



ENTREPRENEURIAL MARKETING AND PERFORMANCE OF CHEMICAL MANUFACTURING FIRMS IN NIGERIA

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ABSTRACT: *The study examined the influence of entrepreneurial marketing on performance of selected chemical manufacturing firms in Nigeria using Anambra State as point of reference. The study investigated the extent entrepreneurial marketing dimensions of innovativeness, proactiveness risk management and opportunity recognition influence the performance of the selected chemical manufacturing firms in Anambra State of Nigeria. The study adopted a cross sectional survey research design. The target population of the study was 4932 while the sample size was 370. Primary source of data collection for analysis was used. The study utilized 346 usable copies of questionnaire and evaluated the influence of entrepreneurial marketing measures on the performance of chemical manufacturing firms in Anambra State of Nigeria. Structural equation modeling technique was used to test the four formulated hypotheses at 5% level of significance. The findings from the research showed that entrepreneurial innovativeness, proactiveness, risk management and opportunity recognition had positive significant influence on the performance of chemical manufacturing firms in Anambra State of Nigeria. The research recommends that Nigerian chemical manufacturers and entrepreneurs should continue to invest more on entrepreneurial marketing dimensions for improved performance and sustainability.*

KEYWORDS: Entrepreneurial Marketing, Performance, Chemical Manufacturing Firms, Anambra State, Nigeria

INTRODUCTION

The business world is a going concern as new trends strive to unleash as a result of competition, the old methods stand to fade away. The concept of entrepreneurial marketing emanated from two important disciplines: marketing and entrepreneurship. Etymologically, marketing is a set of activities designed to discover new ways of satisfying wants and carrying out innovations on the best ways to meet such wants to the satisfaction of the



customers and producers (Anyanwu, 2013). In as much as business is involved, marketing is the central concern of entrepreneurial research, notwithstanding entrepreneurs are not typically marketing professionals (Jones, 2010). Entrepreneurial refers to the overall activities and behavior of entrepreneurs. Entrepreneurial marketing refers to as marketing activities undertaken by entrepreneurs in running their enterprises. Entrepreneurs are those who create something new or those who are alert to opportunities (Metcalf, 2006). Entrepreneurial marketing refers to a proactive identification and exploitation of opportunities for acquiring and retaining profitable customers and innovative approaches to risk management, resource leveraging and value creation (Morris, Schindehutte & Laforge, 2012). Entrepreneurial marketing represents an opportunistic wherein entrepreneurs proactively seek novel ways to create value for desired customer and build customer equity (Gilmore, 2001). Entrepreneurs distinguish marketing as the key function within the firm which encompasses innovation and creativity (Collinson & Shav, 2001). Interestingly, entrepreneurial marketing captures the interface between entrepreneurship and marketing which serves as an umbrella for many emergent perspectives on essential marketing efforts.

In Nigeria, entrepreneurs as well as business owners utilize the importance of entrepreneurial marketing as key for business profitability and sustainable growth of enterprises which able them overcome challenges posed by external forces, such as global financial crisis and environmental factors. Due to the need for economic growth, there is need for entrepreneurial marketing which is associated with adaption and change of economic system often contributing to national economic growth (Reyholds & Antio, 2004). The aspect of interface between marketing and entrepreneurship involves how the marketing concept and principles can be made more relevant in entrepreneurial context (Stoke, 2000). Entrepreneurial marketing is one of the measures used to overcome economic recession (Hill & Hultan, 2006). Entrepreneurial marketing has several underlying dimensions. Some of the dimensions were derived from entrepreneurial orientations: proactiveness, calculated risk management, innovativeness and opportunity identification or recognition (Zabra & Garvis, 2000). Customer orientation or intensity and value creation are the dimensions of entrepreneurial marketing that emanated from market orientation while resource leveraging is also a dimension of entrepreneurial marketing as posited by (Morris et al., 2002).

Statement of the Problem

The competition arising from the increasing escalation of various entrepreneurial ventures in Nigeria especially in Anambra State is an issue of great concern. The increasing competition has made the entrepreneurs and other stake holders in the entrepreneurial businesses to search for various means of sustaining their enterprises. Besides, the conventional marketing practices appear not to be effective for entrepreneurial firms. The problem of the study is that Nigerian entrepreneurs still face marketing and entrepreneurial orientations challenges which affect their performance in terms of growth, competitiveness and profitability as captured by (Stokes, 2000). A good number of Nigerian entrepreneurs have a lot of challenges pertaining to the application of marketing and entrepreneurial orientations especially in terms of having small range of customers, financial constraints, little innovation, uncalculated risk taking (Anetoh, Ndubisi & Anetoh, 2017). Unfortunately, many small and medium scale enterprises in Nigeria operate in a very turbulent environment of increased risk and uncertainty, inability to forecast the future, traditional marketing practice among others.



Extant literature has shown that many small and medium scale enterprises do not position well especially in terms of spotting and utilizing opportunities in the market place. For that reason, entrepreneurial marketing is suggested by experts in the entrepreneurial businesses the survival strategy in this era of rising competition. Although many studies have been conducted on the influence of entrepreneurial marketing dimensions on the performance of small and medium scale enterprises especially in advanced countries but with inconsistent findings. For instance; the empirical findings by (Olannye & Eromafuru, 2016 and Hacıoglu et al., 2012) revealed that entrepreneurial innovativeness significantly influences firm performance contrary to the finding by Mehran and Morteza (2014). Also, entrepreneurial proactiveness significantly influences the performance of the enterprise as found by (Hacıoglu et al., 2012 and Olannye & Eromafuru, 2016). Conversely, Otika et al. (2019) found that proactiveness has no significant relationship with the performance of SMEs measured by competitive advantage. Furthermore, the findings of (Anetoh et al., 2017; Mehran & Morteza, 2014) revealed that entrepreneurial risks management significantly influence the performance of small and medium scale enterprises contrary to the findings by (Hacıoglu et al., 2012 and Otika et al., 2019) that found insignificant influence of risk taking on the performance of small and medium scale enterprises. In addition, entrepreneurial opportunity recognition significantly influences the performance of small and medium scale businesses as found by (Olannye & Eromafuru, 2016 and Otika et al., 2019). On the other hand, Hacıoglu et al. (2012) and Mehran and Morteza (2014) found that opportunity recognition has no significant influence on the performance of small and medium scale enterprises.

The appalling inconsistencies in the literature concerning the influence of entrepreneurial marketing dimensions on the performance of small and medium scale enterprises suggests further empirical evidences. Importantly, based on the available literature reviewed; it was discovered that no study has been conducted on entrepreneurial marketing and the performance of chemical manufacturing companies in Nigeria. It is against this backdrop in the literature that this study sought to investigate the influence of entrepreneurial marketing on the performance of selected Chemical manufacturing firms in Nigeria using Anambra State as point of reference so as to contribute to the body of existing knowledge in entrepreneurial marketing literature.

Objectives of the Study

The main objective of the study is to investigate the influence of entrepreneurial marketing dimensions on the performance of selected chemical manufacturing firms in Anambra State of Nigeria. The specific objectives are to;

1. Determine the influence of innovativeness on the performance of chemical manufacturing firms.
2. Evaluate how proactiveness influences the performance of chemical manufacturing firms.
3. Ascertain the extent to which risk management influences the performance of chemical manufacturing firms.
4. Assess how opportunity recognition influences the performance of chemical manufacturing firms.



Research Questions

The following research questions are raised from the research objectives.

1. To what extent does innovativeness influence the performance of chemical manufacturing firms?
2. How does innovativeness influence the performance of chemical manufacturing firms?
3. To what level does risk management influence the performance of chemical manufacturing firms?
4. How does opportunity recognition influence the performance of chemical manufacturing firms?

Research Hypotheses

- H1: Entrepreneurial innovativeness has a positive significant influence on the performance of chemical manufacturing firms.
- H2: Entrepreneurial proactiveness has a positive significant influence on the performance of chemical manufacturing firms.
- H3: Entrepreneurial risk management has a positive significant influence on the performance of chemical manufacturing firms.
- H4: Entrepreneurial opportunity recognition has a positive significant influence on the performance of chemical manufacturing firms.

Significance of the Study

The importance of entrepreneurial marketing and its influence on the performance of the selected small and medium scale enterprises cannot be over emphasized. The outcome of this study is expected to be of great benefits to entrepreneurs, business owners, managers, marketing practitioners, future researchers and government. Firstly, the findings of this study are expected to help entrepreneurs, business proprietors, managers and practitioners to adopt new method and techniques in creating new customers by providing superior products and maintaining current customers by providing satisfaction. Secondly, the findings of this study are expected to assist small and medium scale enterprises to overcome the challenges posed by external influences which may include environmental factors and financial crisis. Thirdly, the study is also relevant to future researchers as it will serve as a reference source for future references. Fourthly, the findings of this study are expected to help government in determining the vibrancy as well as the true tax reflection of chemical manufacturing firms in Anambra State of Nigeria.

Scope of the Study

The content coverage of this study is limited to the investigation of the effect of entrepreneurial marketing on the performance of selected chemical manufacturing firms in Anambra State of Nigeria. The variables for entrepreneurial marketing which is the independent variable for this study are; innovativeness, proactiveness, risk management and opportunity driven. The outcome variable for this study is performance. The researchers selected sixteen chemical manufacturing firms located in Awka, Nnewi and Onitsha, the commercial towns that are located respectively in each of the three senatorial zones in



Anambra State of Nigeria. The selected firms are; Bona Chuks Chemical Industrial Nigeria Limited Nnewi; Chemtech Chemical Nigeria Limited Nnewi; Uru Chemical Industries Nigeria Nnewi; Jinus Chemical Industries Nigeria Limited; Arimaco Group of Companies Nigeria Limited Nnewi; Achiugo Chemical Nigeria Limited Onitsha; Citizens Chemical Industry Nigeria Limited Onitsha; Clemchuks Chemical Industry Nigeria Onitsha; DN Meyer Nigeria Limited; Picone International Chemicals Limited; Nycil Chemical Limited Onitsha; Golden Horse Chemicals Ind. Limited Awka; Horizon Chemicals and Paints Awka; Benjamites Global Chemical Crew Limited Awka; Jude Chemical Limited Awka and Jiden Chemical and Scientific Limited Awka. The justification for their selection was based on their large capital base, possession of human resources prowess, large market share, popularity and their steadfastness in chemical manufacturing business. The sampling unit of the study comprises the entrepreneurs and employees/workers of the selected chemical manufacturing firms.

REVIEW OF RELATED LITERATURE

Conceptual Framework

Firm Performance

Lebens and Euske (2006) opine that performance is a set of financial and non-financial indicators that offer information on the level of accomplishment of objectives and results. Armstrong and Baron (1998) defined firm performance as a strategic and integrated approach to increase the effectiveness of companies by improving the performance of the people who work in them and by developing the capabilities of teams and individual contributors. Interestingly, managing employee performance and aligning their objectives facilitates the effective delivery of strategic and operational goals and hence improve a firm's competitiveness. Financial gains are linked to performance; growth of sales, reduced costs in the organization and reduced project over-runs etc. In addition, performance entails the recurring activities to establish organizational goals, monitor progress toward the goals, and also make adjustments to achieve those goals more effectively. It is the result of an action or activity handled by the employee in an organization in order to determine the effectiveness and efficiency of the organization in achieving its stated goals or objectives (Orannye & Eromafuru, 2016).

Innovativeness

Innovation refers to a firm's tendency to engage in creative processes, experimentation of new ideas, which may result in the institution of new methods of production and/or bringing new products or services to current or new markets. However, the innovative aspect of entrepreneurial orientation promotes changes as well as creative behaviors, which encourage active exchange of ideas, increase information flows and novelty in new product development. Innovation allows the firm to concentrate on new ideas that lead to new markets, products or processes. The degree to which a successful organization emphasizes innovation in its market actions can range from the highly innovative new market creator to the incremental market builder (Becherer, Haynes & Helms, 2008). Entrepreneurial innovativeness prepares business around a unique product, service or process. In addition, innovativeness is the willingness to take up opportunities that may yield either profits or



losses (Oni, 2002). Innovativeness is a “firms” tendency to employ and support new ideas, experimentations, creative processes and novelty that may create new services, products or advanced technological processes (Kumpkin & Dess, 1996). Innovation as a marketing action, involves ability to bring a new level of quality to the products, services, processes and opportunities to lead a company on new markets. Regular changes in market tendencies, demands on already existing products, as well as successfully performance of a market companies have to bring innovation in a process of doing business (Fiore et al., 2013). There are different degrees of the successful innovative actions of companies on a market; it can range from the highly innovative new market or incremental market maker. However, the difference between these two dimensions is that market creator has to produce completely new solutions for the customer, since market maker can just follow already existing customer relations and use market knowledge.

Proactiveness

Proactivity means defining your goals and your future and arriving there as planned (Osaza, 2003). Proactivity is a state of mind largely driven by one’s consciousness, to sustain a vision, to fulfill a mission, to attain a challenging goal and achieve defined objectives. It is envisioning a future towards which one derives the strategy parameter for influencing, impacting and recreating the environment within which to operate in line with that vision. It is a determination to excel in one’s own chosen field. It is a determination to pursue and attain one’s own goal largely defined by one. Proactiveness could be seen as an alertness of the company. Entrepreneurial proactiveness is the ability of the firm to predict where products/service do not exist or have become unexpected valuable to customers/consumers and where new producers of manufacturing are unknown to others becomes feasible (Alvarez & Barney, 2002). By extension, proactiveness is assumed when different companies have insight into the value of resources that other companies do not have. It is the recognition of the company’s opportunity. Entrepreneurial proactiveness depends on the attractiveness of an opportunity and ability of the firm to grasp the opportunity once it is perceived (Kirzner, 1997). Proactiveness is used in measuring organizational effectiveness (Arowomole, 2003). It should be linked to knowledge for coordinating inputs at below market value and converting such inputs into outputs for ensuring high performance. This makes the proactive company to focus on the past, the present and the future with great zeal, using history to explain and fully understanding the present and to challenge and create its own proactive future (Osaze, 2003). Proactiveness could also be related to innovativeness and risk assumption (Pitt et al, 1997). A company is proactive if it searches for market opportunities and experimentation with responses to changing environmental trends.

Risk Management

Risk taking is indispensable in several fields such as creativity, entrepreneurship etc. In spite of the fact that the consequences of risk taking can sometimes be catastrophic, entrepreneurs must continue to take calculated risk if he is to progress. Risk taking is defined as involving actions taken when the consequences or probabilities of outcomes are unknown or partially known. The success of most enterprises depends on the capabilities of their leaders to evaluate risks and decide which path to pursue. Uncertainty has two component, risks and ambiguity and decision makers’ ability for tolerance of ambiguity and risk influence their choices. Successfully high decision makers consistently tend to see more opportunities in risky situations and higher risk reference manifests itself in greater confidence in their



decision. Decision makers are strongly encouraged to take calculated risk, as incorrect decision may bring an enterprise or the entire economy tumbling down. The decision maker should focus on accurate information. When a risk taker takes into account all these factors basically acknowledging the potential risk of failure, it can be referred to as a calculated risk, as opposed to a complete lack of knowledge. Risk takers may become the victims of what is known as a “halo effect” when one factor dominates all other factors or even the person unknowingly ignores other factors and focuses on only one factor. It has been found that (a) past success leads to willingness to take risks; (b) individual focus on highly favorable outcomes even if there is less probability of them occurring and (c) risks taking propensity is negatively associated with both the time required to reach a decision and the amount of information upon which the decision was based.

Opportunity Recognition

Comparing traditional marketing with entrepreneurial marketing, the latter is more opportunity driven. Therefore, there is a need to choose the “right” opportunity that determines success for firms (Becherer, Haynes & Helms, 2008). Convincingly, taking a right action at the right time might bring successfulness for firms. Being forward looking as a key point of opportunity recognition for entrepreneurs means serving unsatisfied needs and capturing new opportunities before their competitors. Importantly, the recognition and pursuit of opportunity are marketing actions critical to SMEs success. Market potential is generally evaluated by degree of fit relative to the capabilities and resources of the firms. However, it is the ability of the firm to select the “right” opportunity that eventually determines entrepreneurial successes (Hamel, 2000; Hamel & Prahalad, 1994). In addition, opportunities requiring substantial resource commitments may be unattainable to small owner operated firms. Furthermore, the recognition as well as pursuit of opportunity are more closely aligned with the entrepreneur’s individual perceptions (Mullins & Forlani, 2005; Schindehutte & Morris, 2001). Undoubtedly, where others perceive problems abound, entrepreneurs are more likely to see potentials and succeed (Palich & Bagby, 1995).

Relevant Theories

Schumpeters Innovative Theory (1971)

This theory states that an entrepreneurship is a creative activity since an innovator brings new products or services into the economy. Schumpeter opined that the supply of entrepreneurship is a function of the rate of profit and the social climate. The availability of credit, good social climate and appropriate training help entrepreneurs or innovators. When these conditions are available, the entrepreneur or innovations would become receptive to changes, individualistic, aggressive, highly competitive, egocentric and ambitious. Schumpeter believed that if an entrepreneurship is properly developed through providing of the enabling environment, funding and relevant entrepreneurial trainings, jobs will be created and purchasing power will increase leading to increased demand for goods and services. Schumpeter sees innovation as a function consistent with all entrepreneurs. He stated that with innovation, old firms find their markets being destroyed by the advent of new competing products and new firms market the old firms find their market being destroyed by the advent of new competing products and products and new firms market the old products at much lower price taking competitive advantage.



Theory of Opportunity Recognition by Archill, Cardozo and Ray (2013)

This theory posits that an entrepreneur identifies business opportunities in order to create and deliver values for stakeholders. According to this theory, careful investigation and sensitivity to market needs as well as ability to spot suboptimal deployment of resources help an entrepreneur to develop an opportunity which may or may not culminate in the formation of a business. Opportunity development involves entrepreneurial creative work. Importantly, the creation of successful businesses follows a successful opportunity development, is cyclical and interactive as an entrepreneur is likely to conduct evaluation several times at different stages of development. Evaluation leads to recognition of additional opportunities or adjustment to the initial vision. Identifying and selecting right opportunities for new Business are among the most important abilities of a successful entrepreneur (Stevenson et al.,1985). The ways opportunities are identified and developed are influenced by these factors; alertness, information asymmetry and prior knowledge, accidental discovery / systematic search, social network and personality traits.

EMPIRICAL REVIEW

Otika et al. (2019) examined entrepreneurial marketing practices and competitive advantage of small and medium size enterprises in Nigeria. The population of the study consists of the owners/managers of small and medium size enterprises in Enugu State. The sample size was 356. A cross sectional survey research design was adopted. Multiple regression analysis was used to test the hypotheses. The findings revealed that proactiveness and risk taking have no significant relationship with competitive advantage used to measure performance of small and medium size enterprises. The findings also revealed that innovativeness and opportunity recognition have significant relationship with competitive advantage used to measure performance of small and medium size enterprises in Enugu, Nigeria.

Mugambi & Karugu (2017) conducted a study on effect of entrepreneurial marketing on performance of real estate enterprises: a case of Optiven limited in Nairobi, Kenya. The objectives of the study were to determine how strategic orientation, innovation orientation, market orientation and resource leverage affect the performance of optiven real estate in Nairobi. Descriptive research design was used. The population size of the study was 522 clients while the sample size was 227. Primary source of data was used for the survey. The instrument was the questionnaire. Correlation and regression analysis were the statistical tools used. The findings of the study showed that strategic orientation, innovation orientation, market orientation and resource leverage significantly affect the performance of Optiven real estate in Nairobi, Kenya.

Anetoh, Ndubisi & Anetoh (2017) conducted a study on the topic 'entrepreneurial orientation and entrepreneurial marketing behaviour among Nigerian entrepreneurs. The study examined the relationship between entrepreneurial orientations and entrepreneurial marketing behaviour among Nigerian entrepreneurs in Anambra State of Nigeria. The population of 130 entrepreneurs generated across 13 different categories of entrepreneurial ventures in Anambra State was used. The study utilized 118 usable copies of the questionnaire for analysis. Pearson coefficient of correlation was used to test the five formulated hypotheses facilitated using SPSS package. The findings showed that significant relationship exist between



entrepreneurial marketing behavior and innovativeness, proactiveness, risks management, autonomy, competitive aggressiveness. The implication of the findings portrayed that all entrepreneurial orientation dimensions are significantly linked to entrepreneurial marketing behaviors among entrepreneurs in Nigeria.

Hulya (2011) conducted a study on the topic ‘entrepreneurial marketing- the interface between Marketing and Entrepreneurship: a qualitative research on Boutiques hotels in Turkey. The study objective was to identify the major dimensions of entrepreneurial marketing concept applicable in boutique hotels. Descriptive survey design was used. The research was conducted with structured interview method in 9 boutique hotels located in the province of Izmir in Turkey. Based on 7 dimensions of entrepreneurial marketing examined, the findings showed that they have significant effects on the performance of Boutique hotels in Izmir Turkey. The findings revealed that they have been adopted and put into effective use by Boutique hotels in Turkey.

Hacioglu, Eren, Eren & Celikkan (2012) in their study investigated the effect of entrepreneurial marketing on firm’s innovative performance in Turkey SMEs. The structured questionnaire derived from previous literature (Kreiser, Marino & Weaver, 2002) was used. They tested seven hypotheses on data collected from a sample of 560 manufacturing SMEs in Turkey using regression analysis. The study found that opportunity recognition and calculated risk taking have insignificant effect on innovative performance. Also, it was found that innovativeness and proactiveness have significant effect on performance of small and medium scale enterprises in Turkey. In addition, their findings revealed that real estate enterprises in Turkey can only grow by either performing at a lower cost or performing in a way that leads to differentiation.

Proposed Conceptual Model for the Study

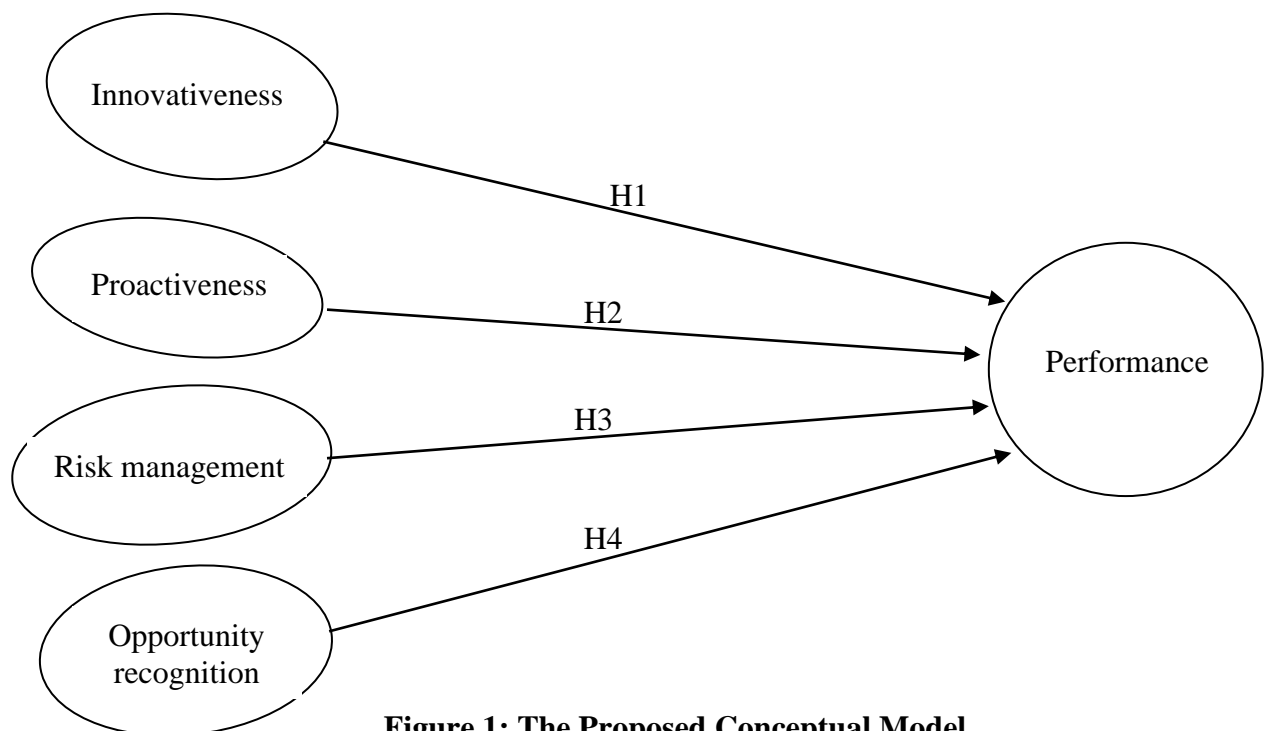


Figure 1: The Proposed Conceptual Model

Source: Researchers’ Schematics, 2020.



METHODOLOGY

The study adopted a cross sectional survey research design. The geographical entity for this study is Anambra State of Nigeria using Awka, Onitsha and Nnewi. The population of the study consists of entrepreneurs and workers of the selected Chemical manufacturing firms in Anambra State of Nigeria. The population size of this study is 4932. The sample size is 370 determined using a Taro Yamane formula. Primary source of data collection was used for the survey. The study selected 16 chemical manufacturing firms located in Awka, Nnewi and Onitsha the three towns that represented the three senatorial zones of Anambra central, Anambra North and Anambra South respectively in Anambra State of Nigeria. The selected firms for the survey were; Bona Chuks Chemical Industrial Nigeria Limited Nnewi; Chemtech Chemical Nigeria Limited Nnewi; Uru Chemical Industries Nigeria Nnewi; Jinus Chemical Industries Nigeria Limited; Arimaco Group of Companies Nigeria Limited Nnewi; Achiugo Chemical Nigeria Limited Onitsha; Citizens Chemical Industry Nigeria Limited Onitsha; Clemchuks Chemical Industry Nigeria Onitsha; DN Meyer Nigeria Limited; Picone International Chemicals Limited; Nycil Chemical Limited Onitsha; Golden Horse Chemicals Ind. Limited. Awka; Horizon Chemicals & Paints Awka; Benjamites Global Chemical Crew Limited Awka; Jude Chemical Limited. Awka and Jiden Chemical & Scientific Limited Awka.

In addition, the Likert 5-point scale was used to design the questionnaire used in the study while the questionnaire items were developed from the literature and measurement scales adapted from previous researches by (Mugambi and Karugu, 2017; Anetoh, Ndubisi & Anetoh, 2017). The average reliability alpha coefficient value of 0.723 as well as average composite reliability value of 0.733 proved the internal consistency of the instrument accepted for the main survey. In addition, the face validity of the instrument was done by three research experts. The average variance extracted (AVE) values ranging from 0.508 - 0.648 confirmed the convergent validity among the constructs based on threshold as proposed by Hair et al. (2017) as shown on table 1.

Table 1: Reliability and Validity of the Instrument

| Construct | Cronbach Alpha | Composite Reliability | Average Variance Extracted |
|-------------------------|-----------------------|------------------------------|-----------------------------------|
| Innovativeness | 0.804 | 0.814 | 0.627 |
| Proactiveness | 0.702 | 0.712 | 0.544 |
| Risk management | 0.688 | 0.710 | 0.508 |
| Opportunity recognition | 0.709 | 0.713 | 0.541 |
| Performance | 0.711 | 0.717 | 0.648 |

Source: PLS-SEM Algorithm output, 2020.

Administration of the Instrument, Method of Data Collection and Analysis

Three hundred and seventy copies of the questionnaire were distributed across the sixteen selected Chemical manufacturing firms under investigation in the study areas. Purposively, only entrepreneurs, owners as well as employees were given the questionnaire to fill out and retrieved by the researchers and four field assistants after filling the questionnaire instrument. The survey lasted from January 12th to February 24th, 2020. Partial Least Squares Structural



Equation modeling was the statistical tool used to test the hypotheses postulated for the study which was necessitated using Smart-PLS version 3 software package. Also, the four formulated hypotheses were tested and decision made based on 5% level of significance. The stipulated decision rule for the acceptance or rejection of hypothesis is as follows: accept the alternative hypothesis if the p-value is less than 0.05; otherwise, reject the alternative hypothesis.

RESULTS AND FINDINGS

Assessment of the Structural Model

Out of 370 copies of the questionnaire distributed, only 346 usable copies (93.5% response rate) were valid and used for the analysis while 24 copies representing (6.5%) were not returned for analysis. However, the hypotheses were tested and assessed through bootstrapping procedure in Smart PLS 3.0 (Hair et al., 2017). The study used the standardized root mean square residual (SRMS), the root mean square residual covariance (RMS_{θ}) as well as normed fit index (NFI) as the measures for the assessment of PLS-SEM goodness of fit. The three models fit measures results show that the SRMR value is 0.031, RMS_{θ} value is 0.0212 and the NFI value is 0.909 which portrayed a well-fitting model. This implies that the model is well fitted for the data and that the threshold for acceptance of the fitness of the model used in the study was therefore met. The coefficient of determination (R^2) measures the total variance explained in the endogenous construct as a result of variations in the exogenous variables in the model. The model explains the positive significant variance of 0.755 (75.5%) for firm performance. The R square value generated showed the substantial power of the exogenous constructs to explain the endogenous construct which is clearly above the threshold given that the R^2 values of 0.75, 0.50 and 0.25 stand for substantial, moderate and weak respectively as proposed by (Hair, Hult, Ringle, & Sarstedt, 2017). In addition, the significance of the structural model was evaluated based on the values of the path coefficients, statistical t-values and the p-values. Accordingly, table 2 depicts the PLS-SEM results for the test of hypothesized relationships postulated to guide the study.

Table 2: Bootstrapping Results of the Structural Model and Path Analysis

| Hypotheses | Hypotheses paths | Path coefficients | T-values | P-values | Decision |
|------------|------------------|-------------------|----------|----------|-----------|
| H1 | INN -> PERF | 0.422 | 9.701 | 0.000 | Supported |
| H2 | PRO -> PERF | 0.314 | 3.118 | 0.012 | Supported |
| H3 | RKM -> PERF | 0.219 | 2.678 | 0.026 | Supported |
| H4 | OPR -> PERF | 0.411 | 7.834 | 0.001 | Supported |

Path is significant at 5% level of significance; if the t-value is ≥ 1.96 , or p-value ≤ 0.05 .

Source: PLS-SEM Output, 2020.

Note = INN: innovativeness; PRO: proactiveness; RKM: risk management; OPR: opportunity recognition; PERF: firm performance.

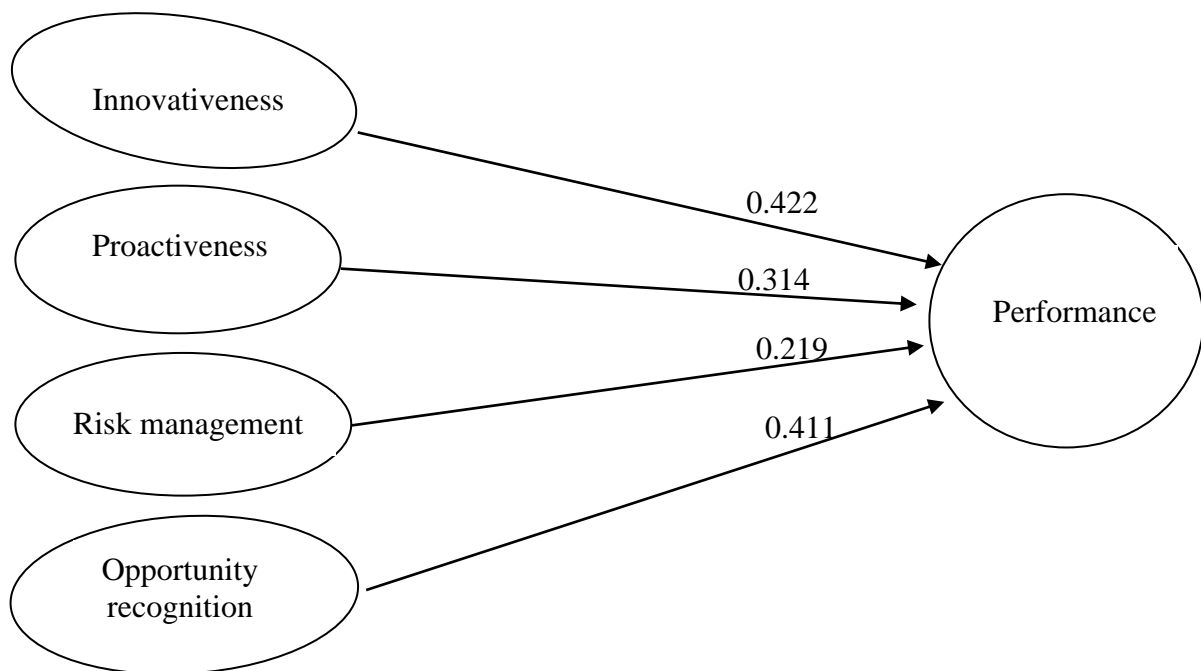


Figure 2: Structural Model Results.

Note: $\beta \geq 0.20$; $t \geq 1.96$ and $p \leq 0.05$ (to be significant).*

Test of Hypothesis One

HO₁: Entrepreneurial innovativeness has no positive significant influence on the performance of chemical manufacturing firms.

HA₁: Entrepreneurial innovativeness has a positive significant influence on the performance of chemical manufacturing firms.

Based on the result as shown on table 2 as well as on figure 2, the path coefficient value for innovativeness is 0.422; the absolute t-statistic value is 9.701 with a p-value of 0.000. Since 0.000 is less than 0.05 the stipulated level of significance for this study, therefore, the decision is to reject the null hypothesis and accept the alternative hypothesis which states that entrepreneurial innovativeness has a positive significant influence on the performance of chemical manufacturing firms in Anambra State of Nigeria.

Test of Hypothesis Two

HO₂: Entrepreneurial proactiveness has no positive significant influence on the performance of chemical manufacturing firms.

HA₂: Entrepreneurial proactiveness has a positive significant influence on the performance of chemical manufacturing firms.

Based on the result as shown on table 2 and on figure 2, the path coefficient value for proactiveness is 0.314; the absolute t-statistic value is 3.118 with a p-value of 0.012. Since 0.012 is less than 0.05 the stipulated level of significance for this study, therefore, the



decision is to reject the null hypothesis and accept the alternative hypothesis which states that entrepreneurial proactiveness has a positive significant influence on the performance of chemical manufacturing firms in Anambra State of Nigeria.

Test of Hypothesis Three

HO₃: Entrepreneurial risk management has no positive significant influence on the performance of chemical manufacturing firms.

HA₃: Entrepreneurial risk management has a positive significant influence on the performance of chemical manufacturing firms.

Based on the result as shown on table 2 as well as figure 2, the path coefficient value for risk management is 0.219; the absolute t-statistic value is 2.678 with a p-value of 0.026. Since 0.026 is less than 0.05 the stipulated level of significance for this study, therefore, the decision is to reject the null hypothesis and accept the alternative hypothesis which states that entrepreneurial risk management has a positive significant influence on the performance of chemical manufacturing firms in Anambra State of Nigeria.

Test of Hypothesis Four

HO₄: Entrepreneurial opportunity recognition has no positive significant influence on the performance of chemical manufacturing firms.

HA₄: Entrepreneurial opportunity recognition has a positive significant influence on the performance of chemical manufacturing firms.

Based on the result as shown on table 2 and figure 2, the path coefficient value for opportunity recognition is 0.411; the absolute t-statistic value is 7.834 with a p-value of 0.001. Since 0.001 is less than 0.05 the stipulated level of significance for this study, therefore, the decision is to reject the null hypothesis and accept the alternative hypothesis which states that entrepreneurial opportunity recognition has a positive significant influence on the performance of chemical manufacturing firms in Anambra State of Nigeria.

DISCUSSION

This study examined entrepreneurial marketing and the performance of chemical manufacturing firms in Anambra State of Nigeria. The influences of entrepreneurial marketing dimensions on performance were assessed. To accomplish the objectives of the study, extant literature was reviewed and formulated hypotheses tested. The finding from this research indicated that entrepreneurial innovativeness had a positive significant influence on the performance of chemical manufacturing firms in Anambra State of Nigeria. Our finding agrees with the findings of (Pitsamorn, Hills & Hutman, 2014; Mugabi & Karugu, 2017; Olannye & Eromafuru, 2016 and Hacıoglu et al., 2012) that innovativeness plays a positive significant influence in improving the performance of small and medium scale enterprises. Our finding negates the finding by Mehran and Morteza (2014) who found insignificant relationship between the two constructs.



Moreso, entrepreneurial proactiveness had a positive significant influence on the performance of chemical manufacturing firms in Anambra State of Nigeria. This finding supports the findings of the previous studies (Hacioglu et al., 2012 and Olannye & Eromafuru, 2016) that entrepreneurial proactiveness significantly and positively influences the performance of the enterprises. Our finding is not in agreement with the finding by Otika et al. (2019) who found that proactiveness has no significant relationship with the performance of small and medium scale businesses.

Further, entrepreneurial risk management had a positive significant influence on the performance of chemical manufacturing firms. The finding of our study is in agreement with the findings of (Anetoh et al., 2017; Mehran & Morteza, 2014) that found that entrepreneurial risks management significantly influences the performance of small and medium scale enterprises. Our finding is contrary to the findings by (Hacioglu et al., 2012 and Otika et al., 2019) that found insignificant influence of entrepreneurial risk management on the performance of small and medium scale enterprises. Additionally, Pitsamorn, Hills and Hutman (2014) and Mugabi and Karugu (2017) that risk management positively and significantly influence the performance of the enterprise.

A cursory examination of result on table 2 and figure 2 revealed that entrepreneurial opportunity recognition had a positive significant influence on the performance of chemical manufacturing firms in Anambra State of Nigeria. The finding affirms that entrepreneurial opportunity recognition significantly influences the performance of small and medium scale businesses which is consistent with the findings of (Olannye & Eromafuru, 2016 and Otika et al., 2019). Also, the finding is consistent with the findings of (Pitsamorn, Hills & Hutman, 2014; Mugabi & Karugu, 2017) that opportunity recognition plays a positive role and significantly influences the performance of the small and medium scale enterprises. On the other hand, (Hacioglu et al., 2012; Mehran and Morteza (2014) found that opportunity recognition has no significant influence on the performance of small and medium scale enterprises which negates the finding of this study.

CONCLUSION AND RECOMMENDATIONS

Based on the findings, this work concludes that entrepreneurial innovativeness is the most significant predictor of entrepreneurial marketing and also plays a major role in improving the performance of the chemical manufacturing firms. Entrepreneurial risk management also plays a crucial role in enhancing the performance of chemical manufacturing firms in Anambra State of Nigeria. The study demonstrated that entrepreneurial proactiveness and opportunity recognition were found to play significant influences in enhancing the performance of chemical producing firms in Anambra State of Nigeria. Based on the findings, the study recommends the followings;

1. Chemical manufacturers should continue to focus on entrepreneurial innovativeness for improved performance and sustainability of the enterprise.
2. Entrepreneurial proactivity should be encouraged and sustained since it seeks the proactive means of creating values for customers, entrepreneurs or business owners.



3. Nigerian chemical manufacturers and entrepreneurs should invest more on calculated risk taking since it was found to positively and significantly influence the performance of chemical manufacturing companies in Nigeria.
4. Entrepreneurs and owners should invest more in fetching for untapped opportunities in order to have competitive advantage for ultimate performance and sustainability.

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APPENDIX I

Questionnaire

Demographic Characteristics of the Respondents

1. What is your gender?

(1) Male [202] (2) Female [144]

2. Marital status

(1) Single [173] (2) Married [167] (3) Widowed [4] (4) Divorced [2]

3. What is your age range?

1. 25-30 years [128] 2. 31- 40 years [145] 3. 41-50 years [55] 4. 51 years & above [23]

4. What is your Educational Qualification?

1. FLSC [28] 2. WAEC/ NECO/ NABTEB [122] 3. Degree/ HND/ OND [171]

4. Post Degree [19] 5. Others [6]

Key for evaluation of Section B and C

[1] SD = Strongly Disagree [2] D = Disagree [3] UN = Uncertain [4] A = Agree
[5] SA= Strongly Agree

Section B: Entrepreneurial Marketing Scale

Instruction: please tick (√) by showing the extent to which these items reflect your opinion

| | Attributes of Entrepreneurial Marketing (X) | SA 5 | A 4 | UN 3 | D 2 | SD 1 |
|-------|--|---------|--------|---------|--------|---------|
| | Innovativeness | | | | | |
| INN 1 | Entrepreneurial change in business activity creates an environment conducive for further change. | 184 | 124 | 25 | 12 | 1 |
| INN 2 | New facilities promote change and creative behaviors of chemical manufacturers. | 211 | 115 | 11 | 9 | 0 |
| INN 3 | Innovativeness is a creative activity used by chemical manufacturers. | 72 | 94 | 59 | 99 | 22 |
| INN 4 | Innovativeness of chemical manufacturers involves new ideas. | 97 | 154 | 73 | 13 | 9 |
| INN 5 | Chemical manufacturers should be quick to adapt to new changes. | 128 | 134 | 61 | 20 | 3 |



| Proactiveness | | | | | | |
|-------------------------------------|--|-----|-----|-----|----|----|
| PRO 1 | A strong proactive behavior gives chemical manufacturers the ability to anticipate needs. | 120 | 116 | 53 | 44 | 13 |
| PRO 2 | Chemical manufacturers apply proactiveness in running their ventures. | 116 | 124 | 50 | 40 | 16 |
| PRO 3 | Proactiveness of chemical manufacturers enables introduction of new products and brands. | 121 | 131 | 35 | 41 | 18 |
| PRO 4 | Proactiveness of chemical manufacturers influences environmental change. | 58 | 61 | 130 | 58 | 39 |
| PRO 5 | Proactiveness of chemical manufacturers helps in achieving entrepreneurial business goals. | 135 | 143 | 43 | 25 | 0 |
| Risk Management | | | | | | |
| RKM 1 | The success of most enterprises depends on the ability of an entrepreneur to evaluate risks. | 99 | 140 | 46 | 51 | 10 |
| RKM 2 | Chemical manufacturer's previous success propels him or her to take more calculated risks. | 84 | 120 | 52 | 76 | 14 |
| RKM 3 | Chemical manufacturers manage risks and hope on favorable outcomes. | 120 | 143 | 42 | 38 | 3 |
| RKM 4 | Chemical manufacturers are optimistic over uncertainty as they take calculated risks. | 82 | 79 | 89 | 71 | 25 |
| RKM 5 | High risk taker makes wise and profitable decisions. | 77 | 129 | 43 | 69 | 28 |
| Opportunity Recognition | | | | | | |
| OPR 1 | Chemical manufacturers are opportunity seekers when running their ventures. | 112 | 128 | 65 | 32 | 9 |
| OPR 2 | Opportunities exist where there are technological innovations. | 171 | 134 | 27 | 13 | 1 |
| OPR 3 | An entrepreneur's ability to social network contributes to opportunity recognition. | 104 | 129 | 75 | 24 | 14 |
| OPR 4 | Chemical manufacturers are alert to identify good opportunities & harness profitable & lucrative ones. | 105 | 128 | 31 | 61 | 21 |
| OPR 5 | The recognition and pursuit of opportunity is the hallmark of entrepreneurial prowess. | 108 | 135 | 63 | 21 | 19 |
| Section C: Performance Scale | | | | | | |
| PERF 1 | Market share and sales volume have increased due to the innovativeness of chemical manufacturers. | 102 | 121 | 56 | 47 | 20 |
| PERF 2 | New and improved products are enhanced due to proactiveness of chemical manufacturers. | 120 | 120 | 54 | 35 | 17 |
| PERF 3 | The profitability of the enterprise has risen due to the calculated risk management by the entrepreneur. | 102 | 110 | 35 | 52 | 47 |
| PERF 4 | Quality of products has improved due to entrepreneurial opportunity recognition. | 98 | 107 | 64 | 50 | 27 |