EFFECT OF CORPORATE ENTREPRENEURSHIP ON NON-FINANCIAL PERFORMANCE OF SMALL AND MEDIUM PRINTING FIRMS IN FCT, ABUJA, NIGERIA

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ABSTRACT

This study investigates the effect of corporate entrepreneurship on non-financial performance of small and medium printing firms in FCT, Abuja, Nigeria. Survey research design was adopted with the population of 741 and sample size of 312. The questionnaire was administered on the management staff of small and medium printing firms. Partial Least Square Structural Equation Model (PLS-SEM) was used for the analysis of the study. The findings show that corporate innovativeness has negative and insignificant effects on non-financial performance. The study also, revealed that corporate pro-activeness has negative and significant effect on non-financial performance. However, the study shows that corporate risk taking and strategic renewal have positive and significant effect on non-financial performance of these firms; and competitive aggressiveness has positive and insignificant effect on non-financial performance of small and medium printing firms in FCT Abuja respectively. Based on the findings, the study concludes that corporate entrepreneurship positively and significantly contributes to non-financial performance of printing firms in FCT, Abuja. The study therefore, recommends that small and medium printing firms in Abuja need to improve ideas, methods, processes, knowledge, equipment and machinery which leads to new and better products and services. Also, there is need for corporate ability to adjust and alter situations, anticipate future implications, be opportunistic, continuous search for new market possibilities, explore and exploit opportunities by making modifications in structure, culture, and technology, in response to environmental changes, and to achieve the aspirations of the business, which will result in increased of non-financial performance.

Keywords: Corporate Entrepreneurship, innovativeness, proactiveness, risk taking, competitive aggressiveness, strategic renewal, performance.

Introduction

Corporate entrepreneurship is about leveraging entrepreneurial principles and behaviours to drive growth, innovation, and competitiveness on an international scale. It requires a multifaceted approach that considers market dynamics, cultural factors, regulatory environments, and the development of a global entrepreneurial mindset throughout the organization.

Corporate entrepreneurship is essential in the advancement and management of innovative ideas, as it increases performance and creativity (Hoque, *et al.,* 2017). Corporate entrepreneurship has evolved tremendously in the past forty years, allowing companies to adapt new innovations and manage competition in the market (Kuratko, *et al.,* 2015). The importance of small and medium enterprises in Nigeria economy cannot be overemphasized. This is because SME contributes immensely to the overall economic growth, creates more jobs than any other sector (World Economic Forum, 2013). However, small and medium enterprises in Nigeria is not only plagued by some challenges like: increasing cost of production, reliance on inadequate and poor public infrastructure, but also depreciation of the local currency (Naira) (Akinmulegun & Oluwole, 2014). This increase in cost of production emanates from increased cost of energy and imported raw material. Considering the enormous role that the manufacturing sector is expected to play in the industrialization of the Nigerian economy, the sector seems not to be contributing much to the economic growth of Nigeria.

Small and medium printing firms in FCT, Abuja - Nigeria have employed various corporate entrepreneurial activities such as innovation, proactiveness, risk-taking, competitive aggressiveness and strategic renewal to enhance nonfinancial performance, yet their performances (in terms of effectiveness and growth) have not maximally improved.

Most studies on corporate entrepreneurship activities (Abosede, *et al.,* 2018, Daryani and Karimi, 2017; Jancenelle, *et al.,* 2017; Prange and Pinho, 2017) employed financial performance measures, while this study looks at the non-financial performance measures. Effect of corporate entrepreneurship activities on the nonfinancial performance of SMEs (printing press) in FCT, Abuja - Nigeria appears not to have been fully explored. In addressing this research gap, this study examines the effect of Corporate Entrepreneurship activities (measured by innovation, proactiveness, risk-taking, competitive aggressiveness and strategic renewal) on the performance (measured by organizational effectiveness and growth) of small and medium printing firms in FCT, Abuja.

The objective of this study is to examine the effect of corporate entrepreneurship on non-financial performance of small and medium printing firms in FCT, Abuja, Nigeria. Specific objectives are to: examine the effect of innovativeness, proactiveness, risk-taking, competitive aggressiveness and strategic renewal to enhance nonfinancial performance of small and medium printing firms in FCT, Abuja, Nigeria.

Small and medium enterprises (SMEs) are commonly acknowledged as the economy drivers and the key contributors to gross domestic product (GDP) around the globe. These businesses, including printing firms, create employment opportunities for both skilled and unskilled persons, which made it necessary for this study to examine how corporate entrepreneurship affect non-financial performance of small and medium printing firms in FCT, Abuja, Nigeria.

The study formulated the following hypotheses:

H_{o1}: There is no significant effect of corporate innovativeness on nonfinancial performance of printing firms in FCT, Abuja, Nigeria.

H_{o2}: Corporate pro-activeness does not significantly affect the nonfinancial performance of printing firms in FCT, the Abuja, Nigeria.

H_{o3}: There is no significant effect of corporate risk taking on nonfinancial performance of printing firms in FCT, Abuja, Nigeria.

H_{o4}: Corporate competitive aggressiveness does not significantly affect the nonfinancial performance of printing firms in FCT, Abuja, Nigeria.

H_{o5}: Corporate strategic renewal does not significantly affect the nonfinancial performance of printing firms in FCT, Abuja, Nigeria.

Corporate Entrepreneurship

Corporate entrepreneurship is defined as entrepreneurial orientation and activities in an established organization. It is an important dimension of wealth creation and economic development. It is described as entrepreneurship within an organization which refers to emergent behavioral intentions and organizational behaviors that lead to a deviation from the traditional forms of doing business (Kuratko & Morris, 2018). Corporate entrepreneurship processes take place within an existing organization without thinking of the its size, and these processes do not only refer to creation of new business ventures but also development of new products, services, technologies, managerial techniques, strategies and also competitive standing as innovative activities. Qualifications of corporate entrepreneurship comprise of new business venturing, innovation of product/service and innovation of process, self-renewal, risk taking, proactiveness and competitive aggressiveness (Karacaoglu, *et al.,* 2013).

Corporate entrepreneurship focuses on innovation and creativity, and transforms an idea into a profitable venture, while operating within the organizational environment and, is a contemporary issue with pressing relevance for corporate managers (Adudu et al. 2021). It is a mechanism used to grow new businesses, goods, services or processes in running an organization to generate competitive advantages and find new income-generating opportunities through entrepreneurial thinking and practical approaches (Pham et al. 2020).

Innovation is the specific function of entrepreneurship. It is the means by which the entrepreneur either creates new wealth-producing resources or endows existing resources with enhanced potential for creating wealth. It is about turning new ideas and imaginative ideas into reality. Effective use of this mental quality may produce the following outcomes: generating something completely new (this product may be rare, except in cases of high creativity), as well as consolidating or integrating a set of divergent and undifferentiated ideas in a new, unfamiliar way, finding new ideas for a product and finally, transferring existing and circulating ideas to other beneficiaries or new people (Medase 2020).

Pro-activeness is the corporate ability to adjust and alter situations, anticipate future implications, and being opportunistic (Sanchez-Gutierrez et al, 2019), a continuous search for new market

possibilities and opportunities (Gomezel & Rangus, 2018), struggle aggressively by way of instigating audaciousness (Coccia & Watts, 2020). Proactiveness is a firm's ability to think ahead, foresee, initiate a change or take a first mover leap rather than being reactionary or defensive in its strategic posture.

A risk is variation in the expected return. Risks have uncertainties that exist in all business which establish for the sole aim of making profits. Risk is uncertainty in the planned activities that brings the expected results (Rusanov, 2019). The risk involves variability in the outcome (Markowitz, 2022). Risk is an event that carries a threat, loss, and negative earning (Pomorina, 2019).
Competitive aggressiveness is the intensity of a firm's efforts to outperform rivals and is characterized by a strong offensive posture or aggressive responses to the actions of competitors. Under rapidly-changing environments, firms that try out a variety of competitive recipes will have greater possibility to obtain better performance because taking action in an era of temporary advantage yields a better probability of success than does taking no action" (Nadkarni *et al.,* 2016). Competitive aggressiveness indicates the extent to which firms experience competitive attacks with high volume, duration, complexity, and unpredictability from industry key competitors (Ajamieh, *et al.,* 2016).

Wali and Hamid (2021) define strategic renewal as a management philosophy based on investing the available capabilities in general, and the capabilities of human resources in particular, with the intent of exploring and exploiting opportunities by making modifications in structure, culture, and technology, in response to environmental changes, and to achieve the aspirations of the administration while Hussein (2016) defines strategic renewal as that process that includes changes in context, content, process, the ability to significantly influence the long-term expectations of the organization, and the recovery or replacement of the features or characteristics of the organization (capacities, structures, processes, and systems), providing a basis for growth or development in the future.

Performance

Performance is a characteristic of entrepreneurs, namely an attitude of being responsible for their actions and not depending on others (Lestari et al., 2020). Performance is measured using diverse parameters by different organisations. Some firms measure it through growth, expansion, survival, number of employees, and capital employed. The indicators of performance are revenue, return on investment, profitability and market share. Hence, whenever the key performance indicators are in favourable states, it indicates efficiency (Lyndon & Timi, 2019).

Growth

A major performance indicator in the organization is sales revenue growth. This is a metrics that measures the revenue growth rate difference of a current period with a corresponding period. This growth rate can be measured yearly, quarterly and half-yearly (Richard et al., 2019). According to Hansen & Mowen (2018), revenue growth is an increase in revenue that comes into the organization year to year or from time to time in a corresponding period. Organizations that have high revenue profile will require more investments in the various elements of company's asset. Having knowledge of the firm's sales growth, the organization can predict how much profit the management can make (Ratna & Meipita, 2017).

Empirical Studies

Moruff, *et al.,* (2019) examined the effect of corporate entrepreneurship (CE) as measured by innovation, risk taking, proactiveness, strategic renewal and corporate venturing on service firm non-financial performance as measured by market share, employee's satisfaction, efficiency, productivity and workforce development. The study employed a survey research design through the administration of a structured questionnaire on 636 employees of 21 service firms, purposively selected. The questionnaire was validated by eight assessors (four academics and four management staff of service firms), in order to ensure that the instrument measures what it is designed to measure. The test re-test method was employed to test the reliability of the instrument, by conducting a pilot study, whereby, the questionnaire was administered twice within an interval of two weeks to 20 management staff of service firms, and the result of the two tests was correlated. This yielded a value of 0.78, which implies that the instrument is reliable. The data was analyzed with the aid of Stata12 and the findings reveal that CE elements account for 56% variation in service firm's performance (Adj R-squared =0.5604). The findings further suggest that innovation, risk taking, pro-activeness and corporate venturing significantly affect service firm performance, while strategic renewal does not significantly affect service firm performance.

Ernest and Sule (2020) investigated the influence of innovation on the performance of Small and Medium-Scale Enterprises in Kogi State, Nigeria. The study examined the significant effects of the dimensions of innovation on the sales growth of SMEs in Kogi State. The study used survey research design. The sample size of 384 was drawn. All data collected were analyzed using descriptive statistics and Multiple Regression Model. Finding shows that market and process innovations have weak linear effects on the sales growth of SMEs in Kogi State. Only product innovation has strong effect on the sales growth of SMEs in Kogi State.

Adefulu et al (2018) studied the effect of pro-activeness on growth of selected small and medium scale enterprises in Ogun state, Nigeria by employing data randomly drawn from selected enterprises based on size classification and growth measures. Methodology involved the use of Survey research design and structured questionnaire. Set of questionnaire on entrepreneurial pro-activeness and growth of SMEs were self- administered for the collection of the primary data. A group of 386 firms were analyzed. A pilot study was carried out to test the validity and reliability of the research instrument using Cronbach Alpha reliability test. The data collected were analyzed using both descriptive and inferential statistics. The findings of this study revealed that Pro-activeness has positive significant effect on growth (β=0.527; R2= 0.358; t(385) = 14.622; $p<0.05$),and concluded that entrepreneurial pro-activeness affected growth of SMEs in Ogun State, Nigeria.

Obioma et al (2020) investigated the relationship between risk taking and performance of small and medium enterprises in Rivers and Bayelsa states of Nigeria. The unit of data generation was the firm and the corresponding level of analysis was the macro-level. A total of three hundred and sixty (360) small and medium enterprises studied constituted the study population, and a sample size of one hundred and eighty-six (186) was drawn using the Krejcie and Morgan table. Data was collected through questionnaires distributed to the respondents. Statistical Package for the Social Sciences version 22 was used and inferential statistics such as Pearson Product Moment Correlation Coefficients, regression and p-values were calculated in order to ascertain the nature and direction of the proposed relations and for testing the stated hypotheses. Results revealed

positive and significant relationship between risk taking and measures of small and medium enterprises performance.

Patrick and Kairo (2022) examined the effect of competitive aggressiveness on profitability of quoted manufacturing companies in Nigeria with innovation as the mediator. Data for the study was obtained from primary source through the administration of a well-structured questionnaire. The sample size of this study was determined by using judgmental sampling technique in which 100 hundred manufacturing firms were selected based on the availability of up to date financial statement. A total of 100 copies of questionnaires were distributed and 100 questionnaires were returned. The data was subjected to series of cleansing to ensure reliability and validity. The study applied structural equation model, PLS-SEM. The findings revealed that competitive aggressiveness has positive and significant effect on profitability of selected manufacturing firms, entailing that increase in the competitive aggressiveness positively influence profitability and there is a positive relationship between innovation and profitability. Again, the result showed that, innovation has a positive and significant influence on the relationship between competitive aggressiveness and profitability, this implies that innovation is a good mediator.

Asmaa (2021) examined the impact of strategic renewal on entrepreneurial performance through an exploratory study of banking services in the city of Baghdad. This study aims to determine the impact of context, content and process on entrepreneurial performance represented by strategic orientation, resource orientation, management structure and entrepreneurial culture. A question was distributed to 52 managers of private banks in the city of Baghdad. The research attempts to answer a number of questions, the body of the research problem (Is there a correlation and influence between the dimensions of strategic renewal and pioneering performance, in order to analyze the data obtained from the questionnaires, quantitative methods were used such as the arithmetic mean, standard deviation, coefficient of variation, simple correlation potential and equation modeling) The results showed that the elements of the strategic renewal activities have a significant impact on the entrepreneurial performance.

Marshall's Approach to Entrepreneurship

Marshall propounded Marshall's Approach to Entrepreneurship in 1890. He held that land, labour, capital and organization are the four factors of production, and considered entrepreneurship as the driving factor that brings these four factors together. Marshall made use of innovation and creativity in making minor changes in the market process to say that production of large volume is necessary for any economic growth (Schumpeter, 1942). This created many players in the market place and as a result created equilibrium that brought about perfect competition and not monopolist market. Marshall gives credence to large players and small players were not given a chance in economic progress. The Marshallian approach also known as the Neo-classical theory explains equilibrium in the market place based on the understanding of perfect competition, perfect knowledge and perfect information existing in organization that produce similar goods and service. Marshall tries to explain that since the market situations are homogenous and perfect, then there are no different profit opportunities and no need to exploit labor since income is marginal and nationally similar. The fact is that the managers cannot play the same role as entrepreneurs. Marshall's concern is to create balance in the business field especially in supply and demand for goods and services and thereby making small contribution of large number of business owners as leading to economic progress.

Methodology

The study adopts a survey research design. Survey research design is useful in describing the characteristics of a large population, make use of large sample and thus making the results statistically significant.

The population of this study comprises of all the management staff of registered small and medium printing press in FCT, Abuja, Nigeria. According to Corporate Affairs Commission (CAC) (2020), the number of the registered printing press is 247.

The researcher used purposive sampling technique to select three (3) management staff per printing firm, the population of the study stood at 741 (741 managers of 247 printing firms). This technique was used because the researcher believes that this population possess the required experience to provide valuable insights for the research questions at hand.

For the purpose of this study, the Taro Yamane formula was used to determine the statistically reliable sample size for the population. Taro Yamane allows the sample size determination formula to be applied to a population above 400. The formula is shown below.

$$n = \frac{N}{1 + N(0.05)^2}$$

Where N = total population
n= sample size
e= significant (error margin) significant error of 5% (0.05) was applied.
1= constant

$$n = \frac{741}{1 + 741(0.05)^2}$$

$$n = \frac{741}{1 + 741(0.0025)}$$

$$n = \frac{741}{1 + 1.8525}$$

$$n = \frac{741}{2.8525}$$

$n = 260$

The researcher added 52 (which is 20% of the sample size) to ensure successful return of the questionnaire (Israel, 2013). Therefore, sample size of this study is 312.

The study employed primary data. Primary data source is considered as appropriate in capturing effect of corporate entrepreneurship on performance of printing press in FCT, Abuja from the respondents. The researcher used a structured questionnaire, accompanied with a cover letter to collect data from the respondents. The questionnaire was close-ended designed using an ordinal measurement scale via-a-via the 5-point Likert scale ranging from 1(strongly disagree) to 5 (strongly agree).

In order to ensure the validity of the measurement instrument for this study, the questionnaire was administered on a pilot basis to the employees to validate through the judgments of experts in the field of business as well as supervisor's approval.

The reliability of a measure concerns its ability to produce consistent results when repeatedly administered under identical conditions. The internal consistency or reliability of the instrument for this research will be determined by means of Cronbach's Alpha, using the Partial Least Square Structural Equation Model (PLS-SEM).

The Partial Least Square Structural Equation Model (PLS-SEM) was used to model the regression analysis that was used to test the hypotheses to determine if there is an effect relationship between each of the independent variables and the dependent variable.

The Structural Equation Model that was adopted for this study is as follows:

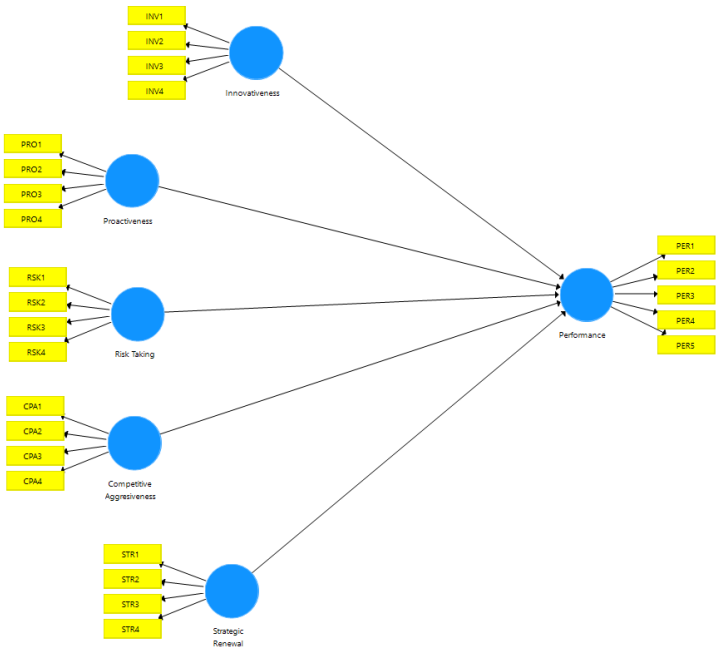

Figure1: Researcher's Structural Model, 2023

The model depicts the effect of measurement variables of corporate entrepreneurship (innovativeness, proactiveness, risk taking, competitive aggressiveness and strategic renewal) on SMEs performance (organisational effectiveness and growth).

The detail description of the whole data in questionnaire form indicating all the variables and data, which was gotten from the respondents were analysed and presented below:

Table 1: Descriptive Statistics

Variable	Mean	Median	Min	Max	SDV	Kurtosis	Skewness
INV	4.6	5	2.7	5	0.6	1.75	-1.56
PRO	4.4	5	2.3	5	0.7	0.75	-1.05
RSK	4.5	5	3.3	5	0.6	-1.00	-0.63
CPA	4.4	5	2.6	5	0.6	0.11	-0.94
STR	4.4	5	2.8	5	0.6	-0.08	-0.68
PER	4.3	5	1.8	5	0.8	1.62	-1.16

Source: SMART, PLS Output, 2023.

The table 1 shows that the average response is between agreed and strongly agreed. It also shows the mean responses to each of the question for all the respondents, the median, the minimum, the maximum, and the standard deviation of the responses. The median is the proper measure of the average in this instance because of outliers. Although, from the minimum and maximum values, there is no sign of outliers, but it is still necessary to state that the best measure of average for an ordinal response is median.

Test of Hypotheses

The assessment of PLS-SEM results involves a two-step approach: (1) the evaluation of the measurement models and (2) the assessment of the structural model (Chin, 2010; Hair *et al*., 2016). The measurement model assessment involves the evaluation of construct measures' reliability and validity. This assessment draws on different measures, depending on whether a construct is measured reflectively or formatively.

Evaluation of Measurement Models

In assessing the measurement model, we begin by assessing the item outer loadings. As a rule, loadings above 0.7 are recommended, as they indicate that the construct explains more than 50 percent of the indicator's variance, thus providing acceptable item reliability (Hair, *et al*., 2019). However, Hair, *et al*., (2019) posited that low but significant indicator loading of 0.50 can be included hence justifying why indicators with loadings less than 0.7 and above 0.50 were not deleted from the model.

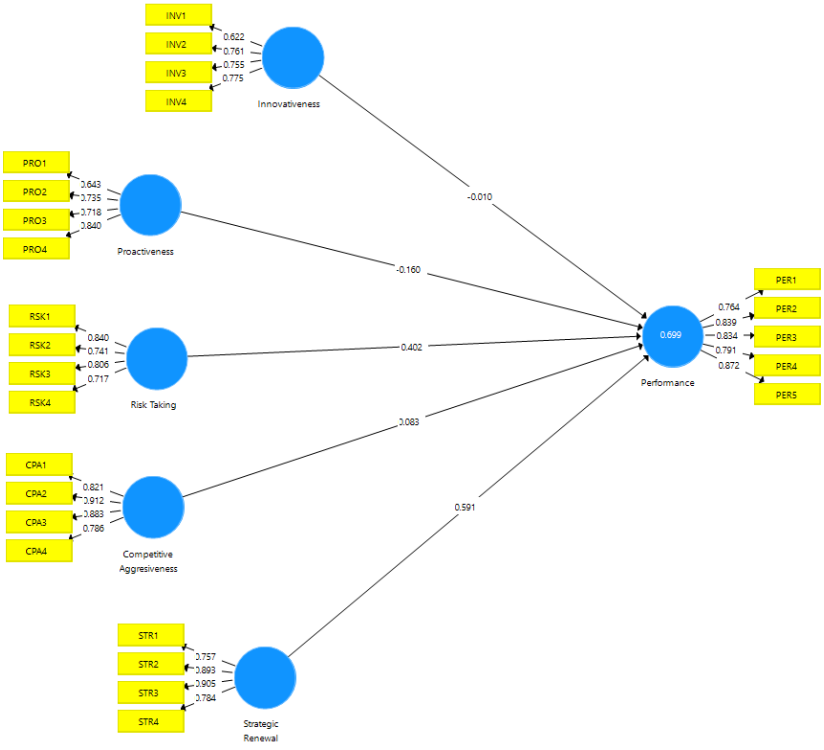

Fig 2: Indicator Loadings

Construct Reliability

To establish internal consistency reliability of the construct, Cronbach's alpha and composite reliability (CR) should be higher than the threshold of 0.7. It is clear from the table 4.4, that all the latent indicators are reliable since their values are higher than the threshold value of 0.7. As an alternative to Cronbach's alpha and composite reliability, Dijkstra and Henseler (2015) proposed rho A as an approximately exact measure of construct reliability, which usually lies between Cronbach's alpha and the composite reliability. Hence, rho A may represent a good compromise if one assumes that the factor model is correct.

Convergent Validity

Convergent validity is the extent to which the construct converges in order to explain the variance of its items. To assess convergent validity, the average variance extracted (AVE) should be larger than 0.5. In table 4.3, all the constructs value of the average variance extracted AVE are larger than 0.5 which shows that our constructs satisfied the condition of convergent validity. It also indicates that the entire construct explains 50 percent or more of the variance of the items that make up the construct.

Table 2: Reliability of study scale

S/N	Variables		Factor Loadings	Cronbach Alpha	Composite Reliability	Average Variance Extracted (AVE)	No of Items
1	**Innovativeness (INV)**	INV1	0.622	0.716	0.820	0.534	4
		INV2	0.761				
		INV3	0.755				
		INV4	0.775				
2	**Pro-activeness (PRO)**	PRO1	0.643	0.756	0.825	0.544	4
		PRO2	0.735				
		PRO3	0.718				
		PRO4	0.840				
3	**Risk taking (RSK)**	RSK1	0.840	0.782	0.859	0.605	4
		RSK2	0.741				
		RSK3	0.806				
		RSK4	0.717				
4	**Competitive Aggressiveness (CPA)**	CPA1	0.821	0.873	0.913	0.726	4
		CPA2	0.912				
		CPA3	0.883				
		CPA4	0.786				
5	**Strategic Renewal (STR)**	STR1	0.757	0.857	0.903	0.701	4
		STR2	0.893				
		STR3	0.905				
		STR4	0.784				
5	**Performance (PER)**	PER1	0.764	0.879	0.912	0.674	5
		PER2	0.839				
		PER3	0.834				
		PER4	0.791				
		PER5	0.872				

Source: SmartPLS Output, 2023

Discrimiant Validity

Discriminant validity is the extent to which a construct is empirically distinct from other constructs in the structural model. There are many traditional methods for discriminant validity assessment, such as cross loadings and the Fornell-Larcker criterion (Fornell & Larcker, 1981), but researchers are advised to apply the Heterotrait-Monotrait (HTMT) criterion (Henseler *et al*., 2014). This is because traditional methods fail to indicate a lack of discriminant validity, even when two constructs are perfectly correlated, rendering this criterion's use ineffective for empirical research. For this thesis, table 4.5 shows the HTMT criterion for all the latent constructs. The discriminant validity of the construct is valid if the upper bound of the 95% confidence interval of HTMT is lower than 0.9. From table 4.5, this condition is satisfied.

Table 3: Heterotrait-Monotrait Ratio (HTMT) Criterion

	Competitive Aggressiveness	Innovativeness	Performance	Pro-activeness	Risk-taking	Strategic Renewal
Competitive Aggressiveness	**1.000**					
Innovativeness	0.686	**1.000**				
Performance	0.697	0.447	**1.000**			
Pro-activeness	0.702	0.910	0.622	**1.000**		
Risk-taking	0.767	0.897	0.833	0.956	**1.000**	
Strategic Renewal	0.749	0.413	0.884	0.793	0.765	**1.000**

Source: SmartPLS Output, 2023

Assessment of the Structural Model

To assess the structural model, Hair *et al*. (2013) suggested looking at the R^2, beta, and corresponding t-values via bootstrapping procedure with a resample of 5000. They also suggested that, in addition to these basic measures, researchers should also report the predictive relevance (Q^2) and the effect sizes (f^2). Figure 1 showed the structural model results, the loadings and the R^2 values for customer satisfaction and customer loyalty. The resample of bootstrapping procedure was done using 5000.

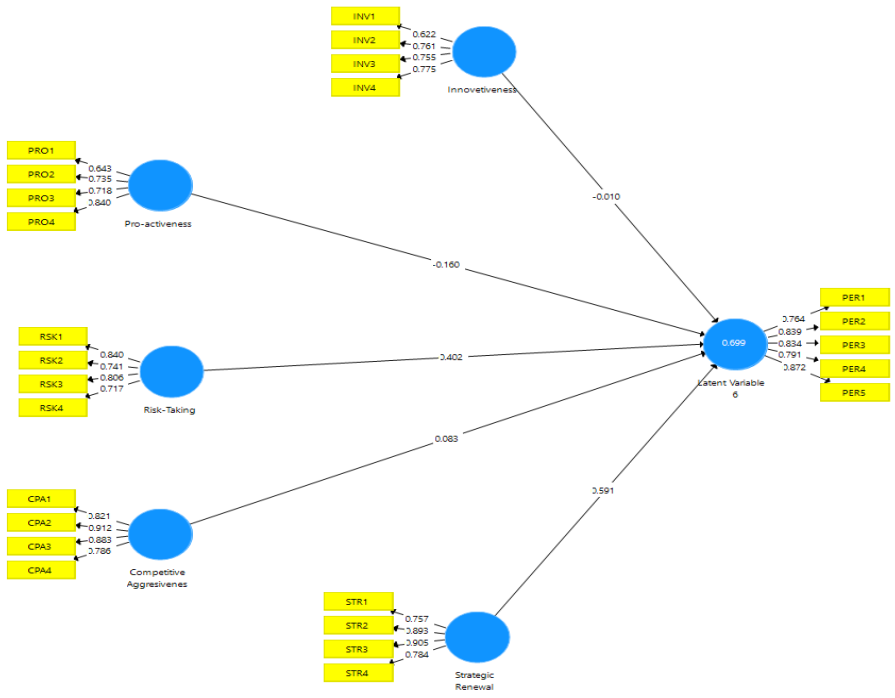

Figure 3. Structural Model

Test of Hypotheses

Table 4 below shows the path coefficient of the regression results using Smart Pls 3.2. This is the result for testing the five hypotheses of the study.

Table 4: Path Coefficient of the Model

Hypotheses	Beta	T Statistics	P Values	f^2
Innovativeness -> Performance	-0.010	0.177	**0.859**	0.000
Pro-activeness -> Performance	-0.160	2.450	**0.015**	0.023
Risk-making -> Performance	0.402	8.368	**0.000**	0.167
Competitive Aggressiveness -> Performance	0.083	1.614	**0.107**	0.010
Strategic Renewal -> Performance	0.591	9.177	**0.000**	0.387

Source: SmartPLS Output, 2023

Hypothesis One

H_{o1}: Corporate innovativeness has no significant effect on performance of printing firms in FCT, Abuja, Nigeria;

The result from table 4.6 shows the coefficient of innovativeness as -0.010 with a p-value 0.859. This means that innovativeness has a negative and insignificant effect on performance of printing firms in FCT, Abuja, Nigeria. With this, there is no sufficient evidence to reject the null hypothesis since p-value is greater than 5%. Therefore, we conclude that innovativeness has no significant effect on the performance of printing firms in FCT, Abuja, Nigeria.

Hypothesis Two

H_{o2}: Corporate pro-activeness has no significant effect on performance of printing firms in FCT, Abuja, Nigeria;

The result also shows the coefficient of pro-activeness as -0.160 with a p-value 0.015. This means that pro-activeness has a negative and significant effect on performance of printing firms in FCT, Abuja, Nigeria. With this, there is sufficient evidence to reject the null hypothesis since p-value is less than 5%. Therefore, we conclude that pro-activeness has significant effect on the performance of printing firms in FCT, Abuja, Nigeria.

Hypothesis Three

H_{o3}: corporate risk taking has no significant effect on the performance of printing firms in FCT, Abuja, Nigeria;

The result from table 4.6 shows the coefficient of risk taking as 0.402 with a p-value 0.000. This means that risk taking has a positive and significant effect on performance of printing firms in FCT, Abuja, Nigeria. With this, there is sufficient evidence to reject the null hypothesis since p-value is

less than 5%. Therefore, we conclude that risk taking has significant effect on the performance of printing firms in FCT, Abuja, Nigeria.

Hypothesis Four

H_{o4}: competitive aggressiveness has no significant effect on the performance of printing firms in FCT, Abuja, Nigeria.

The result from table 4.6 shows the coefficient of competitive aggressiveness as 0.083 with a p-value 0.107. This means that competitive aggressiveness has a positive and insignificant effect on performance of printing firms in FCT, Abuja, Nigeria. With this, there is no sufficient evidence to reject the null hypothesis since p-value is greater than 5%. Therefore, we conclude that competitive aggressiveness has no significant effect on the performance of printing firms in FCT, Abuja, Nigeria.

Hypothesis Five

H_{o5}: Strategic renewal has no significant effect on the performance of printing firms in FCT, Abuja, Nigeria.

The result from table 4.6 shows the coefficient of strategic renewal as 0.591 with a p-value 0.000. This means that strategic renewal has a positive and significant effect on performance of printing firms in FCT, Abuja, Nigeria. With this, there is sufficient evidence to reject the null hypothesis since p-value is less than 5%. Therefore, we conclude that strategic renewal has significant effect on the performance of printing firms in FCT, Abuja, Nigeria.

Next, the study assesses explanatory power of the model using coefficient of determination (R^2). With R^2 of 0.699, corporate entrepreneurship explains 69.9% of variance in performance of small and medium printing firms (see table 4.6). The R^2 ranges from 0 to 1, with higher values indicating a greater explanatory power. As a guideline, the R^2 values of 0.75, 0.50, and 0.25 can be considered substantial, moderate, and weak (Henseler *et al*., 2009; Hair *et al*., 2011). The R^2 values of 69.9 indicates a moderate explanatory power of the exogenous variables. The R^2 value is also significant at 5% level.

The f^2 assess how the removal of a certain predictor construct affects an endogenous construct's R^2 value. The assessment of the effect sizes (f^2) shows significance of the relationships, but it does not show the size of an effect. Both substantive significance (f^2) and statistical significance (p) must be reported. To measure the effect size, Cohen's (1988) guidelines was used, which are 0.02 for small effects, 0.15 for medium effects, and 0.35 for large effects. Table 4.6 shows that all relationships had a medium effect.

Table 5: R^2 and Predictive Relevance of the Model

Endogenous Variables	R^2	Q^2 (=1-SSE/SSO)	P Val.
Performance	0.699***	0.695	0.000

*Notes: ***(P<0.01), **(P<0.05), *(P<0.1)*

Source: SmartPLS Output, 2023

The predictive sample reuse technique (Q^2) can also effectively show predictive relevance (Chin *et al*., 2008). Based on the blindfolding procedure, Q^2 shows how well data can be reconstructed

empirically using the model and the PLS parameters. In this thesis, Q^2 was obtained using cross-validated redundancy procedures. As a guideline, Q^2 values should be larger than zero for a specific endogenous construct to indicate predictive accuracy of the structural model for that construct. As a rule of thumb, Q^2 values higher than 0, 0.25, and 0.5 depict small, medium, and large predictive relevance of the PLS-path model, whereas a Q^2 less than zero means the model lacks predictive relevance. As shown in table 4.7, Q^2 for both endogenous variables indicate acceptable predictive relevance.

Collinearity test and Predictive Power of the Model

Before assessing the structural relationships, collinearity was examined to make sure it does not bias the regression results. This was done using the Variance Inflation Factor (VIF). VIF values above 5 are indicative of probable collinearity issues among the predictor constructs, but collinearity problems can also occur at lower VIF values of 3 to 5 (Mason & Perreault 1991; Becker *et al*. 2013). Ideally, the VIF values should be close to 3 and lower. If collinearity is a problem, a frequently used option is to create higher order models that can be supported by theory (Hair *et al*., 2016).

Table 6: Inner VIF Values of the Model

Variables	Performance
Competitive Aggressiveness	2.195
Innovativeness	2.266
Pro-activeness	3.697
Risk-taking	3.209
Strategic Renewal	3.000

Source: SmartPLS Output, 2023

From table 6, none of the VIF values is close to 5 which shows that they are no indication of probable collinearity issues among the predictor constructs for this thesis.

To assess the predictive power of the model, the PLS predict was employed. When interpreting PLS predict results, the focus should be on the model's key endogenous construct (performance of small and medium printing firms), as opposed to examining the prediction errors for all endogenous constructs' indicators. The prediction statistics used to test the predictive power of the model in this thesis is the root mean squared error (RMSE), which is defined as the square root of the average of the squared differences between the predictions and the actual observations.

To determine the predictive power, the thesis compare the RMSE values with a naïve the recommended naïve benchmark (produced by the PLS predict method) uses a linear regression model (LM) to generate predictions for the manifest variables, by running a linear regression of each of the dependent construct's indicators on the indicators of the exogenous latent variables in the PLS path model (Danks & Ray, 2018). The test result is shown in table 4.9.

Table 7: Predictive Power of the Model

	RMSE		Q^2_predict	
	MV	**LM**	**MV**	**LM**
PER1	0.714	0.531	14.943	0.283
PER2	0.660	0.455	15.613	0.416
PER3	0.663	0.559	18.026	0.544
PER4	0.501	0.384	9.605	0.481
PER5	0.406	0.302	7.046	0.559

Source: SmartPLS Output, 2023

Since the majority of the dependent construct indicators in the PLS-SEM analysis produces higher prediction errors compared to the naïve LM benchmark, this indicates that the model has a low predictive power.

Discussion of Findings

The study found that there is positive and significant effect of corporate entrepreneurship on the non-financial performance of small and medium printing firms in FCT, Abuja, Nigeria. This implies that corporate entrepreneurship contributes positively to the performance of printing firms in FCT, Abuja- Nigeria. Also, corporate entrepreneurship contributes significantly to the performance of printing firms in FCT, Abuja. This finding is in line with the findings of Moruff et al (2019) and Adudu et al (2021) who found positive and significant effect of corporate entrepreneurship on performance. However, none of the study on the empirical findings disagreed with the findings of this study.

The finding in this study is in tandem with Marshall's Approach to Entrepreneurship which believes that innovation and creativity are used in making minor changes in the market process and that production of large volume is necessary for economic growth (Schumpeter, 1942). This creates many players in the market place, and as a result creates equilibrium that brings about perfect competition and not monopolistic market.

The first finding revealed that innovativeness has negative and insignificant effect on non-financial performance of small and medium printing firms which implies that the management of printing firms in FCT have not been focusing on some areas of innovation such new product, methods, processes, tools, equipment and machinery, which can lead to new and better products, services and processes. This finding is in line with that of Ernest and Sule (2020) who found that process innovation has a weak effect on sales growth of SMEs in Kogi State.

Pro-activeness also showed negative but significant effect on non-financial performance of small and medium printing firms in FCT Abuja, Nigeria. This implies that management of printing firms in FCT Abuja are being anticipating of future problems, needs or any change thereof as the findings from the study shows negative and significant effect on performance. This finding does not agree with the findings Adefulu et al., (2018), who found positive and significant effect of proactiveness on growth of selected small and medium scale enterprises.

The third finding revealed that risk taking has a positive and significant effect on non-financial performance of small and medium printing firms in FCT Abuja, implying that printing firms in FCT are venturing into unknown by engaging in calculated business related eventualities such as firms orientation to go for new initiatives for the purpose of corporate profit and performance at significant rate. This is consistent with the findings of Obioma, et. al., (2020) who found positive and significant effect of risk taking on performance of businesses.

Also, competitive aggressiveness revealed positive and insignificant effect on non-financial performance of small and medium printing firms in Abuja. This signifies that small and medium printing firms in FCT are highly concerned with action response attributes, including volume, speed, and duration, in order to reveal a more complete picture with regard to a firm's competitive propensity and advance theoretical parsimony. This is in line with the finding of Patrick and Kairo (2022) who found competitive aggressiveness to have positive influence on performance.
Lastly, the study found that strategic renewal had a positive and significant effect on non-financial performance of printing firms in FCT Abuja. This implies that rapid response to changing the business model in proportion to the market and finding innovative ways that add value to the customers are on higher rate as the study found strategic renewal to be positive and significant. This is consistent with the finding of Asmaa (2021) who found positive and significant effect of strategic renewal on performance.

Conclusion and Recommendations
Based on the research findings, the study concludes that corporate entrepreneurship is a positive and significant factor that affects non-financial performance of printing firms in FCT, Abuja. The study also concludes that risk taking and strategic renewal can help firms maintain a reasonable level of performance. In line with the findings from the study, printing firms in FCT, Abuja need to be innovative and proactive in their business activities. Study also concluded that risk-taking, competitive aggressiveness and strategic renewal are among the tools of corporate entrepreneurship that enhance performance. This is because findings shows that printing firms in Abuja are taking-risk, highly competitive aggressive and strategic in business activities.

Based on the findings and conclusions above, the study recommends thus:
Printing firms in FCT, Abuja should increase their level of innovativeness by improving their knowledge, ideas, methods, processes, tools, equipment and machinery. Implementing this will leads to new and better products and services to increase performance as the result from the findings shows innovativeness has negative effect on performance.

That, printing firms in FCT, Abuja should increase their level of pro-activeness, corporate ability to adjust and alter situations, anticipate future implications, being opportunistic, continuous search for new market possibilities and opportunities as finding from the analysis revealed negative effect of pro-activeness on performance. The above, if implemented will lead to identifying potential issues and challenges before they become critical problems. It will also have a positive reputation for being forward-thinking and innovative, which can attract talent and customers.

Furthermore, owners of printing firms in FCT, Abuja should continue with risk taking involvement - taking bold steps, by entering into the uncertain business environment and take advantage of the weakness of the business environment to create performance. The above, if implemented, will

encourage innovation and creativity, which lead to competitive advantage, as it allows the organization to differentiate itself.

Printing firms in FCT, Abuja should not only intensity efforts to outperform rivals and/or aggressive responses to the actions of competitors by cutting costs, expanding to markets abroad, or upgrading existing products with new functions or additional services, but also establishing product or process solutions that address ecological constraints over competitors in yielding performance. This recommendation if implemented, will not only help these firms to establish dominance in their industry but will also disrupt competitors' strategies and create new opportunities for growth.

Finally, printing firms in FCT, Abuja should maintain the management philosophy of strategic renewal, with the intent of exploring and exploiting opportunities by making modifications in structure, culture, and technology, in response to environmental changes, and to achieve the aspirations of the business. Implementing this recommendation will keep the firms relevant and adaptable in the long term as well as building trust and confidence among stakeholders.

Limitation of the Study

The study on effect of corporate entrepreneurship on non-financial performance of small and medium printing firms in FCT, Abuja - Nigeria. The study failed to use other sectors of the Nigerian economy such as banking, agriculture, education, etc. The study is limited to only registered small and medium printing firms in FCT, Abuja and used non-financial performance of the firms.

Suggestion for Further Studies

There are several potential opportunities to be considered in the future for further studies and improvements. Subsequent studies can focus on other sectors of the Nigerian economy with specific focus on financial performance aspects. This may include: return on assets, return on equity and return on investment. Similarly, further studies can be carried out to evaluate the effect of corporate entrepreneurship on other related sectors outside the FCT, Abuja.

References

Abosede, A.J., Fayose, J., & Eze, B.U. (2018). Corporate entrepreneurship and international performance of banks in Nigeria. *Journal of Economics and Management, 32(2), 5-17.*

Adefulu, A. D., Asikhia, O. U. & Aroyeun, T. F. (2018). The effect of pro-activeness on growth of selected small and medium scale enterprises in Ogun State Nigeria. *Journal of Business and Management,* 20(12) 14-21

Adudu, C. A., Ojiba, C. N. & Ogundare, O. O. (2021). Corporate entrepreneurship and performance of small and medium scale enterprises in Federal Capital Territory, Abuja-Nigeria. *Journal of Emerging Technologies and Innovative Research,* 8(7) 104-124

Akinmulegun, S.O. & Oluwole, F.O. (2014). An assessment of the Nigerian manufacturing sector in the era of globalization. *American Journal of Social and Management Sciences,5*(1), 27-32.

Asmaa, H. N. (2021). The relationship and impact of strategic renewal on entrepreneurial performance: an applied study of a sample of private bank managers in Baghdad, 11(3) 334-351

Coccia, M. & Watts, J. (2020). A theory of the evolution of technology: technological parasitism and the implications for innovation management. *Journal of Engineering and Technology Management*, 55(1), 1-18.

Daryani, M.A. & Karimi, A. (2017). Effect of corporate entrepreneurship on firm performance in Iranian ASMEs: The mediation role of knowledge creation and learning orientation. *J. Agri. Sci. Tech;* 19, 261-277.

Gomezel, A. & Rangus, K. (2018). An exploration of an entrepreneur's open innovation mindset in an emerging country. *Management Decision*,56(9), 1869-1882.

Jancenelle, V.E., Storrud-Barnes, S., & Javalgi, R.G. (2017). Corporate entrepreneurship and market performance: A content analysis of earnings conference calls. *Management Research Review, 40 (*3), 352-367.

Karacaoglu, K., Bayrakdaroglu, A. & San, F.B. (2013). The impact of corporate entrepreneurship on firms' financial performance: Evidence from Istanbul Stock Exchange Firms. *International Business Research;* 6(1).

Kuratko, D. F. & Morris, M. H. (2018). Corporate entrepreneurship: A critical challenge for educators and researchers. *Entrepreneurship Education and Pedagogy,* 1(1), 42-60.

Kuratko, D. F., Hornsby, J. S., & Hayton, J. (2015). Corporate entrepreneurship: the innovative challenge for a new global economic reality. *Small Business Economics,* 1-9

Medase, K. (2020). Product innovation and employees' slack time. The moderating role of firm age & size. Journal of Innovation & Knowledge 5: 151–74.

Obioma, U. O., Miebaka, D. T. & John, M. (2020). Risk taking and performance of small and medium enterprises in Rivers and Bayelsa States of Nigeria. *International Journal of Latest Research in Humanities and Social Science,* 03(09) 17-23

Prange, C., & Pinho, J.C. (2017). How personal and organizational drivers impact on SME internationalizational performance: The mediating role of organization innovation. *International business review.*

Sanchez-Gutierrez, J., Cabanelas, P., Lampon, J. & Gonzalez-Alvarado, T. (2019). The impact on competitiveness of customer value creation through relationship capabilities and marketing innovation. *Journal of Business and Industrial Marketing,* 34(3), 618-627

World Economic Forum (2013). *Manufacturing sector adds value to economic growth and creates job*. India: Press Trust.