OPTIMIZING BUSINESS PERFORMANCE THROUGH ADVANCED BUSINESS INTELLIGENCE STRATEGIES

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ABSTRACT

The study assessed optimizing business performance through advanced business intelligence strategies. The population of this study consisted of all the staff of MTN Nigeria Ltd. The sample size of this was 291 respondents. The study adopted a correlational research design while stratified random sampling technique was used in selecting the respondents. The instrument for data collection which was tagged "Optimizing Business Performance through Advanced Business Intelligence Strategies Questionnaire (OBPABISQ)" was administered to the respondents and used for the study. Data collected were analyzed using descriptive analysis and Pearson Product Moment Correlation Analysis. From the results of the data analysis, it was observed that Optimizing business performance through advanced business intelligence (BI) strategies is essential in the current competitive environment. Organisations can achieve sustainable development, resilience, and market leadership in the digital era by making business intelligence (BI) a fundamental skill. This allows them to improve efficiency, foster innovation, and prioritise client needs. The study suggested encouraging firms to examine workflows, operational procedures, and performance indicators in order to spot inefficiencies, bottlenecks, and areas that might use improvement. Additionally, company owners have to spend their money on cutting-edge BI platforms, tools, and technologies that fit their demands in terms of scalability, data analytics capabilities, and business needs.

Introduction

In today's highly competitive corporate landscape, organisations are constantly searching for innovative strategies to gain a competitive advantage, improve decision-making processes, and boost overall performance. Contemporary Business Intelligence (BI) methods have advanced to the extent that they empower businesses to attain these goals through the use of data-derived insights for sustained expansion, operational effectiveness, and strategic

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decision-making. Firm intelligence encompasses a range of tools, techniques, and strategies that are utilised to gather, evaluate, and convey data pertaining to a company (Chen et al., 2012). Business intelligence (BI) has progressed from basic reporting tools to sophisticated analytical systems capable of processing large volumes of data in real-time. The integration of artificial intelligence (AI), advanced analytics, and machine learning algorithms has transformed business intelligence (BI), allowing organisations to extract actionable insights from large datasets. The reference for the 2017 study carried out by Wang and Hajli is (Wang & Hajli, 2017).

Advanced business intelligence (BI) approaches enable businesses to make data-driven decisions, rather than depending on intuition or speculation. Organisations can utilise predictive analytics to forecast market trends, identify new opportunities, and manage any hazards (Davenport & Harris, 2007). Moreover, the application of real-time analytics enables timely decision-making, permitting companies to quickly adjust to changing consumer preferences and market dynamics (Liu et al., 2017). Therefore, the use of data to make decisions has become an essential component of modern company strategy, leading to a competitive edge and market dominance. Advanced business intelligence (BI) systems enhance operational efficiency and resource allocation by automating repetitive procedures. By integrating Business Intelligence (BI) platforms and Business Process Management (BPM) technology, organisations can improve productivity and operational efficiency across several divisions. The integration presented facilitates the recognition and alleviation of inefficiencies and restrictions (Sivarajah et al. 2017). Prescriptive analytics enables companies to achieve cost reduction and increased profitability by simplifying the optimisation of supply chain management, inventory control, and procurement activities. The citation is attributed to Chen et al. (2012).

Advanced business intelligence (BI) techniques help organisations obtain a deeper understanding of the behaviours, preferences, and emotions of their customers. By analysing client data, which includes transaction records, online interactions, and feedback, organisations can create tailored product offerings, marketing strategies, and customer experiences. Furthermore, the utilisation of sentiment analysis and social media monitoring enables organisations to detect emerging trends, proactively address consumer discontent, and capitalise on possibilities for customer interaction and loyalty (Liu et al., 2017). Organisations can improve their ability to manage risks and meet regulatory obligations by using advanced business intelligence (BI) technologies. Organisations that integrate business intelligence (BI) technologies into their governance, risk, and compliance (GRC) frameworks can efficiently monitor compliance with industry rules, detect compliance concerns, and reduce operational risks (Davenport & Harris, 2007). Furthermore, businesses may effectively protect their assets and reputation by employing predictive analytics to identify weaknesses, foresee possible risks, and establish precautionary actions (Sivarajah et al., 2017).

Statement of the Problem

In the current and dynamic business landscape, organisations face new challenges and opportunities as a result of technological advancements, greater data accessibility, and growing consumer preferences. Due to the complex nature of this issue, there has been a notable change in focus towards improving business performance. This necessitates the adoption and application of advanced business intelligence (BI) technologies. Many businesses face challenges when it comes to successfully deploying and integrating business intelligence (BI) tools and techniques, despite the increasing acknowledgment of their

importance in improving decision-making, operational efficiency, and competitive advantage. The references cited are Wang and Hajli (2017) and Chen et al. (2014).

When analysing the potential influence of sophisticated business intelligence tactics on improving organisational performance, some notable barriers become apparent. Businesses often struggle to synchronise their business intelligence (BI) initiatives with their strategic goals, resulting in misalignment and subpar outcomes (Watson et al., 2015). Furthermore, continuous investments in infrastructure, data management, and skill enhancement are necessary to adapt to the fast-paced advancements in business intelligence technologies. These advancements bring about financial and organisational difficulties (Kimball et al., 2016). Furthermore, the effective application of business intelligence is consistently impeded by problems pertaining to data quality, the complexity of integration, and the ability to get meaningful insights from large datasets (Liu and Yang, 2019). Furthermore, the incorporation of artificial intelligence, machine learning, and predictive analytics into corporate intelligence frameworks brings forth added intricacies that require careful oversight, encompassing ethical considerations, data privacy issues, and adherence to regulatory requirements. (Marr, 2020).

The main challenge lies in organisations' ability to strategically develop, implement, and manage advanced business intelligence methods to effectively improve operational efficiency. To overcome this challenge, it is imperative to implement a comprehensive approach that integrates technology advancements, cultural shifts within the organisation, strategic planning, and the promotion of ongoing learning and adaptability. Davenport and Harris (2007) as well as LaValle et al. (2011) provide backing for this claim. Given this, the study examines the optimizing business performance through advance business intelligence strategies.

Objective of the Study

The main goal of this research is to improve organisational performance by strategically implementing and deploying modern business intelligence (BI) approaches. To achieve this goal, the following particular objectives are outlined:

1. To examine the relationship between optimizing business performance and advance business intelligence implementation.
2. To evaluate the relationship between optimizing business performance and advance business intelligence competence.
3. To examine the relationship between optimizing business performance and advance business intelligence training and development.

Research Questions

1. Is there any significant relationship between optimizing business performance and advance business intelligence implementation?
2. Is there any significant relationship between optimizing business performance and advance business intelligence training and development?

Research Hypothesis

1. There is no significant relationship between optimizing business performance and advance business intelligence implementation
2. There is no significant relationship between optimizing business performance and advance business intelligence training and development.

Literature Review

Overview of Advance Business Intelligence

Increasingly, it is acknowledged that enhanced business intelligence (BI) is a crucial component for organisations seeking to make strategic decisions founded on data-driven insights. Organisations must utilise modern business intelligence (BI) methods to get a competitive advantage in the current dynamic and competitive business climate. Advanced business intelligence (BI) strategies employ complex tools, technology, and procedures to analyse large amounts of data and produce meaningful insights. These approaches enable businesses to improve operational efficiency, optimise overall performance, manage risks, and promote innovation. Furthermore, enhanced business intelligence (BI) enables organisations to swiftly analyse data in real-time, predict future events, and provide prescriptive recommendations, hence facilitating the timely creation of well-informed decisions (Chen et al., 2012). According to Wang and Xu (2019), advanced business intelligence methods emphasise the seamless integration of data from various sources, including cloud platforms, internal databases, and external repositories. Efficient data administration establishes the basis for precise analytics and enlightening findings by ensuring the accessibility, excellence, and uniformity of data. Organisations can use advanced business intelligence to analyse data and identify intricate relationships, patterns, and trends. This is achieved by employing predictive modelling techniques, artificial intelligence, and machine learning algorithms. The use of analytics capabilities enables the prediction of future trends, the segmentation of consumers into discrete groups, and the execution of focused marketing campaigns. Ross and Kimball published a study in 2013.

According to Few (2012), advanced business intelligence (BI) systems offer user-friendly data visualisation tools and customised interfaces that transform complex data sets into visually appealing and interactive results. Data visualisation capabilities facilitate stakeholders in evaluating information, discerning patterns, and making data-driven decisions. In the face of increasing data breaches and growing concerns about privacy, advanced business intelligence (BI) strategies prioritise strong data security measures, encryption frameworks, and compliance systems. Adherence to legislation and safeguarding data privacy are crucial for maintaining the trust and credibility of a company (Khan et al., 2018). Application of Advanced Business Intelligence Methods:

1. **Strategic Decision-making**: Advanced business intelligence (BI) approaches equip executives and decision-makers with pragmatic and valuable insights, enabling them to formulate strategic plans, optimise resource allocation, and capitalise on expanding market opportunities.
2. **Customer Experience Enhancement**: Advanced business intelligence (BI) utilises the examination of client behaviours, preferences, and feedback to facilitate the development of customised products, services, and experiences tailored to fit the unique needs and preferences of individual customers.

3. **Operational Efficiency Optimization**: Advanced business intelligence (BI) enables businesses to streamline their business processes, enhance their supply chain management, and optimise resource allocation. As a consequence, there is a decrease in expenses, a reduction in waste, and a general enhancement in operational effectiveness (Davenport & Harris, 2007).

4. **Risk Management and Compliance**: Organisations can use advanced business intelligence (BI) approaches to actively identify, assess, and mitigate

risks. This facilitates adherence to regulations and fosters a culture of accountable corporate governance and accountability.

Overview of Business Performance

Business performance is a crucial measure for evaluating the achievement, sustainability, and durability of businesses in all sectors. The evaluation entails an analysis of various aspects of an organisation, such as its operational efficiency, financial health, market competitiveness, and alignment with overarching goals and objectives. The performance of a business is diverse, consisting of various aspects that together contribute to the overall success and competitiveness of an organisation. These dimensions can be broadly categorized as:

1. **Financial Performance**: This dimension evaluates an organization's financial performance, encompassing its profitability, liquidity, solvency, and return on investment (ROI). Crucial factors to take into account are net profit margins, revenue growth rates, asset turnover ratios, and cash flow metrics (Kaplan & Norton, 1996).

2. **Operational Performance**: Organisations that want to optimise resource utilisation, minimise costs, and enhance production must prioritise operational efficiency and effectiveness. Metrics such as process cycle duration, inventory turnover frequency, and capacity utilisation are essential for assessing operational success (Slack et al., 2016).

3. **Customer Performance**: Placing a strong emphasis on prioritising the client is crucial in today's fiercely competitive company landscape. To attain sustainable growth and profitability, businesses should give priority to customer happiness, loyalty, retention rates, and lifetime value (Reichheld, 2003).

4. **Strategic Performance**: Aligning with strategic objectives, vision, and mission is essential for attaining enduring success in the long term. Organisations must assess their success by considering strategic initiatives, market positioning, inventive capabilities, and adaptability to changing market conditions (Kaplan & Norton, 2008).

Multiple factors, including both internal and external elements, influence the performance of a company. Key determinants include:

1. **Leadership and Management Capabilities**: The success of an organisation depends on the fundamental concepts of efficient leadership and management approaches. Leaders must exhibit strategic acumen, excellent judgement, and the ability to inspire and rally teams to achieve common goals (Bass & Riggio, 2006).

2. **Organizational Culture and Structure**: An organisational culture that promotes cooperation, creativity, and adaptability creates an environment that improves performance. Furthermore, the organisational structure has a crucial impact on enabling effective communication, decision-making, and allocation of resources (Schein, 2010).

3. **Technological Capabilities**: In the present age of digitalization, possessing proficient technological abilities is a vital determinant of a firm's success. Organisations should employ emerging technologies such as artificial intelligence, data analytics, and cloud computing to foster innovation, improve efficiency, and achieve a competitive advantage (Brynjolfsson & McAfee, 2014).

4. **Market Dynamics and Competitive Landscape**: Business performance is highly influenced by external factors such as market demand, competitive rivalry, regulatory environment, and macroeconomic conditions. Organisations must skillfully negotiate these intricacies to take advantage of opportunities and reduce risks (Porter, 1985).

Assessing business performance necessitates a systematic approach that incorporates both quantitative and qualitative methodologies. Key measurement tools and methodologies include:

1. **Key Performance Indicators (KPIs)**: Organisations employ Key Performance Indicators (KPIs) to impartially assess performance across various dimensions. Organisations can boost their performance by defining SMART (specific, measurable, achievable, relevant, and time-bound) KPIs, which enable them to evaluate progress, identify areas for improvement, and drive ongoing growth (Parmenter, 2015).

2. **Balanced Scorecard**: Developed by Kaplan and Norton (1996), the Balanced Scorecard framework offers an all-encompassing approach to assessing performance that takes into account financial, operational, customer, and strategic dimensions. The Balanced Scorecard facilitates strategic alignment and enhances decision-making by aligning performance metrics with organisational goals.

3. **Benchmarking**: businesses utilise benchmarking to evaluate their performance metrics in comparison to industry peers, competitors, or high-performing businesses. Benchmarking enables businesses to enhance operational efficiency, customer satisfaction, and market competitiveness by identifying areas of performance deficiency and exemplary practices (Camp, 1989).

Effective corporate performance management is essential for attaining organisational success, competitiveness, and sustainability. Organisations can improve their performance by improving their financial, operational, customer, and strategic elements. The success, competitiveness, and sustainability of an organisation in today's complex and dynamic commercial environment heavily rely on its business performance. Through thorough analysis and improvement of the financial, operational, customer, and strategic aspects, firms can increase profitability, achieve growth, enhance stakeholder value, and align their strategies, ensuring long-term success in a highly competitive global market.

Optimizing Business Performance and Advance Business Intelligence Implementation

Optimising performance is essential in today's competitive corporate environment to ensure continuous growth, promote innovation, and sustain a competitive advantage. Chen et al. (2012) found that the optimisation process is mostly influenced by the strategic use of Business Intelligence (BI) technology. These solutions empower companies to utilise data-driven insights for informed decision-making and enhanced operational efficiency. Corporate intelligence refers to the methods, technology, and tools used to gather, analyse, and disseminate information about a firm, with the aim of aiding in strategic decision-making (Chen et al., 2012). With the exponential growth of data generated by businesses on a daily basis, it is crucial to have the capability to convert this data into meaningful and valuable insights. Business Intelligence (BI) solutions empower firms to gain a comprehensive understanding of their operations, consumer behaviours, market trends, and competitive environments. As a result, this helps businesses to make proactive decisions and reduce risks. The robust benefits of optimizing business performance with business intelligence include:

1. **Informed Decision-Making**: Business intelligence (BI) systems provide prompt and precise information and analysis, enabling decision-makers to make well-informed decisions that align with the organization's objective. (Davenport & Harris, 2007).

2. **Operational Efficiency**: Business Intelligence (BI) helps businesses optimise resource allocation, save expenses, and enhance productivity by simplifying processes and discovering inefficiencies (Wang & Strong, 1996).

3. **Competitive Advantage**: Employing business intelligence enables organisations to acquire information regarding market trends, client preferences, and competitor strategies, thereby fostering innovation and maintaining a competitive edg. (Chen et al., 2012).

4. **Enhanced Customer Experience**: Business intelligence (BI) technology enable organisations to analyse consumer behaviours, preferences, and feedback, facilitating the creation of customised marketing campaigns and improving client satisfaction and loyalty (Liu et al., 2013).

To optimise business performance using advanced business intelligence (BI), businesses should consider the following recommended methods:

1. **Define Clear Objectives**: In order to achieve success in business intelligence, it is crucial to establish clear and specific goals and objectives that align with the organization's priorities and the requirements of stakeholders (Chen et al., 2012).

2. **Invest in Data Governance**: Creating robust data governance frameworks and ensuring data quality, consistency, and security are essential for effective business intelligence (Watson et al., 2007).

3. **Foster a Data-Driven Culture**Encouraging data literacy, providing training, and raising awareness among employees and stakeholders enhances the ability to make well-informed decisions and optimises the use of business intelligenc. (Davenport & Harris, 2007).

4. **Collaborate Across Departments**: Facilitating cross-functional collaboration and communication facilitates the integration of diverse data sources and viewpoints, resulting in comprehensive insights and strategic alignment (Liu et al., 2013).

5. **Monitor, Evaluate, and Iterate**: Regularly monitoring the success of business intelligence (BI), evaluating the outcomes against established key performance indicators (KPIs), and making necessary adjustments to plans based on insights and feedback are of utmost importance. It is imperative to guarantee that the company stays in line with its Embracing modern Business Intelligence is crucial for firms aiming to flourish in the current intricate and competitive business environment. Organisations may improve decision-making, operational efficiency, customer experience, and competitive advantage by utilising business intelligence (BI) tools to convert data into practical insights. Effectively tackling the difficulties linked to the adoption of business intelligence necessitates deliberate strategizing, financial dedication, cooperation, and a dedication to cultivating a culture that relies on data. Organisations may optimise the utilisation of their data, foster innovation, and achieve sustainable success by following to established principles and consistently assessing and adjusting their business intelligence strategy.

Optimizing Business Performance and Advance Business Intelligence Competence

Organizations are continually seeking ways to enhance their performance and gain a competitive edge. Central to this endeavor is the concept of optimizing business performance and advancing business intelligence (BI) competence. Business performance optimization entails a systematic approach to enhancing various facets of organizational operations to achieve desired outcomes efficiently. It encompasses a holistic evaluation of processes, resources, and strategies aimed at maximizing productivity, profitability, and sustainability (Kaplan & Norton, 1996). Key components of business performance optimization include:

1. **Strategic Alignment**: Ensuring that organizational goals, objectives, and strategies are coherent and aligned with market dynamics and stakeholder expectations.

2. **Process Improvement**: Implementing methodologies such as Six Sigma or Total Quality Management (TQM) to streamline operations, eliminate inefficiencies, and enhance productivity.

3. **Resource Allocation**: Efficiently allocating resources, including human capital, financial assets, and technological infrastructure, to optimize performance and facilitate innovation.

Business Intelligence (BI) competence refers to the organization's ability to leverage data-driven insights to inform decision-making, enhance strategic planning, and drive innovation (Chen et al., 2012). Advancing BI competence involves:

1. **Data Collection and Integration**: Establishing robust data collection mechanisms and integrating disparate data sources to create a unified view of organizational performance and market trends.

2. **Data Analysis and Visualization**: Utilizing advanced analytics tools and strategies to analyze data, identify patterns, and visualize insights through intuitive dashboards and reports.

3. **Knowledge Dissemination**: Fostering a culture of data-driven decision-making by disseminating actionable insights across various organizational levels and departments.

The convergence of business performance optimization and BI competence creates a synergistic relationship that empowers organizations to make informed decisions, drive innovation, and achieve sustainable growth (Wang & Hajli, 2017). Strategies for synergizing these concepts include:

1. **Integrated Strategic Planning**: Aligning business performance optimization initiatives with BI capabilities to develop data-driven strategies that address market opportunities and challenges effectively.

2. **Continuous Improvement**: Establishing a feedback loop wherein BI insights inform ongoing performance optimization efforts, enabling organizations to adapt proactively to evolving market dynamics.

3. **Talent Development**: Investing in talent development initiatives focused on enhancing BI skills, analytical capabilities, and performance optimization competencies among employees at all organizational levels.

Technological advancements, including Artificial Intelligence (AI), Machine Learning (ML), and Big Data analytics, are instrumental in advancing BI competence and optimizing

business performance (Davenport & Harris, 2007). Organizations can leverage these technologies by:

1. **Implementing Advanced Analytics Platforms**: Adopting AI-powered analytics platforms to automate data analysis, generate predictive insights, and facilitate real-time decision-making.

2. **Embracing Cloud Computing**: Utilizing cloud-based BI solutions to enhance scalability, agility, and accessibility, enabling organizations to leverage data-driven insights across geographically dispersed teams.

3. **Promoting Innovation**: Cultivating a culture of innovation by encouraging experimentation, collaboration, and knowledge sharing, thereby fostering continuous improvement and competitive advantage.

Maximising business efficiency and enhancing business intelligence expertise are crucial for organisations aiming to succeed in the current competitive business environment. By combining these concepts, organisations may utilise data-driven insights to guide strategic decision-making, improve operational efficiency, and achieve sustainable growth. To achieve these objectives, it is necessary to embrace technology innovations, promote a culture of continual improvement, and engage in talent development. As organisations negotiate the complexity of the digital age, it is crucial to prioritise business performance optimisation and business intelligence (BI) competency. These factors are essential for attaining long-term success and staying ahead of competitors.

Optimizing Business Performance and Advance Business Intelligence Training and Development

Optimizing performance and utilising business intelligence (BI) are crucial for achieving sustainable growth and success in the highly competitive and ever-changing company environment. According to Kaplan & Norton (2006), optimising business performance entails improving operational efficiency, maximising productivity, and accomplishing strategic objectives. It involves a comprehensive approach that combines many aspects of an organisation, such as personnel, technology, procedures, and tactics. By prioritising performance optimisation, firms can enhance operational efficiency, minimise expenses, enhance customer happiness, and attain a competitive advantage in the market. Business Intelligence (BI) is crucial for enhancing business performance by converting unprocessed data into practical insights. Business Intelligence (BI) refers to the utilisation of technologies, tools, and procedures to gather, combine, analyse, and present business-related data (Chen et al., 2012). Through the utilisation of business intelligence (BI) tools and analytics, organisations may acquire useful discernments on market trends, customer behaviour, competitive environment, and internal processes. This empowers them to make well-informed decisions and engage in strategic planning.

In order to fully exploit the capabilities of business intelligence (BI), organisations need to allocate resources towards advanced BI training and development programmes. Advanced business intelligence (BI) training surpasses fundamental data analysis abilities by emphasising intricate analytics approaches, data visualisation, machine learning, and predictive modelling (Davenport & Harris, 2007). Organisations may bolster data-driven decision-making, stimulate innovation, and promote sustainable growth by providing staff with strong business intelligence (BI) capabilities. Strategies for optimizing business performance through advanced bi training and development are:

1. **Skill Enhancement and Knowledge Transfer**: Organizations must prioritize skill enhancement and knowledge transfer through targeted BI training programs. These programs should focus on developing expertise in advanced analytics tools, data visualization strategies, and emerging BI technologies (Laursen & Thorlund, 2010).

2. **Integration of BI into Strategic Planning**: Effective utilization of BI requires integrating it into strategic planning and decision-making processes. Organizations should align BI initiatives with strategic objectives, ensuring that data-driven insights inform organizational strategies, priorities, and actions (Eckerson, 2010).

3. **Collaboration and Cross-Functional Integration**: Optimizing business performance through advanced BI training necessitates fostering collaboration and cross-functional integration. Organizations should encourage collaboration between business units, IT departments, and analytics teams to facilitate knowledge sharing, innovation, and synergy (Wang et al., 2016).

4. **Continuous Monitoring and Evaluation**: To ensure the effectiveness of BI initiatives, organizations must adopt a rigorous approach to continuous monitoring and evaluation. By establishing key performance indicators (KPIs), benchmarks, and metrics, organizations can assess the impact of BI on business performance and identify areas for improvement (Khan et al., 2018).

The combination of enhancing company performance and providing advanced BI training and development has profound consequences for modern organisations. Organisations can improve operational efficiency, foster innovation, and take advantage of emerging opportunities in the digital economy by adopting a strategic approach to business intelligence (Davenport, 2013). Moreover, the increasing need for proficient BI expertise highlights the significance of allocating resources towards employee training and development in order to cultivate a competitive workforce that can effectively navigate intricate business environments. The future of enhancing business performance through advanced BI training and development relies on ongoing innovation, adaptation, and agility. With the growing dependence of organisations on data-driven insights for decision-making and strategy execution, there is an increasing demand for advanced business intelligence capabilities, tools, and processes (Marr, 2015). Organisations may achieve sustainable success, growth, and competitive advantage in an interconnected and data-driven world by adopting a forward-thinking approach to BI training and development.

METHODOLOGY

Research Design

The survey design method was utilized for this study. This approach was considered most appropriate because it helped the researcher to describe, examine, record, analyze and interpret the variables that were found in the study. It is also useful because of the relatively large population from which the information was collected.

Method of Data Collection

Questionnaires were used to gather data because they were deemed acceptable for the study's design due to their larger coverage, more representative sample, adequate time for participants to provide thoughtful answers, and ease of delivery. Likert scale measurements of "strongly agree," "agree," "undecided," "disagree," and "strongly disagree" were used in the data collection tool.

Population of the Study

The population of the study consisted of all the staff of MTN Nigeria Ltd.

Sampling and Sample Size

The study employed convenience sampling, which was selected based on the respondents' availability and willingness to complete the research instrument. A total of 360 staff of MTN Nigeria Ltd made up the sample sizes.

Data Collection Instrument and Validation

The research instrument used for the study was self-structured questionnaire. The questionnaire was tagged "Optimizing Business Performance through Advanced Business Intelligence Strategies Questionnaire (OBPABISQ)" was used to obtain data on the independent and dependent variables presented in both sections A and B of the questionnaire. Congruent, content-based, and criterion-related validity tests were included in the study. The congruent validity was structured based on previous research, the content validity considered the details on the survey, and the criterion-relation validity examined the results from similar participants (Booth, Colomb, Williams, Bizup, & Fitzgerald, 2016).

Data Analysis

The data obtained were analyzed using descriptive and Pearson moment correlation analysis.

RESULTS AND DISCUSSION

Research Question One

Is there any significant relationship between optimizing business performance and advance business intelligence implementation in MNT Nigeria Plc?

Table 1: **Descriptive analysis on the relationship between optimizing business performance and advance business intelligence implementation in MNT Nigeria Plc.**

Variables	X	SD	Skewness	Kurtosis
Implementing advanced business intelligence tools is essential for optimizing business performance.	7.21	1.086	.258	-1.291
There is a direct correlation between the level of advanced business intelligence and the efficiency of business operations.	5.57	.825	.163	-.599
Companies that invest in advanced business intelligence have a competitive advantage over those that do not.	6.56	.905	.385	-.899
Advanced business intelligence tools facilitate better decision-making processes within an organization.	5.57	.821	.149	-.581
Companies that prioritize business intelligence implementation are more adaptable to changing market conditions.	6.58	.908	.353	-.927

Legend: X = Mean; SD = Standard Deviation; N =291
Source: Field Survey 2024

Table 1 presents the summary statistics of relationship between optimizing business performance and advance business intelligence implementation. Based on the result, it was seen that the mean values were 7.21, 5.57, 6.56, 5.57 and 6.58, respectively, while the standard deviation of the variables were 1.086, .825, .905, .821 and .908. Given their means and standard deviation values, it is evident that the mean of all the variables in this study exceed their respective standard deviations values. This implies that the variables are relatively relevant. Thus, implementing advanced business intelligence tools is essential for optimizing business performance. Showing the relationship between optimizing business performance and advance business intelligence implementation is significant. Similarly, the skewness values imply that the variables are positively skewed towards normality. This is based on the fact that they all exhibit positive skewness values. Also, the kurtosis values from the analysis show that the variables are not leptokurtic.

Research Question Two

Is there any significant relationship between optimizing business performance and advance business intelligence training and development in MTN Nigeria Ltd?

Table 2:   Descriptive analysis of the relationship between optimizing business performance and advance business intelligence training and development in MTN Nigeria Ltd

Variables	X	SD	Skewness	Kurtosis
Business Intelligence training enhances our organization's understanding of data-driven decision-making processes.	7.21	1.082	.256	-1.286
Employees with advanced business intelligence training contribute more effectively to strategic planning and execution.	5.56	.825	.147	-.587
Advanced training in business intelligence has improved our organization's operational efficiency.	6.57	.912	.362	-.921
Business intelligence training and development initiatives have positively impacted our organization's bottom line.	6.34	.988	.212	-.531
Investing in advanced business intelligence training programs is essential for future organizational growth.	6.57	.908	.373	-.920

Legend: X = Mean; SD = Standard Deviation; N=291

Source: Field Survey 2024

Table 2 presents the summary statistics of relationship between optimizing business performance and advance business intelligence training and development. Based on the result, it is seen that the mean values were 7.21, 5.56, 6.57, 6.34 and 6.57, respectively, while the standard deviation of the variables were 1.082, .825, .912, .988 and .908. Given their means and standard deviation values, it is evident that the mean of all the variables in this study exceed their respective standard deviations values. This implies that the variables are relatively relevant. Thus, Business Intelligence training enhances our organization's understanding of data-driven decision-making processes. Similarly, the skewness values imply that the variables are positively skewed towards normality. This is based on the fact that they all exhibit positive skewness values. Also, the kurtosis values from the analysis show that the variables are not leptokurtic.

Hypothesis One

There is no significant relationship between optimizing business performance and advance business intelligence implementation. In order to test the hypothesis, Pearson Product Moment Correlation analysis was then used to analyze the data in order to determine the relationship between the two variables (see table 3)

TABLE 3:   Pearson Product Moment Correlation Analysis of the relationship between optimizing business performance and advance business intelligence implementation

Variable	$\sum x$ $\sum y$	$\sum x^2$ $\sum y^2$	$\sum xy$	r
Optimizing Business Performance (x)	9011	270655		
			134663	0.94*
Advance Business Intelligence Implementation (y)	9113	58989		

*Significant at 0.025 level; df =289; N =291; critical r–value = 0.086

Table 3 presents the obtained r-value as (0.94). This value was tested for significance by comparing it with the critical r-value (0.086) at 0.025 levels with 289 degree of freedom. The obtained r-value (0.94) was greater than the critical r-value (0.086). Hence, the result was significant. The result therefore means that there is significant relationship between optimizing business performance and advance business intelligence implementation.

Hypothesis Two

There is no significant relationship between optimizing business performance and advance business intelligence training and development. In order to test the hypothesis, Pearson Product Moment Correlation analysis was then used to analyze the data in order to determine the relationship between the two variables (see table 4)

TABLE 4:   Pearson Product Moment Correlation Analysis of the relationship between optimizing business performance and advance business intelligence training and development

Variable	$\sum x$ $\sum y$	$\sum x^2$ $\sum y^2$	$\sum xy$	r
Optimizing Business Performance (x)	9011	270655		
			141752	0.91*
Advance Business Intelligence Training and Development (y)	9113	58989		

*Significant at 0.025 level; df =289; N =291; critical r–value = 0.086

Table 4 presents the obtained r-value as (0.91). This value was tested for significance by comparing it with the critical r-value (0.086) at 0.025 levels with 289 degree of freedom. The obtained r-value (0.82) was greater than the critical r-value (0.086). Hence, the result was significant. The result therefore means that there is significant relationship between optimizing business performance and advance business intelligence training and development.

Discussion of Findings

The result of the data analysis in tables 1 and 3 sought to find out the relationship between optimizing business performance and advance business intelligence implementation. It was significant due to the fact that the obtained r-value (0.94) was greater than the critical r-value (0.086) at 0.025 level with 289 degree of freedom. This rate of percentage was highly positive and therefore means that there is significant relationship between optimizing business performance and advance business intelligence implementation. The result is in line with Chen et al., (2012), who stated that the optimisation process is primarily motivated by the strategic implementation of Business Intelligence (BI) tools. Equally, these strategies empower organisations to utilise data-driven insights for making informed decisions and enhancing operational efficiency. Continuously monitoring BI performance, evaluating outcomes against predefined metrics, and iterating strategies based on insights and feedback are essential for maintaining alignment with organizational goals and evolving business needs (Wang & Strong, 2016). The findings of the study caused the null hypothesis to be rejected and the alternative to be upheld.

The result of the data analysis in tables 2 and 4 sought to find out the relationship between optimizing business performance and advance business intelligence training and development. It was significant due to the fact that the obtained r-value (0.91) was greater than the critical r-value (0.086) at 0.025 level with 289 degree of freedom. This rate of percentage was highly positive and therefore means that there is significant relationship between optimizing business performance and advance business intelligence training and development. The result is in line with Laursen & Thorlund, (2010), who stated that Organizations must prioritize skill enhancement and knowledge transfer through targeted BI training programs. These programs should focus on developing expertise in advanced analytics tools, data visualization techniques, and emerging BI technologies. The findings of the study caused the null hypothesis to be rejected and the alternative to be upheld.

Conclusion

In today's ever-changing business landscape, the incorporation and implementation of advaned business intelligence (BI) strategies play a crucial role in determining the success and competitiveness of organisations. The examination of enhancing business performance with BI strategies highlights their ability to bring about significant changes in several aspects of operations, decision-making, and customer involvement. Optimizing business performance through advanced business intelligence methods goes beyond simple data analysis. It represents a crucial strategic necessity for organisations aiming to succeed in today's intricate and competitive environment. Organisations can achieve sustainable development, resilience, and market leadership in the digital era by making business intelligence (BI) a fundamental skill. This allows them to improve efficiency, foster innovation, and prioritise client needs.

Recommendations

Optimizing business performance through advanced business intelligence (BI) strategies is essential in the current competitive environment. Utilising data-driven insights, analytics, and technologies can greatly improve decision-making processes, operational efficiency, customer satisfaction, and overall profitability. Based on the outcomes of this study and the subsequent debates, it is recommended that;

1.　　To define key performance indicators (KPIs) relevant to your industry, market, and organizational priorities to track progress and evaluate success.

2.   To evaluate and invest in advanced BI tools, platforms, and technologies that align with your business needs, scalability requirements, and data analytics capabilities.

3.   To leverage BI strategies to gain deeper customer insights, preferences, behaviors, and trends through advanced analytics, segmentation, and personalization techniques.

4.   To analyze operational processes, workflows, and performance metrics to identify inefficiencies, bottlenecks, and opportunities for improvement.

5.   To implement real-time BI analytics, reporting, and monitoring capabilities to enable proactive decision-making, responsiveness, and agility.

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