

Natorina Alyona Oleksandrivna,

*PhD Student of the Department of Information Systems and Management Technologies,
Donetsk National University of Economics and Trade
named after Mykhayilo Tugan-Baranovsky (Donetsk, Ukraine)*

ANALYSIS OF INFORMATION SYSTEMS FOR THE ENTERPRISES MARKETING ACTIVITIES MANAGEMENT

The article deals with the role of the computer information systems in the enterprise marketing activities strategic management, enterprises marketing management information systems. The stages of the development system and launch of a new product into the market within its life cycle are analyzed, exemplified by fat and oil industry.

Keywords: marketing activities, strategic management, automation, marketing information system, fat and oil industry.

Problem statement and its connection with important scientific and practical tasks.

The market environment globalization, in which modern businesses operate, is characterized by active changes in the business conditions. Companies use tools, comprising a system of total quality management, process reengineering, benchmarking, automated systems for customer relationship management, and others to improve the enterprises competitiveness.

The intensity of competition along with rising consumers' demands determine the enterprise management systems implementation based on marketing, which allow to establish a close relationship between the company and its external environment, thus increasing the operations efficiency and market position strengthening [1, p. 120-121].

From the standpoint of the businesses practical needs, at the present stage, the searching issues for new approaches to marketing activities strategic management become urgent, that indicates the timeliness of the research results.

Analysis of the recent researches and publications. Various aspects of the marketing activities strategic management have been investigated in the scholars' works, among which it is necessary to mention Gabay J. [2], Lahotska N. [1], Lambin J-J. [3], Raiko D. [4], Sokhatska O. [1] and Zaitseva O. [5]. A significant contribution to the development perspective of marketing businesses automation and informatisation has been done by native and foreign scientists, namely Honsor O. [11], Konnova L. [8], Naumova O. [7], Ozherelieva M. [6], Pylyavets V. [9], Shapoval O. [8].

However, despite many research, problems of strategic marketing management and marketing automation was not discussed adequately, that's why the investigated theme becomes urgent.

The aim of the article is to determine the place and the role of computer marketing information systems in the marketing activities strategic management, to analyze the development stages and the launch of the product into the market, exemplified by fat and oil industry within its life cycle, as well as to study the practice to apply various automated systems.

Main material. Modern market environment is characterized by high level of uncertainty, risk, intense competition and the market changes transience. It is necessary to implement an effective strategic approach that will provide the company with an appropriate response to the

external dynamics. The problem of long-term company success refers to the general management objectives and is provided by the strategic management function on the one hand, and the marketing functions implementation on the other hand [4, p. 177].

Strategic management of enterprise marketing activities in self-organization market conditions is an activity that involves the establishment of close economic, technical and social ties and establishing long-term mutually beneficial relationships with key partners in the enterprise market (customers, suppliers, intermediaries, etc.).

The main goal of the marketing enterprise activity strategic management is to create a special asset of the company, i.e. a self-affiliate marketing network that covers both the company and interested groups in its work: customers, staff, suppliers, dealers, advertising agents, government agencies. In this case, those companies are successful which are able to build the most effective self-organizational system [5, p. 297], where information plays a crucial role, since it allows to evaluate the specific market situation and to make appropriate management decisions.

The marketing service supports information systematization, preparation of strategic and tactical market decisions at many enterprises. For this purpose, there has been developed a unified system to collect and process marketing information covering all enterprise departments, i.e. a marketing information system. A marketing information system may be defined as a set of procedures and techniques, designed to create, analyze and disseminate information to make marketing decisions on a regular ongoing basis. Its main task is a conversion of available information about the marketing object, the processes in its environment in such form that allows evaluating of the marketing state and the situation development, to simulate its change and timely transfer information to the managers to assess the situation and make informed decisions [6, p.106].

According to this model, marketing information system includes four subsystems [7, p. 131]:

1) inside information subsystem is a set of personnel, facilities, procedures and methods to collect various reporting units required for further internal environment analysis;

2) external information subsystem is a set of methods and procedures to monitor the status of enterprise micro- and macro-environment and timely changes identification in the market environment;

3) marketing research subsystem is a set of units or individual performers aimed at planning, organization and measures implementation to collect and process all the necessary information;

4) marketing analytics subsystem is a set of personnel, facilities, special methods and modern information technology, by which systematization, storage, processing and analysis of all information, received from other subsystems, is ensured. The subsystem operation result is to prepare conclusions, to form illustrative material and to develop recommendations for those who make relevant marketing decisions.

The modern concept of the marketing information system is based on the optimal combination of computer hardware, computer networks, professional software, operating systems and marketing database, which are intended to provide promptly the necessary information for marketers to make informed marketing decisions and business management.

Computer marketing information systems allow marketers to implement electronically the following basic professional functions as: market research, assortment planning; marketing

strategies and marketing planning; pricing and marketing policies, and measures to promotional activities [8, p. 39].

The automation of marketing enterprise activity, the choice of particular software product or a software tools set to solve marketing problems depend on the business nature, infrastructure, activity sphere, enterprise scale.

Ukrainian fat and oil industry is the only one agricultural production sector, where due to the realization of economic market regulation measures, the balance between state economic interests, agriculture, processing industries and a domestic consumer has been established.

Enterprises of Ukrainian fat and oil industry can be divided into three categories. The first category includes companies that produce oil: oil and fat and oil extraction plants. The second category includes small oil producers for which the vegetable oil production is not the main activity. These processors mostly depend on the domestic market situation, because they launch production of oil small batches used for the rural population needs. The third category consists of fat products manufacturers. They are margarine factories, soap factories [9].

A large number of Ukrainian fat and oil industry enterprises are members of the association "Ukroliiiprom", among which the largest manufacturers of vegetable oils are PJSC "Poltavskiy oliinoekstratsiinyi plant – Kernel Hrup", LLC "Kombinat Karhill" with FI "Dnipropetrovskiy oliinoekstratsiinyi plant", JSC "Melitopolskiy oliinoekstratsiinyi plant", PJSC "Polohivskiy oliinoekstratsiinyi plant", LLC "Prykolotnianskiy oliinoekstratsiinyi plant", LLC "TK"Urozhai", JSC "ADM Illichivsk", IG "Violliia", LLC "UkrOliya", LLC "Hradoliia", LLC "Satellit" [10].

Association members coordinate their activities and solve jointly the organizational, economic, technical and other problems. "Ukroliiiprom" performs representation functions to protect the enterprises interests in fat and oil industry on economic issues, foreign trade questions, customs-tariff and technical regulation in the legislative bodies and state administration bodies, other organizations and agencies. The main idea of the enterprise marketing activity strategic management concept in Ukrainian fat and oil complex in the self-organization market conditions is the strategic and operational marketing distinction, systematic analysis of market needs to develop products with special properties that ensure a sustainable competitive advantage to the enterprise [5, p. 298].

Figure 1 presents the stages of the development system and launch of a product into the market within its life cycle and suggests appropriate types of automated data processing systems.

Abbreviations in Figure 1 have the following meaning [11, p.137-138]: CAD – Computer Aided Design; CAE – Computer Aided Engineering; CAM – Computer Aided Manufacturing; CNC – Computer Numerical Control; CPC – Collaborative Product Commerce; CRM – Customer Relationship Management; ERP – Enterprise Resource Planning; MRP II – Manufacturing (Material) Requirement Planning; MES – Manufacturing Execution System; PDM – Product Data Management; SCADA –Supervisory Control and Data Acquisition; SCM – Supply Chain Management; S&SM – Sales and Service Management.

The mentioned above programs are corporate information systems, in which module marketing may work independently. Thus, operational CRM tools are used by sales managers, employees, who work with reclamations and marketing specialist. They are involved in several marketing information subsystems: forming database during the interaction with customers, partners and advertising agencies and their responsibilities within the collection provide marketing information.

Specialized programs that automate certain marketing functions serve to consolidate their analytical processing, and information distribution among users. The program also comprises the processes involved in obtaining of information. The most popular analytical programs

include “Marketing Expert” and “BEST-Marketing”, which are used for strategic planning; “Parus”, “Marketing Mix”, “Lastochka” are used for strategic and operational planning; “Marketing Analytic” and a series of programs “KonSi” are used for analysis, forecasting, planning [6, p. 106].

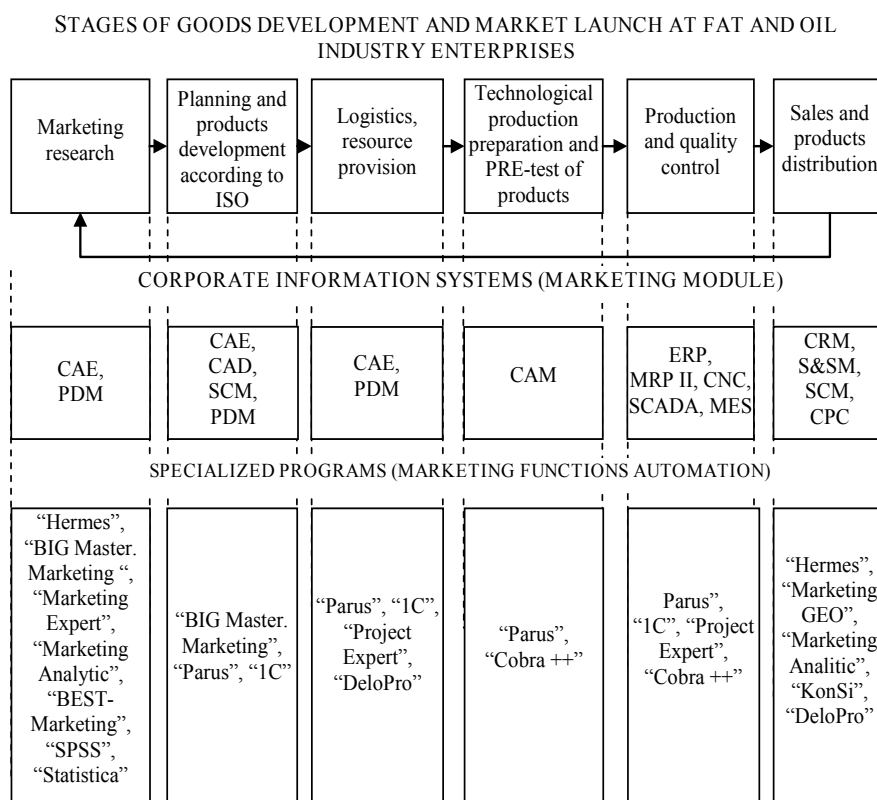


Figure 1 – Stages of goods development and market launch within its life cycle and relevant automation system at fat and oil industry enterprises

The enumerated programs allow users to organize analytical repository and set the standard procedure for the data transfer from other systems. Furthermore, they can perform as accounting system.

Marketing information systems allow the enterprise to provide the marketing management structure. They can develop automated dialogue procedures that take into account the views and coordinate developers and customers while negotiating and concluding contracts to execute orders. Let’s analyze the usage of the CRM-system “Parus.Management and Marketing” on the example of fat and oil industry. For oil extraction plants in this CRM-system the problem of the tolling raw materials settlement, conversion of physical weight in crediting by different suppliers groups, calculation of the product yield reduction in case of lowering the oil seed was solved. Also there is the process of output records, refining and finished product deodorization. The system “Management and Marketing” is a simple multi-

functional CRM-solution. The product is oriented on companies that work in the service, trade and production industry. Easy and flexible interface settings allow users to apply CRM-system in various business sectors, as well as to adapt it to the customer requirements without any additional programming. The basic configuration of marketing activities management allows users to automate enterprise tasks such as: keeping a single structured database of clients, potential clients, partners and other contractors; planning and accounting of sales (sales funnel); accounting of requests from clients and their phased implementation; accounting of marketing activities and events; market research and surveys; report generation and data analysis. The example of using the CRM-system “Parus. Management and Marketing” in the fat and oil industry enterprise marketing activities to account marketing events for launching a new product is shown in Figure 2.

The system “Parus. Management and Marketing” is easy to use, accessible and makes distinctions between managerial and operational accounting tasks with full integration at the single database level, and respecting the principle of the initial single information entering.

Найменування	Тип заходу	Дата початку	Дата закінчен	Відповідальний	Валюта	Витрати
Internet	Довгострок.	01.01.2014	01.12.2014	Matvienko N.P.	USD	12,400.0
Design and identification signs	Довгострок.	01.01.2014	01.12.2014	Matvienko N.P.	USD	6,000.0
Press	Довгострок.	01.01.2014	01.12.2014	Zolova H.M.	USD	17,375.0
Polygraphy	Довгострок.	01.01.2014	01.12.2014	Iaremiets I.O.	USD	8,857.0
Promotional activities	Довгострок.	01.01.2014	01.12.2014	Iaremiets I.O.	USD	41,600.0
Outdoor advertising	Довгострок.	01.01.2014	01.12.2014	Kolomiets D.I.	USD	589,300.0
Souvenirs and Gifts	Довгострок.	01.01.2014	01.12.2014	Vysotska O.M.	USD	103,500.0

Учасники	Матеріали	Витрати	Прибутки			
Перечень затрат на суму 17375.00 USD						
Стаття витрат	Кількість	Валюта	Ціна	Сума	Валюта еквів.	Сума у еквів.
Milk produktov	3.00	USD	1,850.00	5,550.00	USD	5,550.00
Nash produkt	3.00	USD	1,250.00	3,750.00	USD	3,750.00
Food ua	4.00	USD	720.00	2,880.00	USD	2,880.00
Produkty spozhyvannia	1.00	USD	200.00	200.00	USD	200.00
Spozhyvach	2.00	USD	100.00	200.00	USD	200.00
Zdorov'e	4.00	USD	1,030.00	4,120.00	USD	4,120.00
Palina	5.00	USD	135.00	675.00	USD	675.00

Figure 2 – Marketing events for launching a new product, conditional data

Conclusions and directions of further researches. Thus, according to the results of the analysis the following results were obtained:

- the modern concept of marketing information system is based on an optimal combination of computer hardware, computer networking, professional software, operating systems and marketing data database;
- business automation is one of the means to create competitive products in the self-organization of market conditions at fat and oil complex enterprises in Ukraine;
- the stages of development system and launch of a new fat and oil industry enterprises product to the market were researched, corporate and specialized information systems, which can accompany a separate phase of the product life cycle, were suggested by author;

– the example to use the CRM-system “Parus. Management and Marketing” to account marketing events for launching new products in the fat and oil industry companies were demonstrated in the article.

Thus, the use of automated information systems in strategic management of fat and oil industry enterprises marketing activity in Ukraine will contribute to the continuous quality improvement, takes into account the needs and consumers’ expectations and increases the company competitiveness. Prospects for future research consist in the formation of evaluating mechanism for the marketing activity enterprise effectiveness automation.

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А.О. Наторіна, аспірант кафедри інформаційних систем і технологій управління, Донецький національний університет економіки і торгівлі ім. М. Туган-Барановського (м. Донецьк, Україна)

Аналіз інформаційних систем управління маркетинговою діяльністю підприємств

У статті визначено роль комп'ютерних інформаційних систем у стратегічному управлінні маркетинговою діяльністю підприємства, досліджено інформаційні системи управління маркетингом на підприємствах, проаналізовано етапи системи розроблення і виведення товару на ринок у межах його життєвого циклу на прикладі підприємств олійно-жирової промисловості.

Ключові слова: маркетингова діяльність, стратегічне управління, автоматизація, маркетингова інформаційна система, олійно-жирова промисловість.

А.А. Наторина, аспірант кафедри інформаційних систем і технологій управління, Донецький національний університет економіки і торгівлі ім. М. Туган-Барановського (г. Донецьк, Україна)

Анализ информационных систем управления маркетинговой деятельностью предприятий

В статье определена роль компьютерных информационных систем в стратегическом управлении маркетинговой деятельностью предприятия, исследованы информационные системы управления маркетингом на предприятиях, проанализированы этапы системы разработки и выведения товара на рынок в пределах его жизненного цикла на примере масложировой промышленности.

Ключевые слова: маркетинговая деятельность, стратегическое управление, автоматизация, маркетинговая информационная система, масложировая промышленность.

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