et al., 2018).

This study therefore seeks to contribute to the literature by promoting a model where religiousity as a social factor is used as a moderator between entrepreneurial competencies and MSMEs performance in Adamawa State of Nigeria.

Research Questions

i. Does personal competency affect the performance of MSMEs?

ii. Does technical competency affect the performance of MSMEs?
iii. Does ethical competency affect the performance of MSMEs?
iv. Does religiousity moderate the relationship between personal competency and performance of MSMEs?
v. Does religiousity moderate the relationship between technical competency and performance of MSMEs?
vi. Does religiousity moderate the relationship between ethical competency and performance of MSMEs?

Research Hypotheses

For this study, the following research hypotheses are formulated for validation:

H_{01}: Personal competency has no significant influence on the performance of MSMEs.

H_{02}: Technical competency has no significant effect on the performance of MSMEs.

H_{03}: Ethical competency has no significant effect on the performance of MSMEs.

H_{04}: Religiousity does not moderate the relationship between personal competency and the performance of MSMEs.

H_{05}: Religiousity does not moderate the relationship between technical competency and the performance of MSMEs.

H_{06}: Religiousity does not moderate the relationship between ethical competency and the performance of MSMEs.

METHODOLOGY

This study adopted survey research design which is cross-sectional. A cross-sectional design was used to collect data at one point in time (Kothari & Garg, 2014). The population of this study comprises the Owners/Managers of the seven hundred and thirty-four (734) MSMEs in Adamawa State identified by National Bureau of Statistics (NBS) - Small and Medium Enterprises Development Agency of Nigeria (SMEDAN) National Survey of MSMEs, 2019. The sample size for this study is 285 owners and top managers of the targeted MSMEs, sampled using proportionate quota sampling. The data for this research were obtained specifically from primary source through questionaire. Method of data analysis employed in this study is partial least squares structural equation modeling (PLS-SEM).

DATA PRESENTATION AND ANALYSIS

Respondents' Profile

The demographic variables examined in the current study include age distribution, gender distribution, education, years of operation and nature of the enterprises. Based on the results, it can be observed that the highest number of the respondents fall within the range age of 36 to 45 and accounted for 29.4%. Hence, many of the respondents of the current study are within the bracket age of active population of the country. Regarding the gender distribution, majority of the respondents are male, having a corresponding percentage of 74. The distribution complies with the working population in Nigeria, which male constitutes the highest working population.

Regarding educational qualification of the respondents, majority of the respondents have secondary education representing 29.1%. Concerning the number of years of operation of the sampled enterprise, 43.9% constituted the majority and were within the range age of 6 to 9 years. Lastly, with regards to the nature of the enterprise sampled, majority of them deal in distribution of goods (Whole/Retails) and accounted for 32.5%.

Table 4.5: Demographic Statistics of Respondents (314)

Demography	**Frequency Distribution**	**Percentage**	**Cumulative Percentage**
Age			
15 – 25	30	11.3	11.3
26 – 35	54	20.4	31.7
36 – 45	78	29.4	61.1
46 – 55	65	24.5	85.6
Above 55	38	14.4	100.0
Gender			
Male	183	69.1	69.1
Female	82	30.9	100.0
Education			
Informal Education	19	7.2	7.2
Basic Education	26	9.8	17
Secondary Education	77	29.1	46.1
ND/NCE	54	20.4	66.5

HND/Degree	66	24.9	91.4
Others	23	8.6	100.0
Years of Operation			
0-5 years	62	23.4	23.4
6-9 years	140	52.8	76.2
10-14	38	14.3	90.5
15 above	25	9.5	100.0
Nature of Enterprise			
Mining/Agriculture	38	14.3	14.3
Manufacturing	62	23.4	37.7
Distribution	86	32.5	70.2
Services	79	29.8	100

Descriptive Statistics of Variables of the Study

This section presents descriptive statistics output, specifically the mean and standard deviation of the studied variables, namely, personal competency, technical competency, ethical competency, religiousity and MSMEs performance. For easier interpretation, the five-point Likert scale used in the present study was classified into three categories, namely, low, moderate and high. Scores of less than 2.5 is considered as low; scores of above 2.5 is considered high, while scores of 2.5 is considered moderate (Sassenberg, Matschke, & Scholl, 2011).

Table 4.6 shows that the mean and the standard deviation of PC are 3.37 and 1.27. This is above average (i.e., 2.5) of the Likert scale used in the study. This indicates that the respondents are highly agreed with the statement or questions on personal competency. Similarly, a mean of 3.70 and standard deviation of 1.08 were recorded for technical competency which is also higher than the average. This is an indication that the respondents highly agreed with the statement on technical competency. More so, ethical competency has a mean response of 3.74 and standard deviation of 1.05. This signifies that the respondents tend to be highly agreed with the statement or questions on ethical competency. In addition, religiousity has a mean response of 3.56 and standard deviation of 1.14. This means that the respondents tended to have high level of perception towards religiousity. Finally, a mean response of 3.63 and standard deviation 0.99 has been calculated for MSMEs performance. This is an indication that the respondents are highly agreed with statements, indicating the existence of the various concepts.

Table 4.6: *Descriptive Statistics of Variables*

Variables	Sample	Mean	Std. Deviation
PC	265	3.37	1.27
TC	265	3.70	1.08
EC	265	3.74	1.05
RB	265	3.56	1.14
PERF	265	3.63	0.99

Note: PC represents Personal Competency; TC represents Technical Competency; EC represents Ethical Competency; RB represents Religiousity; PERF represents Performance

Assessment of the Measurement Model

In using Smart PLS, measurement model needs to be assessed as recommended by Hair et al.(2017) and it involves determination of individual item reliability, internal consistency reliability, discriminant validity and convergent validity.

Individual Item Reliability

The study carries out PLS algorithm as shown in Figure 4.1 with a view to ascertaining the individual item reliability and other measurement model assessments. The individual item or factor reliability of reflective constructs was determined using the outer loadings of each construct's indicators (Hair *et al.*, 2017). According to Sánchez(2018), an indicator with a minimum outer loading value of 0.60 is reliable and acceptable. However, rather than simply removing indicators with loadings less than 0.60, they should be removed only if the Average Variance Extracted (AVE) and Composite Reliability (CR) values improve (Hair et al., 2014). As such, out of 30 items measuring five (5) reflective constructs [(i.e., Personal Competency (PC), Technical Competency (TC), Ethical Competency (EC), Religiousity (RB) and Performance (PERF)] in the current study, 27 items were retained while 3 items were removed. Specifically, out of 6 items measuring EC, 1 item (was removed. Also, 2 items (i.e., PERF7 &PERF8) were removed from the 8 items measuring PERF. Those aforementioned items were removed because their outer loadings fell below 0.6, and at the same time their removal failed to improve AVE and CR values (see Hair et al., 2014). Therefore, all the remaining

items left were found reliable to adequately measure their respective reflective latent constructs.

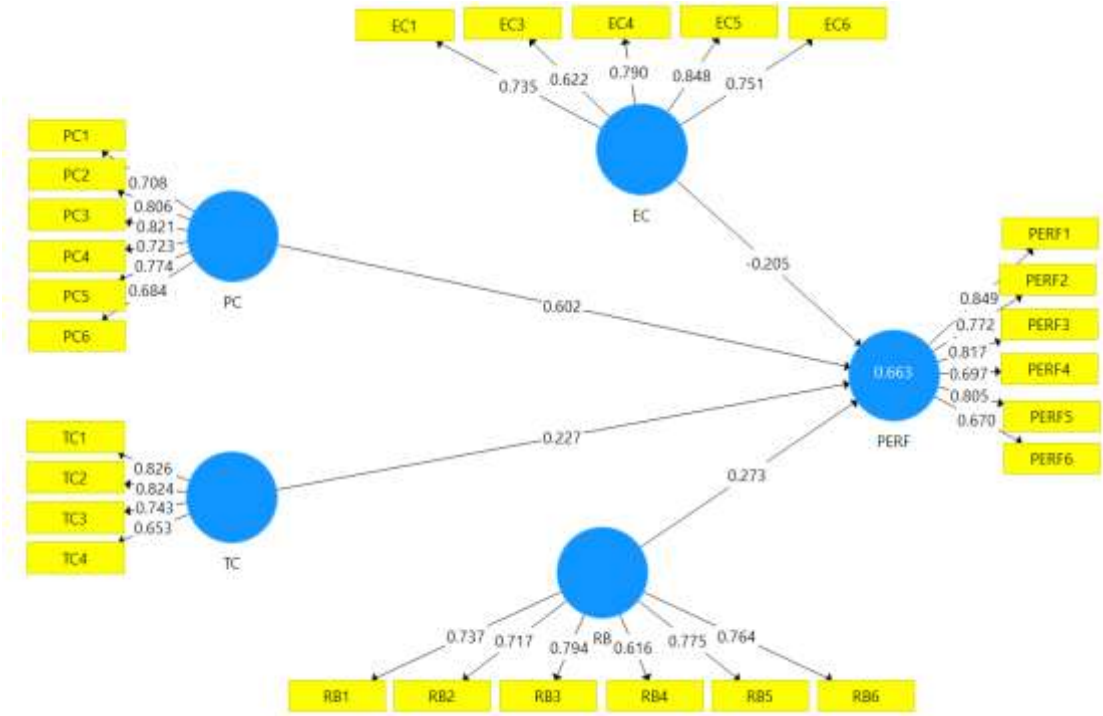

Figure 4.1: Measurement Model

Internal Consistency Reliability

Internal consistency reliability assesses the extent to which all items on a particular (sub) scale are measuring the same concept (Fornell & Larcke, 2011). Notably, Composite Reliability (CR) coefficient and Cronbach Alpha (CA) coefficient are the most commonly used estimators of the internal consistency reliability of an instrument in academic research (Peterson & Kim, 2013). However, composite reliability coefficient was chosen in the current study to ascertain the internal consistency reliability of measures adapted based on two main justifications. Firstly, composite reliability coefficient offers a much less biased assessment of reliability than Cronbach's alpha coefficient because the later assumes all items contribute equally to the construct without considering the actual contribution of an individual item loading. Secondly, Cronbach's alpha coefficient may over or under-assess the scale reliability (Peterson & Kim, 2013).

Based on the aforementioned justifications, composite reliability (CR) has been suggested to be the accurate approach to check the internal consistency reliability of constructs, especially in Structural Equation Model (SEM) (Peterson & Kim,

2013). According to Hair *et al.* (2017), a reflective latent construct is said to be reliable when it has a minimum CR value of 0.70. As shown in Table 4.7, the CR of all the reflective constructs in this study ranges from 0.866 to 0.898. In particular, PC has a CR of 0.887, TC has 0.848, EC has 0.864, RB has 0.876 and PERF has 0.897 respectively. Based on the aforementioned rule of thumb, the internal consistency reliability of all the reflective constructs (composite reliability) in this study is therefore adequate.

Convergent Validity

Convergent validity is the extent to which a measure correlates positively with alternative measures of the same construct (Hair et al., 2017). In the current study, convergent validity was assessed using Average Variance Extracted (AVE) values. It has been suggested that a minimum value of 0.5 is adequate for convergent validity (Fornell & Larcker, 2011). Going by the AVE's values in Table 4.7, the values ranges from 0.520 and 0.598. Specifically, PC has the AVE value of 0.569, TC has 0.585, EC has 0.520, RB has 0.876, and PERF has 0.595 respectively. Thus, AVE values affirm the convergent validity of the constructs of this study.

Table 4.7: *Measurement Model: Reliability and Convergent Validity*

Construct	**Items**	**Loadings**	**AVE**	**CR**
PC	PC1	0.708		
	PC2	0.806		
	PC3	0.821	0.569	0.887
	PC4	0.723		
	PC5	0.774		
	PC6	0.684		
TC	TC1	0.826	0.585	0.848
	TC2	0.824		
	TC3	0.743		
	TC4	0.653		
EC	EC1	0.735	0.52	0.864
	EC3	0.662		
	EC4	0.79		
	EC5	0.848		
	EC6	0.751		

RB	RB1	0.737	0.876	0.876
	RB2	0.717		
	RB3	0.794		
	RB4	0.616		
	RB5	0.775		
	RB6	0.764		
PERF	PERF1	0.849	0.595	0.897
	PERF2	0.772		
	PERF3	0.817		
	PERF4	0.697		
	PERF5	0.805		
	PERF6	0.67		

Note: CA means Cronbach Alpha; CR means Composite Reliability; AVE means Average Variance Extracted. PC represents Personal Competency; TC represents Technical Competency; EC represents Ethical Competency; RB represents Religiousity; PERF represents Performance.

Bootstrapping Analysis for Direct and Indirect Relationships

In PLS-SEM, it is of significance to carry out a bootstrapping analysis to determine the direct relationship between exogenous variables and endogenous variable. In the current study, the direct relationships between personal competency, technical competency, ethical competency and performance were determined via bootstrapping, including moderating effect of religiousity on the relationships. Bootstrapping was done by using 5000 subsamples using 265 cases. Figure 4.3 shows the full structural model for both direct and moderating effects.

Test of Hypotheses for Direct and Moderating Relationships

As can be seen in Figure 4.2, the structural model specifically analyzed both the direct and moderating effect represented by hypotheses. Specifically, the structural model outputs with regards to the direct relationships are presented as thus:

H1: Personal Competency has no significant effect on the performance of MSMEs.

H2: technical competency has no significant effect on the performance of MSMEs.

H3: ethical competency has no significant effect on the performance of MSMEs.

The structural model also analyzed the moderating effect of religiousity via a product indicator approach using SEM-PLS. As such, moderating effect of religiousity was tested on all the three direct relationships represented by hypotheses thus:

H4: Religiousity does not moderate the relationship between personal competency and the performance of MSMEs.
H5: Religiousity does not moderate the relationship between technical competency and the performance of MSMEs.
H6: Religiousity does not moderate the relationship between ethical competency and the performance of MSMEs.

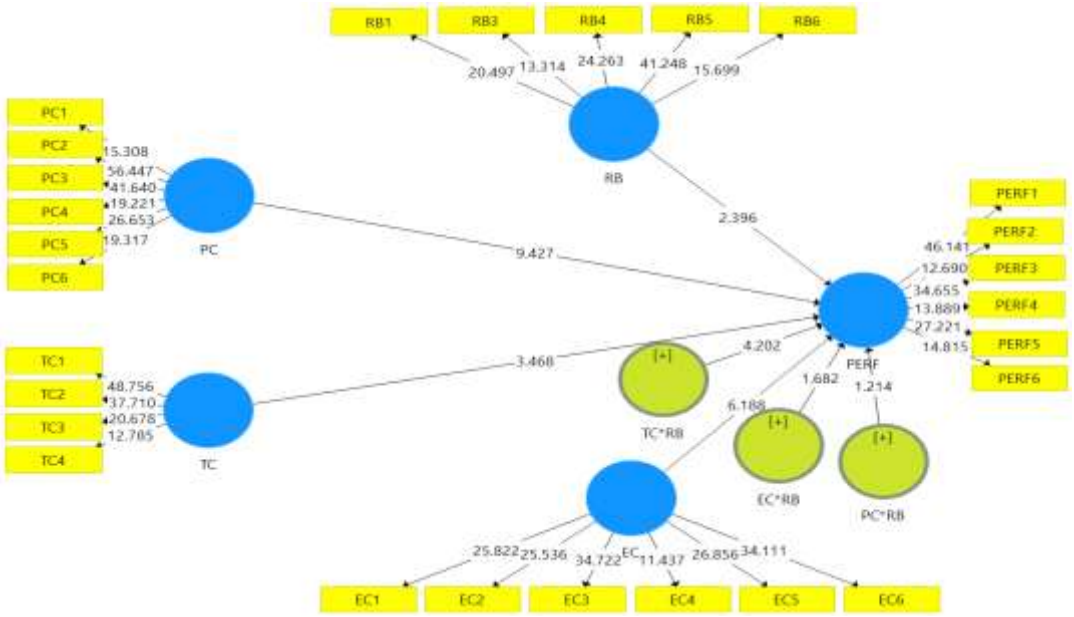

Figure 4.2: Full Structural Model

The results of the structural model assessment based on the direct relationships between the predictors and criterion variables of this study are presented in Figure 4.2 and Table 4.9. As depicted in Table 4.9, the results of the direct path statistical analysis (i.e., β = 0.456; t- value = 9.427; p-value <0.01) show that personal competency has significant effect on the performance of MSMEs. Hence, hypothesis 1 which predicted that personal competency has no significant effect on the performance of MSMEs was rejected. More so, the results of the direct path statistical analysis (i.e., = 0.139; t- value = 3.468; p-value = 0.01) reveal that technical competency significantly influence the performance of MSMEs. Therefore, Hypothesis 2 that stated that technical competency has no significant effect on the performance of MSMEs was rejected. Similarly, results of the direct path statistical analysis (i.e., β = 0.305; t- value = 6.188; p-value <0.01) demonstrate that ethical competency significantly impact the performance of MSMEs. Hence, Hypothesis 3 which predicted that ethical competency has no significant effect on citizen satisfaction was also rejected.

Table 4.8: *Direct Path relationship*

Hypotheses	Relationship	Beta Value	Standard Deviation	T Stat	p-value	Decision
H_{01}	PC=>PERF	0.602	0.048	9.427	0.000***	Rejected
H_{02}	TC=>PERF	0.227	0.040	3.468	0.001**	Rejected
H_{03}	EC=>PERF	-0.205	0.049	6.188	0.000***	Rejected

Note: ***p value significant at <0.01; **p value significant at <0.05; PC represents Personal Competency; TC represents Technical Competency; EC represents Ethical Competency; RB represents Religiousity; PERF represents Performance.

On the other hand, it could be recalled that Hypothesis 4 stated that Religiousity does not moderate the relationship between personal competency and the performance of MSMEs. Specifically, the results of the statistical analysis (i.e., β = -0.166, t = 1.214, p >0.1) displayed in Table 4.10 and Figure 4.2 show that Religiousity fail to significantly moderate the relationship between personal competency and the performance of MSMEs. Hence, Hypothesis 5 which stated that Religiousity does not moderate the relationship between personal competency and the performance of MSMEs was empirically supported. However, the results (i.e., β = 0.143, t = 4.202, p = 0.01) shown in Table 4.10 and Figure 4.2 does not support Hypothesis 5, which posited that religiousity does not moderate the relationship between technical competency and the performance of MSMEs was empirically rejected. Hence, the relationship is stronger (i.e. more positive) for MSMEs with high religiousity than it is for MSMEs with low religiousity. Finally, the results obtained from Table 4.10 and Figure 4.2 (i.e., β = 0.079, t = 1.682, p>0.05) shows that Hypothesis 6 which predicted that Religiousity does not moderate the relationship between ethical competency and the performance of MSMEs was empirically supported.

Table 4.9: *Moderating Effect*

Hypotheses	Relationship	BetaValue	T Statistics	p value	Decision
H_{04}	PC*RB=>PERF	-0.166	1.214	0.225	Supported
H_{05}	TC*RB=>PERF	0.139	4.202	0.001	Rejected
H_{06}	EC*RB=>PERF	0.079	1.682	0.093	Supported

Note: ***p value significant at <0.01; **p value significant at <0.05; PC represents Personal Competency; TC represents Technical Competency; EC represents Ethical Competency; RB represents Religiousity; PERF represents Performance.

Assessment of the Effect Size

Table 4.10 demonstrates the effect size of exogenous variables (i.e., personal competency, technical competency, ethical competency and religiousity) on endogenous variable (i.e., MSMEs performance). According to Henseler, Ringle and Sarstedt (2015), the rule of thumb for f^2 values are 0.02, 0.15, and 0.35, indicating small, medium and large effects respectively. As depicted on Table 4.10, personal competency has an effect size value of 0.651 representing large effect size while technical competency, ethical competency and religiousityhave effect size values of 0.081, 0.045 and 0.082 respectively, each representing small effect size. Based on Cohen (1988)'s suggestion, the contribution of personal competency to MSMEs performance is reasonably high compared to technical competency, ethical competency and religiousity.

Table 4.10: *Assessment of Effect Size*

Constructs	**F^2 (PERF)**
PERF	NA
PC	0.651
TC	0.081
EC	0.045
RB	0.082

Note: NA represents Not Applicable; PC represents Personal Competency; TC represents Technical Competency; EC represents Ethical Competency; RB represents Religiousity; PERF represents Performance.

Coefficient of Determination

Coefficient of determination or evaluation The R-square (R2) level is another commonly used measure for evaluating structural model relationships in the PLS-SEM model (Henseler et al., 2015). As a result, Chin, Marcolin. & Newsted (2003) considered R2 values of 0.67, 0.33, and 0.19 in the PLS-SEM modeling to be substantial, moderate, and weak, respectively. The R square value (coefficient of determination) of 0.663 is shown in Table 4.11. Hence, personal competency, technical competency, ethical competency and Religiousity account for 63.3% of the variation in MSMEs performance. According to Chin et al. (2003) suggestion, the R2 value explains by these latent variables on the target endogenous latent variable is fairly substantial.

Table 4.11: Coefficient of Determination

Construct	R2
PERF	0.663

Assessment of Predictive Relevance of the Relationships

In order to assess the predictive relevance of the exogenous latent variables on the endogenous latent variable, blindfolding procedure was employed using Stone-Geisser's Q^2(Hair et al., 2014; Hair et al., 2013). The rule is that the values of Q^2 should be greater than zero. As such, Table 4.12 presents the result of cross-validated redundancy between the exogenous latent variables and endogenous latent variable. Therefore, the model shows a strong predictive relevance since the value of Q^2 is greater than zero (Fornell & Larcke, 2011).

Table 4.12: *Predictive Relevance of Exogenous Variables*

Construct	**SSO**	**SSE**	**Q^2 = 1-SSE/SSO**
Performance	2604.000	1597.720	0.386

Summary of Findings

Having presented the results of the hypothesized relationships in the previous sections of this chapter, it is noteworthy to summarize all the findings or results of the present study in a single table for clarity purpose. Hence, Table 4.13 represents the summary of findings.

Table 4.13: *Summary Hypotheses*

Hypotheses.	**Hypothesized Path**	**Decision**
	Direct Effects	
H_{01}	PC -> PERF	Rejected
H_{02}	TC -> PERF	Rejected
H_{03}	EC -> PERF	Rejected
	Moderating Effects	
H_{04}	PC*RB-> PERF	Supported
H_{05}	TC*RB-> PERF	Rejected
H_{06}	EC*RB-> PERF	Supported

Conclusion

In line with the findings of the study, it can be concluded that personality competency, technical competency and ethical competency have significant

positive effects on the performance of MSMEs in Adamawa State. Similarly, in the context of moderation, religiousity moderates the relationship between technical competency and MSMEs performance but did not moderate the relationship between personality competency and MSMEs performance as well as the relationship between ethical competency and MSMEs performance. Therefore, the study concludes that MSMEs owners/managers and stakeholders in the sector should give rapt attention to the personality competency, technical competency and ethical competency of the entrepreneurs for effective performance of the MSMEs. They should also be mindful of their religiousity as they significantly moderate their technical competencies.

Recommendations

Based on the findings, the following recommendations are made:

i. MSMEs owners and managers should ensure they build and develop their personality competencies in business operations as the success or otherwise of their enterprises could be determined by the factor of their personality competencies.
ii. MSMEs owners and managers should improve on their technical competencies as they constitute the operational activities of the enterprises.
iii. Owners and managers of enterprises should be mindful of interference of religiousity with their entrepreneurial competencies as religiousity has significant implication on the delivery of their managerial technical functions especially in the areas of technicalities which include communication, innovation, leadership and teamwork.
iv. Although religiousity and cultures are parts of the factors that made the personality of every individuals. Often, they are also the bases of the ethics in businesses and life affairs. They however need to be modest and not threatening in handling business management and technicalities.

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