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The impact of IT tools for the creation and implementation of marketing strategy

Wpływ narzędzi IT na kreowanie i realizowanie strategii marketingowej

Abstract: The purpose of this article is to analyse the impact of key IT tools for the implementation of marketing strategies and logistics. This analysis is to identify the level of effectiveness of the strategy in companies in the context of the opportunities created by Business Intelligence systems used in various areas of business intelligence and decision support. Today, they are already treated as business standards conditioning the effective management of an enterprise. Information began to play a special role and efficient way of obtaining it -expanding resource data collected by the company. This gave rise to the development of marketing information systems that support decision-making at every level of the marketing operation of businesses and the implementation of their strategy. Thus, by using Business Intelligence and Business Performance Management system it improves the quality of decisions and the effectiveness of the integration of multiple processes presented in the form of dashboards and scorecards. It should therefore be considered in the context of the BPM model, which purpose is to obtain synthetic information presented in the form of a recommendation of the decision-making associated with the implemented strategy. The confirmation of the thesis of supporting marketing strategies through IT tools will be presented as a case study of a particular company.

Keywords: marketing strategy, IT tools**,** Business Intelligence, BPM

Streszczenie: Celem niniejszego artykułu jest analiza wpływu kluczowych narzędzi IT na realizację strategii marketingowo-logistycznej. Ta analiza ma wskazać poziom skuteczności realizacji strategii w firmach w kontekście możliwości jakie stwarzają systemy klasy Business Intelligence, stosowane w różnorodnych obszarach analityki biznesowej i wspomagania decyzji. Współcześnie są już one traktowane jako standardy biznesowe warunkujące skuteczne zarządzanie przedsiębiorstwem**.** Szczególną rolę zaczęła odgrywać informacja i efektywny sposób jej pozyskania z ciągle powiększającego się zasobu danych gromadzonych przez firmy. Dało to podstawę do rozwoju systemów informacji marketingowej, które wspierają podejmowanie decyzji marketingowych na każdym szczeblu funkcjonowania przedsiębiorstwa i realizacji jego strategii. Dzięki więc zastosowaniu Business Intelligence oraz systemu Business Performance Management zwiększa się jakość decyzji oraz efektywność integracji wielu procesów prezentowanych w formie kokpitów menedżerskich i kart wyników. Warto więc uznać w kontekście modelu BPM, iż jego celem jest uzyskanie syntetycznych informacji przedstawionych w formie rekomendacji decyzyjnych powiązanych z realizowaną strategią. Potwierdzeniem prawdziwości tezy o wspomaganiu strategii marketingowych przez narzędzia IT, będzie przedstawione studium przypadku konkretnej firmy.

Słowa kluczowe: strategia marketingowa**,** narzędzia IT**,** Business Intelligence, BPM

Business Intelligence Systems

In view of the rapidly progressing hyper-competition it became possible to maintain a competitive advantage through analytical skills and fast-growing computer applications, as well as developing strategies for enterprise informatization.

The beginning of the new millennium which is the twenty-first century is considered to be the age of information. This is confirmed by the Nobel Prize winner of 2001, JE Stiglitz, who is speaking directly about the paradigm shift in the economy, "the paradigm of competitiveness to the paradigm of computerization"[1]. You can, therefore, consider that such information and the ability for its processing, analytics, reporting, and analytical forecasting is a major source of competitive advantage.

The information is also the basis for the construction of a third era of civilization, that is, the information society[2].

Also, information is one of the key strategic resources, and indeed, it determines the success of a company.

The challenge for companies today is to know that the metric system describing marketing strategies and evaluating financial performance, business and marketing strategy in more detailed than the parameters and possibilities of determination of costs, effects, and marketing productivity. It should also be noted that during the past two decades, research on the effectiveness and efficiency of marketing has evolved so much abroad and in Poland. There are many effective methods, some of them have characteristics of high efficiency processes, and they use analytical solutions (some of them derived from studies PIMS - project Het Profit Impact of Marketing Strategy), more and more advanced methods are there to assess the impact of marketing expenditures on the value of the company, its market situation and financial and held tangible and intangible marketing assets.

All these aspects have also been presented by T.H. Davenport, stating in the article titled “Analytical skills as a competitive weapon”, that "analytical talent in the early twenty-first century may be the same as the programming talent in the late 90s”[3].

Using the words of the analyst, we mean extensive use of data, statistical and quantitative analysis, explanatory and predictive models, and fact-based management to make decisions and take action. It can be controlled by a human or can be an automatic decision. It is part of what is called business intelligence: a set of technologies and processes that use data to facilitate the understanding and analysis of business results. Business intelligence includes access to the data, creating reports and analysis. The very concept of business intelligence, which emerged in the late '80s, is the software consisting of tools that allow employees to identify, transform and store data (in industry parlance: ETL-extract, transform, load) for analytical purposes and then share the results of these analysis in the form of reports, warnings, and scorecards[4]. BI is a tool designed for managers and professionals involved in analysis and strategy.

There are a lot of different analytical software, from relatively simple statistical and optimization tools in spread sheets, for example, statistical software packages (for example Minitab), complex business intelligence packages (SAS, Cognos,

[1] J. Macias, *Nowa rola informacji w społeczeństwie informacyjnym*, „Przegląd Organizacji” 2/2008, s. 9, following J.E. Stiglitz, *Informacja i zmiana paradygmatu w ekono*mii (cz. 1), „Gospodarka Narodowa” 2004, NR3, s. 78-90.

[2] J. Macias, dz. cyt., [za] D. Chaffey, S. Wood, *Business Information Management, Improving Performance Using Information Systems*, “Financial Times”, Prentice-Hall 2005, p. 9.

[3] T.H. Davenport, *Zdolności analityczne jako broń konkurencyjna*, Harvard Business Review Polska, Warszawa, May 2007.

[4] Ibidem.

Business Objects), forecasting, industrial applications (Fair Isaac) and the analytical and reporting modules forming major enterprise systems (SAP and Oracle). Good analytical skills require good information management capabilities to integrate, transform, and access business transaction data. Some people would probably consider analytics and analytical information technology equal, but this would be a false assumption, because it is the human and organizational aspects of analytical competition which really differentiate it.

The authors of "Thomas H. Davenport, J.G. Harris Competing on Analytics "- in the best-selling item state: as companies in many industries offer similar products and use comparable technology, such as high-performance business processes who are among the last existing points of differentiation. Many of the previous ones, which were the basis of competition, lost their topicality. The advantage of the unique geographical location is not relevant to global competition, and protective regulations are no longer used. What is left for the analytical competitors, is to make their company operative with maximum efficiency and effectiveness, and their decisions have to be the most accurate possible[5].

Next the authors state that the analyst can help almost any business process. However, each organization must distinguish its ability, which may be a business process or a type of decision. This may be the ability to improve and identify the best and loyal customers or hiring and promoting the best workers in the sector.

On the other hand, maybe some of the operational business processes do not differ too much from others, but you know that you can compete in the field of decision-making. Maybe using analytics, you can choose the best location for your stores. Good decisions are taken for custom based analysis and systematically collected data.

Thus, analytic competitors are companies that have chosen one or several distinguishing abilities on which they base their strategies and then use lots of data, statistical and quantitative analysis, and decisions based on facts to support them. When the strategy focuses on the abilities, the analyst can move them to the next level. For example, Capital One is called its approach to the study of competition "strategy based on the information".

Given this importance of IT in the context of management support, companies with strong customer-oriented and current market trends worth your attention is a brief characterization of key IT systems:

- CRM − The Customer Relationship Management,
- PLM − System Product Lifecycle Management,
- BI − Decision Support System.

CRM market offer includes both complementary solutions (offering comprehensive support of IT tools in every area of customer service functionality of the system), as well as versions with the constraints of profiling such systems for a specific audience - examples are interfaces that support selected areas of common IT tools class CRM. Among the solutions of complex, leading position include systems such as SAP.

[5] T.H. Davenport, J.G. Harris, *Competing on Analytics: The New Science of Winning*, Harvard Business School Press, Boston, Massachusetts 2007.

It is worth quoting the division of basic tools included in the broadly defined BI:

- Tools used to finance intelligence service areas - Economic and Financial
- STEPP intelligence tools used to support the processing of information in the field of sociology, technology, economics, politics and material factors in the perspective of the analysis of strengths and weaknesses of the company in a multi-dimensional socio-economic environment[6]
- tool used for the supplier intelligence to support business processes related to logistics
- tools of marketing intelligence responsible for the improvement of marketing activity
- other similar instruments- Business Intelligence Systems are defined as: acquisition of analytical information to business with the use of IT and its effective presentation of the recipients[7].

According B. Kubiak Intelligent Business Systems in addition to the integration and aggregation of data collected from distributed resources provide their multidimensional analysis and intelligent exploration. In addition, the broadest application of supported decision-making problem solving are expert systems (SE) and hybrid systems (SH), which through a combination of different fields of artificial intelligence) neural networks, genetic algorithms. SE enhances the capacity management system. An example of the positive use of SH in Poland is the system of Intelligent System for Financial Analysis (ISAF).

Basic modules retrieve and store data, data interpretation and presentation of information. In turn, the knowledge base consists of thematic sources such as the assessment of liquidity, profitability, capital management, rating the company's position in the sector and assesses the attractiveness of the sector and industry risk. BI systems are sometimes referred to as Market Intelligence and actually are a branch of market research, concerning the collection and analysis of available and relevant information and data on individual markets. Large market intelligence agencies in the U.S. and Europe are the Economist Intelligence Unit, Datamonitor, Euromonitor International, a Mintel. Such companies publish market research reports on different sectors and advisory projects for individual clients. Another approach is presented in Figure 1.

[6] A. Pollard, *Competitive Intelligence*, Pitman Publishing, New York 1998, p. 58, following ibidem.
[7] B.F. Kubiak (red.), *Strategia informatyzacji współczesnej organizacji. Teoria i praktyka*, UG, Gdańsk 2003, s. 240, compare T. Żmudzin, *Business Intelligence – mapa obszaru*, „Strategie Biznesu", kwartalnik SAP Polska 2002, nr 14 (14).

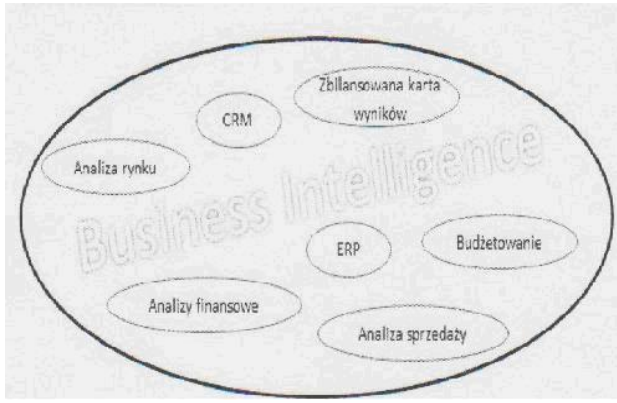

Figure 1. BI as a link between IT systems of the company
Source: on the basis of M. Nycz, B. Smok, *Business Intelligence w zarządzaniu*, WUE, Wrocław 2010, s. 4-5

A second example is a system of product life cycle management, despite exhibiting the characteristics of autonomous, to a fully-fledged functioning requires close cooperation with ERP and CAD (Computer Aided Design) − computer-aided design system. The complete structure of communication depending PLM figure below.

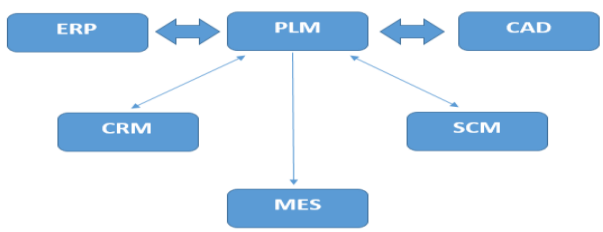

Figure 2. The general model of communication structure
Source: Owned materials

PLM system acts as a "connector" between the ERP and CAD, additionally using the exchange of information with systems such as CRM, SCM, and downloading information systems used by departments of production, marketing and service (eg. with MES - Manufacturing Execution System / Manufacturing Execution System). Strong binding of Enterprise Resource Planning results in making PLM system title "functional extension of the ERP system."[8]

Such a highly developed transport network is associated with a range of functionality of the PLM system, which comprises:

- Product Data Management (PDM - Product Data Management called),
- Definition of Product Management within the Supply Network (CPDM − Collaborative Product Definition Management),

[8] A. Lenart, *Zarządzanie Cyklem Życia Produktu a systemy ERP*, PTZP, Zakopane 2009, s. 118-120.

- Knowledge Management for Product (PKM - Product Knowledge Management)
- Process Design Automation (MDA - Mechanical Design Automation)
- Project Management (PM)
- Computer simulation of manufacturing processes[9].

The above-mentioned subsystems are the main components of the system of product life cycle management.

A system worthy of special attention, however, is Business Intelligence − Decision Support System. While PLM is the link between ERP and the systems of technical support and CRM is an extension of the scope of ERP functional relationship with the client, so BI is the general form of these binders and other IT systems operating in the enterprise simultaneously act as their extension[10]. This is related to, inter alia, the scope of the operation of BI at every level of the company management, which necessitates the integration of all enterprise data in order to obtain reliable and best-fit information.

Marketing Intelligence and typical analytical applications in marketing and supply chains

Marketing Intelligence is a part of Business Intelligence. In marketing tools are generally used to support market research and business environment, the study of competitive strategy and building lasting relationships with customers. The main task carried out during the introduction of Marketing Intelligence is to build systems that allow the preservation and creation of appropriate quality data.

There are four types − a group of tools that enables the collection and analysis of data for users.

The first group consists of data storage and wholesalers theme.

The second group is decision support systems. These tools have features like forecasting, optimization methods and the possibility of constructing scenarios of events.

The third group is a tool for multidimensional data analysis (OLAP). It allows you to perform analysis of prognostic and hypothetical.

The fourth group is a type of data mining tools that are used to automatically search the data sets for finding hidden patterns, sequences and relationships when the implementation of simple analysis is not possible[11]. In view of the concept of building Marketing Intelligence should present a concept described by TH Davenport and J.G. Harris analytical applications indoor and outdoor.

For indoor applications financial management and accounting has been included, as well as research and development, production and human resources management. Typical analytical applications that are used in internal processes are listed: the ABC method, statistical inference Bayesian bio-stimulation, optimization algorithms such as: optimization of the product portfolio, Monte Carlo simulation,

[9] T. Parys, *Systemy informatyczne wspomagające zarządzanie produkcją i logistyką*, PAR, Warszawa 7-8/2012, s. 44-51.
[10] M. Nycz, B. Smok, *Business Intelligence w zarządzaniu*, WUE, Wrocław 2010, pp. 4-5.
[11] A. Nowicki, op. cit., p. 236.

multiple regression analysis, neural network analysis, content analysis. An important application of marketing is to optimize the analysis of the portfolio of products.

External processes that have been included, border between CRM customer relationship management (customer relationships management) and supply chain management SCM (supply chain management). For these processes, external marketing applications are listed below.

Typical analytic applications in marketing:

- CHAID (Chi-square automatic interaction detection). This statistical technique is used to assign clients to specific categories on the basis of multiple alternative variables. The analysis forms a "tree" segmentation and ads or branches to different variables as long as it is not statistically significant.
- Conjoint analysis. It is used mostly to assess the strength and direction of customer preferences, which attributes to a combination of products and services. For example, analysis of the combination of attributes can be used to determine which factors-price, quality, location seller, etc. − are the most important to the customer when purchasing a new car.
- LVA (Life Value Analysis) Analysis of customer value over time. This analysis uses analytical models to estimate the amount of profit from having one customer (or category of customers) achieved throughout the period of the transaction. Advanced models generate an accurate valuation of the costs incurred by the client while purchasing and using the product, the costs associated with the distribution channel, the probability of returns, expenditure on phone calls to customer service, etc.
- Experiments market. Using direct mail, promotion or changing the vendor website while testing the variables to highlight those that are most responsive customers in the offer. Usually tests various methods of treatment, based on the presumed random variables for different (completely random) groups, with a measure of results and comparisons, so that the effect of the procedure can be observed.
- Multiple-regression analysis. It is the most common statistical technique of predicting the dependent variable (for example sales) in relation to one or more independent variables (such as the number of sellers, temperature, and day of month). While the basic regression assumes a linear / linear relationship, modifications of the model can lead to non-linearity / nonlinearity, the logarithmic relationship, etc.
- Optimization prices. Also known as yield management revenue, this technique assumes that the basic random variable customer purchasing behaviour is the price. The most important issue is usually the price elasticity or response (change, successful) of a buyer for the increase or decrease in prices. Price optimization initiatives typically create curves price elasticity to enable understanding of the impact of price changes at different scales and conditions.
- Experiments on time series. These experimental observations of specific projects assumed throughout the population at different points in time. Regular experiments determine whether the conditions are applied at certain times, and lead to

alteration of the examined variables. This approach can be used, for example, to define the scope of the impact of exposure to advertising product sales[12].

Although already mentioned, the above / internal applications are also typical of analytical applications in marketing which can include strategic analysis, portfolio analyses used in the planning and implementation of marketing strategies (such as BCG, DPM-matrix policy-directional policy matrix-GE).

Typical Analytical Applications in Supply Chains

Capacity planning. Finding the capacity of a supply chain or its elements; identifying and eliminating bottlenecks; typically employs iterative analysis of alternative plans.Demand – supply matching. Determining the intersections of demand and supply curves to optimize and minimize overstocks and stock-outs. Typically involves such issues as arrival processes, waiting times, and throughput losses.

Location analysis. Optimization of locations for stores, distribution centers, manufacturing plants, and so on. Increasingly uses geographic analysis and digital maps to, for example, relate company location to customer locations. Modelling. Creating models to simulate, explore, contingencies, and optimize supply chains. Many of these approaches employ some form of linear programming software and solvers, which allow programmes to seek particular goals, given a set of variables and constrains. Routing. Finding the best path for a delivery vehicle around a set of locations. Many of these approaches are versions of the “traveling salesman problem”.

Scheduling. Creating detailed schedules for the flow of resources and working through a process. Some scheduling models are “finite” in that they take factory capacity limits into account when scheduling orders. So-called advanced planning and scheduling approaches also recognize material constraints in terms of current inventory and planned deliveries or allocations.

The discipline of supply chain management has deep roots in analytical mastery, companies that have excelled in this area have a decades-long history of using quantitative analysis to optimize logistics. Companies getting a later start, however, have clear opportunities to embrace an analytical approach to customer relationship management and other demand processes[13].

Computer applications and Business Performance Management

There are so many support capabilities such as construction and implementation of marketing and sales strategy for the company through a properly selected set of analyses of the dynamics of the portfolio and the use of computer applications.

Package to support the strategic management of the enterprise (PTSD) is an application that works in the MS Windows environment in the MS Excel spread sheet. This application is intended for those professionally engaged in computer science, but it is assumed that the user of the system has basic skills in the use of microcomputer, Windows, and MS Excel spread sheet.

[12] T.H. Davenport, J.G. Hariss, *Competing on Analitics,* Harvard Business Schyl Press, Boston, Massachusetts, 2007, p. 87.
[13] Ibidem, p. 99.

The package contains ZSP strategic analysis methods, such as construction and selection strategy. This package can be divided into three modes: sample, working, wizard. In the first group are the methods of strategic management: an integrated method of strategic analysis (SWOT, SPACE), portfolio methods (BCG, McKinsey), scenario methods (development of the macro and competitive environment of the company).

In the multivariate analysis model portfolio, J. Rybicki presented the possibilities of the use of information technology in the analysis of portfolio[14]. Computer applications are also used to analyse the dynamics of the product portfolio. However, in order to provide a desktop application design and implementation of a virtual company strategy, he mainly used so called strategic navigator, comprising the following segments:

- mission and objectives of the company, strategic analysis SWOT / TOWS,
- multivariate analysis, competition analysis,
- research and development, product analysis,
- portfolio analysis, financial analysis.

Computer application in the segment portfolio analysis includes factors portfolio analysis. They consist of market profile matrix, the matrix evaluation of the activity, matrix, market profile and multi-dimensional analysis of the portfolio.

The programme, inter alia, contains features that support a functional and factual support. Functional user help is in a fluid movement throughout the program. It consists of two parts, i.e. the configuration of the Navigator Strategic and general operating rules of the programme. In contrast, substantial help is the theoretical foundations for the various segments of the programme. Its structure is identical to the thematic structure of the entire application.

In turn, strategic simulators as CEO (Chief Executive Officer) are used as a tool to define, making a selection strategy and to study its feasibility. The first successes of their use were recorded in the late 90s in international companies, such as British Airways, Shell and Glaxo. The use of such modern tools allows you to try out strategies without taking any risks[15]. The strategic simulator of CEO also has a module for the hierarchical analysis (AHP-Analytic Hierarchy Process). It is a tool for decision-making, in which the choice of strategy is carried out by comparing the different versions of its turn with all the other things that are taken into account. Comparison does not take place globally, but in pairs, it facilitates the final choice. The disadvantage of this tool is that it is often necessary to make a huge number of choices: if you are considering 3 strategies – there are 3 pairs for comparison, 4 strategies - par is 6, if there are 5 strategies 10 type:

- "the price reduction" or increase the advertising budget?"
- "the price reduction" or higher commission to distributors?"
- "increasing the advertising budget" or higher commission to distributors".

Following these important analytical applications should also provide the next generation of BI or Business Performance Management (CPM whether or EPM). This is actually the development and expansion of the use of BI.

[14] J. Rybicki., *Wielowymiarowy model analizy portfelowej jako narzędzie formułowania strategii rynkowej przedsiębiorstwa,* Wydawnictwo UG, Gdańsk 2000.
[15] M. Muszyński, *Aktywne metody prowadzenia strategii przedsiębiorstwa*, PLACET, Warszawa 2006.

The differences between these systems are quite distinct, even where the extent of use of BI are used at the level of individual organizational units, and BPM systems across the organization. Often BI is a tool of analysts and BPM solutions are for all employees. The range of data processing in the case of BI is mainly analyses and BPM are obtained as specific recommendations and guidance for further action. Hence, Bi results are presented in the form of different reports and comparative indicators. However, in the BPM there is synthetic information in the form of KPI dashboards recognized in managerial and here you have to take into account the separate marketing dashboard. They are presented the results in the form of scorecards. It is worth noting that the BI system uses a historical analysis of the events, and BPM systems refer to the current time but also include predicting certain phenomena. It should be noted that BPM is a concept, which aims to provide more synthetic information in the form of indications of decision-making related to the implemented strategy[16].

There are so many benefits of Business Performance Management systems, which are listed below:

- Better control and ability to influence the business processes in the company,
- Integration of many independent processes into one coherent system ,
- Improvement of the implementation of the strategy, strategic planning ,
- A holistic approach to management,
- Faster response to certain events
- Explicitly identify the causes of certain events
- Improving business performance, improve coordination of group work[17].

Future analytical competition

An analytical future world can be divided into a three category approach initiated by technologies, approaches concerning human capacities and those associated with changes in business strategy. Will only be briefly discussed in the following two categories.

The changes initiated by technology

Series technological capabilities are already being used on a small scale in organizations. We expect the extent of their use to expand. These extrapolations of existing practices include: Dominant Software Business Intelligence (BI) and the increasing use of specialized "business intelligence".

Changes in business strategy

Analytical competition will be more and more developed, because it will become a determinant of the strategy in different ranges of problem companies. Analysts Motto is: "If it's worth doing, it's worth doing analytically". Strategic Trends in the context of the analytical require more analysis like uantitative and qualitative.

[16] J. Nesterak, B. Ziębicki, Od Business Intelligence do Business Performance Management, "Przegląd Organizacji", nr 6, Warszawa 2012, s. 41-42, following C.H. Ballard, C. White, S. McDonald, J. Myllymaki, S. McDowell, O. Goerlich, A. Neroda, Business Performance Management… Meets Business Inteligence, International Business Machines Corporation, US 2005, pp. 28-29.

[17] J. Nesterak, B. Ziębicki, Od Business Intelligence do Business Performance Management, "Przegląd Organizacji", nr 6, Warszawa 2012, s. 41, following W. Eckerson, Best Practices in Business Performance Management: Business and Technical Strategies, "TDWI Report Series" 2004, March, p. 8.

So it is a growing awareness of competition analysis, which results in and pushes the boundaries of analytics in terms of products, services and business models. Another strategic trend includes content analysis, and therefore tends to quantitative analysis for the physical units of inventory and intangible assets. Behind this also advocated by R. Kaplan and D. Norton in the famous Balanced Scorecard - Balanced Scorecard. Development, measures must be incorporated into the scorecard and measurable processes, and relationships between different measures need to be examined and understood.

Currently, it is the resulting software on marketing mix modelling and Marketing Balanced Scorecard - Marketing Balanced Scorecard. The purpose of the card is to assess the effectiveness of the implementation strategy and evaluation of the strategy. The Balanced Scorecard translates the marketing plan objectives and system of metrics to assess. The card consists of four areas relating to: financial, customer, business growth and marketing activities. Each area is made up of objectives and measures of implementation of these objectives, in addition, each objective is assigned a weight that reflects its significance in the whole area perspective, and each goal is assigned a target value. The latest marketing tool is marketing dashboard.

Currently, there is a trend towards the development of the concept of "digital factory", consisting of design, analysis and manufacture of a new virtual product before taking action in the area of material. Invaluable in this field use of IT tools, allowing not only to simulate a new concept product of any complexity construction, but also provides the necessary information and analysis to support not only the management currently offered goods, as well as minimize the risk associated with the marketing of a new product[18]. It's creating the concept of "digital factory" especially by manufacturing companies' strategic importance on the way to achieving a competitive advantage in today's business reality[19]. The foundation for the development, implementation and effective implementation of each marketing strategy is information. As many literary sources say, including J. Unold, information is the key resource of any enterprise, which often determines its success[20]. The basic types of information used in companies in management, helps in making all kinds of management decisions. These IT systems have an objective appropriate to generate, collect and manage this type of information. A special form of information management is marketing information, which is used in marketing management.

An example of the implementation of the SAP system in the company Mokate

The practical process and the effects of the implementation of the SAP system in the Mokate company has been presented below[21]. In 2002 Mokate was such a company - the dynamic growth of the company has not kept up with the systems. In the opinion of management of the company, with the increasing scale of opera-

[18] http://.computerworld.pl/news/385906/Kreatywna rola IT w firmie to nie abstrakcja,html 14-03-2013
[19]http://it.wnp.pl/znaczenianabierającnarzędziaitwspierającekoncepcje fabryki cyfrowej, 191138_1_0_0, html,02-04-2013
[20] J. Unold, *Systemy informacyjne marketingu,* WAE, Wrocław 2009, s. 54-57.
[21] http://www.7milowy.pl/baza-wiedzy/historie-sukcesu-klientow/mokate-wdrozenie-sap.html

tions, number of products, entering new market segments - previously used solutions (including the Impuls BPSC) did not meet the rising expectations for flexibility and timeliness of the data provided for decision-making. What management Mokate expected from the target system? Firstly, it will provide access to management information of the highest quality − reports on sales and profitability on many different levels and dimensions. Secondly, it will improve the planning process in the logistics chain, from sales through production planning, to plan purchases and inventory optimization of materials.

Proper implementation works were preceded by in-depth analysis of financial and logistical Mokate. During the analysis, BCC consultants learned Mokate business processes and information needs of users and management. As a result, it was defined in detail of the scope of future development and presented Mokate specification proposed organizational changes. Based on the positive results of the verification decision was made to use SPRINT and reconfigure is as SAP for Midsize Companies.

The scope of SAP implementation in Mokate

- Financial Accounting (FI)
- Fixed assets accounting (FI-AA)
- Treasury (TR)
- Controlling (CO)
- Materials Management (MM)
- Production planning (PP)

Sales and Distribution (SD)

Standard SPRINT has been expanded to include specifics of Mokate. Concerned include modification postings for transactions carried out by the company in Zory in a special economic zone, but also the planning procedures for the production of custom and merge, planning and cost accounting coffees, teas and creamers. With the implementation of SAP increased availability of analytical information without increasing the burden of the financial and accounting Mokate. The effect was achieved by automating postings in accounting and finance. It is associated with the operations of logistics and production, such as the adoption of emerging materials for warehouse, production materials releases or when posting a sales invoice.

The sales cycle is based on a sales order, in turn, this enables accurate tracking of the status of orders processed - so that traders know how many products the customer ordered and when exactly it will be delivered. The value of the goods supplied and the value of sales invoiced are recorded in real time on general ledger accounts without user intervention. In parallel with journalling are written analytical information which allows for accurate and extensive analysis of sales revenue and cost of sales.Currently Director of Sales-to-date knows what is the range of deliveries to supermarkets and other customers and customer groups. It can also check what level of sales Assam in 100g packs generated last week for dealer Kowalski in Bialystok. Analysis of revenue and profitability is possible in real time, in any combination of characteristics, such as product, customer, and vendor or distribution channel.

Urszula Holeksa, Head of Commercial, commented: "Now one click is enough to gain access to daily reports or periodic sales. At any time I can find out how coffee is selling in Katowice and who buys it. I can also look at how much and what kind of discounts we gave each of our customers.

Efficient supply chain

This assured full support of the process of supply of materials and services. Purchase orders are generated in the system, taking into account the existing conditions in the storage and material needs arising from the production plans implemented in the module production planning. Employees of the purchasing department can now be confident that the volume of orders for coffee beans, sugar or coconut oil takes into account the available stock inventories of these materials and is a direct result of the planned volume of production for products such as cappuccino. That is a guarantee that the course material requirements planning MRP requirements are taken into account directly, on raw materials and semi-finished products used for the production of specific products, and demand depends on the materials that are consumed meanwhile. Reports of material management, on the other hand, allow for a complete analysis of quantity and value stocks.

"With SAP Mokate obtained analytical capabilities previously unavailable to us. We can now accurately cater to individual postings and report on the structure of the actual cost of production and we are able to analyse the profitability of sales in any defined segment of the market in which we operate. And it's all in real time, immediately after the operation in the system. Value management of this data is invaluable and in my opinion is the key to strengthening our position in the market and provides a solid basis for further long-term development of the company" − Sums up Teresa Mokrzysz. This example confirms the need for analytical applications in marketing and logistics across the enterprise.

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