

I.A. Onikoyi^{1*}, V.A. Adeyeye²
H.O. Ojodu², C.D. Odeh³

¹Osun State University, Osun State, Nigeria

²Lagos State University, Lagos State, Nigeria

³Ural Federal University, Yekaterinburg, Russia

*e-mail: isomes2011@gmail.com

BUSINESS INTELLIGENCE AND ORGANISATIONAL PERFORMANCE IN MANUFACTURING ORGANISATIONS OF LAGOS METROPOLIS

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Abstract.

Purpose. The purpose of this study is to examine the influence of business intelligence on organizational performance within manufacturing organizations. Specifically, it explores the role of environmental intelligence, consumer intelligence, and business intelligence as drivers of competitive advantage and market share growth.

Design/methodology/approach. A quantitative research design was adopted, using a structured questionnaire as the primary data collection tool. Data were obtained from 150 respondents working in manufacturing organizations. Statistical analysis was conducted to identify correlations between business intelligence dimensions and measures of organizational performance.

Findings. The results reveal that environmental intelligence has a positive correlation with organizational performance, while consumer intelligence significantly influences market share. Moreover, the study finds that business intelligence functions as a key source of competitive advantage in manufacturing firms.

Originality. This research contributes to the growing body of knowledge on strategic information systems by highlighting how business intelligence tools enhance competitiveness and sustainability. The study recommends that organizations develop clear business intelligence objectives aligned with corporate goals to ensure long-term performance improvement.

Keywords: Business intelligence, Organizational performance, Business environment, customer intelligence.

Introduction

In a monopolistically competitive market, company operators, including entrepreneurs and government entities, are tasked with formulating rules and implementing tactics to secure a competitive advantage. To achieve success in the market, governments and corporations must make timely and appropriate judgements within their business strategy. Relevant information is essential for making informed judgements. The increasing significance of information profoundly affects its value, scope, quality, and quantity across many formats. Decisions must be made swiftly, frequently in real time, and typically necessitate automatic assistance. This duty is performed by business intelligence, which serves as a crucial

support tool for decision-making and is an essential component of the everyday operations of managers, analysts, and executives throughout the organisation (Olszak & Ziemba, 2006). The primary aims of business intelligence are to provide interactive data access, permit data manipulation, and empower business managers and analysts to do relevant analysis (Wadie & Mohamed, 2013).

Business intelligence is an essential element of effective business management. They aim to improve managerial decision-making within businesses. A business intelligence system is a complex initiative that incorporates technology and information system applications, greatly enhanced by the analytical and planning capabilities of firms and organisations. It is based on the notion of multidimensionality, en-

abling the analysis of reality from multiple perspectives (Al-Ma, 2013). The necessity for the deployment and utilisation of business intelligence mostly arises from the significant expectations imposed on enterprise management. In a context of intensifying rivalry, corporate managers and analysts must make judgements under time constraints while shouldering significant responsibilities. To make informed decisions, it is essential to provide pertinent and objective information that is readily accessible, with minimal technical complexity, enabling the swift formulation of new requests for additional information aligned with the current business context (Baden-Fuller & Haefliger, 2013).

Business environments are dynamic, requiring businesses to recognise possible threats and opportunities in the external environment through strategic intelligence efforts to maintain survival. Strategic intelligence is essential for the survival of the Nigerian banking sector, which is marked by fierce rivalry. Numerous organisations, including beverage companies, are grappling with stringent new competitive requirements regarding speed, quality, efficiency, and enhanced market share to enhance their competitiveness and adaptability to fulfil client expectations. This is due to the quick evolution of customers' demands, choices, preferences, and awareness. However, alterations in the external business climate have rendered certain beverage firms susceptible to their competitors, compelling some to either downsize their workforce or diminish their number of outlets as a strategy to navigate the fierce rivalry (Fleisher & Bensoussan, 2007).

However, in the absence of a robust intelligence framework within organisations, it is challenging to respond proactively. Alterations in the competitive landscape thus allow for the generation of erroneous information, which undermines the organization's effective and efficient decision-making process. Organisations increasingly depend on information and knowledge, as continuous growth and competitive advantage stem from these resources. This study aims to assess the impact of business information on organisational performance in Nigeria.

Evolving from this, there were three hypotheses formulated for this study

H ₁ :	There is no relationship between environmental intelligence and organizational performance in Nestle Nigeria Plc.
H ₂ :	Consumer intelligence does not have significant influence on organizational Market Share.
H ₃ :	There is no relationship between business intelligence and competitive advantage in Nestle Nigeria Plc

Concept of Business Intelligence

Business Intelligence (BI) encompasses two fundamental conceptions of the term intelligence. The first, however less commonly, pertains to the application of human intelligence in corporate endeavours. Business Intelligence is an emerging field focused on the application of human cognitive abilities and artificial intelligence technology for management and decision-making across many business contexts. The second pertains to intelligence as information esteemed for its significance and timeliness. It comprises specialised knowledge, proficiency, and technology that enhance the administration of both organisational and individual enterprises. Thus, Business Intelligence encompasses a variety of tools and technology designed for data gathering, access improvement, and analysis, aimed at assisting enterprise users in making informed business decisions. The word denotes have a thorough understanding of all elements influencing the company. Companies must possess a comprehensive understanding of elements including consumers, rivals, business partners, the economic climate, and internal processes to make successful and high-quality business decisions. Business Intelligence empowers organisations to make educated decisions (Ranjan, 2009).

The subject of Business Intelligence is a highly relevant topic. Business Intelligence serves as an instrumental tool for decision-making support. It must be determined based on the quantity of information (Pour, 2005). These systems automate and organise data management (Dugas & Stankovic, 2012). Managerial choices in every sector of the economy can be informed by Business Intelligence outputs (Krsak & Tobisova, 2012). These tools are frequently utilised in numerous financial institutions, service providers, and industrial businesses (Pour 2006). In recent years, Business Intelligence tools, intended to enhance decision-making in organisations, have become a crucial component of management (Johansson & Sudzina, 2008). The BI system constitutes a multifaceted endeavour, encompassing technology and applications of information systems that significantly bolster the analytical and planning functions of firms and organisations (Pour & Slansky, 2004).

The marketing management process and the marketing mix may be intricate. Effective marketing planning necessitates intelligence not only on customers but also across a broad range of domains, including product lifecycle and supply chain. Strategic marketers face challenges in obtaining information from various sectors of the business for analysis and decision-making in their strategies. To commence an

outcome-based marketing initiative, access to comparison data is essential. Accessing comparative data that evaluates outcomes, utilisation, and profitability at the customer level is essential. Customer-level analysis facilitates subset analysis, yielding insights for specialised marketing (Rooney, 2004). By obtaining comparison data at the customer level, one gains access to financial, result, and detailed information via drill-down and drill-through activities of business intelligence (Teece, 1996). The data can be analysed through roll-up and roll-down views on several dimensions, such as salesperson, region, county, country, and more categories. Consequently, it is feasible to assess customer profitability, compare sales personnel performance versus established budgets, and possess data to substantiate the value of services alongside targeted marketing initiatives. Business Intelligence provides the requisite flexibility in information availability to facilitate informed decision-making.

Business Intelligence Procedure

Business Intelligence (BI) facilitates informed, data-driven decision-making within the organisation. The most compelling rationale for developing a new roadmap for business intelligence (BI) excellence is to eliminate the technological chaos and makeshift solutions that Information Technology (IT) has faced while attempting to fulfil business needs. Ranjan (2009) asserts that a Business Intelligence (BI) organisation maximally utilises data at each stage of the BI architecture as it undergoes various stages of informational transformation. Data is initially gathered, encompassing metadata such as the creator or originating system, the creation timestamp, the delivery channel, and the sentiment expressed in plain language, among other factors. Olszak and Ziemba (2006) assert that metadata enhance the extraction, transformation, and loading of data by delineating data sources in the structure of data warehouses. Metadata are utilised to automate the generation of summary data and the handling of enquiries. It is essential to guarantee that data is clean for utilisation. Venter and Tustin (2009) assert that the objective of a data warehouse is to furnish comprehensive, timely, accurate, and well-organised information for Business Intelligence (BI) analytical tools. Upon completion, the organisation can leverage the extensive data and present it to users in a comprehensible manner. Deliver predictive scores to customer support staff to ascertain which offers are most likely to produce a good result. Provide analysts with sophisticated visualisation tools to identify trends within millions of

data sets. Deliver a dashboard to the Vice President of Marketing including social media sentiment scores related to the new product.

Olszak and Ziemba (2006) identified a diverse array of beneficiaries of Business Intelligence (BI) systems, including insurance businesses, the oil and mining sectors, security systems, banks, and supermarkets. Financial institutions are among the most prominent sectors employing Business Intelligence (BI) solutions, which also facilitate the evaluation of the profitability of both existing and prospective clients. This lays the groundwork for profitable sales and relationship banking, so optimising sales to high-value clients while reducing costs for low-value clients. This enhances profitability optimisation for innovative goods and services, hence improving value creation in the insurance industry.

Challenges of employing Business Intelligence in organisational performance

Business Intelligence (BI) applications have become the primary investment focus for many Chief Information Officers (CIOs), as noted by Chuah and Wong (2013), and have consistently represented the most essential technology to procure over the previous five years (Gartner, 2007). Notwithstanding the growing interest in Business Intelligence (BI), the efficacy of its deployment remains ambiguous. Johansson and Sudzina (2008) posited that approximately sixty percent of business intelligence systems fail owing to technological, organisational, cultural, and infrastructural obstacles. Moreover, EMC Corporation claimed that numerous Business Intelligence (BI) programs have faltered due to the lack of accessible tools for end users, resulting in inadequate fulfilment of their needs. Chuah and Wong (2013) describe the principal challenge facing Business Intelligence (BI) systems as the costs related to technology, maintenance, and implementation. The second challenge is the increasing number of business users utilising Business Intelligence (BI), especially as we move towards operational intelligence.

The final issue is to implement operational Business Intelligence using the newly accessible data sources. We are observing a significant rise in the volume of data (big data) being processed and stored in data warehouses and experimental fields. This data is utilised for sophisticated advanced, integrated, and streaming analytics. Contemporary data sets in Business Intelligence (BI) markedly diverge from conventional, more strategic or tactical approaches in BI. These significant obstacles give rise to the fourth issue, pertaining to the performance and scalability of

the ecosystem. The integration of operational personnel, operational Business Intelligence (BI), streaming analytics, and big data applications requires that performance be a primary focus for BI implementers, demanding sub-second response times for diverse operational intelligence enquiries while also accommodating more strategic or extended queries. Lupa (1997) suggests that a mixed workload scenario may result in performance problems.

Financial institutions face challenges from big data and must proactively manage and utilise corporate IT to remain competitive or gain an advantage. Corporate intelligence (CI) enables organisations to analyse extensive data to facilitate optimal corporate decision-making. Financial institutions can leverage their extensive databases to provide clear insights that enhance business performance and ensure regulatory compliance (Nemati, 2005). The applications of business intelligence in the financial sector are extensive. Although the Business Intelligence (BI) solution generally encompasses the requisite data for recognising improvement possibilities, considerable work is frequently needed to extract these insights. The work needed to locate relevant data points frequently surpasses the expense of acquiring them. Moldovan (2011) examined 23 financial sectors and identified problems, difficulties, and sources of uncertainty in mining financial data, particularly in ascertaining and confirming short-term trends.

Organisational Performance

This refers to the capacity to attain organisational objectives with greater effectiveness and efficiency. To achieve its objectives effectively and efficiently, an organisation must implement precise methods for assessing management performance. To achieve optimal performance, businesses must recognise the legitimate goals and needs of employees for career progression (Oginni & Omoyele, 2018). Harold (1994) asserts that improving employee performance to achieve organisational objectives can be achieved through suitable incentive systems, including both financial and non-financial rewards. Performance is a critical issue for all companies. The standing of a company within a certain industry, evaluated using several criteria such as gross sales, profit, market share, competitive advantage, and customer ratings. The performance of an industry within an economy is optimally evaluated by the time taken for completion and the costs incurred, relative to the initially anticipated timeline and financial budget, as observed by Bogdan (2011). The term performance will refer to a holistic concept that represents the results of organ-

isational efforts. The effectiveness and efficiency will be assessed as components of performance.

In the views of Oginni and Omoyele (2018) performance revolves around the following deductions in brief. First, performance denotes the efficacy with which an individual executes a task or activity, as well as the capacity to achieve intended outcomes satisfactorily. Effective performance signifies achievement and progress. Second, organisational performance is viewed as a function of an organization's capacity to achieve and sustain equilibrium with its environment. Third, the performance dimension must be streamlined to establish explicit target settings. Quantifiable in both amount and time, and can be effectively recorded in an information system.

Sultan (1997) posits that corporate performance can be assessed through many metrics, including asset base, market share, quality, customer happiness, and profitability. He asserts that certain scholars have expressed pleasure with employing financial metrics to assess corporate success, citing the intensity and character of criticism aimed at traditional accounting methods, which are frequently detrimental to the review process. This study will assess organisational effectiveness through profit metrics.

Literature Review

Jane's research (2013) examines the "Adoption of Business Intelligence Dashboards and Decision Making at Kenya Power," emphasising that Kenya Power has continually excelled in the use of ICT and has made significant investments to fulfil its goals and objectives. An effective internal process substantially contributes to the development and success of any organisation. As a business expands, its data needs also increase. The aggregation and analysis of extensive data sets can be a laborious endeavour. The absence of data in the requisite format at the appropriate time may lead to postponed decision-making. The primary aim of the study was to analyse the advantages of the business intelligence dashboard, the obstacles associated with the BI dashboard system, and the performance ramifications of the new system at Kenya Power. A descriptive survey was conducted utilising a questionnaire and supplementary material. The personnel of Kenya Power completed and submitted the surveys. Qualitative data was collected and analysed utilising computational and statistical software. The research findings indicate that the BI dashboard system has significantly impacted the company and continues to improve business operations at Kenya

Power, despite several substantial difficulties that require attention.

The main aim of Afolabi's (2014) study is to illustrate the importance of adopting Business Intelligence (BI) technologies in Nigeria's higher education industry. The authors offer a methodology for the building and deployment of BI systems at higher education institutions, taking into account their specificities. The discussions focus on the goals and operational areas of BI in Higher Education. Consequently, in this context, the methodology utilised to exploit BI comprises two interrelated phases, specifically. Establishment of a data warehouse and subsequent analysis. A substantial segment of this paper is on elucidating the technology and its prospective benefits if used in the academic sector.

Richards (2014) contends that business intelligence tools have recently garnered significant interest from both scholars and practitioners. Nonetheless, the influence of business intelligence (BI) on corporate performance management (CPM) remains unexamined. To rectify this gap, we executed a comprehensive survey, gathering data from 337 senior managers. The partial least squares approach was utilised to analyse the survey data. Research indicates that the efficacy of Business Intelligence implementation is favourably associated with the efficiency of Corporate Performance Management-related planning and analytical functions. Notably, size and industry sector do not affect the relationship between BI effectiveness and the CPM. This study presents several implications for both philosophy and practice.

Anthony (2015) analysed how business intelligence empowers firms to sustain and develop distinctive competitive advantages by utilising the entire organisation and its networks to produce actionable insights about the environment, encompassing customers, competitors, regulators, technology, and other stakeholders. Given the current environmental shifts in the market, it is essential to examine the extent to which business intelligence methodologies enhance competitive advantage within the insurance sector. The research aimed to determine the correlation between the implementation of business intelligence and competitive advantage in Kenyan insurance companies. This study utilised a descriptive survey methodology. The research population comprised 43 regulated insurance firms in Kenya. Primary data was obtained through the dissemination of questionnaires. The participants included information technology managers, marketing managers, customer service representa-

tives, finance managers, and sales and marketing personnel within the insurance sector. Descriptive statistics were employed to analyse the data, as this study was structured inside a descriptive framework. The mean scores of the Likert scale were utilised to assess the impact of competitive strategies implemented by enterprises. Furthermore, the researcher performed a multiple regression analysis. The results were displayed with tables and figures. The research revealed that several business intelligence strategies have been employed by insurance companies in Kenya to attain a competitive edge. Insurance firms in Kenya have numerous obstacles in utilising business analytics for competitive benefit. The research indicated that the implementation of business information across diverse organisational applications enhanced the competitive advantage of the involved entities. The research advises insurance companies to establish explicit Business Intelligence (BI) objectives that are congruent with the organisations' goals. The firm's objectives and mission Intelligence, aligned with its objectives, should constitute the cornerstone of the Business Intelligence (BI) strategy. Individual responsibilities should be defined at the project's outset. This study advocates for a deeper comprehension of the use of Business Intelligence (BI) technologies inside Kenyan insurance companies. Insurance companies in Kenya should investigate alternate techniques to optimise their utilisation of these systems.

Ruhollah et al. (2014) conducted a study entitled "Evaluation of Business Intelligence Systems on Organisation Performance with Balanced Scorecard Approach," emphasising the significance of information systems in contemporary society, particularly the necessity for managers to utilise systems in business intelligence and organisational performance management. The Board Information System was founded in 1994 in Switzerland to facilitate simultaneous economic expansion and the swift improvement of performance management and business intelligence. It is utilised to enhance efficiency, support management decision-making, execute business intelligence, analyse business traffic, and oversee performance within an integrated framework. This study examines the impact of Board information systems on organisational performance, concentrating on the financial, customer, internal process, and learning and growth dimensions. This research employs an empirical approach utilising both objective and descriptive-analytical methodologies. The attributes and functionalities of the Board information system are initially assessed

through literature and document analysis, followed by an evaluation of its impact on organisational performance via a focus group session and meta-analysis. The findings indicate that the Board information system positively and significantly influences the organisation, encompassing human resources empowerment, organisational structure and processes, risk mitigation, flexibility, communication, time efficiency, decision-making improvement, knowledge sharing, and its pertinence to organisational performance across financial, customer, internal process, and learning and growth dimensions.

The central emphasis is the influence of business intelligence on organisational effectiveness. The aforementioned dimensions were obtained from prior research undertaken by others in the field. The following subjects were analysed: the definition of business intelligence, the business intelligence process, the elements of business intelligence, the strategic significance and benefits of business intelligence, the challenges related to the application of business intelligence in organisational performance, business intelligence practices and competitive advantage, the assessment of business intelligence, competitive intelligence, and organisational performance. The topic was clarified by theoretical and empirical literature. Prior research indicates that the strategic significance of business information influences organisational performance in improving competitiveness, resolving consumer challenges, and promoting innovation.

Dijicks (2012) and Ponomarjovs (2013) both emphasised that data management presents considerable issues for banks. This data, according to Moldovan (2011), may cause confusion and difficulties. Nevertheless, Business Intelligence (BI) enables businesses to analyse and extract insights from this data (Olszak and Ziemba, 2006). The majority of research on this subject has been carried out in diverse places and across multiple business intelligence platforms, with few studies completed in impoverished nations, particularly in Nigeria. Kangogo (2013) contends that the dynamics of the business environment pose various challenges to multiple companies in Nigeria; this research seeks to fill the gap by examining the influence of business intelligence on organisational performance at Nestle Nigeria Plc.

Methodology

Research Design and Population

This study employed a descriptive research design to provide a thorough overview of the factors being investigated. In this study, business intelligence serves as the independent variable (Y), while organisational performance denotes the dependent variable (X). The study population comprised the Lagos office of Nestle Nigeria Plc, encompassing the following Heads of Department: production, purchasing, finance, marketing, and research & development. There are one thousand two hundred (1200) employees in the Cadbury Nigeria Plc office in Lagos. (Source: Student Survey, 2020). The sample size for this research was 150, representing 10% of the study population. A convenience and random sampling methods were employed to the sample size for the study in the designated area.

Mode of Specification

The formula is given as:

$$Y = f(X)$$

Where Y = Organizational Performance

F = Functional Relationship

X = Business Intelligence

Where

The model to be used is shown below:

$$Y = b_1x_1 + b_2x_2 + b_3x_3 + \dots + u$$

The simple linear form is stated below

$$OP = \beta_0 + \beta_1EI + \beta_2CONSUI + \beta_3COMPI + \epsilon_i$$

Where:

OP	=	Organizational Performance
EI	=	Environmental Intelligence
$CONSUI$	=	Consumer Intelligence
$COMPI$	=	Competitive Intelligence
μ	=	Error Term

Results and discussion

Hypotheses Testing

Research Hypothesis One: There is no relationship between environmental intelligence and organizational performance in Nestle Nigeria Plc.

Table 1 – Analysis Measuring the Relationship between Organisational Performance and environmental intelligence

		1	2	3	4	5	6
Organizational overall performance	Pearson Correlation	1					
	Sig. (2-tailed)						
Understanding the changes of Economic situation	Pearson Correlation	.217*	1				
	Sig. (2-tailed)	.017					
Understanding and using the new Technology	Pearson Correlation	.018	.106	1			
	Sig. (2-tailed)	.845	.251				
Understanding the social needs leads	Pearson Correlation	.144	.053	.104			
	Sig. (2-tailed)	.116	.563	.257			
Demographic and Psychological factors of customers information	Pearson Correlation	.140	.501	.290	1		
	Sig. (2-tailed)	.126	.000	.001			
Good knowledge and information about competitors	Pearson Correlation	.221	.427	.101	.281	1	
	Sig. (2-tailed)	.015	.000	.273	.002	.000	
Understanding the direct competition and indirect competitions' activities	Pearson Correlation	.097	.024	.286	.121	.487	1
	Sig. (2-tailed)	.291	.797	.002	.187	.000	.469
Good Knowledge and information about suppliers and distributors	Pearson Correlation	.014	.233	.074	.113	.000	.422
	Sig. (2-tailed)	.875	.010	.423	.220		.000
* Correlation is significant at the 0.05 level (2-tailed). Source: Author's Computation using SPSS 20.0, (2022).							

Table 1 demonstrates a considerable positive correlation between overall organisational success and business intelligence. The correlation value between understanding changes in the economic condition and overall organisational performance is .217. The correlation value between understanding and utilising the new technology is .018. The correlation value between understanding social demands and business is .144. The correlation value between demographic and psychological factors of consumer information is .140. The correlation score for possessing comprehensive knowledge and information about competitors is .221. The correlation value between understanding the activities of direct and indirect competitors is .097. The correlation value

between knowledge and information about suppliers and distributors is .014. Table 1 illustrates that the factors studied indicate a favourable correlation between business intelligence and overall organisational success. The variables exhibited statistical significance at the 95% and 99% confidence levels. This is a substantial association between business intelligence and overall organisational effectiveness. The null hypothesis is rejected; hence, the study concludes that a significant association exists between business intelligence and the overall performance of Nestle Nigeria Plc.

Research Hypothesis Two: Consumer intelligence does not have significant influence on organizational Market Share.

Table 2 – A Summary of the Multiple Regression Analysis of the Relationship between Consumer Intelligence and organizational Market Share

Model	R	R ²	Adjusted R ²	Std. Error of the Estimate
1	.453	.205	.185	.484

*p<0.05 a. Predictors: (Constant), Business Intelligence
Source: Author's Computation using SPSS 20.0, (2022).

Table 2 of the model summary indicates a R^2 value of 0.205. This indicates that business intelligence positively influences organisational market share. This model predicts 20.5% of the variance in organisational

market share by simultaneously considering all factors, indicating that 21% of the variance in market share for Nestle Nigeria Plc can be forecasted from the diverse business intelligence incorporated in the model.

Table 3 – Multiple Regression Analysis Showing Significance of Consumer Intelligence on organisational market share.

Model	Sum of Square	df	Mean Square	F	Sig.
Regression	7.001	3	2.334	9.981	.000 ^b
Residual	27.124	106	.234		
Total	34.125	109			

* $p < 0.05$ a. Dependent Variable: organizational market share.

Source: Author's Computation using SPSS 20.0, (2022).

Table 3 indicates that the business intelligence factors utilised by Nestle Nigeria Plc strongly predict performance levels, $F(3, 116) = 9.981$, $p < 0.05$. The F-statistic demonstrates that the total regression model is statistically significant in terms of goodness

of fit, since $F_{tab}(3, 106)$ surpasses $F_{cal}(9.981)$. As a result, the null hypothesis is dismissed. The research indicates that business intelligence has a substantial beneficial effect on the market share of Nestle Nigeria Plc.

Table 4 – Contribution of each Predictor on Organisation Market Share variables

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
	(Constant)	4.073	.788		5.167	.000
	Understanding the changes of Economic situation leads to market share in Nestle Nigeria Plc	.365	.111	.274	3.285	.001
	Understanding and using the new Technology leads to market share.	.441	.094	.392	4.682	.000
	Understanding the social needs leads to market share	.044	.095	.039	.465	.043

a. Dependent Variable: Business Opportunity

Source: Author's Computation using SPSS 20.0, (2022).

Table 4 illustrates the contribution of the predictors. In this instance, comprehending and utilising the new technology results in business success, yielding a Beta value of .392, $p < .05$, and a t-value of 4.682. Comprehending the alterations in the economic landscape results in a business contribution with a Beta value of .274, $p < .05$, and a t-value of 3.285. Comprehending social requirements contributes to business success, with a Beta value of

.039, $p < .05$, and a t-value of .465. The contribution is statistically significant to the business potential. Consequently, the null hypothesis is rejected, leading to the conclusion that business intelligence positively influences organisational market share at Nestle Nigeria Plc.

Research Hypothesis Three: There is no relationship between Business Intelligence and Competitive Advantage Nestle Nigeria Plc.

Table 5 – Correlations Analysis measuring the relationship between Competitive Advantage and Business Intelligence

		1	2	3	4	5	6	7	8
Competitive Advantage 1	Pearson Correlation	1							
Understanding and using the new Technology 2	Pearson Correlation	.092	1						
Technology should enhance the effectiveness of our overall performance 3	Pearson Correlation	.145	.018	1					
Understanding the social needs 4	Pearson Correlation	.210*	.104	.144	1				
Demographic and Psychological factors of customer's information are critical to business in Nestle Nigeria Plc 5	Pearson Correlation	.123	.290**	.140	.153	1			
Good knowledge and information about competitors 6	Pearson Correlation	.083	.101	.221*	.123	.281**	1		
Understanding the direct competition and indirect competitions, activities leads to organisation performance 7	Pearson Correlation	.322**	.286**	.097	.147	.121	.067	1	
Good Knowledge and information about suppliers and distributors 8	Pearson Correlation	.214*	.074	.014	.274**	.113	.422**	.487**	1
*. Correlation is significant at the 0.05 level (2-tailed).									
**. Correlation is significant at the 0.01 level (2-tailed).									

Table 6 demonstrates a considerable positive correlation between Competitive Advantage and Business Intelligence. The comprehension and use of the new technology exhibit a correlation coefficient of .092 with competitive advantage. The correlation value indicating that technology should boost the efficacy of our total performance is .145. The correlation score for understanding social demands is .210. The demographic and psychological components of client information are crucial to Nestle Nigeria Plc, with a correlation value of 0.123. The correlation value for knowledge and information about rivals is .083. The correlation value between understanding direct and indirect competition and organisational performance is .323, whereas the correlation value for possessing good knowledge and information about suppliers and distributors is .214. Table 6 illustrates that business intelligence is positively correlated with competitive advantage. The variables exhibited statistical significance at the 95% and 99% confidence levels. This is a substantial association between Business Intelligence and competitive advantage. The null hypothesis has been rejected. Consequently, the study shows that a substantial relationship exists between business intelligence and competitive advantage at Nestle Nigeria Plc.

The research investigated the impact of business intelligence on organisational performance at Nestle Nigeria Plc. First, there is relationship between business intelligence and environmental intelligence in Nestle Nigeria Plc. Second, consumer intelligence has significant influence on organizational Market Share. Third, there is relationship between business intelligence and competitive advantage in Nestle Nigeria Plc

The research indicated that the implementation of business intelligence in diverse organisational applications enhanced the organization's competitive edge. The aforementioned results indicate that business intelligence significantly enhances IT and Communication, business planning, process performance monitoring, enterprise resource planning, decision-making, compliance, risk mitigation, customer service, and collaboration platforms, while exerting a moderate influence on knowledge management, sales and marketing, and human resource management.

The research confirmed that the implementation of business intelligence has impacted the competitive advantage of organisations. The effects encompass business transparency, enhanced decision-making, time and cost efficiency, market share acquisition, product innovation, sales and revenue growth, op-

erational efficiency and performance, customer satisfaction, and positive stakeholder relations, including suppliers and customers, while business intelligence moderately fosters organisational motivation.

Conclusion

The study suggests that Business Intelligence (BI) systems contribute to value networks by providing not just financial advantages but also knowledge and other benefits. The survey affirmed that BI systems are a crucial expenditure that organisations must contemplate to maintain competitiveness.

A successful BI venture is evaluated based on its effectiveness in meeting the objectives established by organisations. The report proposes that organisations establish defined business intelligence objectives that

fit with the company's goals. The aims and mission of the BI, along with its alignment to corporate goals, should constitute the BI strategy. Roles for individuals should be defined at the project's inception. This will encompass the IT team, BI users, analysts, and management support. The acquisition and development of the BI tool/asset should be overseen by a comprehensive executive steering committee while being executed by a project team. Consultants also have a significant role during the construction phase. The study advocates for increased awareness regarding the utilisation of Business Intelligence (BI) and emphasises the necessity for organisations to train their personnel in the optimal application of BI systems to ensure effective use for maximum benefit and to achieve a competitive advantage based on the value derived from business intelligence.

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Information about authors:

Onikoyi Idris Adegboyega (corresponding author) – PhD, Associate Professor of Management, Department of Business Administration, Faculty of Management Sciences at Osun State University, (Osogbo, Nigeria, e-mail: isomes2011@gmail.com);

Adeyeye Victor Adebayo – PhD, Associate Professor of Business Management, Department of Business Administration, Faculty of Management Sciences at Lagos State University, of Science and Technology (Ikorodu, Lagos State, Nigeria, e-mail: vicbayoadeyeye@gmail.com);

Ojodu Hameed Omotola – PhD, Associate Professor of Business Management, Department of Business Administration, Faculty of Management Sciences at Lagos State University, of Science and Technology (Ikorodu, Lagos State, Nigeria, e-mail: omotola808@gmail.com);

Callistus Destiny Odeh – PhD student, Institute of Economics and Management at Ural Federal University (Russia, e-mail: kodekh@urfu.ru).