

The importance of KPIs on Pharmaceutical Marketing Effectiveness

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Abstract. In the pharmaceutical industry, the marketing team plays a crucial role in facilitating the exchange of scientific information between the company and healthcare professionals, ensuring the correct and ethical dissemination of information about products, therapies, and clinical studies. The pharmaceutical industry is a national strategic economic partner and its performance is influenced by factors such as the level of innovation, the legislative framework, the marketing strategies adopted, and the efficiency of internal processes. The process of evaluating and improving performance is essential for maintaining the durability and sustainability of an organization, and its efficiency largely depends on the correct choice of performance indicators. The objective of this study is to analyze the importance of KPIs in evaluating the efficiency of marketing strategies from the perspective of pharmaceutical marketing teams. A survey was conducted among 68 participants from 30 pharmaceutical companies in Romania, collecting data on the performance indicators used in marketing and the marketing strategies that have the greatest impact on these indicators. The results show the most used performance indicators are market share (22%), healthcare professionals (HCPs) engagement (18%) and company turnover (17%). Over 70% of the level of these indicators is achieved through marketing strategies involving face-to-face interaction with healthcare professionals, especially medical visits and organizing scientific conferences, while the remaining 30% is reached through digital marketing strategies. The study demonstrates the contribution of the performance indicators in pharmaceutical companies to the efficiency of the marketing strategies, as well as the necessity of effective interactions with healthcare professionals to achieve strategic marketing objectives.

Keywords: key performance indicators (KPIs), pharmaceutical industrial, marketing team, marketing strategies, healthcare professionals (HCPs)

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Introduction

The pharmaceutical industry is an essential sector in healthcare that contributes significantly both to the global economy and to the quality of life of the population through various avenues such as medical innovation, disease prevention and treatment, increased life expectancy, as well as through job creation and economic development. According to the EFPIA (European Federation of Pharmaceutical Industries and Associations) report in 2024, the pharmaceutical industry is considered one of the top-performing sectors at a high technological level, maintaining future competitiveness in the global economy. According to the analysis by the European Commission that monitors research and development investments (EU Industrial R&D Investment Scoreboard) in 2024, the pharmaceutical industry invested €258 billion in the R&D sector, representing 20.5% of global expenditures [1]. High research

costs are due to the unique complexity of this sector, and companies operating in this field also face other challenges, such as strict regulations regarding pharmaceutical marketing, market and consumer dynamics, as well as the complexity of production processes. These challenges differentiate the pharmaceutical sector from other sectors that require agile performance monitoring through key performance indicators. According to a analysis conducted by McKinsey & Company in 2022, it is highlighted that companies reach an approximately 21% higher success rate if they effectively monitor their performance indicators when launching new medications.

Literature review

Performance measurement has been widely explored by numerous researchers. According to Neely et al., it is the process of quantifying actions, where measurement is the act of assigning numerical values, and actions correspond to performance. They emphasize that performance measures should capture both the efficiency and effectiveness of these actions and allow organizations to measure progress toward strategic objectives and goals [2], [3], [4]. According to Norton & Kaplan, successful organizations are those that skillfully manage these challenges, leveraging the lessons learned and implementing best practices in selecting, monitoring, and adjusting KPIs [5].

Measuring and improving performance depend directly on the proper selection of models and performance indicators [5]. Previous research has highlighted a positive relationship between managerial perception and the implementation of key performance indicators (KPIs) within organizations [6]. Sawang investigated the correlation between perceived importance and the actual use of financial and non-financial indicators in evaluating the technical and administrative performance of innovation in SMEs in Thailand [7]. Jovanovic & Krivokapic identified key indicators for each perspective of the Balanced Scorecard (BSC), while Delgado & Santiago proposed a set of KPIs considered essential for TETRA operators to assess whether the services provided meet the quality requirements set by end users [8], [9]. In their comprehensive analysis, Franco-Santos et al. propose the integration of qualitative and quantitative performance indicators [10].

In 2014, Haddadi & Yaghoobi developed a framework to enable the identification and prioritization of key performance indicators (KPIs) that a company should monitor to define and measure progress against its organizational objectives. The authors combined the Balanced Scorecard (BSC) methodology, which provides a multi-perspective view of performance, with the Analytic Hierarchy Process (AHP), a structured technique for analyzing complex decisions. First, the organization's objectives were established in relation to the four perspectives of the BSC framework. Subsequently, relevant performance indicators were identified, and the company's senior employees conducted pairwise comparisons using standard AHP questionnaires. This approach allowed the determination of weights for each indicators and their ranking according to their perceived importance, thus contributing to the clear prioritization of the key performance indicators (KPIs) within the organization [11].

The results of a 2020 literature review by Asih et al., showed that focusing on KPIs helped companies in improving customer satisfaction and service quality, education, products, business processes, maintenance, in reducing environmental issues, setting control objectives, increasing productivity, safety, and even developing prototypes for optimal organizational performance [12].

In 2024, Mtau et al. considered that regardless of whether an organization operates in the SaaS sector or another industry, one thing remains constant: any identified KPI must reflect what is truly important. For this reason, key performance indicators serve as a solid starting point for developing an effective data analysis strategy, provided they are defined in relation to the business model and industry specifics. Companies can benefit from using dashboards built on critical reports to monitor these KPIs [13].

Key performance indicators in the pharmaceutical sector are tailored to the specifics of each branch of the industry, each having its own objectives and distinct evaluation criteria. These KPIs are used to monitor various aspects of activity, from the efficiency of research and development processes, to productivity in manufacturing, the effectiveness of marketing and sales strategies, and the robustness of compliance measures with regulations and safety protocols.

This research will focus on performance indicators specific to marketing strategies, to highlight their role in evaluating campaign effectiveness, optimizing promotional processes, and aligning business objectives with the organization's strategic goals. Studies in the specialized literature regarding marketing strategies in the pharmaceutical field emphasize the interaction between healthcare professionals and the marketing teams of pharmaceutical companies. Observational research indicates that doctors have a favorable perception of these representatives, considering them valuable sources of professional information and financial support [14].

The transformations in the digital environment have led pharmaceutical companies to reconfigure their sales and marketing strategies, shifting from traditional channels focused on direct relationships with doctors, to digital strategies that emphasize the dissemination of scientific information, public education, and support for

medical decisions through specialized and easily accessible online content. This change reflects an adaptation to new technological and social realities, where advertising and information play a crucial role in influencing prescribing decisions.

Methodology

The study methodology involved a quantitative, exploratory, and descriptive approach to collect data from representatives of the pharmaceutical industry. The main objectives of the study were: to identify the marketing strategies used, to identify the most relevant and frequently used performance indicators in pharmaceutical companies; and to identify the correlation between marketing strategies used and their impact on performance indicators.

Based on these objectives, the following hypotheses were formulated:

H1: There is a significant correlation between the type of marketing strategies used and the performance indicators achieved by pharmaceutical companies.

H2: The intensity of marketing activities (measured through frequency and diversity of strategies) positively influences overall organizational performance.

H3: The consistent use of performance indicators contributes to the optimization of marketing strategies within pharmaceutical companies.

A structured questionnaire was created using Google Forms to ensure easy access and standardized responses. The questionnaire included 20 questions, a mix of closed-ended questions, rating scale questions, and multiple-choice questions to capture quantitative information while maintaining consistency in data collection. The questionnaire was distributed between January 2025 and May 2025. The survey targeted actively engaged in pharmaceutical industry (approximately 30 pharmaceutical companies in Romania, including directors (general, marketing, sales), managers (area, product, client) and representatives (medical & sales) and all responses were collected anonymously. Participants were recruited through professional network, industry conferences and online platforms. This recruitment approach ensured the inclusion of participants directly involved in marketing and sales activities within pharmaceutical companies.

A total of 68 valid responses were collected and included in the final analysis

The data were processed and analyzed using the statistical tools available in Google Forms, focusing on frequency distributions and percentage analyses to identify trends, correlations, and patterns in the marketing practices and performance indicators reported by respondents.

Results and further discussions

The questionnaire was applied to 68 respondents working in the pharmaceutical industry in marketing and sales, from approximately 30 pharmaceutical companies in Romania. Table 1 shows that most respondents (67%) had between 2 and 10 years of experience, 16% of respondents had between 10 and 20 years of experience, and only 16% of respondents had less than 2 years of experience in their companies:

Tabel 1: Seniority and current position

Category	Type	Percentage (%)
Seniority	<2	16
	2-10	67
	11-20	16
	21-30	1
Position	Representative (medical & sales)	38
	Manager (area, client, product)	42
	Director (general, sales and marketing)	20

Source: Author's own contribution

Regarding the position they held, 38% of respondents were sales and medical representatives, 42% of respondents held managerial positions (area, customer or product manager), and 20% held director positions (general, sales, marketing) within their organizations.

For this research, products from the pharmaceutical industry were grouped into two categories: (1) pharmaceutical products (OTC drugs, RX drugs, dietary supplements, and other similar products) and (2) medical devices (apparatus, equipment, and consumables used in prevention, diagnosis, or treatment).

Regarding the activity segment in the pharmaceutical industry, the collected data indicate the following distribution presented in Figure 1:

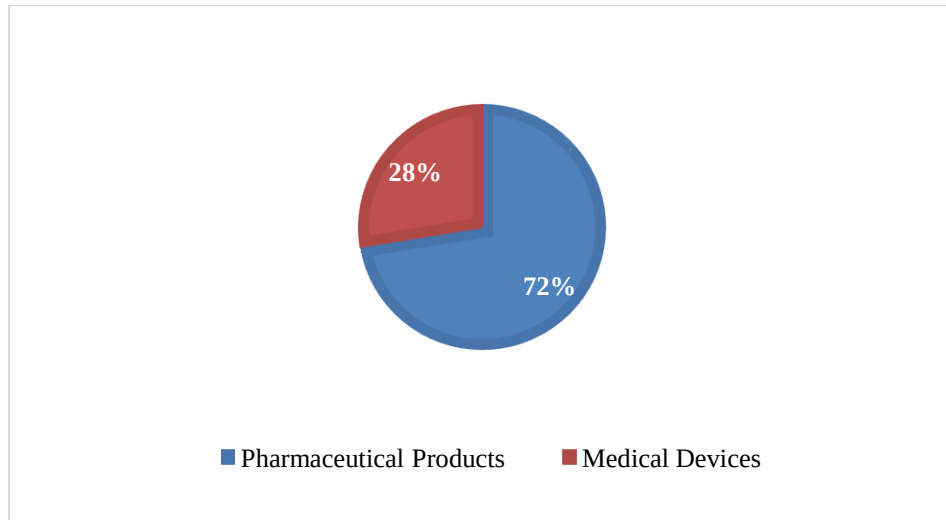


Figure 1: Distribution of participants by pharmaceutical industry segment

Source: Author's own contribution

Figure 1 also shows that the majority of participants work in the pharmaceuticals sector at 72% and only 28% are in the medical devices sector.

Regarding the main target audience, their distribution is presented in Figure 2.

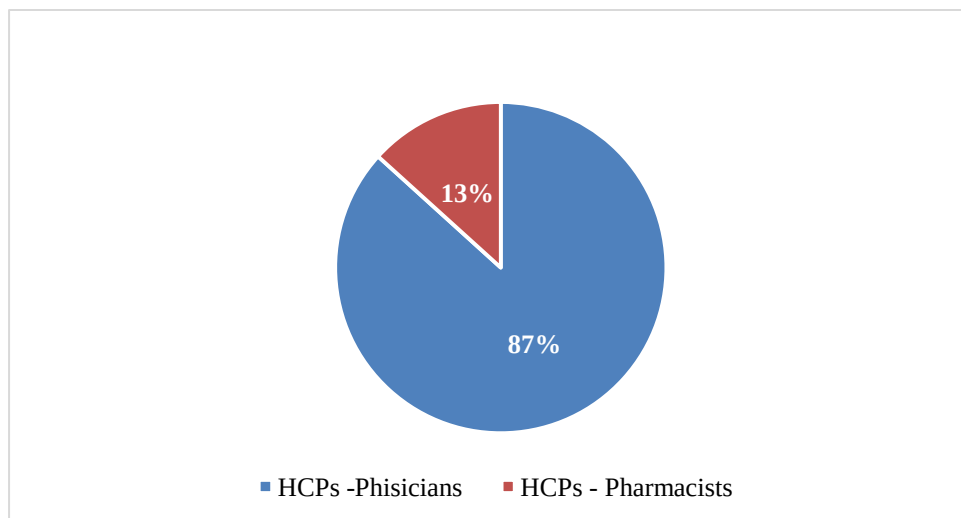


Figure 2: Distribution of the target audience

Source: Author's own contribution

The data show that the doctor is the central figure in the promotion strategy for most companies (86.8%). This reflects the essential role that doctors play in the therapeutic decision and in the recommendation of pharmaceutical products. Pharmacists, although important in patient counseling and in the promotion of OTC products and supplements, are targeted in a much smaller proportion (13.2%). This may suggest either a less aggressive strategy in the retail area or a focus on products that require a doctor's recommendation.

The main marketing strategies used by pharmaceutical companies to interact with healthcare professionals, are presented in Tabel 2.

Tabel 2: Marketing strategies used

Marketing strategies used	Procente, %
Medical visits	91.3
Conferences and medical events	71
Printed Journal	30.9
Digital, TV, radio advertising	41.2
Email marketing	39.7
Social media	47.1
Website	36.8
Webinars and virtual events	51.5

Source: Author's own contribution

From Tabel 2 it is clear that most pharmaceutical companies use traditional marketing channels after the pandemic as follows: medical visits (91.3%) and medical conferences and events (71%). Also, most pharmaceutical companies use digital marketing channels after the pandemic as follows: webinars and virtual events (51.5%), followed by social media (47.1%). Other hybrid marketing channels (digital and traditional) used by the pharmaceutical company are digital, TV and radio advertisements (41.2%), medical journals, (30.9%), email marketing (39.7%) and website (36.8%). The analyzed data shows that most pharmaceutical companies have adopted both digital and traditional marketing channels, each recording usage percentages of over 30%.

Figure 3 presents the results of the survey on KPIs used by pharmaceutical companies to evaluate the performance of marketing activities and to adjust strategies according to market needs.

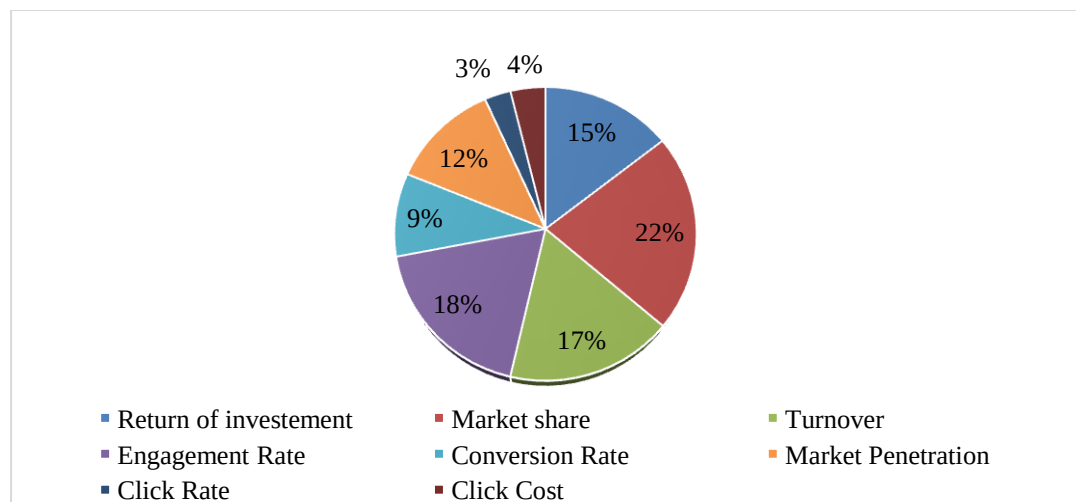


Figure 3:KPIs for measuring performance in pharmaceutical marketing

Source: Author's own contribution

From Figure 3, it is clear that market share (22%) is the most used KPI by pharmaceutical companies, followed by engagement rate (18%) and turnover (17%). Return on investment (ROI) as a key performance indicator is used by 15% of pharmaceutical companies, which indicates financial efficiency.

In Figure 4, the results of the impact of marketing channels on performance indicators survey clearly indicate that face-to-face interactions medical visits and medical conferences and events remain crucial in achieving the effectiveness of key performance indicators (KPIs), accounting for approximately 80% of total performance. While digital channels (social media and webinars) remain complementary and effective in supporting engagement, they contributing to increased sales and market penetration.

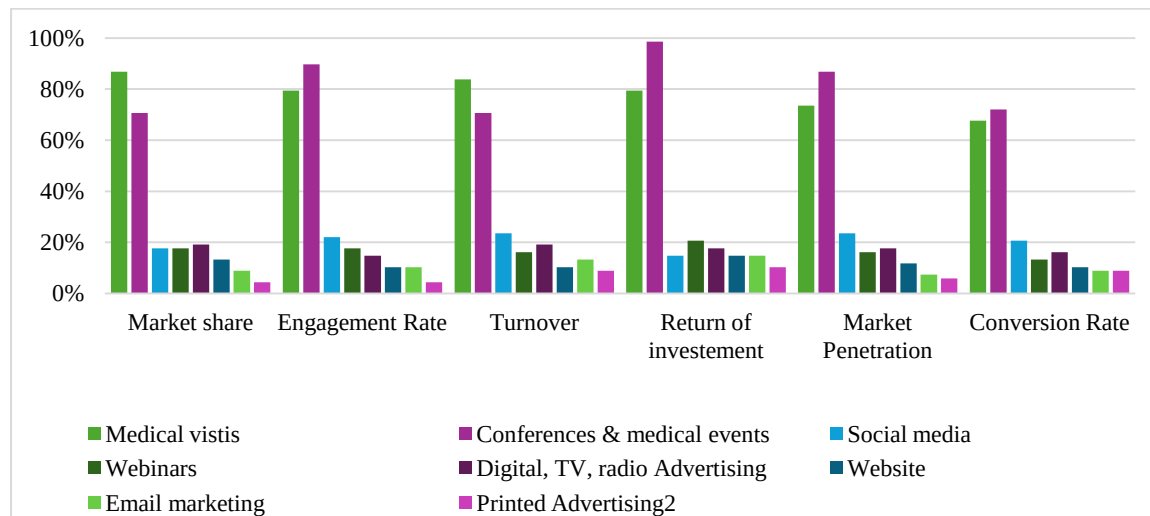


Figure 4: The impact of marketing channels on performance indicators

Source: Author's own contribution

Medical visits have high values for almost all indicators: between 60–80%, being clearly the channel with the highest impact in market share, turnover and market penetration. It represents the most efficient direct marketing tool.

Medical conferences and events have comparable, sometimes even higher (over 70–99%), performances, especially in engagement rate and ROI, indicating a strong contribution to strengthening professional relationships and brand trust.

Social media has a moderate contribution (15–24%) to engagement rate and conversion rate, but low in market share and ROI. Good relevance for visibility and education, but limited conversion.

Webinars, digital/TV/radio advertising, website and email marketing have lower values (16–20%), suggesting a complementary, not main impact.

Print advertising has the lowest values (below 10%) for all indicators, suggesting low efficiency in the current digitalized context.

Discussion

The findings reinforce the sustained argument in literature that performance indicators (PIs) are used to increase operational efficiency by reducing downtime, cutting costs, and eliminating waste, while also contributing to maximizing performance. All subgroups of the marketing team agree that healthcare professional (HCP) engagement (18%) is an important performance indicator, and medical visits (91%) are the most used interaction channel and confirming that direct interaction remains crucial for the success of medical campaigns and the strengthening of professional relationships. The correlation between these two elements shows that medical visits are the most effective way to achieve good results in terms of HCP engagement. Market share is considered the most used performance indicator (22%) by pharmaceutical companies from Romania. Market share is the most widely

used performance indicator, reflecting the competitive and dynamic environment of this sector. This indicator functions as a barometer of strategic direction, showing whether the organization is evolving in step with the market or even surpassing it. In other words, a growth proportional to or superior to the market rate indicates that the implemented strategies are effective and sustainable. The results highlight that participation in medical conferences and events is one of the most effective marketing strategies, with the most significant impact on ROI 99%. This demonstrates that these activities allow access to a large and relevant audience, directly contributing to maximizing the efficiency of investments by increasing market penetration and conversion rate.

Conclusion

The study achieved its main objectives by identifying the marketing strategies most frequently used by pharmaceutical companies, determining the most relevant key performance indicators (KPIs), and examining the correlation between these strategies and organizational performance results.

The results confirmed hypothesis 1, demonstrating a significant correlation between the type of marketing strategies implemented and the performance indicators obtained. Strategies that emphasize direct engagement—particularly medical visits (91%)—proved to be the most effective in strengthening professional relationships and achieving higher levels of healthcare professional (HCP) engagement (18%). This finding reinforces the continuing importance of personal interaction in pharmaceutical marketing.

Hypotheses 2 was also supported, as findings showed that the intensity and diversity of marketing activities contribute positively to organizational performance. Participation in medical conferences and events (99%) proved to be one of the most effective strategies for maximizing return on investment (ROI), providing access to a large and relevant professional audience.

Hypotheses 3 was also validated, demonstrating that the systematic use of performance indicators contributes significantly to the optimization of marketing strategies. Market share (22%) was identified as the most widely used KPI, reflecting the competitive and dynamic nature of the pharmaceutical sector. Its consistent use as a barometer of strategic direction helps organizations assess whether they are evolving in line with market trends or outperforming them.

This study also analyzed the importance of KPIs in evaluating the effectiveness of marketing strategies from the perspective of pharmaceutical marketing teams, emphasizing that aligning performance indicators with strategic objectives is essential to determine whether a company's strategic direction should be maintained or adjusted. The conclusions support the view that effective interaction with healthcare professionals is crucial to achieving strategic objectives and that the role of the medical representative remains essential. Traditional channels, such as medical visits, conferences, and events, continue to be the main drivers of performance, while digital channels contribute marginally to engagement and market penetration without generating significant commercial results.

Key performance indicators (KPIs) should reflect key strategic outcomes, support the achievement of long-term goals, and respond to the needs of all stakeholders. Their relevance depends on market dynamics, the company's stage of development, and financial performance. Overall, the study highlights that integrating data-driven performance measurement with strategically chosen marketing activities improves operational efficiency, strengthens decision-making, and ensures sustainable growth in an increasingly competitive pharmaceutical market.

Future directions

The results highlight the key performance indicators (KPIs) used within the pharmaceutical industry marketing department. Future research could include other departments, such as research and development, manufacturing, and regulatory compliance, to gain a more comprehensive understanding of organizational performance.

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