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EFFECT OF COMPETITIVE INTELLIGENCE ON ORGANISATIONAL EFFECTIVENESS OF INDUSTRIAL GOODS FIRMS ON THE NIGERIA EXCHANGE GROUP

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ABSTRACT

This study examines the effect of competitive intelligence on the organisational effectiveness of industrial goods firms listed on the Nigerian Exchange Group. The study aims to achieve the following objectives: to determine the effect of Customer Intelligence, Marketplace Intelligence and Strategic Alliance Intelligence on the organisational effectiveness of industrial goods firms listed on the Nigerian Exchange Group. A cross-sectional survey design was adopted for the study. The research focused on employees of industrial goods firms listed on the Nigerian Exchange Group, with a total population of 2,730 staff. The sample size of 450 respondents was determined using Taro Yamane's formula. The study relied on primary data, with a structured questionnaire serving as the instrument for data collection. Structural Equation Modelling (SEM) was employed to test the formulated hypotheses, using the Statistical Package for the Social Sciences (SPSS) and AMOS software. The study found that Customer Intelligence with beta value of .174, Marketplace Intelligence with beta value of .434, and Strategic Alliance Intelligence with beta of .341, .337, .334 and .108 all have statistically significant positive effects on the organisational effectiveness of industrial goods firms listed on the Nigeria Exchange Group. Based on these findings, it is recommended that the management of industrial goods firms listed on the Nigerian Exchange Group should prioritise investment in advanced analytical tools that facilitate the collection and analysis of customer, marketplace, technology, and strategic alliance data. Additionally, they should invest in systems that continuously monitor market

trends, competitor activities, and industry developments, all of which can contribute to improved organisational effectiveness.

KEYWORDS: Competitive Intelligence, Customer Intelligence, Marketplace Intelligence, Strategic Alliance Intelligence and Effectiveness.

INTRODUCTION

In the current global business environment, where everything moves at breakneck speed and competition is fierce, the ability of any organisation to perform effectively has become absolutely critical. By effectiveness, I mean the capacity to deliver the desired results using the resources available, efficiently and on time. In Nigeria, the industrial goods companies listed on the Nigerian Exchange Group (NGX) are particularly important in this regard. These firms not only matter for their own bottom lines, but they also play a broader role in driving economic growth across the country. When they operate efficiently and remain competitive, they create jobs, support infrastructure development, and contribute to overall national progress (Nwokoma, 2020).

At its core, effectiveness is about doing the right things, in the right way, and at the right time (Maune, 2022). Richard Daft, in his 2022 work, captures this well by describing organisational effectiveness as something dynamic an ongoing process that demands constant adaptation to new realities. Simply put, organisational effectiveness measures how successfully a company achieves its goals. It reflects how well the available resources, chosen strategies, and day-to-day actions come together to produce the intended outcomes.

One powerful tool that helps organisations reach this level of effectiveness is competitive intelligence. Michael Porter (2020) explains that competitive intelligence involves systematically studying competitors, market trends, and the broader forces that shape industry competition. This disciplined approach enables firms to better understand the structure of their sector, spot emerging opportunities and risks, and craft strategies that strengthen their position over the long term (Jami et al., 2019). Calof and Wright (2018) take a similar view, defining competitive intelligence as an ethical, structured process of collecting, analysing, and applying information from the external environment to inform strategic decisions. In today's rapidly evolving markets, where technology advances quickly and customer preferences can shift overnight, strong competitive intelligence allows companies to anticipate changes, react proactively, and sustain a meaningful edge over rivals.

The connection between competitive intelligence and organisational effectiveness becomes especially clear when we look at strategic decision-making. For any organisation to truly excel, its leaders need a deep, realistic grasp of the competitive landscape, including what rivals are planning and executing (Calof & Sewdass, 2020). Without that insight, even the best-intentioned strategies risk being built on incomplete or outdated assumptions. In essence, competitive intelligence provides the factual foundation that enables more informed, timely, and effective decisions, ultimately helping industrial goods firms in Nigeria, and elsewhere, not only survive but thrive in a challenging environment.

Statement of the Problem

Manufacturing industries, including industrial goods firms listed on the Nigerian Exchange Group, play a pivotal role in the country's economic development, contributing significantly to Gross Domestic Product (GDP), employment, and infrastructure development. Despite their critical role in national economies, many industrial goods firms in Nigeria currently face challenges in achieving and sustaining organisational effectiveness.

These firms are grappling with an increasingly volatile environment, characterised by rapidly changing customer expectations, intensifying competition, technological disruptions, evolving market dynamics, and an inability to adapt to market changes and technological advancements (Akinwale & Aremo, 2021; Onyekwelu & Uche, 2022). A major concern is that many industrial goods firms continue to operate with an inward-focused, production-driven mentality, paying insufficient attention to customer intelligence, market competition, and technological advancements. Furthermore, they often possess little or no information regarding the organisational alliances needed to outperform their rivals. In today's market, customers demand more customised, high-value solutions, rather than merely standardised products (Onyekwelu & Uche, 2022).

Failures to collect, interpret, and act upon customer and market data leads to a misalignment between what firms offer and what the market demands. Similarly, many industrial goods firms suffer from inadequate marketplace intelligence, leaving them blind to emerging market trends, competitive dynamics, and shifts in regulatory environments, all of which contribute to poor effectiveness (Akram & Waheed, 2019). This lack of foresight hinders strategic planning and weakens firms' ability to seize new opportunities or defend against threats. The pressure of technological change further compounds the problem. Emerging technologies, such as automation, artificial intelligence, and additive manufacturing, are reshaping industrial production processes and supply chains. Firms that fail to invest in technological

intelligence risk technological obsolescence and the loss of operational efficiency (Schwab, 2017).

Objective of the Study

The main objective of this study is to assess the effect of competitive intelligence on the organisational effectiveness of industrial goods firms listed on the Nigeria Exchange Group. However, the specific objectives of the study are to:

1. Determine the effect of Customer Intelligence on the effectiveness of Industrial goods firms on the Nigeria exchange group
2. Ascertain the effect of Marketplace Intelligence on effectiveness of industrial goods firms on the Nigeria exchange group
3. Evaluate the effect of strategic alliance intelligence on the effectiveness of industrial goods firms on the Nigeria Exchange Group

Research Hypotheses

Hypotheses are assumptions about the nature of relationships among identified variables. In this study, the hypotheses are stated in a null form with the following tentative answers: -

H0₁: Customer Intelligence does not has a significant effect effectiveness of Industrial goods firms on the Nigeria Exchange Group.

H0₂: Marketplace Intelligence does not has a significant effect on effectiveness of Industrial goods firms quoted on the Nigeria exchange group

H0₃: Strategic alliance intelligence has no significant effect on the effectiveness of industrial goods firms on the Nigeria exchange group

Review of Related Literature

Competitive Intelligence

The concept of competitive intelligence has evolved to encompass a broad range of tactical positioning strategies that have transformed the business landscape. It is now recognised as an integral component of strategic management, enabling organisations to anticipate changes in their competitive environment and make proactive, informed decisions.

According to Irenaus et al. (2021), competitive intelligence involves collecting information from diverse sources, such as market research reports, industry publications, competitor websites, social media, customer feedback, and internal data. The data collected may include market trends, competitor profiles, product features, pricing information, customer preferences, and other relevant insights. Once the data is gathered, it must be analysed and

interpreted to extract meaningful insights. This process involves identifying patterns, trends, and relationships within the data to better understand the competitive landscape and to pinpoint potential opportunities or threats. Moreover, competitive intelligence refers to the systematic and legal process by which an organisation collects, organises, analyses, and disseminates information about its competitors or the broader competitive environment, with the aim of gaining or maintaining a competitive advantage in the marketplace.

Bratianu and Bejinaru (2023) define competitive intelligence as "the systematic process of retrieving and analysing information that transforms fragmented (raw) data on markets, competitors, and technologies into a clear picture of the business environment for the decision-maker." Strategic alliance planning, understanding the capabilities and goals of rivals, and assessing potential threats are all facilitated by a well-designed competitive intelligence system. It also enables organisations to identify opportunities and threats within their external environment, allowing them to make informed decisions and formulate effective strategies. Brem and Voigt (2021) emphasise that competitive intelligence comprises both perceptible and imperceptible assets, as well as the capacity to develop intelligence through sourcing, evaluating, and disseminating information. This process supports tactical decision-making and can result in substantial gains when effectively integrated within an organisation.

Customer Intelligence

Customer intelligence is essential for organisations as it enables them to predict customer behaviour, identify emerging trends, and make informed decisions that enhance customer satisfaction and loyalty. It integrates data analytics, artificial intelligence, and machine learning to develop comprehensive customer profiles that can be used to personalise experiences, improve product offerings, and optimise marketing strategies (Xu & Walton, 2020). Customer intelligence refers to the systematic collection and analysis of data related to customer behaviours, preferences, and needs. This form of intelligence is vital for businesses seeking to deepen their understanding of customers and improve the quality of service delivery. By leveraging diverse data sources such as customer interactions, purchase histories, and feedback, organisations can build a holistic view of their customers. This, in turn, supports informed decision-making and enables the development of marketing strategies tailored to meet customer expectations (Brem & Voigt, 2021).

Moreover, customer intelligence involves gathering, analysing, and utilising information about customers to gain insights into their preferences, behaviours, and needs. It entails

collecting data from various sources and applying this knowledge to support strategic planning and the creation of effective marketing campaigns. Through customer intelligence, businesses can gain a clearer understanding of their target audience, adapt products or services to align with customer demands, and foster improved customer satisfaction and loyalty (Hendar et al., 2020). Customer intelligence encompasses the collection and analysis of diverse data types, including demographic information, purchase history, customer-company interactions, and social media activity, to generate detailed customer profiles and actionable insights (Calof & Sewdass, 2020).

Marketplace Intelligence

Marketplace intelligence is defined as the process of gathering, analysing, and interpreting information about a marketplace, including its trends, competitors, customers, and other relevant factors. Such information supports businesses in making informed decisions, developing sound strategies, and maintaining competitiveness within the marketplace (Obonyo & Kilika, 2020).

Marketplace intelligence also involves the systematic collection and analysis of data relating to buyers, sellers, and industry trends in order to support informed business decisions (Arline, 2020). A company's utilisation of marketplace intelligence as a business strategy can be effective regardless of the strategic direction pursued. However, companies must act swiftly and implement comprehensive measures to prevent competitors from dominating their marketplace. Marketplace intelligence enables firms to develop effective strategies and marketing campaigns, as well as to expand their market share. Through the analysis of such data, firms can identify their competitive advantages and disadvantages, benchmark their performance against competitors, and make informed decisions that allow them to differentiate themselves within the market (Asri & Mohsin, 2020).

Strategic Alliance Intelligence

The concept of strategic intelligence is relatively new within the field of strategic management. This system assists organisations in monitoring and leveraging environmental variables that influence their operations (Ali & Anwar, 2021). Strategic intelligence enables companies to remain competitive in the marketplace (Blandina et al., 2021). It involves the collection, processing, and analysis of strategic information, including information relating to alliances between firms. A strategic alliance refers to an agreement between two companies to undertake a mutually beneficial project while maintaining their individual identities. Such

agreements are typically less complex and less binding than joint ventures, in which two firms combine resources to create a separate business entity. Companies may enter into strategic alliances to expand their product lines, penetrate new markets, or gain a competitive advantage.

Such arrangements allow two businesses to collaborate towards a mutually beneficial goal. The relationship may be short-term or long-term and can be either formal or informal. While a strategic alliance may take an informal form, the responsibilities of each partner are clearly defined. The duration of the alliance is determined by the needs of, and benefits derived by, the participating businesses (Eze & Cesar, 2021).

Strategic alliance intelligence refers to the process of gathering, analysing, and utilising information and insights related to strategic partnerships between organisations. It involves researching and understanding the dynamics, objectives, and potential advantages of strategic alliances in order to inform decision-making and maximise the value derived from such collaborations (Olowe et al., 2022). Furthermore, strategic alliance intelligence equips organisations with analytical capabilities that support the resolution of complex problems and enhance decision-making processes (Levine et al., 2020). Strategic intelligence systems focus on strategic information, resource management, partnerships, and consulting. In addition, they examine and analyse the organisational operating environment to support informed and effective decision-making (Asghari et al., 2020).

Effectiveness

Effectiveness is a concept that refers to an organisation's ability to achieve its goals and objectives efficiently while utilising available resources effectively. It encompasses various dimensions, including the organisation's capacity to produce desired outcomes, optimise processes, adapt to change, and maximise employee satisfaction and engagement. The concept of organisational effectiveness is therefore essential to the long-term success and sustainability of any organisation (Maune, 2022). According to Omede et al. (2021), organisational effectiveness is defined as "the degree to which an organisation's programme or intervention achieves its intended outcomes." It involves aligning the organisation's strategy, goals, and resources to ensure that all activities and initiatives contribute to overall organisational success.

Daft (2022) describes organisational effectiveness as the extent to which an organisation achieves its goals and objectives while maximising the efficient use of resources. It spans multiple dimensions, including productivity, profitability, innovation, employee and customer

satisfaction, and social responsibility. In essence, organisational effectiveness reflects how well an organisation performs in relation to its intended outcomes and the expectations of its stakeholders.

Similarly, Santos (2020) defines organisational effectiveness as the accomplishment of the goals and objectives set by the organisation. These may include financial targets, market share objectives, customer satisfaction benchmarks, or social impact goals. Achieving these outcomes indicates that the organisation is fulfilling its purpose and delivering value to its stakeholders.

Theoretical Framework

Resource-Based Theory (RBT)

This study is anchored on the Resource-Based Theory, propounded by Wernerfelt (1984). The Resource-Based View (RBV) as a theoretical foundation for competitive intelligence extends beyond traditional competitor analysis to encompass multiple intelligence dimensions including customer intelligence, marketplace intelligence, technology intelligence, and strategic alliance intelligence, each requiring distinctive resource-based analytical frameworks. The RBV, originally formulated by Wernerfelt (1984) in his seminal article "A Resource-Based View of the Firm" published in the Strategic Management Journal, and subsequently crystallized by Jay Barney (1991) through his VRIN framework (Valuable, Rare, Inimitable, and Non-substitutable resources) in the Journal of Management, provides theoretical grounding for understanding how organizations leverage heterogeneous resource endowments to create competitive advantages across these intelligence domains.

Wernerfelt (1984) argued that "by a resource is meant anything which could be thought of as a strength or weakness of a given firm," establishing an expansive conceptualization that encompasses tangible assets, intangible capabilities, and relational resources relevant to multiple intelligence dimensions. Barney (1991) refined this by asserting that "firm resources include all assets, capabilities, organizational processes, firm attributes, information, and knowledge controlled by a firm that enable the firm to conceive of and implement strategies that improve its efficiency and effectiveness," thereby creating a theoretical umbrella under which customer knowledge, market insights, technological capabilities, and alliance networks all qualify as strategically significant resources.

The core assumptions underlying Resource-Based View, resource heterogeneity, resource immobility, resources as sources of competitive advantage, and causal ambiguity apply differentially across these intelligence dimensions in firms producing industrial goods in

Nigeria, creating both opportunities and challenges for competitive intelligence practitioners seeking to understand how competitors build and leverage resources in customer relationships, market positioning, technological innovation, and collaborative networks. Customer intelligence from a resource-based perspective focuses on understanding how organizations like industrial goods firms develop and leverage customer-related resources and capabilities to create sustainable competitive advantages through superior customer knowledge, relationships, and co-creation capabilities.

Day (2000) identified "market-relating capabilities" as critical organisational resources, arguing that "customer-relating capability is revealed in the skills in creating and managing close customer relationships, and is manifested in the depth of knowledge of customers and the intensity of the relationship," thereby positioning customer intelligence as fundamentally concerned with assessing competitors' customer knowledge resources and relationship management capabilities. From an resource-based view standpoint, customer intelligence seeks to identify VRIN resources embedded in competitor-customer relationships, including proprietary customer data, tacit knowledge about customer preferences and behaviors, trust-based relationships that resist competitive poaching, and customer co-creation capabilities that generate innovations competitors cannot replicate.

Srivastava, et al (2001) extended this perspective by conceptualizing customer relationships as "market-based assets" that constitute "relationally derived resources" possessing the characteristics Barney (1991) identified as sources of sustainable advantage they are valuable in generating customer loyalty and willingness to pay premium prices, rare in that deep customer relationships cannot be quickly established, inimitable due to path dependency and social complexity, and non-substitutable as alternative customer acquisition strategies cannot replicate the benefits of established relationships. Customer intelligence therefore involves assessing competitors' customer relationship management systems, customer lifetime value metrics, customer knowledge management processes, customer satisfaction and loyalty indicators, and customer co-creation initiatives to understand the resource foundations of their customer-based competitive advantages.

The application of Resource-Based View to customer intelligence reveals several strategically significant resource categories that require systematic competitive analysis. First, proprietary customer data represents a potentially valuable, rare, and inimitable resource that enables personalization, predictive analytics, and targeted marketing that competitors lacking equivalent data cannot replicate. Davenport and Harris (2007) argued that "companies that apply analytics to their customer data can gain competitive advantages,"

suggesting that customer intelligence should focus not merely on what data competitors collect but how they transform that data into actionable insights through analytical capabilities.

Review of Empirical Studies

Adel (2020) examined the mediating impact of marketplace intelligence on the relationship within technology-based pharmaceutical companies in Jordan. A convenience sampling technique was employed for the study. Questionnaires were used for data collection. The study's population and sample comprised 106 senior and middle managers. The research hypotheses were tested using hierarchical regression analysis. The findings confirmed the mediating effect of marketplace intelligence in the relationship between the study variables. Nevertheless, the use of convenience sampling raises concerns regarding the representativeness of the sample. As convenience sampling involves selecting individuals who are readily available and willing to participate, it may introduce bias and limit the generalisability of the findings. Employing a more rigorous sampling method, such as stratified sampling, could enhance the validity and reliability of the study.

Tareq (2022) investigated the influence of competitive intelligence on effectiveness in five-star hotels in Amman, Jordan. The study adopts survey research design. The study population comprised 600 guests across the selected five-star hotels in Jordan, totalling 19 establishments. A quantitative approach was adopted to collect data from a sample of 459 guests who completed a self-administered questionnaire. Data were analysed using SPSS, and multiple regression analysis was employed to test the hypotheses. The findings indicated that customer intelligence practices and strategies influenced the purchase decision-making process among individuals. The variable most influenced was the recognition of needs, with an R-value of 0.910, while post-purchase evaluation was the least influenced, with an R-value of 0.526. However, although the sample size of 459 respondents is adequate, a larger sample would have enhanced the generalisability of the findings.

Aljarrah et al. (2023) examined the effect of customer intelligence on organisational excellence in Jordanian banks. The study employed a descriptive and analytical approach. The population consisted of 240 employees from Jordanian banks, from which a sample size of 183 was selected for analysis. Simple linear regression and multiple regression analyses were conducted using SPSS (version 20) and AMOS (version 23). The findings of the study revealed a statistically significant effect of the dimensions of customer intelligence on

organisational excellence. However, the sampling method is not described whether it was a random, stratified, or convenience-based? This affects the external validity of the findings.

Mahmoud (2020) examined the effect of strategic alliance intelligence on decision-making and strategic planning in Iran. The study adopted an analytical survey research design. The statistical population comprised 293 companies and organisations using intelligent systems in Khorramabad. A sample size of 150 was determined. The research instrument was a questionnaire, the content validity of which was confirmed, and its reliability verified using Cronbach's Alpha. In this study, both the structural equation modelling approach and AMOS 18 software were employed to examine and test the research hypotheses. The results indicate that strategic alliance intelligence has a positive and significant effect on strategic decision-making and strategic planning in organisations utilising intelligent systems in Khorramabad. The use of structural equation modelling and AMOS 18 reflects a comprehensive analytical framework, facilitating an in-depth examination of the hypotheses. By employing these advanced statistical techniques, Mahmoud enhances the robustness of the study's findings and provides a more nuanced understanding of the relationship between strategic intelligence, decision-making, and strategic planning.

Ovivi et al. (2024) examined the relationship between customer intelligence and the business performance of Shoprite in the Federal Capital Territory, Abuja. The study adopted a causal research design. A population of 352 was drawn from three selected Shoprite stores in Abuja, Nigeria, and a sample size of 187 was determined using the Taro Yamane formula. Data were analysed using correlation analysis, ANOVA, and simple regression procedures, with the aid of SPSS statistical software. The results indicated that customer intelligence had a significant influence on the commercial performance and strategic growth of Shoprite stores. Furthermore, the findings revealed that customer intelligence contributed positively to the business performance of Shoprite outlets in the Federal Capital Territory. Specifically, the study showed that customer intelligence positively impacted Shoprite stores' market share and customer satisfaction. However, the summary mentions using correlation, ANOVA, and regression but provides no statistical results, significance levels, or effect sizes. The choice of analytical techniques isn't justified, and there's no explanation of how these methods complement each other or address the research questions.

Chigozie et al. (2024) investigated the effect of customer intelligence on customer retention in midscale and luxury hotels in South-West Nigeria. A model was developed to examine the consequent variables and to test the research hypotheses within the framework of impulse buying theory. A total of 1,972 research instruments were retrieved from customers across

160 conveniently sampled midscale and luxury hotels and were used for analysis. Descriptive statistics were employed to analyse the demographic elements, while Pearson's correlation was utilised to assess the statistical relationship between customer retention and the customer intelligence constructs. A linear regression model was used to test the research hypotheses and to identify significant relationships between the consequent variables of the study. The results demonstrated the effectiveness of the regression model in identifying these relationships, revealing a positive association between customer intelligence and customer retention within the hotel industry. However, the use of linear regression to test hypotheses is appropriate and provides a basic level of inferential insight. Nonetheless, the study would have benefitted from the inclusion of multivariate techniques, such as structural equation modelling (SEM), which could more rigorously examine the interrelationships among latent variables and enhance the explanatory power of the model.

Ezenwa and Agu (2022) examined the effect of strategic alliance intelligence on technological know-how in a manufacturing firm in Nigeria. A survey research design was adopted for the study. The population comprised 1,258 respondents, and a sample size of 303 was determined using Taro Yamane's formula, with a 5% margin of error and a 95% confidence level. The primary instruments for data collection were questionnaires and interviews. Of the 303 questionnaires distributed, 283 were returned, while 20 were not. The hypotheses were tested using Pearson's product-moment correlation coefficient, chi-square, and simple linear regression. The findings indicated that strategic alliance intelligence had a positive and significant effect on technological know-how in Nigerian manufacturing firms ($r = 0.602$; $F = 3.426E3$; $t = 4.426$; $p < 0.05$). The use of both questionnaires and interviews for data collection is commendable, as it allows for a more comprehensive understanding of the research questions. However, providing details on the development and validation of the questionnaire, as well as the interview protocol, would enhance the methodological rigour of the study.

METHODOLOGY

Research Design

A cross-sectional survey design was adopted for this study. This design considered appropriate, as it enabled the collection of relevant data from respondents across different firms concerning the research variables. The data collected were subsequently used for analysis. A research design represents the overall plan for linking conceptual research problems with relevant (and achievable) empirical investigation. In other words, it outlines

the procedures for identifying the required data, the methods for collecting and analysing this data, and how these processes collectively address the research question (Prakash, 2019).

Population of the Study

The population for this study consists of 2,730 employees from industrial goods firms listed on the Nigerian Exchange Group, including Beta Glass Plc, Austin Laz & Company Plc, Greif Nigeria Plc, Triple Gee and Company Plc, CAP Plc, Cutix Plc, and Avon Crown Caps & Containers Plc. Data was sourced from organisational annual report and organisational profile.

Population of Employees of Industrial Goods Firms

S/No	Name of Companies	Number of Employees
1	Beta Glass Plc.	793
2	Austin Laz & Company Plc	482
3	Greif Nigeria Plc (Mrf)	128
4	Triple Gee and Company plc	321
5	Cap plc	295
6	Cutix plc	258
7	Avon Crowncaps & Containers plc	453
	Total	2730

Source: *Annual report and company profile, 2025*

Sample Size of the Study

A sample is a portion or subset of the population of interest. It serves as a representation of the entire population and is only meaningful if it accurately reflects that population (Simarjeet, 2017). To minimise response bias and increase the response rate for the study, the researcher employed Taro Yamane's formula to determine the appropriate sample size at a 95% confidence level, assuming a proportion (P) of 0.5. This formula provides a statistical basis for estimating the required sample size. Accordingly, a sample size of 348 was adjusted to 450 by adding a 30% buffer margin. Adding a 30% buffer margin to the sample size is a methodological strategy designed to compensate for potential non-response, incomplete data, or unusable questionnaires that may arise during data collection. In survey research, it is common for some participants to withdraw, provide inconsistent responses, or fail to return questionnaires, leading to a reduced effective sample size (Saunders, et al. 2019).

By including a buffer, researchers ensure that the final sample remains statistically adequate for valid analysis and generalisation of findings. A 30% adjustment is particularly justified in organisational and field-based studies, where accessibility to respondents may be limited and

response rates tend to fluctuate (Sekaran & Bougie, 2020). Therefore, incorporating a 30% buffer margin strengthens the study's methodological rigour and enhances the validity of its conclusions, therefore, a total of 450 respondents were determined based on the sample size calculation derived from a population of 2,730 employees working in industrial goods firms listed on the Nigerian Exchange Group, as shown below.

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

Where:

n = the required sample size

1 = constant

N = the total population

E = level of significance

Note that, for the purpose of this study, e = 0.05

$$n = \frac{2,730}{1 + 2730(0.05)^2}$$

$$n = \frac{2,730}{1 + 2,730(0.0025)}$$

$$n = \frac{2,730}{1 + 6.86}$$

$$n = \frac{2,730}{7.86}$$

$$n = 347 \text{ employees} + 30\% \text{ buffer margin}$$

$$450$$

Data Presentation, Analysis and Discussion of Findings

Data Presentation and Analysis

Data collected from the respondents were analysed and presented in frequency tables and simple percentages.

Test of Hypotheses

Hypothesis	Relationship	β	t-value	p-value	Result
H01: Customer Intelligence does not have any significant effect on Effectiveness.	Customer Intelligence → Effectiveness	.434	7.120	<.001	Significant, reject null hypothesis
H02: Marketplace Intelligence does not have any significant effect on Effectiveness.	Marketplace Intelligence → Effectiveness	.341	10.009	<.001	Significant, reject null hypothesis
H03: Strategic Alliance Intelligence does not have any significant effect on Effectiveness.	Strategic Alliance Intelligence → Effectiveness	.108	1.978	.048	Significant, reject null hypothesis

Source: *Spss Output, 2026*

Test of Hypotheses

H01: Customer Intelligence does not has a significant effect on the effectiveness of industrial goods firms quoted on the Nigerian Exchange Group. To test this hypothesis, the analysis revealed a statistically significant and positive effect, as the associated p-value (0.008) is less than the 0.05 level of significance. This hypothesis examined the relationship between Customer Intelligence and effectiveness among industrial goods firms listed on the Nigerian Exchange Group. The results indicate that Customer Intelligence has a significant positive effect on effectiveness ($\beta = .174$, $t(3) = 2.654$, $p = .008$). This suggests that higher levels of customer intelligence are associated with greater success in achieving organisational goals.

H02: Marketplace intelligence does not has a significant effect on the effectiveness of industrial goods firms quoted on the Nigeria Exchange Group. However, to test Hypothesis Three, the effect was found to be statistically significant, as the associated p-value (.001) is less than the 0.05 level of significance. This hypothesis explores the relationship between marketplace intelligence and goal attainment among industrial goods firms listed on the Nigeria Exchange Group. The analysis revealed that marketplace intelligence had a significant positive effect on goal attainment, $\beta = .341$, $t(3) = 10.009$, $p < .001$. This result indicates that firms with better knowledge of the market, competitors, and industry trends are more likely to achieve their business goals.

H03: Strategic alliance intelligence does not have a significant effect on the system alignment of industrial goods firms quoted on the Nigeria Exchange Group. However, to test Hypothesis Seven, the effect was found to be statistically significant, as the associated p-

value (.048) is less than the 0.05 level of significance. This hypothesis examines the impact of strategic alliance intelligence on system alignment in industrial goods firms. The analysis revealed a significant positive effect, $\beta = .108$, $t(3) = 1.978$, $p = .048$. This result suggests that intelligence derived from strategic alliances positively influences system alignment. Consequently, the null hypothesis is rejected and the alternative hypothesis is accepted, indicating that collaborations and partnerships can enhance the integration and coordination of organisational systems.

DISCUSSION OF FINDINGS

The findings of the study were discussed based on the results obtained from the testing of hypotheses, in alignment with the study's objectives. The discussion also provides significant insights that support existing literature and contribute to the fields of The Resource-Based view (RBV) and Strategic alignment model, particularly within the context of industrial goods firms quoted on the Nigeria Exchange Group. Findings from the analysis of Hypothesis One revealed that customer intelligence has a significant positive effect on the effectiveness of industrial goods firms quoted on the Nigeria Exchange Group. The hypothesis was tested at the 5% level of significance, and the p-value (.008) was lower than the significance threshold. This is statistically expressed as $p\text{-value} = .008 < \alpha = 0.05$. This result aligns with the findings of Chigozie et al. (2024), who established a positive and significant effect of customer intelligence on customer retention in mid-scale and luxury hotels in South-West Nigeria.

The outcome of the study on Hypothesis Two revealed that marketplace intelligence has a significant positive effect on the effectiveness of industrial goods firms quoted on the Nigeria Exchange Group. The hypothesis was tested at the 5% level of significance, and the p-value (.001) was lower than the significance threshold. This is statistically expressed as $p\text{-value} = .001 < \alpha = 0.05$. This result aligns with the findings of Donald and Ebhoaye (2024), who established a positive and significant effect of marketplace intelligence as a competitive strategy for marketing dominance in Lagos State, Nigeria. These findings imply that organisations are effectively gathering and utilising information on market trends, competitors, industry dynamics, and regulatory changes to inform and guide their strategic decisions.

Findings from the study on hypothesis three revealed that strategic alliance intelligence has a significant positive effect on effectiveness among industrial goods firms quoted on the Nigeria Exchange Group. The hypothesis was tested at the 5% level of significance, and the

p-value (.001) was lower than the significance threshold. Statistically, this can be expressed as $p\text{-value} = .001 < \alpha = 0.05$. This result aligns with the study by Ezenwa and Agu (2022), who affirmed a significant positive effect of strategic alliance intelligence on technological know-how in a manufacturing firm in Nigeria. This result implies that firms capable of gathering, analysing, and applying intelligence about their strategic partners such as understanding partner capabilities, monitoring alliance environments, and anticipating risks are better positioned to achieve their set goals.

CONCLUSION

This study investigates the effect of competitive intelligence on the organisational effectiveness of industrial goods firms listed on the Nigerian Exchange Group. The findings highlight the relevance of different dimensions of intelligence, Customer Intelligence, Marketplace Intelligence, and Strategic Alliance Intelligence in enhancing organisational effectiveness, measured. Each dimension of intelligence is discussed in relation to its contribution to The Resource-Based view (RBV) and Strategic alignment model. The study concludes that Customer Intelligence has a statistically significant positive effect on effectiveness of industrial goods firms listed on the Nigerian Exchange Group.

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