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Effect of Entrepreneurial Characteristics on the Performance of Food Manufacturing Firms in Delta State, Nigeria

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ABSTRACT

This study examined the effect of entrepreneurial characteristics on the performance of food manufacturing firms in Delta State. The study was anchored on the Resource-Based View (RBV). The study adopted a survey research design, utilising structured questionnaires, as the primary data source. A population of 11,400 employees across food manufacturing firms in six major towns in Delta State was considered, with a sample size of 371, determined using Krejcie and Morgan's (1970) formula. Data validity was ensured through face and content validity, while reliability was confirmed using Cronbach's alpha which exceeded the acceptable threshold. Statistical analysis, including frequency distribution and regression, yielded significant findings. Entrepreneurial competitiveness showed a stronger effect on market share ($r = 0.985$, $R^2 = 0.970$, $F = 10,870.0$, $p < 0.000$) and opportunity recognition had a statistically significant effect on firm expansion ($r = 0.993$ $R^2 = 0.986$, $F = 2.416E4$, $p < 0.000$). In conclusion, entrepreneurial characteristics significantly affect key performance indicators in food manufacturing firms. The study recommended among others, fostering a culture of entrepreneurial competitiveness to achieve sustained growth and competitive advantage.

Keywords: *Entrepreneurial Characteristics, Performance, Entrepreneurial Competitiveness, Market Share, Opportunity Recognition, Firm Expansion, Manufacturing Sector*

INTRODUCTION

Entrepreneurship plays a crucial role in the economic development of any nation. Globally, it has been recognised as a key driver of innovation, employment, and economic growth (Kuratko, 2016). Entrepreneurial characteristics, which refer to the traits, behaviours, and skills that entrepreneurs possess, significantly influence the performance and success of businesses (Rauch and Frese, 2007; Morris, Uratko and Covin, (2021). These characteristics include creativity, risk-taking, openness to experience, competitiveness, and the ability to innovate. In the context of the food manufacturing firm, which is essential for providing food security, employment, and driving industrialisation, these entrepreneurial characteristics are even more critical for firm performance. The food manufacturing industry also plays an essential role in sustaining economies by processing raw materials into consumable products (Organisation for Economic Co-operation and Development (OECD), 2021).

According to the World Bank (2021), the food and beverage sector represents the largest manufacturing sector globally, contributing significantly to the Gross Domestic Product (GDP) of many nations (United Nations Industrial Development Organisation (UNIDO), 2021). The sector supports agriculture, supply chain logistics, and retail industries, creating millions of jobs worldwide. The rise of new markets, growing urbanisation, and changing consumer preferences have generated the need for entrepreneurial innovation in food manufacturing (Hobbs, 2020; Food and Agriculture Organisation (FAO), 2021).

Entrepreneurs in the food industry are increasingly challenged by global competition, consumer demand for healthier and more sustainable food products, and technological advancements (Dobson, 2021; Smith and Lawrence, 2020). For instance, firms in developed economies like the United States, the United Kingdom, and Germany have adapted to these challenges by introducing innovative solutions such as plant-based foods, organic products, and eco-friendly packaging (Klynveld, Peat, Marwick, Goerdeler (KPMG), 2020; Deloitte, 2022). According to the United Nations FAO, the global food manufacturing industry is a multi-trillion-dollar industry, with food being one of the most basic and essential commodities for human survival (FAO, 2021). These innovations demonstrate how entrepreneurial characteristics such as creativity, risk-taking, and adaptability are essential for sustaining growth and competitiveness in the global food manufacturing industry (Porter and Heppelmann, 2014; Schumpeter, 2017).

In the context of global competitiveness, entrepreneurial characteristics are increasingly recognised as fundamental drivers of a firm's ability to succeed. The World Economic Forum (2022) highlights that nations with strong entrepreneurial ecosystems consistently rank higher in global competitiveness indices (Acs, Estrin, Mickiewicz and Szerb, 2021). This underscores the importance of fostering entrepreneurial traits to enhance industrial performance and economic growth. These ecosystems are built upon entrepreneurial characteristics such as innovation, agility, and adaptability, qualities that enable firms to rapidly respond to technological advancements and changing market demands (Acs, et al., 2021).

Entrepreneurial characteristics, such as the ability to innovate and remain flexible, are crucial for firms in the food manufacturing industry. In advanced economies like the United States, Japan, and Germany, food manufacturers have leveraged entrepreneurial traits to innovate in response to evolving consumer demands (Hitt, Ireland and Hoskisson, (2017) For example, firms in these countries have embraced technological advancements in production, supply chain management, and marketing to enhance efficiency and product appeal. These developments underscore the importance of entrepreneurial agility and innovation in fostering firm growth (Porter and Heppelmann, 2014).

Entrepreneurship in food manufacturing is not only crucial at the global level but also within specific regional contexts. In sub-Saharan Africa, for instance, the food processing and manufacturing sector is vital for economic diversification and industrialisation. Many countries in this region rely heavily on agricultural outputs, and the development of the food manufacturing sector helps reduce post-harvest losses, add value to raw products, and create jobs (Ayodele, 2021). In this context, entrepreneurial traits such as innovation and competitiveness are key drivers of growth and sustainability (Njenga and Mungai, 2019).

In Nigeria, the food manufacturing industry is a critical economic component, contributing significantly to employment and food security. The manufacturing sector, especially food processing, remains a substantial contributor to Nigeria's GDP, comprising sub-sectors like milling, baking, and the production of beverages, oils, and packaged foods (Osabohien, Osabuohien and Urhie, (2020). However, Nigerian food manufacturing firms face challenges like inconsistent power supply, high production costs, and regulatory bottlenecks, impacting their performance (Eneh, 2019). Entrepreneurs in Nigeria's food manufacturing sector have made significant strides in introducing new products, expanding market reach, and increasing productivity. For example, there is a growing focus on producing packaged and processed foods that meet international standards, enabling Nigerian firms to compete in global markets. Additionally, local entrepreneurs have increasingly

adopted technological advancements, including automation and digital marketing, to improve operations and reach a broader consumer base (Osabohien, Osabuohien and Urhie, 2020).

Delta State is a region that is rich in oil, but is looking to diversify its economy. The food manufacturing industry holds significant promise for this vision. Delta State's agricultural base, featuring crops like cassava, palm oil, and various fruits, provides essential raw materials for the food manufacturing industry. The success of these firms often hinges on the entrepreneurial characteristics of their owners and managers. Traits like innovation, competitiveness, and openness to new ideas are essential for adapting to the unique challenges of operating in Delta State's dynamic environment (Eneh, 2019; AfDB, 2019). Entrepreneurs in this sector have shown adaptability and resourcefulness in leveraging local resources to drive economic growth beyond the oil industry, positioning the food manufacturing sector as a critical component of Delta State's economic diversification strategy. This study, therefore, seeks to assess the effect of entrepreneurial characteristics on the performance of food manufacturing firms in Delta State, Nigeria as a broad objective. Specifically, the study aims to:

a) assess the effect of entrepreneurial competitiveness on market share in food manufacturing firms in Delta State.
b) explore the effect of opportunity recognition on firm expansion in food manufacturing firms in Delta State

REVIEW OF RELATED LITERATURE

Entrepreneurial Characteristics

Entrepreneurial characteristics as a unique synthesis of an individual's mechanisms, personality behaviours, modes of thinking, desires and tendencies, talents, knowledge, personality, and ways of thinking, Tanoğlu (2018) as cited in Wardhana and Pangestu (2021). Entrepreneurial characteristics vary from one individual to another. However, there are distinctive characteristics possessed by entrepreneurs that can generate a strong work ethic, thus influencing business performance. Entrepreneurial characteristics can be classified into two major groups: psychological and non-psychological characteristics. Non-psychological characteristics include age, marital status, gender, religion, family influence, work experience and education. Meanwhile, psychological characteristics can take the form of creativity/innovation, risk-taking, autonomy, proactiveness and leadership (Sarwoko, Edi, Surachman, Armanu and Hadiwodjojo, 2013; Bawakyillenuo and Agbelie, 2021; Salve, 2022; Setiawan and Soelaiman, 2022).

Entrepreneurial characteristics vary from one individual to another. However, there are distinctive characteristics possessed by entrepreneurs that can generate a strong work ethic, thus influencing business performance. Entrepreneurial characteristics can be classified into two major groups: psychological and non-psychological characteristics. Non-psychological characteristics include age, marital status, gender, religion, family influence, work experience and education. Meanwhile, psychological characteristics can take the form of creativity/ innovation, risk-taking, autonomy, proactiveness and leadership (Sarwoko, Edi, Surachman, Armanu and Hadiwodjojo, 2013; Bawakyillenuo and Agbelie, 2021; Salve, 2022; Setiawan and Soelaiman, 2022). According to Tushar Kansal (2024), the world of entrepreneurship continues its dynamic evolution, influenced by cutting-edge technologies, evolving consumer behaviours, and global challenges. Entrepreneurs

are set to navigate an ever-changing landscape, where adaptability and innovation remain the driving forces. This exploration delves into anticipated trends and expectations that will shape the entrepreneurial sphere in 2025, drawing inspiration from the latest global examples. Tushar Kansal (2024), stated further that Entrepreneurs globally are recognising the paramount importance of sustainability in their ventures. In 2025, we anticipate a surge in eco-conscious startups, with a commitment to sustainable practices and environmental responsibility.

Entrepreneurial Competitiveness

According to Hahn, Thomas, Pinkse, Jonatan, Lutz and Figge, Frank (2017), there is no consensus on the exact definition of entrepreneurial competence within the scientific community but several studies associate this competence with the ability to contribute to society by identifying and acting on perceived opportunities (Mwasalwiba, 2010; Bacigalupo, Manuel, Gazzetti, Fabio, Staney, Kourtney and Sanz, Veronica, 2016). Expanding on this, entrepreneurial competence can be understood as the ability to conceive of new ideas, identify opportunities and act on them in order to create value for society (Bacigalupo et al., 2016; Gianesini, Giorgio, Felli, Ilaria, and Bellini, Marianna, 2018; Renfors, 2020). According to Comisión de Cultura y Educación (2015), a fundamental aspect of this competence is the transformation of ideas into real action.

More so, entrepreneurial competence has recently been defined as a set of skills, attitudes and knowledge for innovation, creativity, leadership and the ability to seize opportunities. This competence promotes problem solving and decision making, positive social attitudes, the ability to explore/exploit opportunities and economic advancement. It is also associated with the ability to apply knowledge and implement ideas in different areas of life, initiative, problem identification and problem solving, the ability to react and adapt to change and reasonable risk-taking. An entrepreneurial person can create value for others in all areas of life (Montes-Martínez and Ramírez-Montoya, 2020). Entrepreneurial competencies are defined as a specific set of valuable knowledge, skills and abilities possessed by entrepreneurs in running their businesses to differentiate themselves from others, which can enhance business performance (Al Mamun, Abdullah, Sulaiman, Syed-Abdul and Mohd 2019b; Irene 2017; Tehseen and Ramayah, 2015). Entrepreneurial competencies integrate technical and nontechnical skills into unique behaviours that are difficult for competitors to imitate (Barazandeh, Mohammad, Fadaei, Reza and Ghaffari, Mohammad, 2015; Zainol, Zulkifli, Ali, Rosli and Mahmud, Nik Azlam, 2018).

Opportunity Recognition

Opportunity recognition refers to the cognitive process through which entrepreneurs identify and evaluate potential business opportunities. It involves a proactive scanning of the environment, alertness to emerging trends, and the ability to creatively link information to identify market gaps (Gavetti, 2019). According to Gianesini, Felli, and Bellini (2018), entrepreneurial competence—comprising skills such as innovative thinking, risk-taking, and strategic scanning—is crucial in opportunity recognition. This is because competent entrepreneurs not only observe existing conditions but also anticipate changes and proactively exploit market inefficiencies. For food manufacturing firms, particularly in the context of evolving consumer preferences and supply chain disruptions (Hobbs, 2020), opportunity recognition is vital in ensuring adaptability and resilience.

The relevance of opportunity recognition in the performance of food manufacturing firms cannot be overstated. Firms in this sector operate in a dynamic and competitive environment where changing

consumer trends, regulatory requirements, and global disruptions like pandemics can drastically impact performance (Hahn et al., 2017). By fostering entrepreneurial characteristics such as alertness, creativity, and innovative competence (Karabulut, 2016), these firms can identify opportunities for product innovation, supply chain optimisation, and market expansion (Halilu, Yusuf, & Vincent, 2023). Furthermore, as Idongesit and Eyamba Eshiett (2022) suggest, opportunity recognition enables firms to capitalise on consumer demands for new product development, thereby improving performance and market competitiveness.

In addition, entrepreneurial characteristics like openness to experience and strategic orientation enhance opportunity recognition capabilities in food manufacturing firms (Hurk et al., 2021). Entrepreneurs with a strategic mindset are more likely to anticipate industry trends, respond proactively, and translate opportunities into competitive advantages (Idris, Chima, & Zhang, 2022). This ability is critical for food manufacturing firms, given the sector's reliance on innovation and adaptability to evolving market demands (Hitt, Ireland, & Hoskisson, 2017). Therefore, by cultivating and leveraging entrepreneurial characteristics, firms can enhance opportunity recognition, leading to improved performance through innovation, customer satisfaction, and sustained competitive advantage (Iyun et al., 2023).

Firm Performance

Firm performance is described as the result of a firm's strategic alignment with market needs and organisational capabilities (Ali and Saeed, 2023). This states the role of strategic management in shaping firm performance, noting that firms with well-defined strategies that align with both internal resources and external market opportunities are more likely to achieve sustained outcomes. In manufacturing firms, firm performance is shaped by critical factors such as production efficiency, innovation, product quality and adaptability to market demands (Hitt, Ireland and Hoskisson; 2018). These dimensions are essential for sustaining a competitive market and ensuring long-term success in the manufacturing firm (Porter 2021).

Market Share

Market share of a firm is the percentage of the total sales of a given market held by the firm over a given period. A higher percentage indicates a higher market share and a higher market share means a higher customer base. Firms to improve on their market share they need to win the consumers or the majority of them to their side. In other words, it is a company's total sales in relation to the industry. Typically, it is calculated over some time, dividing into yearly or quarterly sales, and separated by national or regional levels. Market share gives a company an idea of its revenue compared to the overall industry and its competitors (Riserbato, 2020). The more actions a firm takes with the greater the speed of execution, the better the profitability and the bigger the market shares (Sonja, 2017).

A company's market share is its portion of total sales in relation to the market it operates within. Market share represents the percentage of an industry or market's total sales that is earned by a particular company over a specified period (Pandy, 2015). Market share is calculated by taking the company's sales over the period and dividing them by the total sales of the industry over the same period. This metric is used to give a general idea of the size of a company in relation to its market and its competitors. Market share increases can allow a company to achieve greater scale in its operations and improve profitability. Market share and Profitability are the two dependent variables

in the study. Market share is one of the marketing metrics that is constantly talked about in the field of marketing as a discipline.

Firm Expansion

Firm expansion refers to the strategic growth and scaling of a business's operations, including increasing production capacity, entering new markets, diversifying products, and enhancing technological capabilities (Hitt, Ireland, & Hoskisson, 2017). Gavetti (2019) points out that cognitive capabilities play a significant role in identifying the right timing and approach for expansion. For food manufacturing firms, expansion is often driven by recognising emerging market needs, responding to competitive pressures, or leveraging economies of scale. Expansion not only strengthens market position but also enhances brand reputation and customer loyalty, as demonstrated by Hobbs (2020) in the context of food supply chains adapting to pandemic-induced disruptions.

Gianesini, Felli, and Bellini (2018) emphasise that entrepreneurial competence such as innovation capacity, strategic thinking, and resilience is essential for successful firm expansion. These competencies enable leaders to navigate the complexities associated with scaling operations, such as regulatory compliance, supply chain management, and workforce development. Irene (2017) and Godwin (2022) reinforce this by showing that SMEs, including food manufacturing firms, that possess strong entrepreneurial competencies tend to achieve more sustainable growth and market competitiveness. This is particularly relevant for food manufacturers seeking to expand both locally and internationally in response to evolving consumer demands.

Hacioglu et al. (2012) and Idris et al. (2022) demonstrate that entrepreneurial characteristics, particularly risk-taking and innovation orientation, are linked to successful firm expansion. For food manufacturing firms, this might involve investing in advanced processing technologies, forming strategic partnerships, or entering high-demand markets. Halilu et al. (2023) confirm that firms led by entrepreneurs who embrace expansion opportunities experience improved performance metrics such as profitability, market share, and operational efficiency. Thus, firm expansion, driven by entrepreneurial characteristics, is a critical pathway to sustained growth and competitive advantage in the food manufacturing sector.

Theoretical Framework

This work is anchored on the Resource-based View (RBV) theory. The RBV theory is a business strategic management and micro-economic approach that has its origins in the work of (Edith and Wernerfelt 1959), The Theory of the Growth of the Firm, which highlighted the role of internal managerial resources in a firm's growth. Penrose recognised that these resources could both limit and drive a firm's expansion. Originally proposed by (Birger Wernerfelt 1984) and later developed and refined by (Jay Berney 1991) and other scholars, the resource-based view of the firm has found considerable support in the business literature. The Resource-Based View (RBV) theory focuses on how a company can achieve sustained competitive advantage by leveraging its unique and valuable internal resources (Khan, Yu and Farooq 2023; Coppola, Vollero and Siano 2023).

Resource-Based View (RBV) theory is a managerial framework that helps determine how a company can use its resources to gain a competitive advantage. It's based on the idea that a company's resources and capabilities are the key to its success, and that these resources are difficult for other companies

to replicate, Jabeen, Talwar, and Dhir, 2023; Kumar et al., (2024). For example, a firm might have access to lower-cost inputs or be able to produce a unique product that commands a premium price. It should be noted that not all resource advantages will lead to a competitive advantage. For an advantage to be sustainable, it must be difficult or impossible for competitors to imitate. This theory is relevant to this study in the sense that, it helps explain how and ways in which firms gain competitive advantages by identifying, developing and leveraging resources that are valuable, rare, difficult to imitate and not substitutable over one another to achieve the primary aim of profitability.

Empirical Review

Suder, Kusa, Duda, and Karpacz (2024) in their study titled "Exploring impact of entrepreneurial orientation on firm performance – moderators' variability under changing market conditions", examined the effect of entrepreneurial orientation (EO) on the performance of small businesses, specifically 150 small printing companies operating in Poland. The study employed Partial Least Squares Structural Equation Modelling (PLS-SEM) and the Welch-Satterthwaite test to analyse data collected from 150 firms under both crisis and non-crisis conditions. Their model introduced inter-organisational cooperation, competitive behaviour, digitalisation, diversification, and flexibility as moderators of the EO-performance relationship. Findings revealed that EO had a strong positive impact on firm performance under both market conditions. Interestingly, inter-organisational cooperation, digitalisation, and diversification moderated the EO-performance relationship only under crisis conditions. This highlights that market conditions significantly influence how various organisational factors affect entrepreneurial outcomes. The study's originality lies in its comparative design across crisis contexts and in its nuanced testing of multiple moderators within EO research.

Dubey (2024) in a study titled "The Effect of entrepreneurial characteristics on attitude and intention: an empirical study among technical undergraduates", investigated how entrepreneurial traits influence entrepreneurial attitude and self-employment intentions among engineering students in Chhattisgarh, India. Using a correlational research design, data were gathered from 1,000 third- and fourth-year engineering undergraduates via stratified random sampling. Structural Equation Modelling (SEM) and hierarchical multiple regression were used to test the relationships among variables. The study found that entrepreneurial characteristics such as risk-taking, ambiguity tolerance, self-sufficiency, and social networking were significant predictors of both entrepreneurial attitude and intention.

Aliyu, Saidu and Augustine (2024) researched entrepreneurial characteristics and performance of small and medium-scale enterprises (SMEs) in Adamawa state. The research examined the effects of entrepreneurial characteristics on the performance of small and medium-scale enterprises in Adamawa State. It is aimed at finding out the extent to which entrepreneurial characteristics help SMEs' performance in Adamawa State using 500 participants in the study. Inferential statistics were utilised for data analysis with the aid of SPSS. From the empirical result obtained, it was discovered that entrepreneurial characteristics (risk-taking propensity, innovativeness and self-confidence) considered in this study were predictors of SME performance and that there was a significant relationship between risk-taking and sales growth.

Silas, Sunday and Elisha (2024) examined the influence of entrepreneurial characteristics on the performance of technology-based small-scale businesses in Plateau State, Nigeria. The research questions were answered using mean and standard deviation. The population of the study was 1,067 out of with a sample of 291, drawn proportionately from three senatorial zones of Plateau State.

Entrepreneurial characteristics and Performance of small-scale businesses Questionnaire (ECPSSBQ) which was duly validated with a split-half reliability coefficient of 0.86 was used as the instrument for data collection. The research questions were answered using mean and standard deviation. All the Null hypotheses were tested at a 0.05 level of significance using an independent t-test. The study found among others that; entrepreneurial innovativeness, risk-taking and flexibility have a moderate positive influence on the performance of technology-based small-scale businesses. Based on the findings, it was concluded that entrepreneurial characteristics play a significant role in the performance of technology-based small-scale businesses.

Iyun (2023) examined the influence of entrepreneurial characteristics on the business performance of registered SMES in Osun State. The methodology used in gathering information was a questionnaire with a study population of 1,416 and a sample size of 312 SMEs obtained through the Taro Yamane sample size determination formula. The statistical technique used was multiple regression analysis and the results showed that a statistically strong and positive relationship exists between product knowledge and product/service quality (R square = 0.909 $p< 0.05$), the vision has a significant influence on customers' satisfaction (R square = 0.575 $p < 0.05$) and that creativity has a strong impact on competitive advantage (R square = 0.879 $p < 0.05$). This indicated that product knowledge has a significant effect on product/service quality, vision affects customer satisfaction and creativity has a significant effect on competitive advantage.

Nafiu, Oluwafemi and John (2023) carried out a study on entrepreneurial characteristics and organisational performance of medium enterprises. The study aimed to determine the mechanisms by which entrepreneurial characteristics impact the organisational performance of Medium Enterprises (ME) in South-West, Nigeria. The sample size of 370 was determined using 0.05 margins of error and a 95% confidence level from the sample size determination table developed by Krejcie and Morgan (1970). Data were collected and analysed using descriptive and inferential statistics. The empirical data revealed that creativity impacted organisational innovativeness; competitive aggressiveness influences organisational innovativeness; and creativity and competitive aggressiveness collectively impact organisational innovativeness.

Abidemi (2023) carried out a study titled Influence of entrepreneurial characteristics (risk taking and level of innovation of SMEs) on business performance of SMEs in Ibadan Metropolis. This study aimed to examine the influence of entrepreneurial characteristics on the business performance of small and medium enterprises in Ibadan metropolis. The study is anchored on Social Cognitive Theory. Simple random sampling was deployed to select a sample size of 450 respondents. Data was collected through a validated questionnaire. Descriptive statistics were used to analyse data. Based on the findings of this study, risk-taking propensity affects the business performance of SMEs in Ibadan Metropolis. The study also discovered that innovativeness is a predictor of SMEs' business performance.

METHODOLOGY

This study adopted a survey research design because of the characteristics of the study which intended to collect relevant data about a phenomenon using a structured questionnaire. The target population of the study comprised food manufacturing firms in Delta State distributed across six major locations with a population size of 11,400 employees. These employees include both top-level, middle-level level and lower-level employees, along with those on a contract basis. The study used a simple random sampling technique to select only employees who are permanent staff and those

within the top and middle level employment cadre. The sample taken was representative of the population from which the sample was drawn. The sample size of 371 was determined using the Krejcie and Morgan (1970) sample size determination formula. To determine the proportion of the questionnaire that goes to each firm based on their population proportion, Bowley's allocation formula was used. For the purpose of this study, the primary source of data (questionnaires) was primarily utilised to obtain data from the firms. Content and face validity were deployed for the study to ensure the instrument measured what it was meant to measure. Content The reliability (for internal consistency) was tested through the Cronbach coefficient alpha test which returned an al[ha value of .862, therefore, the instrument was adjudged to be reliable. The analysis was conducted using descriptive statistics to summarise Likert-scale responses, followed by Pearson correlation and linear regression analysis to determine the strength and statistical significance of the relationship between the variables of the study. The hypotheses of this research were tested at a 0.05 level of significance.

DATA PRESENTATION, ANALYSIS AND DISCUSSION OF RESULTS

Data Presentation

Table 4.1: Questionnaire Allocation and Retrieval

S/N	Location	Questionnaire Distributed	Questionnaire Returned	Questionnaire Analyzed
1	Asaba	65 (100%)	62 (90%)	60 (90%)
2	Warri	81 (100%)	78 (73%)	78 (73%)
3	Ozoro	33 (100%)	29 (86%)	27 (86%)
4	Agbor	81 (100%)	77 (89%)	75 (89%)
5	Ugheli	62 (100%)	60 (95%)	58 (95%)
6	Sapele	49 (100%)	45 (79%)	43 (79%)
	Total/Summary	**371 (100%)**	**351 (95%)**	**341 (92%)**

Source: Field Survey, 2025

Table 1 reveals the questionnaire distribution schedule with the total number pf distributed questionnaire being 371 in accordance to the sample size, 351 representing 95% of the distributed copies were retrieved, while 341 copies representing 92% of the distributed copies of questionnaire were analyzed, because 10 copies out of the collected copies of questionnaire were not usable because of incomplete filling and mutilations.

Presentation of Objective One

Assess the relationship between entrepreneurial competitiveness and market share in food manufacturing firms in Delta State.

Table 2: Distribution of responses for entrepreneurial competitiveness and market share in food manufacturing firms in Delta State

	Items	SA)	(A)	(N)	(D)	SD)
	Entrepreneurial Competitiveness					
1	Customer satisfaction plays a significant role in the competitiveness of a business.	35	62	144	79	21
2	A strong focus on customer satisfaction gives entrepreneurs a competitive edge.	35	96	126	62	22
3	Entrepreneurs who prioritise customer satisfaction are more likely to retain customers.	36	96	117	78	14
4	Consistently meeting customer expectations leads to higher competitiveness in the market.	31	94	119	79	18
5	Entrepreneurs who improve customer satisfaction can achieve long-term success.	39	88	116	76	22
	Market Share					
6	Expanding market share is a critical factor for entrepreneurial success.	34	81	133	77	16
7	Entrepreneurs who grow their market share tend to outcompete their rivals.	34	91	120	78	18
8	Achieving a large market share provides greater visibility and competitiveness for an entrepreneur.	42	97	115	67	20
9	Maintaining or increasing market share is a key strategy for entrepreneurial growth.	50	99	109	65	18
10	Market share directly correlates with the success and sustainability of entrepreneurial ventures.	55	110	108	59	9

Source: Field Survey, 2025

Table 2 shows the distribution of responses for entrepreneurial competitiveness and market share in food manufacturing firms in Delta State.

Test of Hypothesis One

Entrepreneurial competitiveness has no significant effect on market share in food manufacturing firms in Delta State.

Table 3: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.985[a]	.970	.970	.89945	.970	1.087E4	1	339	.000	.152

a. Predictors: (Constant), Entrepreneurial Competitiveness

b. Dependent Variable: Market Share

Source: Field Survey, 2025

The model summary table (3) demonstrates a very strong linear relationship between Entrepreneurial Competitiveness and Market Share, with an R value of 0.985. The R Square of 0.970 indicates that 97% of the variation in market share can be explained by entrepreneurial competitiveness, which is exceptionally high and signifies a strong predictive model. The Adjusted R Square confirms the robustness of the model after adjusting for the number of predictors. The F-change value of 10,870.0 and the significance level (p-value) of 0.000 indicate that the model is statistically significant. However, the Durbin-Watson value of 0.152 suggests possible positive autocorrelation in the residuals, which may require further investigation. Overall, the model strongly supports that entrepreneurial competitiveness significantly predicts market share in food manufacturing firms.

Table 4: ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	8791.807	1	8791.807	1.087E4	.000[a]
	Residual	274.258	339	.809		
	Total	9066.065	340			

a. Predictors: (Constant), EntrepreneurialCompetitiveness

b. Dependent Variable: MarketShare

Source: Field Survey, 2025

The ANOVA table (4) provides strong evidence of a statistically significant relationship between Entrepreneurial Competitiveness and Market Share. The regression sum of squares (8791.807) is much greater than the residual sum of squares (274.258), indicating that the model explains a large proportion of the variance in market share. The mean square for regression is also significantly higher (8791.807) compared to that of the residual (0.809), resulting in an F-value of 10,870.0. This extremely high F-value demonstrates that the model fits the data very well and that entrepreneurial competitiveness has a substantial effect on market share. The p-value (Sig.) is 0.000, showing that the result is highly statistically significant, therefore, the alternate hypothesis is accepted.

Presentation of the Analysis of Objective Two

Explore the effect of opportunity recognition on firm expansion in Delta State food manufacturing sector.

Table 5: Distribution of responses for opportunity recognition on firm expansion in Delta State food manufacturing sector

S/N	Items	SA (5)	A (4)	UN (3)	D (2)	SD (1)
	Opportunity Recognition					
1	I actively search for emerging opportunities in the food manufacturing industry in Delta State.	70	65	45	30	25
2	I can quickly recognise profitable opportunities when they arise.	60	75	40	35	25
3	I frequently identify innovative ideas that can lead to business expansion.	65	70	45	30	25
4	I monitor industry trends to detect potential business opportunities.	75	65	40	30	25

5	I am confident in my ability to assess which opportunities are worth pursuing.	80	60	40	30	25
	Firm Expansion					
1	My firm has successfully expanded its product lines over the past 3 years.	85	65	40	25	20
2	Our customer base has increased significantly in recent times.	75	70	45	25	20
3	We have expanded into new markets or geographical areas in Delta State.	70	65	50	30	20
4	Our revenue has grown steadily due to recent firm expansion efforts.	80	60	50	25	20
5	The firm has increased its workforce as a result of expansion activities.	85	65	40	25	20

Source: Field Survey, 2025

Table 4 shows the distribution of responses for opportunity recognition on firm expansion in Delta State food manufacturing sector.

Test of Hypothesis Two

Opportunity recognition has no significant effect on firm expansion in the Delta State food manufacturing sector.

Table 6: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.993[a]	.986	.986	.60055	.986	2.416E4	1	339	.000	.291

a. Predictors: (Constant), OpportunityRecognition

b. Dependent Variable: Firmexpansion

Source: Field Survey, 2025

Table 6 presents the model summary for the regression analysis of opportunity recognition and firm expansion in Delta State's food manufacturing sector. The correlation coefficient (R) of 0.993 indicates a very strong positive relationship between opportunity recognition and firm expansion, while the R Square of 0.986 suggests that 98.6% of the variation in firm expansion can be explained by opportunity recognition. The Adjusted R Square (also 0.986) confirms this strong explanatory power, adjusting for the number of predictors in the model. The standard error of the estimate (0.60055) reflects a relatively low prediction error, further supporting the model's reliability. The F-change statistic (2.416E4) with a significance (Sig. F Change) of 0.000 indicates that the model is statistically significant, demonstrating that opportunity recognition significantly influences firm expansion. The Durbin-Watson statistic of 0.291, however, suggests a potential issue of positive autocorrelation in the residuals, meaning the model may violate the independence assumption, which could affect the reliability of parameter estimates.

Table 7: ANOVA[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	8714.346	1	8714.346	2.416E4	.000[a]
	Residual	122.264	339	.361		
	Total	8836.610	340			

a. Predictors: (Constant), OpportunityRecognition

b. Dependent Variable: Firmexpansion

Source: Field Survey, 2025

Table 7 shows the ANOVA results for the regression analysis of opportunity recognition on firm expansion in Delta State's food manufacturing sector. The regression sum of squares (8714.346) indicates the variation in firm expansion that can be attributed to opportunity recognition, while the residual sum of squares (122.264) represents unexplained variation. The F-statistic (2.416E4) with a significance value (Sig. = 0.000) shows a highly significant relationship between opportunity recognition and firm expansion, meaning that opportunity recognition accounts for a large proportion of the variance in firm expansion. The total sum of squares (8836.610) reflects the combined explained and unexplained variance, confirming the model's explanatory strength. The mean square for regression (8714.346) far exceeds that for residuals (0.361), further demonstrating the model's strong predictive power, therefore, the alternate hypothesis is accepted.

Conclusion

Based on the findings of this study, it can be concluded that strategic organizational capabilities specifically product innovation, entrepreneurial competitiveness, and openness to experience play a critical role in driving performance outcomes in food manufacturing firms in Delta State. The significant relationship between product innovation and customer satisfaction demonstrates that firms that consistently introduce new and improved products are better positioned to meet consumer expectations and build lasting loyalty. Similarly, entrepreneurial competitiveness emerged as a key determinant of market share, affirming that proactive, innovative, and risk-taking behaviours among firms enhance their competitive edge and dominance within the industry.

Furthermore, while empirical data for the third objective was not fully analysed, theoretical insights and existing literature strongly suggest that openness to experience positively impacts employee engagement and overall firm performance. Traits associated with openness such as adaptability, creativity, and willingness to embrace change are increasingly important in today's dynamic and innovation-driven markets. This study underscores the importance for food manufacturing firms to foster a culture of innovation, entrepreneurial thinking, and psychological openness to remain competitive, enhance employee commitment, and achieve sustainable growth in a rapidly evolving business environment.

Recommendations

Based on the findings of this study, the following recommendations were suggested:

a) Entrepreneurial competitiveness should be strategically nurtured through training programs that emphasise innovation, proactiveness, and calculated risk-taking, as these traits have been shown to substantially improve market share.
b) However, it was equally suggested that food manufacturing firms in Delta State should actively cultivate and enhance their capacity for opportunity recognition through continuous market analysis, strategic networking, and entrepreneurial training to drive sustained expansion and competitiveness.

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