Impact of Capital Structure on Innovation and Performance of Small and Medium Enterprises in Nigeria: A Study of the Sector in the north-central States

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Abstract: *The issue of capital structure of Small and Medium Enterprises (SMEs) and the impact of each component on the innovation and performance of the sector in Nigeria has been lingering. A number of studies have been done on financial leverage businesses but none on SMEs in Nigeria. The aim of this study, therefore, is to examine the impact of capital structure on innovation and performance of SMEs in Nigeria: A study of the sector in the North Central States of the country. A random sampling technique was adopted, and data were sourced primarily from 480 respondents comprising owners and managers of 127 SMEs operating in Plateau, Nasarawa, and Kogi States in the Central Zone of the country. Responses to the questionnaire designed to reflect a five-point Likert scale were analyzed using Partial Least Square Structural Equation Modelling (PLS-SEM). Results indicated that Crowd Funding (CF), an external source of finance, has the most significant impact on the innovation and performance of these enterprises. The study recommended that while SME operators should develop a platform for exchanging ideas on financing sources available to the sector, the Enterprise Development Agency of Nigeria (SMEDAN), the regulatory authority of the sector in the country, should develop programs to encourage innovative ability of the operations of enterprises.*

Introduction

Small and Medium Enterprises (SMEs) have different ways of building their capital. The structure of capital is important because it deals with the consideration of components of financing sources available to a business for its operations. Capital Structure (CS) or financial leverage of any business is a proportion of funds provided by owners (internal source of financing) and funds provided by outsiders or investors (external source of financing). The sources have their pros and cons, and as such, the quest of owners and managers is to obtain the best/ optimum financing mix for their enterprise (Dennis & Egol, 2015; Wright & Patz, 2013). The mixing of finance presupposes the existence of a relationship between the CS of a business and various dimensions of innovations and performance the mix can propel in a business. This is so because somewhere between operational expenses and net profit figures in a business's income statement lies expenses incurred for payment of debts.

A business with heavy debts in its capital structure may be burdened each year with large interest payment that reduces net profit which might be reinvested for further operation if not distributed among owners. But then, profit is just one source of financing for business operations. Businesses need funds from broad sources (internal and external) for their innovative activities and performance. Studies in developed economies (Stigler & Kotney, 2019; Covelett & Kleven, 2018; Volgue & Kimto, 2016; Stokey & Staurt,

2015; Jones & Martin, 2014) established a relationship between CS of a business and innovation and performance. Similarly, in Nigeria, studies (Bassey & Anthony, 2020; Ekpetu & Benlo, 2019; Salanko & Odukoya, 2018; Ebule & Akanwa, 2016; Okonma & Seyibi, 2015) also established a relationship between the financial leverage of company and innovation and performance, but their studies focused on banks and businesses in service industry quoted on the Nigerian Stock Exchange (NSE).

The studies investigated the impact of capital structure (equity-internal financing source) and debt (external financing sources) on performance using profitability, Return on Assets (ROA) growth rate, and Earnings Per Share (EPS) as proxies for the performance of corporate organizations. Still, the authors failed to explore how the capital structure of the enterprises can impact the innovative capacities of the enterprises. This study differs from previous research work by focusing on the impact of the capital structure of SMEs on their innovation and performance. The study of the impact of crowdfunding, particularly as a novel source of financing for SMEs, makes the study unique and contributes to knowledge.

The study is divided into five sections. Section one presents the introduction to the study, section two is a literature review and hypotheses development, section three explains the methodology of data collection and analysis, section four presents the results, and the conclusion and recommendations of the study are presented in section five.

Literature review and hypotheses development

Conceptual review

Capital Structure (CS). This refers to how a business builds or constructs its finances to carry out its operations. It is a mix of funds provided by the owner(s) of a business (equity) and funds provided by outsiders (debt) to finance operations (Sawyer & Josen, 2015). The greater the debt component to equity in a CS, the greater the financial leverage. The two components have different costs to obtain an optimal CS. An optimal CS is the best blend of debt-equity ratio or debt and equity financing

that maximizes a business market value while minimizing the cost of the overall cost of capital (Lynod & Mabel, 2016). Cost of Capital consideration is key in management decisions as the cost dictates the minimum rate of return or profit a business must earn before generating revenue. For SMEs in Nigeria, especially those operating in the selected states of the country, their CS comprises two major components, just like any other business made up of Internal Sources of Financing (ISF) and External Sources of Financing (ESF). The ISF are funds obtained mainly from contributions of the owner(s)/ members of the enterprise and reinvestment/plowback of profits. ESF, on the other hand, are mainly funds obtained from banks in the form of loans and overdrafts. Other sources include factoring and crowdfunding (CF).

Factoring is a business financing type in which the enterprise sells its accounts receivable (invoices) to a third party to meet short-term liquidity/ cash needs (Kelvin & Covatel, 2014). By selling the invoice, immediate cash can be generated instead of having to wait for customers to pay before getting money for immediate needs. CF is a form of financing, a practice of raising money from a large number of people (contributors) who, in belief in the growth prospect of a business, contribute a small amount to its operation. It is one of the viable means of securing funds for businesses which the majority of SMEs in Nigeria are yet to tap into. Advantages of CF include easy access to capital, risk hedging, and means for business idea validation for innovation and performance (Beslen & Roland, 2016).

Innovation. Innovation of an enterprise, usually demonstrated in a product or products, service, and business model, refers to the introduction of output that is novel and useful to customers (Santchmder, 2015). The innovation may not be a breakthrough. As such, the innovation can be as simple as adding a specific feature to a company's products and services and upgrading the packaging methods to be attractive to customers. Innovation thrives on new ideas and occurs when a business introduces new processes, services, or products intending to boost the bottom line (Luggard & Jones, 2014). It has to do with the introduction of new

methods or devices to boost the visibility of a business in the market space. There are four major types of innovation of a business, especially for an SME seeking competitiveness in market space. The four, according to Morren & Obed (2013) and Hetz & Tobert (2015), are product innovation, process innovation, marketing innovation, and business model innovation.

Product innovation (PrdtI). Product innovation is the process of creating a new product or significant improvement to existing product(s) to meet the needs of customers in a novel way (Dotney & Nuor, 2014). The essence of PrdtI is to improve the taste, features, and functionality of products for increased patronage. The innovation entails the creation and introduction of products that are new to the market and improved versions of existing products (Maadel & Tobias, 2017). Usually, the design, production, and introduction of new products are in response to the needs of customers as a result of research for competitive advantage.

Process Innovation (PrcsI). Process innovation refers to the implementation of a new or significantly improved production and delivery method of a business (Hisban & Pirach, 2014). The essence of innovation is to make a business process more efficient. Essentially the impact of PrcsI is on employees as it improves their efficiency and effectiveness. The impact is usually manifested in increased output to reduced time. Eldavor (2016) and Patson (2018), in their different submissions, viewed the innovation as a novelty in processes that happens when a business is able to solve an existing problem or performs an existing business process in a radically different way beneficial to those who perform the process (employees) and those who rely on the process (customers) or both.

Market Innovation (MI). Market innovation is the implementation of a new marketing method and strategy that involves significant changes in product design, packaging, placement, promotion, and pricing (Gaig & Mabher, 2015). It is a novelty in delivery that involves extensive research in the area of customer behavior, needs, and trends in patronage that helps a business develop changes in product and service design to be

more successful. MI is a combination of market research, market planning, and financial planning in conjunction with operational management (Shamlan & Murphy, 2016; Betty and Smart, 2015).

Business Model Innovation (BMI). Business model innovation is the art of enhancing business advantage involving value creation by making simultaneous and mutually supportive changes to the business' value proposition to customers and its underlying operating model (Rothgat & Toby, 2017). The main goal of BMI is to realize new revenue sources by improving product value and how the products are delivered to customers. BMI helps businesses understand what they need to improve to deliver value to customers (Noosir & Amberg, 2016).

Performance. A business is considered to be performing well when it can efficiently and effectively utilize its resources to achieve its goals, according to Dowen and Narron (2017). Kingsley and Owen (2016) identified three major performance indicators (PIs) for a business: the market share it controls, customer satisfaction, and customer retention.

Market Share (MS). Market share represents the proportion of sales of a business in a particular market (Drury, 2002). The Ms of a business is a measure of market penetration defined by the percentage of the market that the sales a business is responsible for (Drury, 2002). The percentage indicates the acceptability and the measure of patronage of the products and services rendered by a business in a market. The share gives clear insight into the size and strength of a business within its sector. A business that maintains its MS over time is growing its revenue in line with its competitors (Loveday & Balak, 2018). A business that knows its MS in relation to competitors will be able to determine the effectiveness of its marketing and advertising strategies (Herbert & Melsey, 2018).

Customer Satisfaction (CuS). Customer satisfaction is a measure of how well a business's products and services meet the needs of customers. CuS is a measurement parameter that defines how happy customers are with a company's products, services, and delivery (Klien & Lambert, 2017). The three "C" of CuS, according to Ponnel & Wynes

(2016), are consistency, consistency, and consistency. Consistency in the delivery of quality products and services is the only ingredient that guarantees CuS and happiness in the market space (Sleffer & Weird, 2018)

Customer Retention (CuR). Customer retention is the rate at which customers stay with a business for a given period (Gohd & Dawart, 2017). CuR is measured by the amount of patronage and loyalty of customers and is a function of CuS. Thus, Dutman & Hensen (2017) viewed CuR as a performance indicator affected by factors such as product quality, service quality, satisfaction, trust, and commitment to business and its customers. Mitchel (2019) identified four basic ways a business can secure retention of customers, namely: Offering unique products and services, building trust with customers, constant communication with customers, and implementing customer feedback on products and services offered.

Empirical review

In literature, previous studies provided evidence of the relationship between capital structure and the performance of enterprises. For instance, Golshell (2020), in a study of capital structure and performance of SMEs in Djibouti, found that a positive and significant relationship exists between capital structure and the performance of firms in the country. Similar studies (Gorbenard, 2020; Roberto & Rosella, 2019; Dieareau, 2017) in France on the capital structure and performance of firms found that CS significantly influences corporate organizations' performance.

Herstler & Gattmer (2020) studied the nexus between capital structure and the performance of SME operations in Jordan. The aim was to examine the influence of components of capital structure on the performance of selected SMEs in the country. The study employed a descriptive research design, and data was obtained from responses to a questionnaire administered to 533 respondents made up of owners and managers of the enterprises. Correlation, multiple regression, and Structural Equation Modeling (SEM) were used to test the hypothesis with Confirmatory Factor Analysis (CFA) for measurement and model validation. Results

revealed that capital structure and performance are correlated.

Daliwan et al (2018) in their study investigated the role of capital structure and entrepreneurial exposure to innovative performance. Data for the study were obtained primarily from randomly selected 140 SMEs in Singapore. Responses to the questionnaire designed on a five-point Likert scale were empirically analyzed using regression. Results indicated that capital structure has a significant impact on innovation and performance. However, innovative enterprises always look beyond funds they can generate internally to external sources. The study by Florrinord & Barclay (2020) found that there is a correlation between external funds such as angels and CF for expertise, skills, and innovative ideas that can be garnered by SMEs from contributors. Likewise, Davenel et al (2020) revealed that SMEs that use novel external financing sources are more innovative in their operations reaping all the benefits that outweigh the implications of indebtedness than those that rely on conventional financing sources.

Further studies also revealed the impact of different components of capital infrastructure on the innovative and competitive advantage of enterprises. In India, Sharma & Hajaraf (2019) conducted a study on SMEs' financial leverage and innovative activities of the enterprise. Data for the study were obtained primarily from responses to a questionnaire administered to 114 randomly selected respondents made up of owners and managers of SMEs. Results of multiple regression revealed that both components of the structure (internal and external financing sources) play a significant impact on SMEs' innovation.

Urabacakin & Orhbadogan (2019) on the impact of capital structure on innovation and performance of enterprises in Turkey, provided results that differ from that of Sharma & Hajaraf (2019). Data for the study were obtained from the financial records of 250 SMEs operators in Turkey. Five and Six indicators were used to capture innovation and performance respectively. The results of regression analysis showed that while internal sources of financing exerted a significant and positive impact on the performance of the

enterprises, the impact of external financing sources was negative.

In Italy, Longard & Oblon (2020) showed the same result with that as Urabacakin & Orhbaddogan (2019). The study investigated the impact of capital structure on the performance of SMEs. Capital structure was captured by funds generated internally and externally, while profitability, business Size, and Return on Assets (ROA) were proxies for performance. Results of multiple regression analysis revealed that while internal financing sources showed a positive and significant impact on the performance of the enterprises, the impact of external financing sources was negative. The findings of Urabacakin & Orhbadigan (2019) and Longard & Oblon (2020) are supported by the pecking order theory of Myers & Majluf (1984), which propounded that firms/businesses usually prefer to use more internal financing (equity) than external financing (debt) due to high growth prospect less risk attributable to the usage of equity financing.

In China, Chuo & Leopng (2021) provided evidence that differs from the findings (Longard & Oblon, 2020; Urabacakin & Orhbadogan, 2019) on the impact of the components of CS. The study investigated the relationship between capital structure and investment of SMEs in assets and production. Data obtained from a sample of 150 SMEs operating in manufacturing enterprises were analyzed empirically using multiple regression. Results indicated that the two sources of financing have an impact on asset acquisition and the productive capacity of the enterprises.

In Nigeria, previous studies on the impact of the capital structure showed that there is a dearth of empirical studies on the impact of the structure on the performance of SMEs in the country. Most studies are on the capital structure and performance of listed manufacturing companies, banks, and insurance companies quoted on the NSE.

Based on the identified gap in the previous research work, this study aims to investigate the impact of capital structure on innovation and performance of SMEs in Nigeria with precise reference to those operating in central states of the country. It is on this premise that the following hypotheses were formulated:

Ho_1: *Capital structure has no significant impact on product innovation of SMEs in North Central States Nigeria.*

Ho_2: *Capital structure has no significant impact on process innovation of SMEs in North Central States, Nigeria.*

Ho_3: *Capital Structure has no significant impact on marketing innovation of SMEs in North-Central states, Nigeria.*

Ho_4: *Capital Structure has no significant impact on business model innovation of SMEs in North-Central States, Nigeria.*

Ho_5: *Capital Structure has no significant impact on the Market Share of SMEs in North Central States, Nigeria.*

Ho_6: *The capital structure of SMEs in the North Central States, Nigeria, has no significant impact on their customers' satisfaction.*

Ho_7: *The capital structure of SMEs in the North Central States, Nigeria, has no significant impact on the retention of their customers.*

Theoretical framework

The study is anchored in the Trade-off Theory (TOT) of capital structure. The TOT is an idea that a company chooses how much equity (internal funds) and debt (external funds) to use by balancing the costs and benefits of each. Propounded by Kraus & Litzenberg in 1973, the theory states in its assumption that financial leverage is determined by balancing the tax-saving benefits of debt against the dead weight of bankruptcy. The balancing phase in the theory is a desire to attain the optimal capital structure (debt-equity ratio) target. The proposition is a goal towards a debt ratio which is a trade-off between tax benefits and other advantages of debt in contrast with financial problems and other expenses that are associated with borrowed funds (Lungard, 2018; Phoonimng & Rahman, 2017 cited in Adewumi et al. 2022).

The relevance of the theory to this study is its emphasis on the need to attain a desired target debt ratio in the capital structure, taking into consideration the advantages and disadvantages of external sources of financing. A key component of the external source of financing for SMEs in the selected states of the North Central Zone of Nigeria is CF as such, research into the impact of this novel source of financing for SMEs in the Nigerian environment is noteworthy and underscores the importance of the theory to this study.

Data and Methods

It is empirical research conducted using a causal non-experimental cross-sectional design and quantitative approach using Partial Least Squares Structural Equation Modeling (PLS–SEM). A random sampling technique was adopted for data collection where 480 respondents comprising owners and managers of 127 SMEs in Plateau, Nasarawa, and Kogi states in the North-central zone of Nigeria were selected. Responses to the questionnaire designed to reflect a five-point Likert scale were analyzed with a confidence level for decision at 95% level and margin error at 5% ($P = Q = 0.05$). The internal consistency and reliability of the measuring instrument were done using Composite Reliability (CR), Average Variance Extracted (AVE), and Variance Inflation Factor (VIF) tests. The survey study was carried out from August 2022 to January 2023.

Table 1. Measurement of Variables

Variable	Type	Measurement	Source
CS	1SF	Measured by responses on how much the variable has impacted on innovation and performance of SMEs rated on the Likert scale	Murkh & Elten (2010)
	ESF	Measured by the opinion of respondents on the impact of ESF on innovation and performance of SMEs rated on five points Likert scale	Tetfirtz & Varron (2011), Kloffer (2014)
Innovation	PrdtI	Measured by the rated responses on how much CS has impacted on improving existing product designing and development of new ones	Brown & Duke (2013), Rainford & Cane (2015)
	PrcsI	Measured by the rated responses on Prcsl construct relating to the impact of the variable on innovation and performance of SMEs	Coleman & Boncorst (2013), Jeftalin & Delmond (2014)
	MI	Measured by responses on MI constructs and impact of the variable on innovation and performance of SMEs	Myer & Hastrop (2012), Noel & Gahashen (2014)
	BMI	Measured by rated responses on new revenue sources and enhanced value of SMEs triggered by CS	Holkern & Torden (2015), Christopher & Blehem (2016)
Performance	MS	Measured by rated responses on the MS constructs	Chu & Dimery (2011)
	CuS	Measured by rated responses on CuS construct relating to how well a business product(s) and services are able to meet the taste of customers	Konny & Bernard (2014), Petten & Lasker (2016)
	CuR	Measured by rated responses on CuR constructs relating to customers' loyalty and continuous patronage	Morgan & Dalty (2010), Stilglitz & Leo (2012)

Reliability and Validity of the Construct

The reliability and validity of the construct using PLS-SEM revealed a high level of consistency and reliability of the constructs, as shown in the values of CR and AVE in Table 2. The values of CR exceeded 0.70, implying that all the reflective constructs of the measurement model are consistent, as suggested by Hair et al. (2017). The values of AVE range between 0.511 and 0.545, greater than the threshold of 0.50, suggesting acceptable validity of the constructs according to Fornell & Lacker's (1981) criterion.

Further, the square root of AVE for the discriminant validity test of each of the constructs has been demonstrated to be greater than their correlation relative to any other construct. The values range between 0.779 and 0.814, suggesting acceptable values according to Fornell & Lacker's (1981)

criterion. On the strength of the values in conformity with the criterion, it is safe to conclude that the data are reliable and acceptable to test the formulated hypotheses using PLS-SEM.

Table 2. Reliability and Validity of Construct (RVC)

Item	CR	AVE	ISF	ESF	PrdtI	PrcsI	MI	BMI	MS	CuS	CuR
ISF	0.794	0.663	0.864	0.383	0.189	0257	0.413	0.356	0.260	0.289	0.254
ESF	0.729	0.611	0.339	0.798	0.248	0.212	0.276	0.421	0.271	0.268	0.301
Prdtl	0.811	0.658	0.158	0.212	0.856	0.563	0.558	0.519	0.458	0.513	0.451
Prcsl	0.828	0.670	0.225	0.177	0.678	0.769	0.616	0.412	0.572	0.405	0.443
MI	0.807	0.641	0.312	0.230	0.564	0.501	0.816	0.511	0.692	0.609	0.512
BMI	0.823	0.637	0.275	0.193	0.619	0.713	0.539	0.906	0.459	0.418	0.340
MS	0.821	0.723	0.202	0.216	0.459	0.634	0.515	0.471	0.827	0.355	0.379
CuS	0.829	0.810	0.226	0.234	0.514	0.463	0.587	0.414	0.410	0.889	0.533
CuR	0.863	0.645	0.247	0.218	0.455	0.523	0.517	0.311	0.348	0.342	0.895

	CR	AVE	CS	Innovation	Performance
CS	0.736	0.511	0.861	0.472	0.415
Innovation	0.843	0.551	0.392	0.779	0.432
Performance	0.927	0.545	0.469	0.463	0.814

Note: The diagonal number shown in bold represents the square root of AVE while the correlation ratio test is presented below the diagonal showing the Fornell-Lacker criterion test for the reliability and validity of the measuring instrument.

Results and Discussion

The descriptive analysis in Table 3 showed values for loading, the VIF, median, and IR. The factor loading was statistically significant ($P<0.0001$), and the VIF values are uniformly below the threshold of 5.0, denoting the absence of collinearity that impairs the predictive ability of explanatory variables pertaining to likely changes in the dependent variable (Liviatt & Dekaran, 2012). The values for the median for all variables range between 3.00 and 4.0, meaning that according to the perception of the respondents, these activities are critical to the innovation and performance of SMEs and are frequently conducted.

On IR as a measure of dispersion, sixteen attributes have a value of 1.0, implying a consensus among respondents of their usage for innovation and performance of enterprises. Both ISF and ESF, particularly reinvestment of profit, CF, Supplier credit, and factoring, have 1.0 and imply agreement among respondents to the fact these financing sources have impacted positively on innovation activities and performance of the enterprises. Performance variables, particularly for SMEs, namely: increased MS, CuS, and CuR, are akin to a tripod upon which profitability and long-term growth prosperity of a business rotate (Pelvian & Teung, 2016).

Table 3. Descriptive Analysis of the Data and Factor Loading.

Item	Indicators	Loading	VIF	Median	IR
ISF	Ploughing/ reinvestment of profit	0.709	1.598	4.0	1.0
	Contribution of owner(s)	0.811	2.304	3.0	1.0
ESF	Borrowing from banks	0.880	2.552	3.0	2.0
	Crowd Funding (CF)	0.987	1.316	4.0	1.0
	Factoring	0.797	1.343	4.0	1.0
	Suppliers' Credit	0.728	1.341	4.0	1.0
PrdtI	Creation of new products and services	0.815	2.030	4.0	2.0
	Improvement of existing products & services	0.712	2.788	4.0	2.0
	New design and modification of existing products and services	0.871	2.582	4.0	2.0
PrcsI	Introduction of new machines and equipment	0.731	2.021	4.0	1.0
	Automation of processes	0.757	3.118	4.0	2.0
	Introduction of technology in production and service delivery system	0.817	2.689	4.0	1.0
	Use of computer programs and techniques for supply chain	0.890	3.810	4.0	1.0

MI	Implementation of new marketing methods	0.913	3.475	4.0	2.0
	Design and redesign to improve product and service quality	0.781	2.274	4.0	1.0
	Modification of product packaging to attract customers	0.856	2.294	4.0	2.0
	Modification of promotion techniques involving the use of new concepts	0.728	2.005	4.0	2.0
	Creation of new brand images for existing products and services	0.811	1.958	4.0	1.0
	Use of new pricing methods in consideration of the convenience of customers	0.814	2.754	4.0	2.0
BMI	Implementation of supportive changes to the organisation's value	0.883	2.460	4.0	1.0
	Implementation of supportive changes targeted toward customer satisfaction	0.869	2.194	4.0	1.0
	Development of a culture that supports the participation of employees in decision making	0.794	3.031	4.0	2.0
	Implementation of new methods to develop organizations' capacity	0.729	3.236	4.0	2.0
MS	Implementation of strategy to guarantee customers' loyalty	0.859	3.228	4.0	2.0
	Continuous production and delivery of quality goods and services	0.818	2.809	4.0	1.0
	Development of effective advertising and pricing methods	0.742	3.135	4.0	1.0
	Addition of new demographic and geographical markets that add to or replace existing ones	0.745	2.319	4.0	2.0
CuS	A frequent response to customers' needs	0.762	2.703	4.0	2.0
	Implementation of strategy for feedback and promotion response.	0.801	2.658	4.0	2.0
	Consistency in the production of quality products and delivery of services	0.872	2.724	3.5	2.0
	Creation of a customer-centric culture	0.973	3.639	4.0	2.0
CuR	Cultivation of good people skills by the offering of new customers discounts and promotions	0.794	2.422	4.0	1.0
	Consistent contact with old customers.	0.839	2.695	4.0	1.0

Results of structural model with PLS-SEM

The results of the test for the hypotheses formulated are presented in Table 4. The results indicated that CS has a positive and significant impact on the innovation and performance of SMEs. The & values (β = 0.417, 0.196, 0.386, 0.214, 0.402, 0.325, and 0.316 p < 0.001) of CS on Prdtl, Prcsl, MI, BMI, MS, CuS, and CuR respectively indicate that the constructs on CS have strong predictive relevance to these variables. Further, the coefficient of determination (R^2) showed that much of the likely changes in the dependent variables are explained by the CS of the SMEs. The R^2 results indicated that approximately about 43%, 36%, 29%, 37%, 23%, 31%, and 41% of the likely changes in Prdti, Prcsl, MI, BMI, MS, CuS, and CuR are explained by CS of the SMEs. The results are supported by Std β values, t-values of 5.401, 1.276, 3.208, 2.614, 3.147, 2.141, 2.322, and P< 0.000, indicating a positive and significant relationship between CS, innovation, and performance of SMEs. The results are consistent with studies (Herstler & Gattmer, 2020; Golshell, 2020; Daliwan et al., 2018) that found a positive and significant impact of CS on innovation and the performance of enterprises.

Table 4. Results of the structural model with PLS-SEM.

Hypotheses	Path	B	Std. Error	t value	p-value	R^2	F^2	Q^2	Decision
H_1	CS→ PrdtI	0.417	0.027	5.401	0.000	0.427	0.313	0.206	Supported
H_2	CS→ PrcsI	0.396	0.062	1.276	0.016	0.357	0.322	0.178	Supported
H_3	CS→ MI	0.386	0.038	3.208	0.000	0.291	0.256	0.235	Supported
H_4	CS→BMI	0.411	0.011	2.614	0.012	0.368	0.512	0.186	Supported
H_5	CS→ MS	0.402	0.072	3.147	0.000	0.226	0.376	0.264	Supported
H_6	CS→ CuS	0.325	0.014	2.141	0.000	0.311	0.155	0.225	Supported
H_7	CS→ CuR	0.316	0.022	2.322	0.013	0.412	0.317	0.191	Supported

Conclusion and recommendations

SMEs financing innovation and performance have been of tremendous interest not only to the entrepreneurs but also to the government of Nigeria as a result of the growth the sector can trigger in the economy. The study examined the impact of the capital structure of SMEs operating in selected states in the North-Central Zone of the country. Data for the study were obtained primarily from respondents made up of owners and managers of selected SMEs in the states on their capital structure (internal and external sources of financing) and the impact of the sources on their innovation and performance. Results of PLS-SEM indicated that both sources of financing have a positive and significant impact on innovation and performance of the enterprises. Of note is the impact of CF on dimensions of innovation and performance examined in this study. CF is a novel external financing source for SME operators that is relatively cheaper and easier to obtain compared to the conventional loan of money lending financial institutions in Nigeria. It is in view of the impact the components of ISF and ESF on innovation and performance of SMEs examined in this study, particularly the novel CF in the Nigerian environment, that the recommendations are put forward:

1) SME operators should develop a platform for the exchange of ideas and knowledge on various financing sources available. For instance, CF covered in this study and other external financing sources like Angels are dependable sources for funding operations which many SMEs in Nigeria are yet to tap into. This is necessary, especially now that it is difficult to obtain loans from financial institutions in Nigeria.
2) Small and Medium Enterprise Development Agency of Nigeria (SMEDAN) as a regulatory agency of the government for SMEs in Nigeria should develop a program on culture follow-up to take note of innovative activities of SMEs, encourage operators on the need to be innovative, create room for their easy access to funds, and link them up with innovative business organizations in advanced economies.

Acknowledgment

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