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THE USE OF ANALYTICAL MARKETING AS AN OPPORTUNITY FOR BUSINESS DEVELOPMENT. A CASE STUDY

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Analytical marketing is increasingly a topic of research for scholars because it plays an important role in building the competitiveness of companies. Nowadays, it is difficult to strike a balance between maintaining satisfactory financial results and number of clients, and at the same time taking care of the company's image. The purpose of the study is to prove that the use of specific research tools, continuous measurement and analysis of selected parameters of the company's functioning in marketing terms and the presentation of a real reference state, is an opportunity for the company's development. The case study presented in this article concerns a family company with many years of experience, operating in the sports industry, both in terms of trade and services. In the research process, the most relevant parameters for the analysis of the marketing activity were extracted: the takings, the margin, the number of units sold, the inputs, the conversion rate and the UPT. As a result of the analysis, conclusions were drawn and solutions regarding analytical marketing and general functioning were suggested. These solutions can directly influence the company's financial results and the effectiveness of reaching the target group of recipients and improve the company's image. By using information on the value of the studied parameters, it is possible to significantly improve the condition of the company.

Keywords: marketing, analytical marketing, 7P marketing

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1. INTRODUCTION

The changes and crises occurring today have a significant impact on the management of enterprises. Most companies strive to increase customer retention but often fail to reach them with the right messages, products and offers in order to increase profits (Singh, Banton, 2016). Of particular importance is marketing, which evolves and does not lose its validity. Starting with transactional marketing, with a traditional approach that facilitates the sale of products, through relational marketing characterized by communication between the company and the customer and ending with analytical marketing, which combines the previous forms with detailed data analysis (Dziedzic, Szymańska, 2011).

Analytical marketing based on statistical analyses, supporting all stages of marketing activities, is essential in the functioning of modern companies. In the nineteenth century, John Wanamaker wrote the thesis that "half the money we spend on advertising is wasted, only the problem is that we don't know which half". At the time, there was no way to prove or disprove this thesis. Thanks to analytical marketing this is changing, techniques are being used to convey knowledge about customer needs. This knowledge allows for the most efficient use of resources, growth, and increased opportunities for success (Venkatesan, Farris, Wilcox, 2021). Often marketing campaigns are built using creative concepts, leaving out the essential element of measurement. Developing methods for evaluation and action is challenging (King, 2018). The customer information available in the databases allows the company to initiate a company-consumer dialogue. The knowledge drawn from the data and then collected and processed should be consistent and fair. Trust and privacy affects loyalty on the part of the consumer (Sagan, 2003). Sometimes companies have data and tools but often don't know what to do with it (King, 2018; Branda, Lala, Gopalakrishna, 2018; Berman, Knight, Case, 2007).

The purpose of this case study is to illustrate how analytics can be used in marketing activities to support the achievement of objectives. Every organization usually has three main development goals: increase sales volume, increase purchase frequency and acquire new customers. The amount of financial and non-financial data collected provides a wealth of knowledge about consumer shopping habits and preferences. The ability to turn them into useful, multi-channel and timely communication is what sets a company apart from its competitors (Rizzo, 2015). A key success factor for companies that want to use knowledge management is alignment with the activities and outcomes that matter most (Miller, 2011). Research shows that firms can use marketing analytics to significantly improve their capabilities and competitiveness (Cao, Tian, Blankson, 2021). Businesses that extract insights from customer data are more likely to perform better. With traditional products, companies have the ability to discreetly collect customer data at the point of sale. However, traditional concepts are mainly based on the customer's willingness to provide data, for example through a customer survey (Decker, Stummer, 2017). The present study is based on data contained in reports collected over a twelve-month period. The most relevant parameters from the company's point of view, such as the takings, margin, number of units sold, inputs, conversion and UPT are listed.

2. THE ESSENCE AND STRATEGY OF ANALYTICAL MARKETING

2.1. The essence of analytical marketing

Marketing analytics is the science of data and modeling (Grigsby, 2018). It provides a tool used to solve problems related to marketing resources and customer business decisions (Iacobucci, Petrescu, Krishen, Bendixen, 2019), where causal relationships in customer behavior are represented in numerical form. It also inspires marketing strategy. To know what actions to take, one must first figure out what data is needed in decision making and from what (Grigsby, 2018). Conducting an analysis helps in understanding the mechanisms of customer behavior as well as making cost decisions (Narel, 2004).

A report published in Forbes magazine (Rubin, 2013) determined that companies that used analytics to understand customer behavior were successful. Only 10% of marketers surveyed said they use data analytics for most of their marketing initiatives, but more than half (60%) confirmed that they exceeded their goals after application. Companies that used data only occasionally reported significantly lower results than expected. At the same time, it was found that the barrier in this case is the lack of knowledge in this area. In 2017, more than 53% of surveyed businesses responded that they use data-driven marketing (Columbus, 2017). Moreover, feedback from customers allows these businesses to outperform their competitors (Venkatesan, Farris, Wilcox, 2021).

An organization's ability to continuously generate information about expressed and latent customer needs and how to satisfy them is essential to creating superior customer value (Branda, Lala, Gopalakrishna, 2018). It is important to strive to improve customer satisfaction and loyalty through the use of reliable and valid satisfaction measures tailored to the market, as these are integral to the strategies of countless companies (Papanikos, 2013; Venkatesan, Farris, Wilcox, 2021). This demonstrates the importance of using data-driven marketing to achieve strategic goals to increase competitive advantage.

2.2. Analytical marketing strategy

In modern businesses, marketers are required to speak the language of finance. There are a number of indicators used to measure marketing. Choosing parameters can be complicated. Probably the most resources – both time and money – are spent on data collection rather than data analysis (Spillecke, Perrey, Umblijs, 2015; Miller, 2011). The key to success is to select from the available indicators those that will be appropriate for the company – in terms of their collection, processing and drawing conclusions. The more effectively companies use marketing analytics, the more efficiently they can deploy their marketing resources, the faster they grow, and the more successful they become (Venkatesan, Farris, Wilcox, 2021).

An analytical marketing strategy is developed before determining the key marketing metrics that the company will use (assuming it has qualified staff and a defined marketing budget). The purpose of marketing analytics is to determine the effectiveness of various company or marketing-mix strategies. For each strategy, the company wants to evaluate its return on investment (ROI) (Venkatesan, Farris, Wilcox, 2021). The model consists of the following steps (fig. 1):

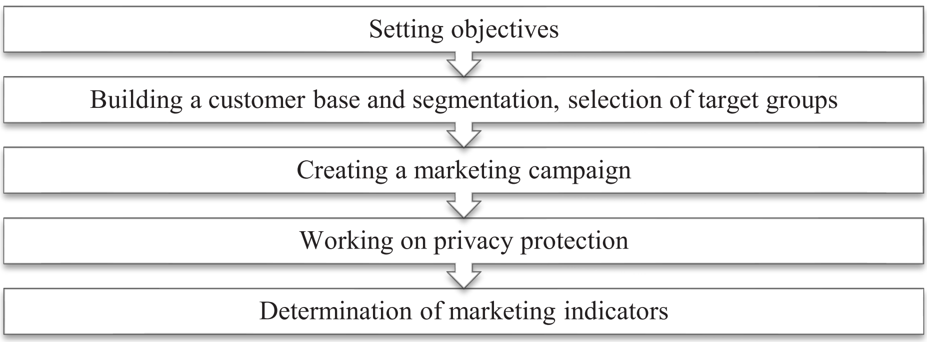

Fig. 1. Analytical marketing strategy model (Jeffery, 2015)

In data-driven marketing, customer relationship management (CRM) systems are used to build a customer base. It is important to identify customer needs and their potential, develop an offer and create positive relationships (Bartuś, Bartuś, 2012). Based on traditional criteria (geographical, demographic, economic) and the way, place and frequency of shopping, target groups are determined (Dobiegała-Korona, Doligalski, 2011). The next step is to select the customer segment to which the offer will be addressed. Creating a marketing campaign is based on communication. It's important to tailor your message to the needs of your client and industry, based on in-depth data analysis. The company should apply unconventional ideas, present the benefits to the customer and emphasize the uniqueness of its products/services (Busch, 2016).

The most important step in building a strategy from an analytical marketing perspective is setting marketing metrics. Organizations that refer to them and create a data-driven marketing culture are likely to gain a decisive competitive advantage (Golik-Górecka, 2015). M. Jeffery distinguished the division of marketing indicators into:

- classic indicators: non-financial (defining activities related to customer loyalty, conducted campaigns), financial and an indispensable indicator related to the customer lifetime value (CLTV),
- Internet indicators (Golik-Górecka, 2015).

3. METHODOLOGY OF CONDUCTED RESEARCH

3.1. Characteristics of the research subject

The surveyed company has been in the retail and service industry since 1990 and is engaged in the operation of a store and fitness services. Due to the prevailing healthy lifestyle trends, interest in this type of services is growing and the company is expanding. It has a wide regional audience and is recognized. The company is based in a town of less than seventy thousand inhabitants. It has three outlets: one sporting goods store downtown and another sporting goods store in the mall. It also provides services related to sport (fitness club and tennis courts). The organizational structure is linear – the owner is at the head, making the most important decisions, and there are one-man executive and managerial positions. Adult children of the owner are also employed in the company, which allows the company to be considered a family business. These include coordinating the work of analysts, e-commerce, trainers, operations, consultants and service. Considering the size of the village, competition is extensive (three large competitors in sales, three in the provision of fitness and gym services and also in tennis services). The range of products in the store is designed for professional athletes, amateurs and sports enthusiasts. The fitness club is attended by both professionals and people interested in a healthy lifestyle. The offer of the tennis club is addressed to people who play tennis professionally or amateur. The company's mission is to make the community athletic by maintaining a comprehensive approach and professionalism, and the vision is to be a leader in the sports industry in the regional market. The strategy is based on corporate social responsibility – taking care of the social interests and well-being of employees. The company tries to achieve a satisfactory level of customer satisfaction and through observation and analysis of the market, it tries to meet certain conditions and consciously create an image.

3.2. Hypotheses

Observing the research subject for twelve months allowed us to see the basic premise for further research and to formulate the objective of the study, which is to prove that the application of analytical marketing will improve the operation of the company and affect its growth. The study was intended to show that using data enables a high financial result, an increase in the number of customers and is essential in improving the image of the company.

4. RESEARCH METHODOLOGY

When determining strategies based on analytical marketing, data measurement methods must be determined. This is one of the milestones, as this choice will determine the reliability of the operation, the ability to avoid and correct errors and the presentation of the steps taken as an investment that can pay off within a certain period of time. Success is the selection of metrics that indicate and exploit the full capabilities of the company and highlight areas for improvement or worthy of investment (Kozielski, 2004).

4.1. Indicators used in analytical marketing

Non-financial indicators illustrate the effectiveness of activities in the areas of branding, customer loyalty, comparative marketing and marketing campaigns conducted (Golik-Górecka, 2015). They are calculated through customer surveys or using focus groups. The following non-financial indicators are distinguished:

– *Brand awareness = the ability to recall a particular product/service* – an indicator related to the formation of perception, i. e. strong awareness causing the customer to first consider the product or service of a particular company during the purchasing cycle. If he convinces himself of the high and repeatable quality of the offer – he will keep coming back (Jeffery, 2015). The indicator is measured by asking: *When it comes to your product/service, what is the first company that comes to mind? What other companies have you heard of?* The methods for checking brand awareness among customers are CATI (telephone interview), PAPI (paper questionnaire interview) or CAWI (online interview). The online questionnaire requires the least amount of time and money and additionally allows for the collection of an incomparably larger number of opinions (Webankieta, 2019). Measurement is designed to provide valuable information about customers and their future buying decisions and to optimize the campaign, so the company knows how to organize it in the future.

Test drive = customer tests product/service before purchase – an indicator that measures customers' purchasing intentions by allowing them to use the products or services offered, comparing them with competitors. The more "test drives", the more potential sales opportunities. The tools are print ads, brochures with product descriptions or websites. By monitoring the data (URL/SMS number – as a response to an ongoing campaign), conclusions are already drawn during the campaign (e.g. due to the geographical area of greatest interest) (Jeffery, 2015).

- *Migration rate = percentage of existing customers who stop buying products/services; captured over a period of 30 days, 90 days or a year* – making measurements that determine the number of customers permanently connected with a brand and those who leave it. Depending on the industry and country of the company, it may vary by percentage or not be measured at all (specifics of the markets or the delay between the marketing activity and when the customer decides to buy again). The migration rate is reduced by loyalty cards, discounts for regular customers or free repairs. Depending on the industry, the intervals at which the study will be conducted are determined and this is factored into the strategy, resulting in an improved bottom line (Jeffery, 2015).

Customer Satisfaction (CSAT) = Would you recommend the product/service to a friend or colleague? How willing are you to do this? – an indicator that links customer loyalty to brand awareness. A customer who is satisfied with a product/service is likely to purchase again and even recommend it to friends. During the evaluation the consumer indicates 9/10 or 10/10 points (where 10 points means: very satisfied). This represents a kind of "free" advertising with a large reach. During the buying process, the customer should be offered as many benefits as possible so that they feel valued and speak positively about what they have experienced (Jeffery, 2015).

- *Take rate* – an indicator that determines the effectiveness of marketing. In response to a company's marketing campaign, the customer is expected to behave in a specific way. Improved adoption rate values are associated with campaign success. The indicator also allows to count the cost of acquiring a customer. Knowing the cost of contacting one customer and the number of all customers, the total outlay for the campaign is determined. By dividing the effort by the number of customers who accepted the offer, it is possible to get the cost per customer acquisition. For there to be no campaign losses, the net profit from the sale of each product/service should be greater than (or equal to) the cost of customer acquisition. Every company should strive to optimize the variables (increase the take rate while lowering the contact cost), which will affect the lower cost of marketing activities (Jeffery, 2015).

Financial ratios measure parameters that are important to a company. Core financial ratios consist of:

– *Profit = income – expenses* – the sum remaining after deducting the amount of income by the amount of all costs incurred. The positive difference of the equation is the profit and the negative difference is the loss. There are three types of profit: gross profit on sales (revenue minus costs directly related to the production of the product/service), operating profit EBIT (gross profit minus indirect operating, selling, general and administrative expenses and depreciation and amortization) and net profit (revenue minus all costs that were associated with its generation) (Berman, Knight, Case, 2007). In an effort to maximize profit and increase prices, branding marketing efforts are relied upon. Demand creation increases revenue but minimizes profit. Using calculations, a price is set that optimizes these factors (Jeffery, 2015).
– *Net Present Value (NPV)* – an evaluation needed to analyze capital expenditures. Allows one to determine if an investment is beneficial. If the net present value has a value greater than zero the assessment is positive (the average benefit is greater than the average cost to obtain), while if the value is less than zero then there is no point in investing (equation 1).

$$\mathrm{NPV} = \mathrm{PV} - \mathrm{C} = \left(\frac{\mathrm{FV}_1}{(1+\mathrm{r})^1} + \frac{\mathrm{FV}_2}{(1+\mathrm{r})^2} + \cdots + \frac{\mathrm{FV}_n}{(1+\mathrm{r})^n}\right) - \mathrm{C} \tag{1}$$

where:
PV – present value,
FV – cash inflows in given periods,
C – costs of marketing activities,
R – discount rate (required rate of return),
N – number of analyzed periods.

Companies need to focus on investments that maximize the net present value (NPV) of a company's future sales and/or profit, and ultimately its stock price. Analytical marketing provides the best way to measure the true relationship between a brand's marketing investments and the resulting impact on sales and profits, both long and short term. By adjusting spending and examining actual sales over a period of time, as well as the intensity of activity changes from week to week, marketers can determine consumer purchase responses (Spillecke, Perrey, Umblijs, 2015).
– *Internal Rate of Return (IRR)* – the actual return, when the projected flow of funds is achieved. The interpretation is based on comparing the IRR result with the threshold ate adopted by the company (Berman, Knight, Case, 2007). If the IRR exceeds the threshold rate (r), the project is worth investing in. When the value is less, the investment should be abandoned because it will not be profitable (equation 2) (Jeffery, 2015).

$$0 = -\mathrm{C}_0 + \frac{\mathrm{FV}_1 - \mathrm{C}_1}{(1+\mathrm{IRR})^1} + \frac{\mathrm{FV}_2 - \mathrm{C}_2}{(1+\mathrm{IRR})^2} + \cdots + \frac{\mathrm{FV}_n - \mathrm{C}_n}{(1+\mathrm{IRR})^n} \tag{2}$$

where:
FV – cash inflows in given periods,
C – costs of marketing activities,
IRR – internal rate of return,
N – number of analyzed periods.

– *Payback = the time when monetary benefits equal costs* – the point at which a marketing campaign generates an impact that covers its cost.

The described NPV, IRR and payback is defined by the concept of ROMI, dedicated to calculating the value of marketing activities and determining the financial return on investment (Jeffery, 2015). ROMI goal modeling is helpful in identifying key profit drivers. It is worth laying out "what if" scenarios to see how a change in parameters might affect performance and profitability. A target should be set to compare with the actual results (Miller, 2011).

– *Customer Lifetime Value (CLTV)* – the profitability of a customer over the time (illustration of NPV per customer) (equation 3).

$$\mathrm{CLTV} = -\mathrm{AC} + \sum_{n=1}^{N} \frac{(M_n - C_n)p^n}{(1+r)^n} \tag{3}$$

where:
CLTV – customer future value over time,
AC – customer acquisition cost,
M_n – margin from transactions with a customer in given periods,
N – number of periods,
C_n – marketing and customer service cost,
P – probability of customer loyalty in the next year,
N – total number of years,
R – discount rate.

To calculate it, data needs to be collected in detail (the margin of each product sold, the cost of each customer contact, the amount of goods/services sold), which often seems impossible for companies. All it takes is the development of the right tools and financial performance can be improved. Knowing the value of each customer, it is clear to whom to direct marketing materials in order for the campaign to be successful (tab. 1).

The company should focus its efforts towards customer groups with high and medium CLTV (Jeffery, 2015). It should select customers to target and then optimally allocate sales calls. Research proves that CLV is a more effective measure than customer spending metrics. With no change in the level of marketing investment, a tenfold increase in revenue can be achieved by reallocating resources based on CLV (Venkatesan, Farris, Wilcox, 2021).

Table 1. An example of a marketing strategy based on customer value

		Expected response rate		
		low	mean	high
Expected value	high	no shipment of materials	shipment of the most expensive offer	dispatch of the second offer due to price
	average	no shipment of materials	no shipment of materials	dispatch of the third offer due to price
	low	no shipment of materials	no shipment of materials	no shipment or shipment of the cheapest offer

Source: Jeffery, 2015.

Web metrics enable innovative marketing efforts for companies. No solution is permanent due to constant updates and developments in technology, but knowing the basic principles and metrics makes a difference in increasing efficiency:

- *Cost per click (CPC) – sponsored search result or banner ad* – effectiveness of search engine marketing. The advertiser only pays for the interaction of the potential customer (the specific ad). The potential customer sees it, clicks and browses the site. This can be a very short visit but visible to the company. CPC ads on search pages are more generally more effective than banners and ads elsewhere (Kent, 2006). Research from Media Contacts shows that 46% of searches for a product/service result in a purchase intent, so businesses are able to pay high rates for single clicks (on Google the rate is a range of $1 to $5). The cost of all advertising depends on the market and the number of keywords chosen, defined for the company (Jeffery, 2015).
- *Transactional conversion rate (TCR) = the percentage of customers who decide to make a purchase after clicking on a link and navigating to a particular web page* – combines clicks and monetary investment. Considering search engine marketing optimization, this indicator is of utmost importance (Jeffery, 2015).
- *Return on Ad Dollars Spent (ROA) = net revenue divided by costs* – the efficiency of obtaining net revenue (revenue per click minus CPC), thanks to expenditures spent on advertising (criterion: making a purchase of a product/service).
  CPC, TCR and ROA are the cornerstones of Search Engine Marketing (SEM). The largest portion of the budget is usually allocated to these activities (Jeffery, 2015).
- *Bounce rate = percentage of customers leaving the site within five seconds of entering* – migration rate in relation to the company's website. It shows what

strategies work and what to opt out of (for example based on grouped URLs, it is determined who leaves the page and who stays on it, and then adapt it to the needs of customers) (Jeffery, 2015).
- *Word of Mouth (PTO – position on social media) = the number of direct clicks and the number of clicks on the recommendation, divided by the number of direct clicks* – an indicator referring to actions on the Internet. It measures direct page entries and clicks from a command (Jeffery, 2015). It achieves the highest value when the goal of a marketing campaign is to encourage its recipients to share content with others.

Data-driven marketing is based on a new, agile approach to running a business. Activities are planned in advance to allow for flexible and ongoing responses to the data collected. According to the strategy how the data will be recorded, success and failure criteria and checkpoints are defined. The approach outlined can improve business performance by as much as five times (Jeffery, 2015). A key role is played by comprehensiveness, i.e. linking the measurement of effects to the objectives of the enterprise (Garbarski, 2008).

4.2. Basic analytical techniques

Many innovative techniques have been developed to deal with the specifics of marketing data. Companies selectively choose techniques and methods from a wide range of possibilities (France, Ghose, 2019). The multitude of analytics marketing methods is so large that the use of them is not set to any particular standard. In interpreting data, businesses can benefit from diversity by combining techniques and matching them to their profile. Since many market research firms were founded by researchers (Wedel, Kannan, 2016), it makes sense to collaborate with them on topics related to market analysis in order to have up-to-date data and grow (Iacobucci et al., 2019). The analytical approach is to present the offer to the right customer at the right time in order to increase the adoption rate. This has a business case in the ROMI indicators. Three working methods are used:
- Inclination modeling (prediction of purchase probability) is based on collecting all available customer data and awarding points for individual criteria (variables). The score determines the customer's inclinations to purchase the product/service, and the product with the most points is called "the best". The result allows one to identify the industry of interest to the customers, which lets the company target them directly with a select offer (free gift, sample) that can get them to engage in a response. The model is updated by the company at specific intervals. Modeled materials can increase adoption rates by tens of percent (Jeffery, 2015).
- Market basket analysis using association rules. It consists of developing a set of products that customers are willing to buy at the same time (it takes the form of questions on the website: *You have recently viewed (...), maybe now you will*

be interested in (...), Customers viewing the product (...), also viewed (...) (Jeffery, 2015). The market basket can be predicted using logistic regression (predictive analysis), which estimates the increase or decrease in the probability of buying some products in light of buying other products. This is strategic information to help make decisions about combining products into sets (Grigsby, 2018).
- Decision trees – dividing customers by characteristics and events (event-driven marketing method). Segmentation is based on defining the relationship: making a specific purchase – a given event. You design a targeted campaign that is triggered by an event that relates to specific customers. It uses forecasting models, marketing plans and knowledge of indicators: adoption rate, migration or profit. The data is divided into subsets until there is a tree consisting of individual leaves (customers with selected preferences). From it, conclusions are drawn to help build strategies (Jeffery, 2015). An important element is the multidimensionality of customer segmentation and the use of as much qualitatively good contact moment data as possible, describing different shopping aspects of the customer's life (Chudziak, Ciemski, 2014).

4.3. Marketing mix tools based on data

Increasingly, directions for new analytics research methods are being identified, referring to analytics for optimizing marketing-mix spend in a data-rich environment, analytics for personalization, and analytics in the context of customer data privacy and security. Organizations that intend to implement analytics marketing permanently review the implications (Wedel, Kannan, 2016).

From a marketing perspective, it is most important to apply marketing-mix principles. The tools of the "4P" formula (product, price, distribution and promotion), are supposed to influence the market and innovation is about using them together (Wiśniewski, 1995). The formula is now being expanded to include additional factors: process, people and material witness, creating the "7P" (Witalni.pl, 2019). Activities falling under analytical marketing (data collection, analysis, interpretation) help shape the areas of this formula. The more customer information there is in the database, the easier it is to tailor instruments to them. At the same time, consumers' needs are realized and the company's goals are achieved (Mazurkiewicz, 2005).

The feature of the product is to meet the needs and requirements of the buyer, so it should be designed to meet these conditions. The most commonly used product classification includes consumer products and industrial products. In the surveyed company, consumer products procured from domestic and foreign companies will be relevant, using the division:
- Outhorn – products of a Polish brand including sports accessories and clothing for amateur sports and everyday use.

- Regatta – English products, high quality, designed mainly for extreme sports and conditions.
- Rufinet GLS – products of other brands offered in the store (for example 4F), designed for sports. Recorded by a specially created infrastructure that allows one to check the states of the commercial network in real time.

Reports conducted on the basis of product sales divided into groups allow for precise data analysis and specifying activities in relation to designated sales areas.

The price should be set at a level that induces potential buyers to purchase and that makes a profit for the company. Conducting analytical marketing research allows you to determine how much customers are willing to pay for the product/service you offer. Prices are determined by orientation:

- Cost-based, which assumes that products will cover the total cost of production and will give the company a profit (cost growth is the basis for profit growth) (Mazurkiewicz, 2005).
- Demand-side, based on the relationship between price and demand (Mruk, 2012). The study is conducted using a price curve. The graph is in the form of a triangle whose area is sales revenue and whose components are price and demand volume. A distinction is made between elastic demand (an increase in price equals a large decrease in sales) and inelastic demand (changes in price do not affect the volume of sales).

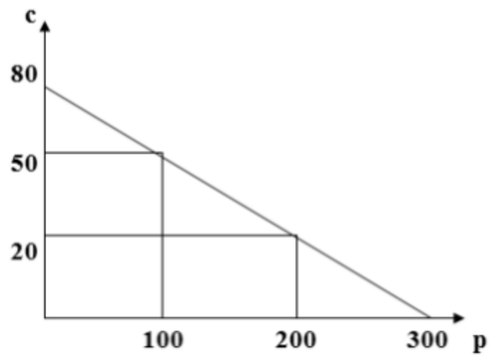

Fig. 2. Demand Elasticity Curve: *c* – price, *p* – sales volume
(*Formuły ustalania cen*…, 2011)

Obtaining the optimal combination of parameters is equivalent to obtaining the maximum gross margin.

- Competitive, based on an analysis of prices in competing companies (Mruk, 2012). A distinction is made between price formation: adaptive, opportunistic, low-level, joint and predatory (eGospodarka.pl, 2014).

Due to changing market conditions, prices should also be differentiated (shaped at different levels, depending on sales) with possible interventions such as discounts.

Distribution is the delivery of the final product/service to the customer, in an appropriate and convenient manner, so the company should choose a distribution channel that allows continuity of sales that affects profit (Mazurkiewicz, 2005). It is important to have a clearly defined distribution strategy, making sure that there are no false points or waste resulting from unrelated content (Busch, 2016).

Promotion, which aims to provide the customer with information about the product, its benefits and purchase options, consists of advertising, personal selling, sales promotion, public relations and sponsorship (Czubala, Smoleń, Wiktor, 2012; Mazurkiewicz, 2005). Managers need to understand their marketing activities thoroughly to determine how much money to spend on the marketing media channel. If paid search advertising is the most effective way to reach the right customers, why does the company spend more on other channels (Venkatesan, Farris, Wilcox, 2021)?

The elements added in the "7P" formula are the people who create the company (thanks to them certain goods/services are created, so it is necessary to take care of them and the relationship between the employee and the company and this will contribute to customer satisfaction), the process (all the activities that lead the customer from interest in the product to after-sales service) and the material evidence (elements that affect the customer's attitude towards the company, through image creation, e.g. logo, website, staff dress code) (Witalni.pl, 2019). The "7P" formula creates a finished model, encompassing participants, people and process simultaneously. Its advantages are: comprehensiveness, unification, detail, refinement and a broad perspective (Rafiq, Ahmed, 1995).

Marketing-mix instruments have a significant impact on the operation of the company and with their constant updating and setting in different configurations, the company has a chance to meet customer expectations. The developed composition, based on data, will allow the company to reach the target group, improve sales and achieve profit. Modeling marketing-mix shows how sales volume results depend on various independent marketing and other non-marketing factors using statistical techniques (Miller, 2011).

5. RESULTS

The advancement of technology and the development of analytical marketing prompted the company in question to take a detailed look at its performance and not only collect it for internal use by employees, but also make it available for analysis and to take measures to encourage growth and increase profits. Basic parameters from the marketer's point of view have been selected, which can improve the condition of the company and be an opportunity for its development. These include the takings, margin, number of units sold, inputs, conversions and UPT.

5.1. The takings

The takings is calculated as the average gross price multiplied by the number of pieces sold. The plan is established on the basis of a percentage distribution of monthly sales in the corresponding month of the previous year (the total for each month is 100%). A register of markets is kept in order to check: the development of the activity over time, the satisfactory level of sales revenue, the effectiveness of marketing activities, staff training and its influence on sales results and the influence of events occurring during the year on market fluctuations.

The plan was only achieved in November, therefore the plan was set too high. The difference compared with the previous year was positive in November, December, February and June. Adversely affected by the country's ban on trade on select Sundays, the company tested corrective measures: new collections and adaptation of sales to the number of working days. In October, due to access to data from only half of the month, the implementation rate is low (tab. 2).

Table 2. Data on the company's takings

Month	Plan (in thousands PLN)	Implementation (in thousands PLN)	Previous year's result (in thousands PLN)	Difference between implementation and the result of the previous year (%)
11.2017	610,00	626,80	527,39	18,85
12.2017	1000,00	901,39	900,18	0,13
01.2018	750,00	579,43	848,20	**–31,69**
02.2018	700,00	625,50	496,50	25,98
03.2018	800,00	504,40	536,52	**–5,99**
04.2018	800,00	627,32	641,48	**–2,21**
05.2018	800,00	573,68	664,27	**–13,64**
06.2018	700,00	693,10	666,34	4,02
07.2018	700,00	593,43	668,27	**–11,20**
08.2018	700,00	587,21	668,36	**–12,14**
09.2018	650,00	516,29	592,29	**–12,83**
10.2018	700,00	218,74	648,86	**–66,29**

Source: own elaboration.

From an analytics marketing perspective, the most important improvements are related to data processing. It is important to be flexible to market situations and open to taking quick and risky actions. Knowing the approximate values of sales results, as well as the dates of holidays and events, it is easy to plan the revenue of each month of the year and prepare tactics based on the target group to which the offer will be addressed (personalized advertising). Having customer data allows the company to expand the services that are most in demand and eliminate those that are used occasionally. This lets the company translate marketing campaigns into sales results and save money on those activities that do not impact sales.

5.2. Margin

Gross margin is calculated by dividing gross profit (the difference between sales revenue and cost) by sales revenue. The company provides the gross margin figure and its components are treated as sensitive data. Net margin, including other costs (e.g. advertising, storage, management), is calculated on the basis of other reports and is not made available by the Management Board. The purpose of margin reporting is to determine profitability (BEP) – the minimum volume of sales that covers costs and allows the business to run rationally, to determine the optimal price and costs, to know which products are the most profitable and to plan long-term investment projects.

The available data allows us to analyze values from January to mid-October 2018. Because of the component that is sales revenue, the analysis is related to the takings. In January, the implementation of the plan was not successful and the difference with the previous year was over 30%. In the following five months, the plan was inflated and pricing strategies were used to achieve high sales revenue despite not meeting the plan (company policy focusing on price and cost manipulation). From July to October, the tactic didn't work (selling off collections didn't help). Problems emerged in the company and corrective actions had to be taken (tab. 3).

Table 3. Data on the company's margin

Month	Plan (in thousands PLN)	Implementation (in thousands PLN)	Previous year's result (in thousands PLN)	Difference between implementation and the result of the previous year (%)
01.2018	25,87	19,98	29,25	**–31,69**
02.2018	25,00	22,34	17,73	25,98
03.2018	28,57	18,01	17,31	4,08
04.2018	28,57	28,51	20,70	37,80
05.2018	28,57	22,95	21,43	7,09
06.2018	25,00	24,75	23,80	4,02
07.2018	25,00	21,98	23,87	**–7,91**
08.2018	25,00	20,98	23,87	**–12,14**
09.2018	23,21	19,12	21,15	**–9,60**
10.2018	25,00	16,83	23,17	**–27,39**

Source: own elaboration.

Analytics marketing help determine the growth potential of a business through customer base and sales data. For a complete financial analysis, in addition to the gross margin, the net margin is important, which defines the true profit made by the company, after all costs have been deducted. Values should be compared over time, the dynamics of change and deviation should be determined and it should be checked how the margin relates to all product categories. The exclusive imposition of a high margin does not guarantee success (a negative margin value can be a positive phenomenon). More and more often, companies periodically use the lowest possible margin (when introducing a new product – economies of scale) or no margin at all in order to sell out (storage costs per conversion will be higher).

5.3. Number of units sold

Information about which products sell best and in what quantities allows the company to draw long-term conclusions that will help decide which orders to place with suppliers and when. By comparing the quantity of sold products with the sales revenue, it is possible to check how this number influences the sales result (a hint whether you should be guided by quantity or quality during the sales process).

At the beginning of December the company started to test new marketing solutions, related to advertising and promotion, therefore the number of sold pieces for that month was high. January was a month of adjusting to the new market situation and the number of units sold was low. In the following months the number of units sold was relatively constant. The holiday months indicate consumer shopping activity, with the highest value in August when summer sales are organized. The lowest value is in October, which is due to incomplete data, but the trend shows that the value does not exceed even 5000 units sold (fig. 3).

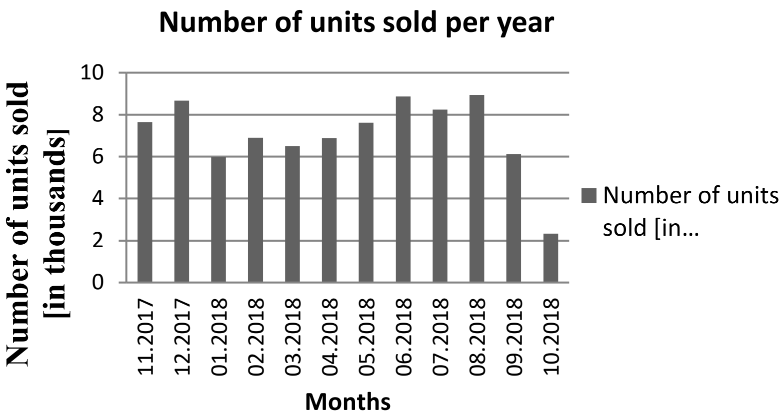

Fig. 3. Data on the company's number of units sold per year (own elaboration)

Data on the number of units sold indicates purchasing trends that are useful in planning future sales. Knowing customers' behavior, it is easy to use the information contained in the report to tailor promotional campaigns to their needs. For example, in December, when buying more expensive items, combine them in offers with cheaper products, slightly lowering the price to increase the number of units sold. In August, when customers buy cheaper items, lower their price if they buy it along with a more expensive item. In the remaining months, the company can focus on two-plus-one promotional campaigns (the cheapest product free of charge) or one-plus-second cheaper by x%, which will trigger a customer response.

5.4. Inputs

Inputs are a component of the conversion rate and information about how the customer's decision to visit the store is influenced by advertising. Fluctuations in its value indicate that there has been a change in the market situation (e.g., the emergence of a new competitor) or that the advertising campaign has had the intended effect. This allows you to react quickly and take marketing actions to increase sales results. The current output is needed to calculate the coefficient of performance (CR).

In November and December, implementation was close to target. This is due to adequate advertising and customer interest. In January the stock fell by 20% and the company took corrective measures and tried to adapt to the market situation. The number was reduced in February. During the remainder of the study period, in addition to fewer working days, a competitor's store appeared in the sporting goods industry and entries fell by an average of 25% compared to the previous year. The lowest number of visits was recorded in July and August, which may be caused by advertising or a competitor's promotions. A promotional campaign was launched in September, which had an impact on the number of admissions (over 40 000), but the trend in October shows a high variation (tab. 4).

Table 4. Data on the company's inputs

Month	Implementation (in thousands PLN)	Previous year's result (in thousands PLN)	Difference between implementation and the result of the previous year (%)
11.2017	40,95	41,30	–0,85
12.2017	54,15	53,66	**0,91**
01.2018	35,93	44,29	–18,86
02.2018	41,04	43,74	–6,16
03.2018	35,46	47,01	–24,62
04.2018	34,33	43,29	–20,69
05.2018	36,51	42,97	–15,05
06.2018	36,12	44,52	–18,87
07.2018	32,46	52,09	–37,68
08.2018	31,14	55,34	–43,72
09.2018	40,38	45,71	–11,81
10.2018	29,83	42,08	–29,11

Source: own elaboration.

The company with the counter receives information on which day of the week there are the most customers and at what time the intensity of the traffic is the highest (you can set promotional actions such as hourly discounts, –10% one day a week or 2 for the price of 1 until 12:00 in the morning). Knowing how many employees are on a shift, when customers stay in the store for the longest time, it is possible to determine the employee bonus system and to decide on layoffs. Extracting the largest amount of data and analyzing them has an impact on the company's financial performance.

5.5. Conversions

Conversion rate (CR) is calculated as the number of actions divided by the number of customer visits, multiplied by 100%. The company's average conversion rate is 11,4%. The planned conversion was determined on this basis. The purpose of the calculations is to check: how many customers visiting the store decide to buy the products, whether the marketing activity meets the intended expectations, how the quality of service affects the sales process and whether the company has an appropriate amount of goods.

In the first three months, the plan could not be met, which shows the inefficiency of the carried out activities. A higher value of the indicator was achieved in the months of February to August, but only in the period April to August was the plan met. In August, the maximum value was reached – the result of well executed marketing activities, organization of the store space and good service. In September there was a decrease in the value of the indicator – more people came to the store, but not many of them decided to finalize the purchase. This is due to the high number of inquiries for products that were judged to be too expensive (favorable offer from competitors). The data shows that the negative trend continued in October (tab. 5).

Table 5. Data on the company's conversions

Month	Plan (%)	Implementation (%)	Previous year's result (%)	Difference between implementation and the result of the previous year (%)
11.2017	12	9	12	–20
12.2017	12	11	12	–13
01.2018	12	11	13	–12
02.2018	12	11	9	**22**
03.2018	12	11	10	**9**
04.2018	12	**13**	11	**17**
05.2018	12	**14**	11	**25**
06.2018	12	**15**	12	**20**
07.2018	12	**16**	12	**40**
08.2018	12	**19**	12	**62**
09.2018	12	11	12	–9
10.2018	12	5	12	–54

Source: own elaboration.

By having statistics on what days of the week the traffic is highest, the company can determine what the minimum number of available service should be. It is worth ensuring that the offer is constantly updated with the actual stock. The surveyed company perceives a problem with placing orders for the desired sizes, due to managers' late response and lack of knowledge of the demand. The buyers are those who decide to complete the purchase – they are satisfied with the service and the price. When they are treated in a way that suits them, they will become repeat customers, if not – this has the effect of decreasing conversions (there has been an entry into the store, but no transaction).

5.6. UPT

UPT (Units Per Transaction) is the value of a basket, which is an indicator of sales effectiveness. It determines the average number of products purchased by a customer during a particular transaction. The indicator is calculated as the number of purchased goods divided by the number of transactions in a specific period (the company can consider individual days, seasons or years, depending on strategy). In the study, the planned UPT is determined by month. In planning the value, the company decided to overstate the result in comparison with the corresponding months of the previous year. The purpose of calculating the index is to find out how many products customers are willing to buy during a single visit, to determine the sales areas where customers buy the most, to measure sales performance or to determine how much more revenue can be generated through complementary sales.

The company was most effective in the first month of the study. There was also a high value in March (purchase of more pieces by single customers). In October, despite having only part of the data, the success rate was already at 1.45 by mid-month. In other months the value was low, more products were sold but bought by more customers (tab. 6).

Table 6. Data on the company's UPT

Month	Plan	Implementation	Previous year's result	Difference between implementation and the result of the previous year (%)
11.2017	1,50	**2,01**	1,52	**32,24**
12.2017	1,50	**1,51**	1,63	–7,56
01.2018	1,60	1,47	1,59	–7,54
02.2018	1,60	1,49	1,58	–5,46
03.2018	1,60	**1,73**	1,48	**16,81**
04.2018	1,60	1,57	1,57	**0,16**
05.2018	1,60	1,54	1,57	–2,11
06.2018	1,65	1,64	1,59	**3,06**
07.2018	1,60	1,57	1,51	**3,89**
08.2018	1,60	1,52	1,51	**0,55**
09.2018	1,60	1,43	1,51	–5,04
10.2018	1,60	1,45	1,51	–4,14

Source: own elaboration.

Analyzing the collected data, the values of the indicator should be juxtaposed with the information on the revenue, the number of products sold in a given period and the margin. Then, the company will get a true picture of the financial situation of the business and solutions can be proposed that will ensure optimal pricing, satisfactory yield and conversion at the same time. It can use methods of combining products into sets, encourage customers to choose accessories that complement the selected product or purchase products in better (at the same time more expensive) versions/packaging.

6. SUMMARY

The purpose of this case study was to prove that the use of analytical marketing has an impact on business growth and improvement. The authors noticed that a lot of data collected by companies goes unused. Based on the literature, data-driven marketing indicators are characterized and referred to the case of a selected company. The article presents how to use the collected data to improve the condition of the company. The study has shown that appropriate analysis and interpretation of specific marketing indicators and elements of the "7P" formula, using analytical marketing methods, has a positive effect on a company's financial results, number of customers and image. It is entirely up to the company whether it will use its potential and opportunity for development.

LITERATURE

Baran, R., Rutkowski, I. (2008). Koncepcje ujmowania efektów działań marketingowych. In: L. Garbarski (Ed.). *Koszty i efekty działań marketingowych*. Warszawa: Wydawnictwo Szkoły Głównej Handlowej w Warszawie, 93-119.

Bartuś, K., Bartuś, T. (2012). Zastosowanie analitycznych systemów zarządzania relacjami z klientami w przetwarzaniu wiedzy o klientach rynku elektronicznego. *Studia Ekonomiczne. Zeszyty Naukowe Uniwersytetu Ekonomicznego w Katowicach*, 100, 45-56.

Berman, K., Knight, K., Case, J. (2007). *Inteligencja finansowa. Co kryją liczby. Przewodnik menedżera*. Gliwice: Wydawnictwo Helion.

Branda, A.F, Lala, V., Gopalakrishna, P. (2018). The marketing analytics orientation (MAO) of firms: identifying factors that create highly analytical marketing practices. *Journal of Marketing Analytics*, 6, 84-94.

Busch, O. (2016) *Programmatic advertising: the successful transformation to automated, data-driven marketing in real-time*. Hamburg: Springer International Publishing.

Cao, G., Tian, N., Blankson, C. (2021). *Big Data, Marketing Analytics, and Firm Marketing Capabilities*. Retrieved from: https://doi.org/10.1080/08874417.2020.1842270 (6.09.2021).

Chudziak, J.A., Ciemski, A. (2014). Wykorzystanie modeli i narzędzi analitycznych w praktycznym budowaniu efektywnych strategii marketingu interakcyjnego. *Organizacja i Zarządzanie. Zeszyty Naukowe Politechniki Śląskiej*, 74, 123-133.

Columbus, L. (2017). *53% of Companies Are Adopting Big Data Analytics*. Retrieved from: https://www.forbes.com/sites/louiscolumbus/2017/12/24/53-of-companies-are-adopting-big-data-analytics/#5d0157839a19 (6.09.2021).

Czubała, A., Jonas, A., Smoleń, T., Wiktor, J.W. (2012). *Marketing usług*. Warszawa: Wolters Kluwer.

Decker, R., Stummer, C. (2017). Marketing Management for Consumer Products in the Era of the Internet of Things. *Advances in Internet of Things*, 7(3), 47-70.

Dobiegała-Korona, B., Doligalski, T. (2011). *Zarządzanie wartością klienta w przedsiębiorstwach w Polsce*. Warszawa: Wydawnictwo Szkoły Głównej Handlowej w Warszawie.

Dziedzic, D., Szymańska, A.I. (2011). Marketing transakcji a marketing relacji. *Zeszyty Naukowe WSEI w Krakowie*, 7, 1-11.

eGospodarka.pl (2014). *Kształtowanie cen w oparciu o konkurencję*. Retrieved from: http://www.egospodarka.pl/109957,Ksztaltowanie-cen-w-oparciu-o-konkurencje,1,20,2.html (15.10.2019).

Formuły ustalania cen. Decyzje cenowe w przedsiębiorstwie (2011). Retrieved from: http://pracownicy.ue.poznan.pl/masztalerz/RZ.prezentacja.2011.03.06.pdf (15.10.2019).

France, S., Ghose, S. (2019). Marketing Analytics: Methods, Practice, Implementation, and Links to Other Fields. *Expert Systems with Applications*, 119(1), 456-475.

Golik-Górecka, G. (2015). Paradygmat marketingu analitycznego i jego główne wskaźniki dla marketera. *Zeszyty Naukowe Uniwersytetu Szczecińskiego*, 41, 253-264.

Grigsby, M. (2018). *Marketing Analytics: A Practical Guide to Improving Consumer Insights Using Data Techniques: Second Edition*. London: Kogan Page Limited.

Iacobucci, D., Petrescu, M., Krishen, A., Bendixen, M. (2019). The state of marketing analytics in research and practice. *Journal of Marketing Analytics*, 7(2), 152-181.

Jeffery, M. (2015). *Marketing analityczny. 15 wskaźników, które powinien znać każdy marketer*. Gliwice: Wydawnictwo Helion.

Kent, P. (2006). *Pay Per Click. Search Engine Marketing For Dummies*. Indianapolis: Wiley Publishing.

King, J. (2018). How to measure marketing success and find your cost per new student acquisition. *Journal of Education Advancement & Marketing*, 3(3), 266-278.

Kozielski, R. (2004). Rola audytu marketingowego w warunkach nowej ekonomii. *Folia Oeconomica*, 179, 387-393.

Mazurkiewicz, E. (2005). *Stosowanie narzędzi marketingu w działalności podmiotu gospodarczego.* Radom: Wydawnictwo Instytutu Technologii Eksploatacji – PIB.

Miller, J. (2011). *The Definitive Guide to Marketing Metrics and Analytics*. Retrieved from: https://engage.marketo.com/rs/460-TDH-945/images/definitive-guide-to-marketing-metrics-marketing-analytics.pdf (7.09.2021).

Mruk, H. (2012). *Marketing. Satysfakcja klienta i rozwój przedsiębiorstwa*. Warszawa: PWN.

Narel, S. (2004). Marketing analityczny – cele i narzędzia. *Zeszyty Naukowe Wyższej Szkoły Ekonomiczno-Społecznej w Ostrołęce*, 1, 113-133.

Papanikos, G.T. (2013). *Business: Accounting, Finance, Management & Marketing Abstracts*. Athens: Athens Institute for Education and Research.

Rafiq, M., Ahmed, P. (1995). Using the 7Ps as a generic marketing mix. *Marketing Intelligence & Planning*, 13(9), 4-15.

Rizzo, T. (2015). Maximising results with data-driven financial marketing strategies. *Journal of Brand Strategy*, 4(2), 114-126.

Rubin, J. (2013). *Survey Demonstrates the Benefits of Big Data*. Retrieved from: https://www.forbes.com/sites/forbesinsights/2013/11/15/survey-demonstrates-the-benefits-of-big-data/#53216b724d06 (4.09.2021).

Sagan, A. (2003). *Marketing relacyjny*. Kraków: Wydawnictwo StatSoft Polska.

Singh, V., Banton, S. (2016). AutoNation. Driving customer loyalty in a fragmented industry. *Applied Marketing Analytics*, 2(2), 162-168.

Spillecke, D., Perrey, J., Umblijs, A. (2015). Smart analytics: How marketing drives short-term and long-term growth. In: D. Court, J. Perrey, T. McGuire, J. Gordon, D. Spillecke (Eds.). *Big Data, Analytics, and the Future of Marketing & Sales*. New York: McKinsey & Company, 24-28.

Venkatesan, R., Farris, P.W., Wilcox, R.T. (2021). *Marketing Analytics: Essential Tools for Data-Driven Decisions*. Charlottesville, London: University of Virginia Press.

Webankieta (2019). *Świadomość marki – jak ją dobrze zbudować?* Retrieved from: https://www.webankieta.pl/blog/swiadomosc-marki-jak-ja-dobrze-zbudowac/ (11.10.2019).

Wedel, M., Kannan, P.K. (2016). Marketing Analytics for Data-Rich Environments. *Journal of Marketing*, 80(6), 97-121.

Wiśniewski, A. (1995). *Marketing*. Warszawa: WSiP.

Witalni.pl (2019). *Koncepcja 7P*. Retrieved from: https://witalni.pl/pojecie/koncepcja-7p/ (14.10.2019).

WYKORZYSTANIE MARKETINGU ANALITYCZNEGO SZANSĄ NA ROZWÓJ PRZEDSIĘBIORSTW. ANALIZA PRZYPADKU

Streszczenie

Marketing analityczny jest coraz częściej tematem badań naukowców, ponieważ odgrywa ważną rolę w budowaniu konkurencyjności przedsiębiorstw. Obecnie trudno jest znaleźć złoty środek pozwalający na utrzymanie na satysfakcjonującym poziomie wyniku finansowego i liczby klientów, dbając jednocześnie o wizerunek firmy. Celem opracowania jest udowodnienie, że korzystanie z określonych narzędzi badawczych, nieustanny pomiar i analiza wybranych parametrów funkcjonowania firmy w ujęciu marketingowym oraz przedstawienie realnego stanu odniesienia są dla przedsiębiorstwa szansą na rozwój. Przedstawiona w artykule analiza przypadku (*case study*) dotyczy firmy rodzinnej z wieloletnim doświadczeniem, działającej w branży sportowej zarówno w zakresie handlowym, jak i usługowym. W procesie badawczym wyodrębniono najistotniejsze parametry dla analizy działalności marketingowej, takie jak utarg, marża, liczba sprzedanych sztuk, wejścia, konwersja i UPT. Po analizie wyciągnięto wnioski i zaproponowano rozwiązania z zakresu marketingu analitycznego i ogólnego funkcjonowania przedsiębiorstwa, które nie były dotąd stosowane, a mogą bezpośrednio wpłynąć na podwyższenie wyniku finansowego, skuteczność trafienia do grupy docelowych odbiorców i poprawę wizerunku. Wykazano, że wykorzystując informacje o wartości badanych parametrów, można znacznie poprawić kondycję przedsiębiorstwa.

Słowa kluczowe: marketing, marketing analityczny, marketing 7P