

THE IMPORTANCE OF INFORMATION AND THE ROLE OF BUSINESS INTELLIGENCE IN KEY ACCOUNT MANAGEMENT IN THE FMCG INDUSTRY

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Abstract

In the modern business environment of the consumer goods industry, information has become a key resource and the foundation for business decision-making (Davenport & Ronanki, 2018) as well as for building competitive advantage. The aim of this paper is to examine the importance of information and the role of business intelligence in the key account management process. Particular emphasis is placed on the transformation of data into information. As a methodological framework, an interpretive case study based on real-world data was applied, comparing traditional data processing methods with business intelligence tools. The results indicate that, in addition to advanced analytical and visualization tools, automation, process speed, and business insight through key performance indicators, business intelligence enables more efficient monitoring of promotional activities, better consumer understanding through loyalty programs, more precise management of e-commerce, and improved retail price tracking. The discussion revealed that implementing business intelligence does not pose a technical problem. It is concluded that business intelligence significantly enhances collaboration with key customers and provides a foundation for strategic decision-making, while the recommendations highlight the need for developing managers' digital competencies, data integration, and phased implementation of business intelligence tools adapted to the company and the local market

Introduction:-

In today's business environment, the amount of business data is growing exponentially, while their structure is becoming increasingly complex. Without a systematic solution for data processing, this can lead to slow decision-making, incorrect conclusions, and missed opportunities, particularly in the highly dynamic fast-moving consumer goods (FMCG) industry, where speed is often a prerequisite for survival in the market. This industry encompasses a wide range of low-value products that are purchased and consumed quickly, such as food, beverages, personal care items, cleaning products, and similar goods characterized by high turnover, short shelf life, and relatively low profit margins per unit (Investopedia, 2023; Corporate Finance Institute, 2023). Due to a business model based on low margins and large volumes, companies operating in the FMCG industry depend on efficient distribution channels, inventory optimization, and continuous innovation in order to maintain a competitive advantage (Specright, 2025). Channel strategy is largely determined by the exchange of information between manufacturers and retailers, especially within the FMCG sector (Wang, Lou, & Lou, 2024). Sharma et al. (2014) emphasize that data in the FMCG industry gain value only when, through the application of analytical methods, they are transformed into information that enables managers to make high-quality business decisions. Davenport and Prusak (1998) highlight that data become information only when meaning is added to them through processes such as contextualization, categorization, calculation, correction, or condensation. Recent studies further confirm the importance of speed and information support in the FMCG industry. For example, in one of the largest FMCG companies in Indonesia, Suwignjo et al. (2023) demonstrated that as many as 85% of products suffer from problems of overstocking or understocking, which directly leads to losses through increased costs and customer attrition.

Kotler and Keller (2016) emphasize that timely and accurate information represents a key resource in the collaboration between customers and suppliers, as it enables the coordination of activities, reduces uncertainty, and improves the overall efficiency of the supply chain. Of particular value, especially in recent years due to changes in consumer behavior under the influence of global crises (such as the pandemic, geopolitical instability, inflation, etc.), are the data obtained through loyalty programs, which make it possible to track consumer behavior, brand and product loyalty, repeat and related purchases, purchase timing, and preferences. Kumar and Reinartz (2016) point out that data from loyalty programs form the basis for calculating Customer Lifetime Value (CLV), which allows companies to identify the most profitable segments and develop strategies that create long-term value. Based on such insights, personalized promotional activities are developed, enabling direct and effective communication with selected consumer segments. According to the NielsenIQ Shopper Trends study from 2024, as much as 38% of all FMCG purchases in Serbia were realized through promotional activities (NielsenIQ, 2024). This data indicates that promotions are a significant driver of sales in the industry, but it may also signal a considerable cost. Promotional activities in the FMCG industry globally occupy a large share of budgets, yet their effectiveness is often not measured (e.g., Ailawadi & Neslin, 2018; Blattberg & Neslin, 1990). Empirical studies in the FMCG sector show that prices and promotions are among the most important factors shaping consumer behavior. Blattberg et al. (1995) emphasize that price, in combination with promotional activities, has a direct impact on purchasing decisions and sales dynamics.

According to DataReportal – Global Digital Insights (2024), e-commerce accounts for about 17.3% of global FMCG consumption, which represents nearly a 50% increase compared to the pre-COVID-19 pandemic period in 2019, when the share was around 12%. Reports such as E-commerce Success in 2023 and Beyond indicate that e-commerce is becoming an integral part of the customer journey and that brands and retailers should adopt omnichannel strategies based on detailed data, analytics, and an understanding of consumer behavior (NielsenIQ, 2023). Within the FMCG industry, alongside the growing importance of e-commerce, key customers provide the greatest contribution to a company's long-term objectives compared to relationships with other customers (Davies & Ryals, 2014; Feste et al., 2020; Gounaris & Tzempelikos, 2013). Overall organizational performance and the attainment of competitive advantage are directly enhanced by efficient management of cooperation with key customers through strategic key account management (Wang et al., 2024). Research in the field of key account management shows that FMCG companies do not apply a single unified model of key account management; instead, different configurations are developed depending on resources and organizational structure. Speed of communication, digitalization, and professionalization of processes have been recognized as decisive success factors, with information support through business intelligence and digital tools becoming crucial for improving performance in key account management (Herhausen et al., 2022). According to Zupancic (2008), key account managers have a hybrid role, as they

simultaneously perform sales tasks, function as consultants, and act as strategic partners to customers. Workman, Homburg, and Jensen (2003) emphasize that the core competencies of key account managers include coordinating various internal functions, teamwork, and long-term orientation, making them central linking actors between customers and the internal organization. Particular emphasis is placed on proactive customer management, which implies not only responding to requests but also continuously identifying opportunities for added value and recognizing and exploiting potential. Guenzi, Pardo, and Georges (2007) argue that a successful key account manager does not merely react to existing demands but proactively identifies opportunities for creating additional value, thereby strengthening the partnership with the customer. As Davenport and Harris (2017) note, business intelligence represents a key resource for organizations that aim to enhance proactivity and decision-making processes through data. Business intelligence is increasingly recognized as an integral part of modern business structures and as an important tool for improving decision-making. Thanks to business intelligence, companies today can effectively shape their business strategies, make tactical and operational decisions, define pricing policies, manage sales and loyalty programs, plan marketing campaigns, optimize supply chains, and control inventory. The motivation of this study is to demonstrate how the implementation of business intelligence increases organizational efficiency, accelerates and deepens the processing and presentation of information, and thereby enables high-quality, data-driven decision-making. The aim of this study is to develop a dashboard that provides a detailed analysis and comparison of various business variables in order to enable deeper business insights. Specifically, the study employed the Power BI tool and both primary and secondary data collected between January 2024 and July 2025. The dashboard enables users to explore market trends, monitor retail prices, evaluate promotional activities, segment consumers, assess market performance, analyze product-level sales, and track profit margins. The research problem of this case study focused on the implementation of business intelligence in companies, with an emphasis on key customers in the fast-moving consumer goods (FMCG) industry. The study aimed to answer the main research question: What are the conditions required for the implementation of business intelligence in companies, and what benefits does business intelligence bring in cooperation with key customers in the FMCG industry? From this main question, several sub-questions emerged, related to the contribution of business intelligence to decision-making, the obstacles to its implementation, and the benefits highlighted by managers.

Literature review

Foundational work emphasizes that data acquire managerial value only after being transformed into information through contextualization, categorization, and interpretation (Davenport & Prusak, 1998). In contemporary settings, business intelligence (BI) extends this transformation by integrating heterogeneous sources and enabling scalable, repeatable insight generation across reporting, dashboards, and visualization (Davenport & Ronanki, 2018; Corporate Finance Institute, 2023; Investopedia, 2023). This information infrastructure is especially pertinent to fast-moving consumer goods (FMCG), where thin margins and high volumes make speed and accuracy decisive. A robust body of marketing research documents how price and promotion shape demand. The classic synthesis by Blattberg & Neslin (1990) defines key promotion concepts and managerial levers, while Ailawadi & Neslin (2018) revisit the topic from manufacturer, retailer, and consumer perspectives and call for improved measurement of promotional effectiveness. Methodologically, Briesch & Fox (1995) demonstrate how scanner data support construction of price indices, cautioning that index design choices materially affect inference. Empirical regularities are clear: price reductions raise unit sales but do not guarantee proportional growth in value, underscoring the need to evaluate profitability alongside volume and revenue—an emphasis reflected in the present study's dashboard analyses. Key account management (KAM) research links performance to intraorganizational coordination, teamwork, and long-term orientation (Workman, Homburg, & Jensen, 2003) and documents performance effects of KAM practices (Davies & Ryals, 2014). Reviews portray KAM as non-uniform and contingent on resources and organizational design (Zupancic, 2008). More recently, Herhausen et al. (2022) highlight a digital capabilities gap that constrains data-driven marketing and KAM in practice. Together, these studies imply that information systems are not merely supportive but strategically constitutive of effective KAM in FMCG manufacturer–retailer relationships. The rise of e-commerce intensifies these requirements. Global Digital Insights (2024) reports that e-commerce accounts for roughly 17.3% of global FMCG spending—about 50% above 2019—while NielsenIQ (2023, 2024) argues for omnichannel strategies grounded in granular consumer insight and documents the prominence and cost of promotions in Serbia. Supply-chain studies add that visibility shortfalls drive mis-stocking and losses (Suwignjo, Bititci, & Carrie, 2023) and that information sharing shapes channel outcomes in retailer-led settings (Wang, Lou, & Lou, 2024). Practitioner reports (e.g., Specright, 2025) echo the need for automation and specification management to raise speed and reduce errors. Across these streams, the gap is consistent: scholarship specifies what to measure—prices, promotions, segments, and flows—but offers limited guidance on operational integration of heterogeneous FMCG data into everyday decision-making. The present study addresses this gap by demonstrating a Power BI implementation that automates online price tracking, unifies loyalty and e-commerce data, standardizes KPIs, and delivers near-real-time, profit-aware insights for key account decisions.

Methodology

Data were collected on promotional activities, product prices, loyalty programs, and e-commerce. The data are real, obtained from a company engaged in production and sales, as well as from a key customer of the company operating in retail. For the purpose of data protection, the names of the companies are not explicitly disclosed. In addition, certain data will not be visible or will be modified. The analysis focused on the methods of data processing applied in practice by managers responsible for cooperation with key customers, and it presents the ways in which business intelligence performs these tasks, highlighting the benefits of using business intelligence.

Type of research

The research was designed as an interpretative case study, as it enables a detailed understanding of specific business practices in a real business environment, rather than merely statistical modeling. According to Yin (2018), a case study represents an appropriate methodological strategy when the research objective is to answer “how” and “why” questions, and when there is a need to explore a phenomenon more deeply in its natural context. This approach is particularly suitable for the fast-moving consumer goods (FMCG) industry, as it provides insights into the complex relationships between suppliers and key customers. The research was guided by specific research questions derived from the main research question.

110 **Sources and data collection**

111 The research utilized both primary and secondary data sources. Primary data: collected from internal reports and databases of a company engaged
112 in production and sales, as well as from a key customer in the retail sector. These data include promotional activities, product prices, loyalty
113 programs, and e-commerce. Secondary data: obtained from relevant academic literature and industry reports (e.g., NielsenIQ Shopper Trends
114 2024, Statista, retail chain portals). The combination of primary and secondary data enables source triangulation and increases the validity of the
115 findings.

117 **Data processing and analysis**

118 The data were processed in two phases: traditional analytical methods commonly used by key account managers (standard reports, Excel-based
119 analyses, monitoring of promotions and prices). Business intelligence methods used for comparison, including capabilities for data visualization,
120 advanced analytics, and integration from multiple sources.

121 By comparing these two approaches, the study analyzed the benefits of applying business intelligence relative to traditional methods, particularly
122 in terms of speed, accuracy, and the depth of analytical insights.

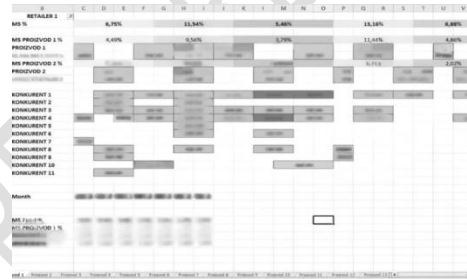
124 **Results and discussion**

125 The purpose of this chapter is to present the results of the case study through a comparative analysis of traditional data processing methods and
126 business intelligence-based methods. Special emphasis is placed on illustrating the differences in processing speed and the depth of insights. The
127 data used are real, originating from companies operating in the fast-moving consumer goods (FMCG) industry, as well as the applied data
128 processing methodologies.

129 A basic sales report for a particular product sold through e-commerce contains fundamental data and sales indicators. The basic data include
130 product name, time period, status, product group, product code, and barcode. Sales indicators show unit sales, sales by value, sales per kilogram
131 or liter, and sales by region and city. The breadth of consumer-related data represents a key resource for segmentation and personalization, while
132 e-commerce enables their immediate application in the digital environment.

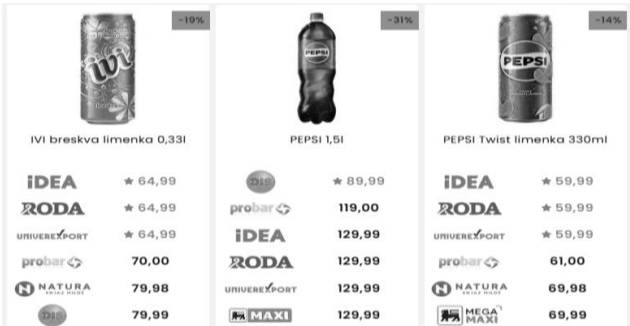
133 Loyalty programs, as well as e-commerce, provide a large volume and an even wider range of data on consumers and their purchasing habits and
134 preferences. Unlike e-commerce, loyalty program data are collected directly in stores through applications. With the support of business
135 intelligence, loyalty programs cease to function merely as an operational mechanism for rewarding customers and evolve into a strategic
136 instrument.

137 Figure 1. illustrates one of the possible approaches to monitoring the results of price promotions within a retail chain for a specific product of a
138 given company. The analysis covers key parameters relevant to the evaluation of promotional activities, such as promotional price, sales value
139 and volume, percentage share in total sales, competitor activities, segmentation, and an overview of results on a weekly and monthly basis. The
140 tabular presentation is organized so that each page tracks a different product. Considering that an average company portfolio can include up to
141 one hundred different products, this demonstrates that the evaluation of price promotions requires significant operational work, followed by
142 deeper analysis of the results in order to derive insights that can improve performance.



143 Figure 1. Model for Monitoring the Results of Price Promotions

144 The monitoring of retail product prices can be carried out through two main approaches: internal and external. The internal approach involves the
145 collection and processing of product prices by relying on a company's own resources, typically sales representatives who manually record
146 product prices in practice. The external approach, on the other hand, includes the use of available online applications or subscription services
147 offered by specialized companies.



149 Figure 2. Overview of Prices in the Beverages Category – Carbonated Drinks (cenoteka.rs).

The dashboard shown in Figure 3 provides a visual representation and access to key reports that the company identified as business-relevant. For this report, Power BI was used. The displayed dashboard includes reports on promotions, loyalty programs, price tracking, e-commerce, and sales data, along with the impact of various variables such as prices, promotions, loyalty programs, and other significant factors



Figure 3. Business Intelligence Dashboard Report

The promotional report offers insights into the evaluation of all promotions and provides an in-depth view of consumer data related to promotional purchases. This enables identification and segmentation by gender, age, location, store, purchase time, average basket value, complementary products most frequently bought alongside the promotional product, the percentage of consumers who purchased the product within a given period, repeat purchases, and many other data points that can be generated from the database. It is important to note that data can be displayed both in quantitative and percentage form. To protect consumer privacy, the available databases do not include personal data; instead, consumers are categorized into predefined segments.

Within the promotional reports, further distinctions are made between price-based and non-price promotions. An example of a detailed report on a price promotion for a specific product is explained. This report covers a wide range of parameters, including sales value and volume, comparative results with previous price promotions, evaluation of outcomes based on relevant parameters (price, period, competition), profitability of the promotion, competitor activities during the same period, advertising methods, and discount percentages. In addition, other factors such as the time of the month, seasonality, weatherconditions, competitor activities, and other relevant parameters can be included, providing deeper analysis and supporting more precise conclusions and decisions.

It is particularly important to emphasize that the time required to generate the report is very short. The system allows modification of the visual display of data, selection of parameters for analysis, comparative presentation, and other functionalities. Database updates are fully automated and do not disrupt the workflow, as updates can be scheduled outside working hours.

The presented results confirm that business intelligence reduces the operational workload of managers, increases the efficiency of both managers and the organization as a whole, provides deeper insights into information, and delivers strategic understanding of the profitability of promotions and their role in long-term planning of relationships with key customers. Unlike traditional methods, the possibility of error is minimized. Business intelligence also provides a unified perspective on results, tailored to business objectives and key organizational indicators, thereby avoiding inconsistent approaches and subjective interpretations.

In Figure 4, a price-tracking report is presented. The report consists of five different pages. On the page titled "Product Overview", an example of price monitoring is shown for a randomly selected product: Vileda Tip Top Sponge 3/1. The report displays the regular price and the actual shelf price of the product (either regular or promotional at a given time) across different retailers, as well as the daily price history from the beginning of the current year. In addition, the report records the number of days the product was on promotion, the total number of conducted promotions, and the basic indicators of price trends. The report also includes parameters such as price index, changes compared to the previous price record, minimum and maximum percentage discount, average discount level, and identification of significant discrepancies among retailers and products. Beyond these, the report offers a range of additional customizable options, enabling detailed and flexible analysis of price dynamics on the market.

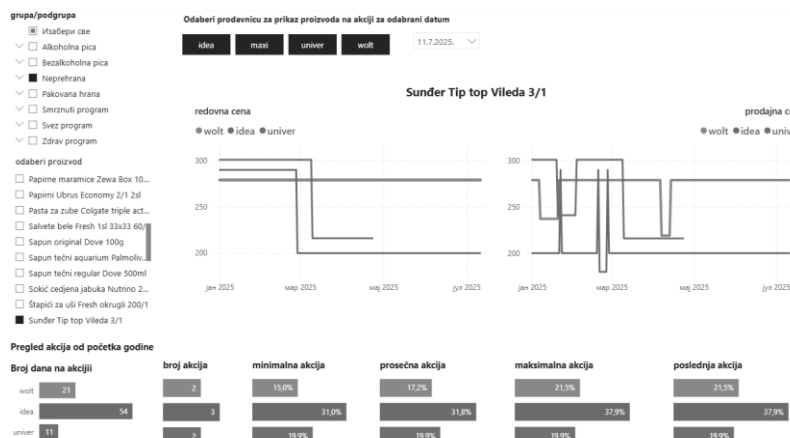


Figure 4. Monitoring Retail Prices Using Business Intelligence

With the implementation of business intelligence, the price-tracking process becomes significantly more efficient. Data available on public websites and retailers' online stores can be automatically collected, stored in databases, and updated in real time, while the company itself defines which products and retailers it wants to monitor. Based on the database, further data processing is enabled, including more complex calculations, indexing, comparative views by retailer for a specific product, or price comparisons against competitors. The benefits for organizations include resource savings, process automation, increased frequency of monitoring (as prices can be tracked daily without additional data processing), and minimized risk of errors.

Within the e-commerce report, it is possible to automatically track all transactions related to the organization's products, along with all accompanying transaction data. The information to be monitored can be customized according to the organization's needs, providing an opportunity to observe both general characteristics and specific details. In the context of e-commerce, business intelligence ensures highly precise market segmentation, with characteristics by regions, cities, and smaller areas, as well as detailed data related to purchased products. This leads to greater efficiency, which in turn has a positive impact on sales and overall profitability.

Loyalty programs provide even deeper insights, including data about consumers themselves, enabling consumer profiling by product, city, and region. Since loyal customers generate more than half of the turnover of major retail chains, the relevance of data obtained through loyalty programs is unquestionable. By applying business intelligence, loyalty data combined with promotional and e-commerce data can provide organizations with a strategic advantage, allowing precise resource allocation and ultimately driving profitability growth.

Within the sales reports, a wide range of parameters important for business performance can be compared. In the following example, the correlation between retail product price and consumer sales is presented graphically.

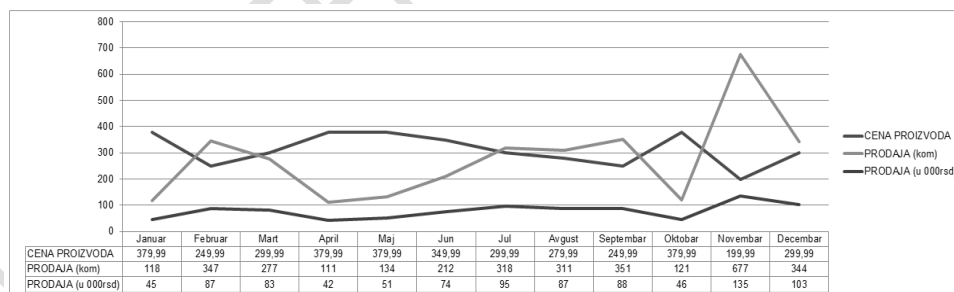


Figure 5. Graphical Representation of the Correlation Between Price and Consumer Sales

From Figure 5, the impact of prices can be clearly observed not only on unit demand but also on sales value. Although a price reduction almost always leads to an increase in unit sales, this does not necessarily mean that sales value will grow proportionally, as the presented example demonstrates. The analysis shows that a price reduction of about 8% results in a 75% increase in sales, while a reduction of 21% brings a 159% increase. However, an additional reduction of 5% (a total of 26%) does not generate a proportional increase, as it results in only a 157% growth. More drastic reductions of 34% yield a significant growth of 188%, while a reduction of around 47% produces an even stronger effect on demand, with sales increasing by 460%. These results provide insight that a 26% reduction does not bring additional sales compared to a 21% reduction. Such findings clearly indicate that the evaluation of price reduction effects cannot rely solely on volume and value indicators but must also include at least the profitability parameter.

Conclusion

Based on the presented analyses, the decision to implement business intelligence in companies represents a logical and justified strategic direction. Although technical obstacles are almost non-existent, the key challenges relate to human and organizational factors. Research indicates that the inability of a significant number of managers to precisely define key indicators is not the result of a lack of expertise in their field, but rather a lack of knowledge about the capabilities offered by business intelligence tools. For the implementation of business intelligence to have

full meaning, it is necessary for a company to possess a large volume of data, to be focused on improving existing reporting systems, or to aim to view its business operations from a completely new perspective.

Practice clearly suggests that companies should invest in developing the digital competencies of their managers so that they can understand the potential of business intelligence and recognize key indicators as strategic instruments rather than merely operational measures. It is essential to strive for the integration of data from various sources into a unified system that enables a comprehensive view of business performance. The process of implementing business intelligence is most rationally carried out gradually, starting with basic analytics, followed by visualization, and then advanced tools. Business intelligence should be understood as a strategic foundation for decision-making that shapes long-term partnerships, allocation of promotional budgets, and assortment development.

The limitations of this study, in addition to the confidentiality of data due to business information protection, open avenues for future research. Regarding sample size, the research is based on a limited number of cases, which does not allow for full generalization of the results. It would be particularly useful to empirically examine the extent to which the development of managers' digital competencies directly influences success in negotiations with key customers, as well as the actual impact of integrated business intelligence on profitability and long-term consumer loyalty. Further research could also explore the potential of personalized business intelligence models developed for specific sectors within the FMCG industry. In this way, beyond practical implications, the theoretical framework on the role of business intelligence in modern management could be further enriched. A notable limitation lies in the specificity of the context—the findings relate primarily to the FMCG industry in Serbia and may not be fully applicable to other sectors or markets. Nevertheless, the study provides valuable insights into practice and contributes to a better understanding of the conditions for implementing business intelligence in cooperation with key customers. These limitations do not diminish the relevance of the findings; rather, they offer clear guidelines for future research with larger samples and comparative analyses.

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