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## **Implementation of Business Intelligence in Fast Moving Consumer Goods Companies (Case Study: Wings Group Indonesia)**

<sup>1</sup>Meira Rahmadani ✉, <sup>2</sup>Dewi Puspaningtyas Faeni ✉

<sup>1,2</sup> Faculty of Economics and Business, Bhayangkara Jakarta Raya University, Jakarta, Indonesia

**Corresponding Author:** Dewi Puspaningtyas Faeni, **E-mail:** [dewi.puspaningtyas@dsn.ubharajaya.ac.id](mailto:dewi.puspaningtyas@dsn.ubharajaya.ac.id)

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### **| ABSTRACT**

This research aims to analyze the implementation of Business Intelligence (BI) in Fast Moving Consumer Goods (FMCG) companies, with a case study on Wings Group Indonesia. FMCG companies face significant challenges in managing vast and rapidly changing data, which requires intelligent and timely decision-making. The implementation of BI can be a solution to optimize data-driven decisions that are faster and more accurate. Research methods with the research library sourced from e-books and open access e-journals. Qualitative descriptive analysis. The results of this study show that BI provides advantages in terms of operational efficiency, more accurate demand forecasting, and increased customer satisfaction.

### **| KEYWORD:**

*Business Intelligence; Fast Moving Consumer Goods (FMCG); Wings Group Indonesia; Decision Making; Data Management*

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## **1. INTRODUCTION**

In today's era, companies need to use various technologies and tools to improve operational efficiency and decision-making. Some important concepts used to support this include: Data Mining, OLAP (Online Analytical Processing), DSS (Decision Support Systems), Query, Benchmarking, and Final Reporting. By using these tools and techniques, companies can gain deeper insights into the market, performance, as well as existing opportunities and threats. Companies of various ownership types can leverage data analysis techniques to enhance decision-making and business performance. Although private or foreign private companies have more flexibility in adopting the latest technology, state-owned enterprises (BUMN) and regional-owned enterprises (BUMD) can also gain significant benefits in managing national resources and public services (D. P. Faeni et al., 2023).

The Fast-Moving Consumer Goods (FMCG) industry is known for its rapid production and distribution cycles, as well as intense competition. With the rapid development of technology, Fast Moving Consumer Goods (FMCG) companies are faced with the challenge of leveraging the data they possess for smarter and more effective decision-making. Business Intelligence (BI) is a technology used to collect, process, and analyze data to generate information that supports strategic decision-making (D. P. Faeni et al., 2025). This research will examine the implementation of BI at Wings Group Indonesia, a leading Fast Moving Consumer Goods (FMCG) company with a variety of fast-moving consumer products that heavily rely on quick and accurate decision-making

## **2. LITERATURE REVIEW**

One of the most crucial technologies for analyzing business changes within a company or organization is Business Intelligence (Sakas et al., 2019). Business Intelligence (BI) refers to a set of

tools, applications, and technologies that enable the collection, integration, analysis, and presentation of data to support decision-making processes. With BI, companies can gain deep insights from their data, helping to enhance both strategic and operational planning. The OLAP (Online Analytical Processing) approach is widely used in Business Intelligence to handle multidimensional queries, especially in the context of the exponential growth of data creation driven by modern technology and the internet (Patel & Sharma, 2020). The Fast Moving Consumer Goods (FMCG) industry, in particular, has distinct characteristics compared to other sectors, such as the need for rapid distribution, understanding consumer trends, and the requirement to monitor stock in real-time. Therefore, the implementation of BI in the FMCG industry is crucial for predicting product demand, improving distribution efficiency, and optimizing supply chain management. As the FMCG sector often deals with large volumes of data in a short amount of time, Business Intelligence plays a vital role in streamlining various business operations. Specifically, BI helps in areas such as: sales analysis and understanding consumer trends to forecast demand and prioritize products; supply chain optimization by monitoring stock availability and product distribution in real-time; and more accurate production planning, which enables companies to adjust their production processes based on more precise demand projections (R. P. Faeni et al., 2019).

### **3. RESEARCH METHOD**

This literature review article was written using descriptive qualitative methods and library research, which were sourced from online resources like Google Scholar, Mendeley, and other online academic applications. The research method used is literature or library study, which is defined as a series of actions like gathering library data, reading, taking notes, and processing research materials (Zed, 2003). To obtain a theoretical foundation for the problem to be studied, consult books and similar previous research findings (Sarwono, 2006). Library research also refers to a data collection technique by reviewing books, literature, notes, and various reports related to the problem that needs to be solved (Nazir, 2003).

This article's method of gathering data is documentation, which entails looking through books, journals, papers, and other materials for information about topics or variables (Arikunto, 2013). Following the collection of all the data, the following step is for the author to examine the information in order to make a determination (Mulyani & Oktaviani, 2022). To get precise and accurate data analysis results, the author employs critical analytical methodologies. Critical analysis usually starts from the perspective or values believed by the researcher as the subject of the study. One of the author's efforts to make understanding easier is through critical analysis, where experts' opinions are evaluated to prove their validity, and then the meaning and essence of those opinions are extracted (Oktaviani, 2024).

### **4. RESEARCH RESULT**

#### **Organizational Structure**

Wings Group Indonesia is one of the largest Fast-Moving Consumer Goods (FMCG) companies in Indonesia, with a very extensive product portfolio that includes personal care products, food, beverages, and household cleaning products. Like other large companies, Wings Group has a complex organizational structure to manage operations across various product categories and markets. Here is an overview of the organizational structure of Wings Group Indonesia.

#### **Top Management**

At the highest level, Wings Group is led by a management team responsible for directing the overall strategy and operations of the company. Chief Executive Officer (CEO), responsible for the overall operations of Wings Group and ensuring the implementation of the company's strategy. The Board of Directors, consisting of several directors who lead various key functions within the company (Nekmahmud & Fekete-Farkas, 2020).

### **Business Division**

Wings Group has several main business divisions responsible for products in different categories. Each business division is led by a Divisional Director or Business Unit Head, who focuses on the management and development of products in various categories. Personal Care Division (Divisi Perawatan Pribadi), Food & Beverage Division, Home Care Division, Pharmaceutical & Health Division.

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### **Supporting Functions**

Wings Group also has various supporting functions that play a role in supporting the company's daily operations, ensuring smooth operations, and long-term development. Finance, Human Resources, Marketing, Operations & Manufacturing, Logistics & Distribution, Research and Development (R&D), Legal and Compliance, Regional and Local Teams (Wolf & McQuitty, 2013).

### **Local Team and Divisional Managers**

Wings Group is a prominent company operating in various sectors, particularly within the consumer and food industries, with a broad portfolio of products that are well-known throughout Indonesia. The company offers products across several categories, catering to the diverse needs of the Indonesian market (Li et al., 2024).

In the Food Products category, Wings Group is best known for its instant noodles, with Indomie being the most famous brand in Indonesia, offering a wide range of flavors that have become a staple in Indonesian households. Another popular product is ABC Products, which includes instant noodles with local flavors, as well as sweet soy sauce, which has gained immense popularity in Indonesia, and Chili Sauce, known for its distinctive spicy taste. The company also offers Mayonnaise and Salad Dressing, which are frequently used as food complements, enhancing the flavor of various dishes.

In the Household Cleaning Products category, Wings Group provides products such as Wipol, a floor and surface cleaner for homes, and Sally, a detergent brand for washing clothes. Additionally, the company offers Sido Muncul, a brand specializing in herbal medicine and traditional health products, which is also widely recognized for its contribution to wellness and natural remedies. For Personal Care Products, Wings Group offers Shampoo and Soap brands such as Tosca, which focuses on hair care, and Lady's Choice, a body care product line. They also provide Toothpaste, including popular brands like Formula, widely used by Indonesian consumers for oral hygiene. In the Drinks category, Wings Group is known for products like Teh Botol Sosro, a bottled tea beverage that is a favorite refreshment for many Indonesians. The company also offers Pocari Sweat, an electrolyte drink designed to replenish body fluids, catering to the health-conscious market (Eriksson et al., 2021).

Finally, in the Health Products sector, Wings Group offers Medicines and Supplements, with Sido Muncul once again being a prominent brand in this category. Sido Muncul provides health products based on traditional herbal medicine, offering consumers a natural alternative for maintaining health and wellness. Through this wide range of products, Wings Group has firmly established itself as a significant player in the Indonesian market, providing high-quality, accessible products that cater to the various needs of consumers across the country. The business process at Wings Group involves a comprehensive set of stages, each designed to ensure the smooth production and delivery of their products to consumers. The process begins with Research and Development (R&D), where Wings Group invests in creating and improving products to meet consumer needs and market demands. This stage involves identifying new trends, testing formulations, and developing innovative solutions that can provide a competitive edge.

Following R&D, Raw Material Procurement (Sourcing) plays a crucial role in securing the necessary materials for production. Wings Group focuses on sourcing high-quality raw materials at competitive prices, ensuring that the products meet the required standards of quality and safety. The Production Process then takes place, where the raw materials are transformed into finished products. This step involves strict quality control measures to ensure consistency and safety in every product manufactured. Once production is complete, Marketing and Sales come into play. Wings Group uses a variety of marketing strategies to promote their products and reach their target audience. This includes advertising, promotions, and working with retail partners to ensure the products are available to consumers across the country. Financial Management is also an integral part of this process, as it ensures that the company operates within budget, manages costs effectively, and maximizes profits. Customer Service is another essential component, as Wings Group strives to build strong relationships with customers by offering support, addressing concerns, and responding to feedback. The company's Logistics and Shipping process ensures that products are delivered efficiently and on time to customers, retailers, and distributors (Shi et al., 2022).

Sustainability and Social Responsibility are also key factors in the business process, as Wings Group is committed to reducing its environmental impact and contributing positively to society. This includes sustainable sourcing, waste reduction, and supporting social initiatives. Human Resource Management (HRM) is responsible for recruiting, training, and retaining a skilled workforce, which is vital for maintaining the company's competitive advantage. Lastly, Evaluation and Control are conducted regularly to assess the effectiveness of each stage in the business process. Wings Group monitors performance metrics, analyzes outcomes, and implements improvements as needed to ensure continuous growth and success.

Overall, Wings Group has an integrated and efficient system to manage every aspect of its business, from product development to distribution and customer service. Their ability to effectively manage these complex business processes has enabled them to remain one of the major players in the Indonesian market, ensuring long-term success and consumer satisfaction. Wings Group Indonesia, which produces various well-known FMCG products such as food, beverages, and cleaning products, has used BI to improve operational efficiency and predict market trends. The implementation of BI at Wings Group Indonesia is carried out through the integration of data systems from various departments to analyze sales performance and product distribution more comprehensively. The implementation of BI in this company aims to improve operational effectiveness, enhance market demand forecasting, and optimize supply chain management processes. Wings Group Indonesia has implemented Business Intelligence solutions to monitor sales performance and product distribution in real-time. They use an interactive dashboard that allows managers to access sales data and inventory directly. BI is also applied in production planning by

using demand trend analysis and consumer patterns, allowing the company to adjust production to market needs.

The implementation of Business Intelligence (BI) is carried out in several stages, which help streamline operations and enhance decision-making. First, Data Collection and Integration is performed, where Wings Group integrates data from various departments, such as sales, production, and marketing, to create a more comprehensive view of the company's operations. This integration enables the company to break down data silos and gain insights from various sources. The next step is Trend Analysis and Demand Prediction, where Wings Group utilizes BI analytical tools to predict sales trends based on historical data and consumption patterns across different regions. This stage is crucial for planning and adjusting strategies based on anticipated demand. Finally, Data Visualization is employed, where the results of the analysis are presented through an intuitive dashboard. This dashboard is designed to be easily understandable for decision-makers at all levels of the organization, facilitating quick and informed decisions (Choi et al., 2020).

Based on the analysis of BI implementation, Wings Group Indonesia has experienced several key benefits. Operational Efficiency has improved significantly, as the integrated BI system allows the company to manage stock and product distribution more efficiently. This reduces the time and costs previously spent on manual monitoring. Additionally, More Accurate Demand Forecasting is achieved, as BI enables the company to predict product demand with greater accuracy, thus assisting in better production and distribution planning. Better Supply Chain Management has also been realized, as BI helps Wings Group monitor the supply of both raw materials and finished products more effectively, minimizing the risk of stock shortages or surpluses. Furthermore, Faster and More Accurate Decisions are now possible, as the data is more organized and easily accessible, allowing management to make quicker decisions based on reliable data (Pradabwong et al., 2017).

However, despite the many advantages, the implementation of BI comes with its own set of challenges. One of the key obstacles is Data Quality, as the accuracy of BI analysis heavily depends on the available data sources. Non-standardized or non-integrated data can sometimes compromise the reliability of the analysis results. Another challenge is Human Resource Limitations, as the successful use of BI requires employees to possess certain technical skills. Companies must ensure that their workforce is adequately trained to operate the BI system effectively. Lastly, Implementation Costs pose a challenge, as the initial investment required for BI system implementation and its ongoing maintenance can be quite significant. Despite these challenges, the overall benefits of BI outweigh the difficulties, making it a valuable tool for business growth and decision-making (Tajeddini et al., 2023).

## **5. CONCLUSION**

The implementation of Business Intelligence at Wings Group Indonesia has a significantly positive impact on the company's performance, both in terms of operational efficiency, more accurate demand forecasting, and supply chain management. Although there are challenges related to data quality, limited human resources, and implementation costs, the benefits obtained by the company are commensurate with the investment made. Therefore, other Fast Moving Consumer Goods companies can consider the implementation of Business Intelligence to enhance the competitiveness and operational effectiveness of Wings Group Indonesia. Based on the findings of this research, several recommendations for Wings Group Indonesia to optimize the use of BI are:

1. **Data Quality Improvement:** Enhancing the quality and integration of data from various sources to ensure more accurate BI analysis results.

2. Training and Development of Human Resources: Enhancing employee training in the use of the BI system to ensure that they can operate the technology efficiently.
3. Sustainable Investment in BI Technology: To remain competitive, Wings Group Indonesia needs to continue investing in BI system upgrades and technology infrastructure maintenance.

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