

Problem Solving Ability and Innovative Behaviour of Small and Medium Scale Enterprises in Port Harcourt

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Abstract

This study determined the relationship between problem solving ability and innovative behaviour of small and medium scale enterprises in Port Harcourt. The aim of this study was to examine the relationship between solving ability and innovative behaviour of small and medium scale enterprises in Port Harcourt. The study adopted cross-sectional research design. 287 copies of questionnaires distributed and 244 copies were found fit for analysis. Multiple regression tool was adopted to analyse the hypotheses. The findings of the study showed that problem solving ability significantly relates with innovative behaviour. Based on the findings, the study concludes that problem solving ability positively correlates with the measures of innovative behaviour. Therefore, the study recommended that, government of Nigeria should invest in enhancing the financial literacy level of small and medium scale enterprise owners through trainings and incorporating financial literacy issues in formal education; so as to improve the financial performance of the SMEs.

Keywords: *Problem Solving Ability, Innovative Behaviour, Skill Acquisition, Entrepreneurial Creativity and Opportunity Recognition*

1.1 Introduction

Even small and medium-sized businesses (SMEs) have not been spared from the exceptional challenges brought about by the COVID-19 epidemic. Salari et al. (2020) and Xiong et al. (2020) found that the epidemic caused substantial changes to company operations, management styles, learning methods, and overall company direction. Many small and medium-sized enterprises (SMEs) continued to function online or through hybrid systems during the pandemic, while others changed to emergency remote business models (Ali et al., 2020). Since not all company owners and entrepreneurs had the self-control to run their companies successfully in the digital age, they were forced to adjust to digital operations without proper training (Wandler & Imbriale, 2017). The lightning-fast pace of invention has stoked fierce competition between businesses throughout the world. To be visible, viable, successful, and competitive in today's ever-changing business climate, innovation is essential to a firm's long-term development, sustainability, and survival. In order to be relevant, businesses must constantly innovate or face obsolescence (Kanter, 2013). Products, services, procedures, marketing approaches, and ways of working are all examples of

modern innovation. When chances present themselves in the business world, entrepreneurs need to be quick thinkers and problem solvers.

When entrepreneurs solve problems, they do so by collecting relevant data, making and testing hypotheses, and coming up with the best possible solutions (D'Zurilla et al., 2004; Erozkhan, 2013). According to D'Zurilla et al. (2004), the main goal of problem-solving is to make things better by reducing bad effects and increasing good ones. This expertise has been developed among enterprises due to the COVID-19 problem. According to earlier studies in the field of entrepreneurship, social self-efficacy is significantly impacted by one's interpersonal problem-solving abilities (Erozkhan, 2013).

Companies in the modern day face both internal and external factors that hinder workers' capacity to think creatively on the job. Managers who adopt successful strategies from other businesses are making an innovative contribution, even if they don't come up with completely original ideas. Staff members are more likely to come up with and try out novel ideas when they are encouraged to do so at the workplace.

In order to keep up with the latest innovations, entrepreneurs need to be proactive in their thinking, predicting what consumers will want and constantly learning new skills. In order to solve problems, one must be able to see possibilities and be proactive in making a difference (Bateman & Crant, 1993). Zhao et al. (2016) found that proactive people are self-motivated, have good judgment, and can plan ahead. Proactive personnel, according to Zambianchi (2009), are the ones who start things happening, look for ways to learn, and come up with good solutions. Business owners that are adept at addressing problems are able to plan ahead for the expectations of their industry and effectively satisfy those demands via strategic thinking and continuous learning. Small and medium-sized enterprises (SMEs) need to develop a culture that encourages creative problem-solvers, opportunists, and innovators if they are to survive the post-pandemic world (Shah et al., 2020).

In light of these findings, the purpose of this research is to investigate how problem-solving skills and innovative actions are connected in the SME sector in Port Harcourt.

1.1 Statement of Problem

There is still a huge unemployment and illiteracy problem in Nigeria. Many workers aren't up-to-date on necessary skills and use antiquated machinery, tools, and production techniques. Rapid urbanization, high youth and graduate unemployment, poverty, insurgency, conflicts, diseases, lack of transparency, over-reliance on imported goods, sluggish economic growth and development, insufficient capacity and skills to propel the economy ahead, and a host of other socio-economic challenges are among the many that Nigeria faces, as do many other developing nations.

There aren't enough financial incentives for farmers, so they're moving their operations to cities. The decline of infrastructure, however, has persisted even in urban areas. The roads are usually in bad shape, the water supply is still unpredictable, the power goes out regularly, and even people who can afford generators still have trouble getting enough fuel. There have been distortions in the macroeconomic structure and generally low productivity as a result of political instability, which has further diminished the performance of SMEs. This is especially true in the areas of policy design, monitoring, and execution.

Furthermore, businesses frequently disregard critical aspects that greatly influence their performance and competitiveness, including management competency, creativity, innovative thinking, and organizational environment. Finding and hiring managers who are confident, creative, enthusiastic, and good at solving problems is a huge issue for companies. All of these things have worked together to slow down the economy on a national and state level. Fostering skill acquisition, opportunity detection, and innovation, according to the study, is the key. Accordingly, the purpose of this research is to find out if problem-solving skills might encourage more creative actions from SMEs in Port Harcourt.

Conceptual framework

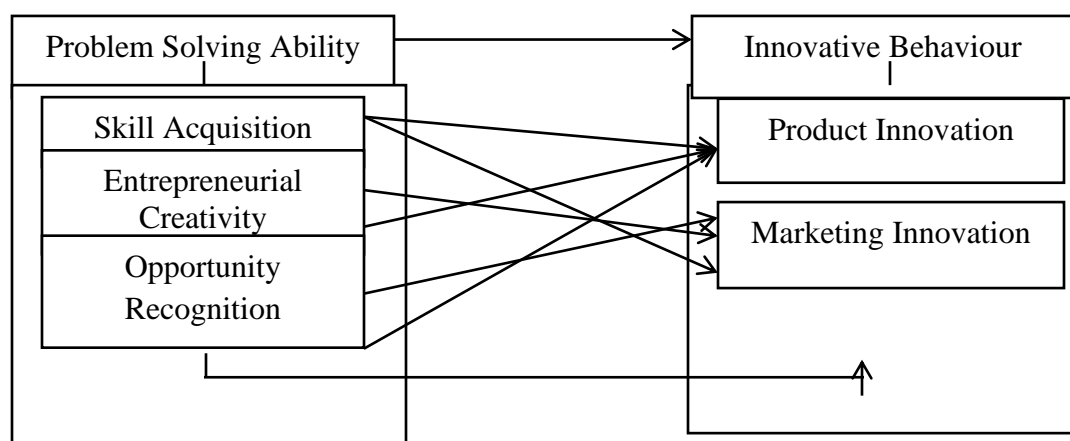


Fig 1.1: Operational Framework on problem solving ability and innovative behaviour of SMEs in Port Harcourt.

Source: Adopted from Park & Avery (2019), Amabile (2018)

Aim and Objectives of the Study

The aim of the study is to examine the relationship between problem solving ability and innovative behaviour of small and medium scale enterprises in Port Harcourt. Other specific objectives of the study include:

- i. To examine the impact of skill acquisition on innovative behaviour of small and medium scale enterprises in Port Harcourt.
- ii. To examine the impact of entrepreneurial creativity on innovative behaviour of small and medium scale enterprises in Port Harcourt.
- iii. To examine the impact of opportunity recognition on innovative behaviour of small and medium scale enterprises in Port Harcourt.

2.0 Literature Review

2.1.1 Baseline Theory: The Modernization Theory

According to this thesis, SMEs have an effect on people's ethics, worldviews, and actions (Adelakun, 2011). Schools, SMEs, industries, and the media all have a role in exposing people to modern institutions, which helps to inculcate modern ideals and attitudes. Among these mindsets are the following: receptivity to new ideas, autonomy from established authority, readiness to anticipate and meet future needs, and a growing belief in one's own and others' abilities to have a positive impact.

According to modernization theorists, these changes in attitude and norms shape an individual's interaction with society from the very beginning and continue throughout their lives. A society's degree of individual modernity is directly proportional to the amount of participation its members have in modernization institutions. Societal modernization and economic progress speed up as a critical mass of the population goes through this change. Consequently, a better educated workforce and sustainable economic growth are both promoted by the creation of SMEs, which impact people's attitudes and beliefs (Adelakun, 2011).

2.1.2 Concept of Problem Solving Ability

It is commonly believed that to solve problems is essential to innovative behavior. This skill allows people to quickly adjust to new situations by considering different options, making predictions about how each one will work, and then choosing the one that will work best in terms of maximizing benefits and minimizing harm (Jabri, 2019). A large number of academics have offered competing explanations of the term.

Developing and implementing strategies to handle a variety of problems encountered in regular interpersonal interactions is what problem-solving skill is defined as (Spivack et al., 2019). According to D'Zurilla and Nezu (2010), it's a mental, emotional, and behavioral procedure that seeks to determine the best way to deal with certain issues that arise in everyday life. A crucial entrepreneurial talent, according to Stevenson and Jarillo (2010), is the capacity to solve problems. According to Warner (2022), it is the capacity to come up with the best possible solutions while working. According to Shane (2013), the capacity to solve problems is like completing a puzzle: it involves seeing possibilities and making use of new knowledge. When the answer is unclear or calls for creative problem-solving, Inkinen (2015) defines problem-solving as the action of learning new information in order to reach a target.

Improving problem-solving efficacy requires picking the best acceptable strategy from among several available methods. Finding the right inputs and implementing a flexible framework that fits the task at hand are important steps in the process.

According to D'Zurilla et al. (2004) and Erozkhan (2013), entrepreneurs are able to solve problems by utilizing important abilities including collecting information, making and testing hypotheses, and finding the most efficient solutions. Improving society by reducing negative impacts and increasing good ones is the fundamental goal of problem-solving (D'Zurilla et al., 2004). Entrepreneurs have been motivated to improve this competence because of the COVID-19 epidemic.

According to earlier studies in the field of entrepreneurship, social self-efficacy is strongly impacted by good interpersonal problem-solving abilities (Erozkhan, 2013). In trying times,

entrepreneurs that have a positive outlook on problem-solving may not see as many obstacles, according to Shim et al. (2019). Unpredictable events in times of crisis frequently force people to use a great deal of their mental and emotional energy, which can be taxing (Park & Avery, 2019). Thus, we contend that confident individuals may better handle crises when they have good problem-solving skills, as these skills lessen the perceived difficulty of such situations.

2.1.3 Skill Acquisition

Participation of young people in acquiring entrepreneurial skills has a substantial impact on a nation's economic progress. Because no nation can prosper without its youth, it is critical to provide them the tools they need to succeed. Acquiring and transferring skills often involves problem-solving within a relevant environment, and it happens in reaction to specific stimuli. Performing at a high level of competence differs from one person to the next, necessitating a benchmark of excellence and the application of constant effort throughout time. Acquiring new skills essentially entails gaining new information, talents, attitudes, and points of view. Skill, according to VanPatten and Benati (2010), is more than just cognitive competence or mental representation; it is the capacity to carry out tasks. Important features of skill acquisition include intrinsic motivation, well-defined objectives, performance-related schemas, and the need for background knowledge in both subject matter and environment. An individual's and a nation's progress can be advanced greatly via the acquisition of marketable skills.

Improving people's skill sets is a cornerstone strategy for addressing poverty and other social and economic issues. A person's capacity to favorably impact the lives of those around them by bringing happiness, love, and general well-being is amplified when they acquire and use applicable abilities. Additionally, addressing critical societal concerns among the youth may be achieved through skill development by reducing criminal behaviors including armed robbery, abduction, and insurgency. According to Emeka (2011), gaining new skills opens up more doors for people to live the lives they want. Economic, social, and educational freedom are all parts of it, and they provide people the chance to be creative, respect themselves, and exercise their human rights. At its core, human development is about making people's lives better and giving them more skills. Gaining new abilities is the surest path to personal growth as it opens doors to new possibilities and gives one more control over one's own life. Learning new things allows people to reach their full potential, which in turn allows them to make a positive impact on their own lives and the world around them (Emeka S., 2011). Hence, if we want to alleviate or eradicate poverty, we must invest in people's talents. Education, technical progress, capital investment, and equitable compensation are the primary forces that motivate and enable individuals to maximize their productivity and societal usefulness.

2.1.4 Entrepreneurial Creativity

Innovating relies heavily on the ever-changing process of creativity. Being able to do it well in any given situation calls for practice and an in-depth familiarity with the habit's origins. Innovation and creativity are frequently considered synonymous because of the relationship between the two. To think creatively is to be able to utilize one's imagination to come up with ideas, formulate hypotheses and questions, try out different approaches, and assess one's own and others' work,

outcomes, and methods (Kampylis and Berki, 2014). Entrepreneurs, in particular, need to be creative, innovative, and able to materialize new concepts or goods. This skill is not something you're born with but something you work on honing through time. Individuals are born with different levels of creative skill, however creativity is a common feature among people (Akbar-Fadaee 2014). There are many ways to characterize creativity, but for entrepreneurs, it's all about coming up with fresh ideas for goods, processes, and markets while staying ahead of the competition. The ability to come up with fresh and applicable ideas in order to launch new businesses is what entrepreneurial creativity is all about, according to Amabile (2018), who cites Ian Pillis (2010). It takes consistent work and the constant refining of ideas and solutions for creativity to be a continual activity. In their creative pursuits, people work tirelessly, tweaking and enhancing their work step by step. Entrepreneurial success is dependent on a wide range of elements, including but not limited to corporate climate, cooperation, and collaborative settings; these, in turn, are components of creativity. Entrepreneurial innovation also requires the ability to think critically, which helps with self-evaluation and concept evaluation. The ability to think critically has several benefits, one of which is assisting entrepreneurs in finding the best solutions and discovering untapped possibilities. Innovation is the deliberate application of new ideas, processes, or products within a group or organization to bring significant benefits to individuals, businesses, and society. Some scholars, like Stein (1994), define creativity as a process that results in novel yet practical solutions. On the other hand, West and Farr (2010) take a more pragmatic approach. As one progresses from solo creativity to team or company-wide invention, though, differentiating between the two becomes more challenging.

2.1.5 Opportunity Recognition

When part of the new economic paradigm, all companies place a premium on seizing opportunities when they arise (Ancona & Caldwell, 2012). One way to boost profitability, accelerate growth, and fortify competitive positioning is to seize high-value opportunities. In addition, these fresh openings spur creativity. Questions like "What makes an opportunity?" and "Where do opportunities come from?" are at the heart of the theoretical inquiry that is now underway. (Venkataraman and Sarasvathy, 2011; Gartner and Carter, 2013).

Research into finding and capitalizing on new chances is an important subfield of opportunity studies because it teaches people, especially those just starting out in their careers, how to spot and seize novel ways to make money. The relationship between a person's traits and their capacity to see opportunities is a hotly contested topic. The term "opportunity" can mean different things to different people, but generally speaking, it refers to a previously untapped source of economic value (like profit) that others have failed to capitalize on. In this model, "opportunity recognition" is the mental action of seeing and accepting a chance for growth (Baron & Ensley, 2016). The capacity to spot entrepreneurial chances in the market is a skill that, according to Kirzner (2017), is shaped by the way information is shared in society. Chance encounters are also reliant on one's perceptual and cognitive capacities (Stevenson & Gumpert, 2015). As an example, some people could miss out on chances because they can't adjust to new circumstances (Stevenson & Gumpert, 2015). Ardichvili, (2013); Shane & Venkataraman, 2010) state that the ability to recognize and evaluate an opportunity is crucial for individuals to completely take advantage of it.

Recognizing opportunities is the first step in turning value into a revenue-generating company proposition. This is separate from the steps that follow, which include developing the idea further

and doing in-depth assessments to find out how much money it may make. Rather than focusing on just growing or copying current business models, new ventures aim to provide fresh ideas for businesses through the discovery of unique prospects (Gaglio & Katz, 2011).

2.1.6 Innovation Behaviour

The term "innovation" is often used to describe a newly released product or method, or even a modified version of an existing one, that is vastly different from what has been available before and has been accepted by a company or other group of people (OECD/Eurostat, 2019). The capacity to come up with novel and useful ideas and put them into action successfully is what Birdi et al. (2016) mean when they say that someone is inventive. The capacity to think creatively, critically, and practically, as well as to turn intangible concepts into measurable results, are the hallmarks of innovative behavior among entrepreneurs.

According to studies conducted by Jaussi et al. (2007) and Tamannaefar & Motaghedifard (2014), there is a favorable relationship between self-efficacy and innovative behavior. Stress, worry, and depression were among the major mental health issues that entrepreneurs encountered during the COVID-19 pandemic (Debowska et al., 2020; Salari et al., 2020; Tran et al., 2021). According to research by Tamannaefar and Motaghedifard (2014), those who have high levels of self-efficacy are more confident in their abilities to solve these issues, whereas individuals with low levels of self-efficacy underestimate how difficult they truly are. Acar et al. (2019) and Gutnick et al. (2012) found that entrepreneurs with high levels of intrinsic motivation are more likely to seek out alternative solutions, take risks, and investigate wider options in order to make better decisions. Important characteristics of people who successfully adapt to emergencies include a better capacity to persevere and exert effort in the face of adversity (Acar et al., 2019; Gutnick et al., 2012). (Park & Avery, 2019). Not content with only coming up with ideas, innovators must also find ways to put those ideas into action so that they have a real impact. It takes persistence since a lot of good ideas never make it past the brainstorming phase. According to businessdictionary.com, innovation is the process by which new ideas and technologies are turned into goods and services that people are eager to pay for. Innovation begins with ideas, but it all comes down to turning those ideas into something people can buy or use that makes money, either right away or in the not-too-distant future. Imram et al. (2010) and West (2002) state that creative behavior is based on the idea that businesses may gain from their employees' creativity when they create new work procedures, products, and services. Various actions and individual contributions are required at various phases of creative behavior, according to Scott and Bruce (2014). These stages include idea development, execution, and cooperation.

2.1.7 Problem-Solving Ability and Innovative Behavior

In today's fast-paced business world, the capacity to think creatively and solve problems are essential skills. Both personal performance and the long-term viability and success of businesses depend on these building blocks. Capacity to see problems, come up with potential solutions, and put those plans into action is what we mean when we talk about problem-solving skill. A problem-solving session is "a goal-directed sequence of cognitive and affective operations where individuals identify a problem, explore possible solutions, and apply the most effective strategies to resolve the issue," as stated by Jonassen (2017). The capacity to solve problems is defined by Mumford et al. (2018) as "the integration of knowledge, cognitive flexibility, and analytical skills to overcome novel and complex challenges in various environments." Consistent with this, Wu et

al. (2020) stress that the capacity to solve issues includes not only the ability to identify difficulties but also the ability to change solutions according to the needs of different situations. The capacity to "handle issues that arise in personal, academic, or professional settings" by "using logical reasoning and decision-making strategies" is another definition offered by Ghosh and Rajaram (2022). Each of these explanations emphasises a different facet of problem-solving, namely the need of analytical thinking, flexibility, creativity, and decision-making. The ability to analyse problems, come up with innovative solutions, and then strategically apply those answers in order to achieve desired outcomes is defined as problem-solving skill for this study. The opposite is true of creative behaviour, which is defined as the initiative to develop and execute new ideas, processes, or products within one's assigned function, team, or company. To kick things off, Janssen (2000) defined creative conduct as "the intentional creation, introduction, and application of new ideas within a work role, group, or organisation to benefit role performance, group effectiveness, or the organisation." Anderson et al. (2014) expanded on this notion by defining creative behaviour as "individual activities directed towards the initiation and application of new and useful ideas, processes, products or procedures." To put it more recently, Yuan and Woodman (2021) defined it as "the discretionary actions taken by employees to generate and implement new ideas, regardless of whether these behaviours are formally recognised or rewarded." In addition, according to Slåtten and Mehmetoglu (2023), innovative behaviour is described as "the propensity and competence of workers to generate and implement novel ideas in the workplace." All of these descriptions point to the fact that innovative behaviour encompasses not only creative but also practical and value-adding actions. Individuals engage in creative conduct when they consciously and proactively seek out, propose, and implement novel and successful ideas that aid in the development and adaptability of their organisations.

In complicated and rapidly evolving contexts, the correlation between problem-solving skills and creative actions becomes even more apparent. People that are good at fixing problems are usually the first to see when something is wrong and then come up with creative solutions. Their ability to think quickly on their feet allows them to come up with fresh ideas, question established standards, and make significant contributions to innovation inside their organisations (Luu & Ngo, 2022). Additionally, companies that focus on developing problem-solving abilities typically have a beneficial domino effect, wherein workers exhibit greater introspection, experimentation, and creativity in their methods (Wang et al., 2023). These results show that the ability to solve problems is the first step in being inventive, which in turn increases the likelihood that an individual would come up with solutions that are both novel and effective. This collaboration is becoming more and more important in fields that are constantly evolving, such technology, education, healthcare, and finance (Zhou et al., 2023). Moreover, academics have contended that leadership techniques, learning environments, and organisational cultures that foster problem-solving and innovation are necessary. Yidong and Xinxin (2021) found that transformational leadership, which emphasises empowerment, self-determination, and a focus on the future, improves both concepts. In a same vein, when people feel secure enough to speak their minds about team, they are more likely to do so without worrying about what others would think (Li et al., 2023). According to Almeida and Figueiredo (2023), one way to boost employees' cognitive preparedness and willingness to innovate is through continuous training, feedback mechanisms,

and team cooperation. Thus, inventive behaviour and problem-solving skills are influenced by both individual characteristics and the larger structures and practices of an organisation. To sum up, the capacity to solve problems and the willingness to act creatively are two sides of the same coin that determine the success of both individuals and organisations. The ability to solve problems in a way that adds value is a representation of these cognitive and behavioural capacities. Distinct from problem-solving ability, which centres on identifying and fixing problems, inventive conduct is concerned with coming up with and putting new ideas into action. In this age of fast technology change and fluctuating consumer expectations, both are essential for organisations to remain competitive. In this study, problem-solving ability is seen as the mental and behavioural competency to identify issues, consider different options, and implement creative solutions to improve task execution. On the other hand, innovative behaviour is defined as the proactive involvement of individuals in coming up with, advocating for, and implementing new ideas that improve organisational outcomes.

3.0 Methodology

This research delves into the relationship between SMEs in Port Harcourt's creative behavior and their problem-solving abilities. The data was collected from the target population using a cross-sectional survey approach, which allowed for a thorough study of the correlations between the variables. Directors, managers, and account managers make up the accessible population of the 1,016 registered SMEs in Port Harcourt according to the Nigerian Directory (2020). Judgment sampling was used to pick 287 SMEs, with the sample size chosen using Taro Yamane's method. To gather information, a structured questionnaire was utilized, which utilized a five-point Likert scale from (1) to (5) for Strongly Agree. The study hypotheses were tested by multiple regression analysis, and the instrument's reliability evaluation revealed a good level of internal consistency. The questionnaire was determined to be reliable for further statistical analysis by Cronbach's alpha values of 0.885 for skill acquisition, 0.808 for entrepreneurial creativity, 0.899 for opportunity recognition, 0.799 for product innovation, and 0.742 for marketing innovation.

4.0 Analysis and Results

Directors of small and medium-sized enterprises (SMEs) in Port Harcourt were given 287 surveys. Only 43(15%) had inconsistencies and were thus not valid for analysis, out of a total of 244(85%) that were correctly filled out. Therefore, the analysis of the study relied on the 244 questionnaires that were filled out correctly.

Table 1 Respondents Demographics Distribution

Details	Particulars	Frequency	Percentage (%)
Gender	Male	137	56
	Female	107	44
	Total	244	100
Marital status	Married	156	64
	Single	81	33

	Divorced	6	2
	Widow/Widower	2	1
	Total	244	100
Age group	20-29 years	47	20
	30-39 years	91	37
	40-49 years	79	32
	50-59 years	25	10
	60 years –above	2	1
	Total	244	100
Academic Qualification	SSCE	18	7
	NCE/OND	29	12
	HND/BSC	165	68
	M.SC/MBA/PGD	24	10
	PHD/DBA	8	3
	Total	244	100

Source: Survey Data, 2025.

The demographic analysis of the participants shows that out of 244 people, 137 were men (56%) and 107 were female (44%). With 156 married people making up the majority(64%), there were 81 single people (33%), 6 divorcees (2%) and 2 widows (1%). When broken down by age group, 47 people (20%) were in the 20-29 age range, 91 people (37%) were in the 30-39 age group, 79 people (32%) were in the 40-49 age range, 25 people (10%) were in the 50-59 age range, and just 2 people (1%) were 60 and more. The bulk of respondents, 165 (68%), had an HND or BSc degree. Twenty-nine (12%) had an NCE or OND, twenty-four (10%) had an MSc, MBA, or PGD, and eighteen (7%). Eight people, or 3% of the total, had earned a doctorate or business administration degree. The varied experiences of Port Harcourt's SME Directors are shown by this demographic split.

4.1 Hypotheses Testing

Decision rule: Reject null hypothesis if $p < 0.05$ and above= Positive relationship; +.1 and above=Negative relationship -.1

Table 2 Regression Analysis showing the influence of Skill Acquisition, Entrepreneurial Creativity and Opportunity Recognition on Product Innovation

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.897 ^a	.805	.772	5.90911	1.934

a. Predictors: (Constant), Skill Acquisition, Entrepreneurial Creativity, Opportunity Recognition

b. Dependent Variable: Product Innovation

ANOVA^a

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	66.371	3	27.418	1.675	.000 ^b
	Residual	26.699	241	45.916		
	Total	93.070	244			

a. Dependent Variable: Product Innovation

b. Predictors: (Constant), Skill Acquisition, Entrepreneurial Creativity, Opportunity Recognition

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	6.723	2.909		4.115	.000
	Skill Acquisition	.674	.357	.610	.613	.000
	Entrepreneurial Creativity	.613	.232	.522	.592	.000
	Opportunity Recognition	.919	.502	.898	.793	.000

a. Dependent Variable: Product Innovation

Interpretation

Product innovation among SMEs in Port Harcourt is significantly correlated with the problem-solving capacity characteristics of skill acquisition, entrepreneurial creativity, and opportunity recognition (Table 2). As the sig-value is less than the 5% significance level of 0.005, we may conclude that there is a link. As a result, we accepted the alternative hypotheses claiming these problem-solving qualities significantly affect product innovation and rejected the null hypothesis indicating no association.

To further evaluate the dependability of the coefficient, the standard error. A coefficient is more likely to be non-zero if it is significantly bigger than its standard error. The results show that there is a solid association between product creativity and problem-solving abilities, with a strong positive correlation of 0.897. As an additional result of the regression analysis, a constant value (alpha) of 6.723 is revealed. This value represents the predicted value of product innovation in the absence of any predictors. Opportunities for talent development (beta = 0.919), entrepreneurial inventiveness (beta = 0.613), and skill acquisition (beta = 0.674) all have an effect on product innovation.

Also, these problem-solving characteristics account for 80.5% of the variation in product innovation, according to the coefficient of determination (R^2). We anticipate a 0.897-point uptick in product innovation for every one-unit boost in skill development, entrepreneurial imagination, and opportunity perception. Strong evidence of the substantial impact of problem-solving skills

on product innovation in SMEs is supported by the t-value and significance levels, which validate the model's dependability (F-value: 1.675, p-value: 0.000).

Table 3 Regression Analysis showing the influence of Skill Acquisition, Entrepreneurial Creativity and Opportunity Recognition on Marketing Innovation

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.901 ^a	.812	.785	11.31375	1.077

a. Predictors: (Constant), Skill Acquisition, Entrepreneurial Creativity, Opportunity Recognition

b. Dependent Variable: Marketing Innovation

ANOVA^a

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	43.991	3	27.418	1.142	.000 ^b
	Residual	5.285	241	24.001		
	Total	49.276	244			

a. Dependent Variable: Marketing Innovation

b. Predictors: (Constant), Skill Acquisition, Entrepreneurial Creativity, Opportunity Recognition

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.954	0.879		3.784	.000
	Skill Acquisition	.346	.211	.199	.012	.000
	Entrepreneurial Creativity	.950	.866	.888	.570	.000
	Opportunity Recognition	.723	.624	.564	.245	.000

a. Dependent Variable: Marketing Innovation

Interpretation

Table 3 shows that among SMEs in River state, substantial association between marketing innovation and the following problem-solving ability dimensions: skill acquisition, entrepreneurial creativity, and opportunity recognition. A sig-value of 0.000, which is less than the 5% significance level of 0.005, lends credence to this. That is why we accepted the alternative hypotheses proving the dimensions' influence and rejected the null hypotheses claiming no

substantial association between them and marketing innovation. The standard error, an approximation of the regression coefficients' standard deviation, is also included in the table. If the coefficient is considerable in comparison to its standard error, it means that it is not zero. In addition, the data shows that there is a robust relationship between the variables problem-solving skill and marketing creativity, with a correlation coefficient of 0.901. With all variables set to zero, the expected value of marketing innovation is 1.954, as shown in the regression results. Recognizing opportunities (0.723), acquiring skills (0.346), and entrepreneurial ingenuity (0.950) all contribute to marketing innovation in their own ways. According to the coefficient of determination (R^2), problem-solving ability factors account for 81.2% of the variation in marketing innovation. For every unit increase in these dimensions, there is an estimated 0.901 rise in marketing innovation. With an F-value of 1.142 and a p-value of 0.000, the model's dependability is confirmed by the t-value and significance levels, further confirming that problem-solving talents significantly impact marketing innovation in SMEs.

4.2 Discussion of Findings

Positive Relationship between Skill Acquisition and Innovative Behaviour

Here you may find the results of the tests conducted on the first and second hypothesis, referred to as Ho1 and Ho2, respectively. Among SMEs in Port Harcourt, the results show a robust correlation between skill acquisition and innovation in both products and marketing. R^2 , the coefficient of determination, backs up this positive association even further, showing that learning new skills greatly aids in marketing and product creation. According to this positive correlation, small and medium-sized enterprises (SMEs) and entrepreneurs may build stronger foundations for company expansion and competitiveness by learning essential skills. Udo and Babangida (2017) found a favorable association between business education and economic development, which is consistent with our findings. The findings also corroborate those of Ekong and Ekong (2016), who also highlighted the importance of this correlation.

Relationship between Entrepreneurial Creativity and Innovative Behaviour

Results for the third and fourth hypotheses (Ho3 and Ho4) are presented in this section. Both product and marketing innovation are strongly correlated with entrepreneurial creativity, according to the data. Further evidence of this positive link is provided by the coefficient of determination (R^2), which shows that entrepreneurial creativity has a considerable impact on creative behavior. Fostering creativity in entrepreneurs improves company success by bringing new ways to increase financial performance. This is because entrepreneurial creativity showed a higher correlation with creative behavior. Bertoni et al. (2010) and John-Akamelu and Muogbo (2018), among others, found a positive and statistically significant correlation between entrepreneurial innovation and the performance of small and medium-sized enterprises (SMEs). Our results are in line with theirs.

Opportunity Recognition significantly and positively relates with Innovative Behaviour

Opportunity awareness has a substantial effect on creative actions, according to the study's findings. Since there was a significant correlation between taking advantage of opportunities and being creative, we may conclude that the null hypotheses were incorrect. The capacity of small and medium-sized enterprises (SMEs) to attract, engage, and retain angel investors is greatly influenced by opportunity recognition, which encompasses angel funding. Additionally, it

improves their standing in the market, reputation, and competitive edge in Port Harcourt and beyond. This supports the claims made by Conway (2011), who argued that seizing opportunities leads to long-term success for businesses.

5.0 Conclusion

This study aimed to determine the impact of problem-solving ability on the innovative behavior of SMEs in Port Harcourt. It focused on three key indicators of problem-solving ability—skill acquisition, entrepreneurial creativity, and opportunity recognition—as independent variables, with innovative behavior as the dependent variable. Using multiple regression analysis, the findings revealed a strong and positive relationship between problem-solving ability and innovative behavior, demonstrating that enhancing these skills contributes to business expansion and survival. The study concluded that skill acquisition significantly influences the innovative behavior of SMEs. Additionally, entrepreneurial creativity is substantial impact on innovation, while opportunity recognition also showed a significant positive correlation with innovative behavior in SMEs.

5.1 Recommendations

Based on the findings and conclusion of the study, the following are recommended:

The research concludes with a number of suggestions for how small and medium-sized enterprises (SMEs) in Nigeria could improve their financial performance and innovativeness.

1. The government should fund initiatives to increase small and medium-sized enterprise (SME) owners' financial literacy, such as specialised training programs or new course offerings in formal education. Because of this, SMEs will be able to boost their finances and grow in areas where they are now lacking.
2. The government should set up centres for skill development and specialised schools that teach practical skills.
3. Lawmakers should look into methods to assist and build the infrastructure that SMEs need to thrive. In order to improve overall performance, SMEs should educate their staff to think entrepreneurially.
4. Encouraging long-term success in Nigeria's small and medium-sized enterprise (SME) sector requires concerted effort from the country's leadership and business leaders.

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