

UDK 65.012.25

V.A. Dubolazov, S.V. Salkutsan

MARKETING AND MANAGEMENT

В.А. Дуболазов, С.В. Салкуцан

МАРКЕТИНГ И УПРАВЛЕНИЕ

The concepts of marketing and marketing management are presented. The aims and the functions of marketing are described. The definition of management is analyzed and the place of marketing plan in the management process is shown. Author provides a classification of marketing plan. The economic and mathematical model for the choice of actions to be included in marketing plan is offered.

MARKETING. MARKETING MANAGEMENT. MARKETING PLAN. MODEL FOR THE CHOICE OF ACTIONS.

Рассмотрены понятия маркетинга и управления маркетингом. Описаны цели и функции маркетинга. Проанализировано понятие управления и показано место плана маркетинга в процессе управления. Приведена классификация плана маркетинга. Составлена экономико-математическая модель выбора мероприятий для включения в план маркетинга.

МАРКЕТИНГ. УПРАВЛЕНИЕ МАРКЕТИНГОМ. ПЛАН МАРКЕТИНГА. МОДЕЛЬ ВЫБОРА МЕРОПРИЯТИЙ.

In our opinion today we observe a variety (or even a confusion) of definitions for such terms as marketing, marketing management, market-driven management, management of marketing as well as for their objects, subjects, objectives, functions, etc. This article aims to provide our definitions for the above terms.

Marketing means activities related to market, sales and satisfaction of customer needs. A twofold, intertwined approach is a key to marketing:

1. On one hand, it is about a thorough and comprehensive study of the market, its demand, preferences and needs. The study is used to set up production based on these requirements and to steer manufacturing in terms of quantity, quality and delivery dates.

2. On the other hand, it is about an active influence on the market and demand and about shaping customer needs and preferences.

Marketing shall be viewed as a function – indeed a major functional subsystem – of a business management system (along with production management, logistics, financial management, personnel management, quality management, etc.).

Marketing as a crucial functional subsystem of business management aims at aligning company's capabilities and external requirements to ensure company's effective performance.

Main marketing functions include market research (demand, competition, consumers, prices,

etc.), new product development and launch, service development, pricing, distribution management, marketing communications, sales, etc.

Nowadays marketing is becoming a key function in business management and may be considered the business foundation as it coordinates all activities related to goods and services, namely, R&D, manufacturing, financing, inventory management, etc. [2].

Marketing evolution has revolutionized business management (systems of operational management like MRP II, DRP, Just in Time, etc. were designed and implemented), logistics (delivery of materials and parts in small lots), stock reduction, distributed inventories, developments in the supply chain theory, etc.). Manufacturing has also experienced significant changes, e. g., the implementation of flexible computerized manufacturing systems (FCMS).

It is our opinion that market-driven management and marketing management are synonyms which came into the Russian language through translation.

Marketing Management means customer-focused management of a company. This is a major trend in the modern business management concept. It is driven by satisfying customer need when it comes to product, quantity, quality and delivery dates all the way down to a specific order level.



Management of Marketing means management of all company's marketing activities per se (essentially, management of marketing events).

We believe it is necessary to touch upon the definition of management as it has been discussed for many years. Management is a voluntary action of the management actor towards management subjects, processes and participants to set a certain direction and to achieve desired results.

Usually the maximum number of management steps identified is setting of objectives, organization, norm setting, planning, accountability, control, review, regulation and motivation. Many companies have long-term settings for such stages as objectives, organization and motivation. Norm setting is frequently included into planning. Therefore, only such management functions as planning, accountability, control, review and regulation are often considered. Frequently the stage of plan/performance monitoring is identified and includes accountability, control and review. Thus the minimum number of management steps is planning, monitoring and regulation.

Marketing objectives shall be SMART that is specific, measurable, agreed, realistic and time-bound.

We shall highlight that marketing objectives shall be focused at achieving company's overall objectives. That means maximized profit, enhanced sale markets, product release (launch), increased company's value, reduced costs, improved competitive edge, etc. [3].

It makes sense to tie up marketing-specific goals to the system of Key Performance Indicators (KPI) [4–6]. It will facilitate planning, performance monitoring and building of a personnel incentive system. It is important to ensure that achieving of set indicators meets marketing-specific and overall company objectives. Possible KPIs are detailed in Tab. 1.

Achieving of company's objectives shall be a result of objectives achieved by every department and each employee. Personnel Incentive System (remuneration, bonuses and nonfinancial incentives) shall steer every employee towards resolving priority tasks in attainment of company's objectives.

However, the following mistakes shall be avoided in development of company's incentive system: unachievable objectives; incoherent indicators as planned by different departments or by a department and its staff; unnecessarily

complicated or multiple indicators (it is recommended to set 3 to 5 indicators for an employee and 7 to 8 indicators for a department head), no indicators for company/department/employee development; lack of a simple method to calculate indicators, etc.

Table 1

Key Performance Indicators in Marketing Management

Indicator Group	Indicator
General Indicators (Strategic Level)	Market Share
	Share of Marketing Costs
	Brand Value
	Level of Product Distribution in the Market
Product Assessment Indicators	Index of Product Competitiveness
	Product Share in Sales
	Share of New Products
	Product Market Launch Time
	Share of Costs for Product Creation
Distribution Assessment Indicators	Share of Costs for Distribution Channels
	Number of Visitors to the Point of Sale
	Average Purchase
	Number of Customers
	Number of Purchases
	Awareness about the Point of Sale (Point of Purchase)
Customer Assessment Indicators	Share of Repeat Purchases
	Rate of Customer Retention
	Share of New Customers
Assessment Indicators for Relations	Number of Company's Partners
	Share of Company's New Partners
	Number of Point of Contacts with Customers
Assessment Indicators for Marketing Communications	Assessment of Unaided Awareness
	Assessment of Aided Awareness
	Number of Phone Calls
	Number of Web-Site Visits
	Number of Advertising Exposures

The incentive system for departments and employees (therein including marketing experts) shall be underpinned by links clear to and understood by employees between their planned indicators and remuneration (bonuses); bonus must be set for indicators that are in direct control of the employee; bonus shall be substantial.

Company’s marketing starts with developing marketing organizational structure and distribution of marketing functions among marketing departments (employees). Traditionally marketing department is a part of the organizational chart. Marketing management structures can be function-based (marketing research, advertising, etc.), product-based (the structure matches product types and facilitates brand-management) or area-based (North-West, Siberia, Far East, etc.).

At many companies some marketing functions are performed by other company departments (market data collection and analysis, product development, promotion of R&D outcomes). Lately a number of papers have been published stating that a separate Marketing Department is not needed if marketing functions can be performed across other departments. This proposal requires further investigation.

A horizontal interaction between marketing and other company departments is a key operational issue. In terms of company’s organizational chart, Marketing Department shall be directly reporting to company’s manager to ensure its independence of other departments and an objective assessment of company’s capabilities while developing its marketing policy. In daily operations Marketing Department shall interact with Chief Engineer, Chief Process Engineer,

Planning and Economics, Finance, Sales, Product Development and Planning, Logistics, etc.

Currently, Russian companies practice different approaches to planning. For some companies Marketing Plans are just slightly wider than Sales Plans. For others Marketing Plan serves a basis for the integrated Company’s Plan to achieve its mission. Unpredictable market conditions made companies pay more attention to planning. Nowadays some companies review and update their Marketing Plans several times a year.

Marketing Plan is an instrument to plan and to implement company’s market activities. It provides for an ongoing accountability, control, review and regulation meant for a better adjustment of company’s capabilities to market requirements. Judging by its objectives, Marketing Plan plays a coordination role in the Corporate Plan.

Marketing Plan Types based on classification attributes are given in Tab. 2.

Several principles can be advised in managing of marketing activities:

1. Integrated approach to management. Company’s plan is a set of interrelated plans wherein a marketing plan is one of the plans.
2. A variety of company types, their objectives and goals, and products/services result in a variety of companies' approaches to marketing planning.
3. Multiple-option and situation-based planning.
4. Dynamic and continuous planning and planning updates that influence company’s operations.

Planning must abide by the following principles:

- 1) Marketing Plan shall match market trends and laws. This principle ensures high adaptability to market changes and an option to diversify, restructure and innovate in market actions;

Table 2

Marketing Plan Types

Classification Attributes	Plan Types				
	Strategic		Tactic		
Planning Level					
Management Level	Corporate	Business	Functional	Operational	
Formalization Degree	Formalized	Situational	Continuous	Nonformalized	
Planning Horizon	Long-Term		Medium-Term	Short-Term	
Managed Subject	Product	Market	Price	Promotion	Staff
Development Methods	Centralized		Decentralized		Mixed
User	Company’s Internal Needs		Private Use		External Investors

2) Coordination with resources requires to agree space and time planning with the availability of internal and external resources;

3) Incentives;

4) Partnership principle provides for a maximal consideration of interests of all market plan stakeholders along with the culture of market interaction and corporate responsibility for marketing planning outcomes;

5) Control and coordination of marketing planning and implementation tactics.

The choice of marketing events is the least clearly detailed subject in domestic and foreign papers. Most managers make choices guided by marketing event costs and budget restrictions. We propose using methods of mathematical modeling in economics.

The Event Choice Model assumes that achieving a subgoal is required for attaining overall company's goals. Subgoals may require delivering several events some of which have more than one decision alternative (for more details see [3]).

Cost minimizing and KPI maximizing can serve an optimality criterion for the task (Tab. 1). Multi-criteria decisions are also possible [1, 7].

The general model can be described as follows:

– minimizing of spent resources

$$\sum_{s=1}^S \sum_{n=1}^N \sum_{m=1}^M X_{mn} g_{mns} \Rightarrow \min;$$

– maximizing of target values

$$\sum_{k=1}^K \sum_{n=1}^N \sum_{m=1}^M X_{mn} c_{mnk} \Rightarrow \max;$$

– multi-criteria model.

where X_{mn} is Boolean variable for the feasibility of m event in achieving n detailed goal; g_{mns} is a need for s resource type to deliver m event in achieving n detailed; c_{mnk} is an expected economic effect of k type having delivered m event for achieving n detailed goal.

The constraints are:

$$\sum_{m=1}^M X_{mn} = 1,$$

$$X_{mn} = \begin{cases} 1, & m = 1, \dots, M; n = 1, \dots, N, \\ 0 \end{cases}$$

where X_{mn} is Boolean variable for the feasibility of m event in achieving n detailed goal.

The constraint is valid if only one event is possible per one goal, i. e., alternative solutions are incompatible. Then the total number of events shall not exceed the number of detailed goals:

$$\sum_{n=1}^N \sum_{m=1}^M X_{mn} \leq N.$$

A lesser value is possible under limited resources or at achieving required target values in the marketing plan with the optimized model.

Resource constraints in the model are recorded separately for each s resource type:

$$\sum_{n=1}^N \sum_{m=1}^M X_{mn} g_{mns} \leq G_s,$$

where g_{mns} is a need for s resource type to deliver m event in achieving n detailed goal; G_s is an available volume of s resource type.

Constraints which consider marketing plan target values (economic and social) are recorded separately for each effect as follows:

$$\sum_{n=1}^N \sum_{m=1}^M X_{mn} c_{mnk} \geq C_k;$$

where c_{mnk} is an expected economic effect of k type having delivered m event for achieving n detailed goal; C_k is a target value of k type economic effect.

A condition that considers the incompatibility of two events:

$$x_i + x_j \leq 1.$$

A condition that considers a mandatory compatibility of two events:

$$x_i - x_j = 0.$$

Similarly, conditions for three or more events can be recorded.

REFERENCES

1. **Garanin D.A., Lukashevich N.S.** Ekonomiko-matematicheskoye modelirovaniye parametrov zhiznennogo tsikla tovara. *Ekonomika i predprinimatelstvo*, 2011, no. 6 (23), pp. 189–194. (rus)
2. **Dubolazov V.A., Cherevatenko V.N.** Extrapolyatsiya funktsii raspredeleniya pri segmentirovaniy rynku. *St. Petersburg State Polytechnical University Journal. Economics*, 2012, no. 2–1(144), pp. 132–137. (rus)
3. **Efimov A.M., Salkutsan S.V.** Marketingovaya sistema upravleniya predpriyatiyem. *Izvestiya SPbGETU «LETI»*, 2007, pp. 45–49.
4. **Klimin A.I.** Otsenka effektivnosti marketingovikh kommunikatsiy na osnove izvestnosti Brenda. *St. Petersburg State Polytechnical University Journal. Economics*, 2010, no. 3 (99), pp. 166–173.
5. **Krasnov R.O., Salkutsan S.V.** Izucheniye modeli potrebitelskogo povedeniya s tselyu formirovaniya kompleksa prodvizheniya tovara. *Marketing i marketingoviy issledovaniya*, 2002, no. 3, pp. 43–49.
6. **Mikhailov O.O.** KPI v otdele prodazh. *Kommercheskiy director*. Moscow, 2012, no. 11, pp. 90–99.
7. **Pavlov N.V.** Obobshchennaya schema resheniya marketingovikh zadach po upravleniyu produktom. *St. Petersburg State Polytechnical University Journal. Economics*, 2010, no. 6(112), pp. 214–219.

СПИСОК ЛИТЕРАТУРЫ

1. **Гаранин, Д.А.** Экономико-математическое моделирование параметров жизненного цикла товара [Текст] / Д.А. Гаранин, Н.С. Лукашевич // Экономика и предпринимательство. – 2011. – № 6 (23). – С. 189–194.
2. **Дуболазов, В.А.** Экстраполяция функции распределения при сегментировании рынка [Текст] / В.А. Дуболазов, В.Н. Череватенко // Научно-технические ведомости СПбГПУ. Экономические науки. – 2012. – № 2–1 (144). – С. 132–137.
3. **Ефимов, А.М.** Маркетинговая система управления предприятием [Текст] / А.М. Ефимов, С.В. Салкуцан // Известия СПбГЭТУ «ЛЭТИ», 2007. – С. 45–49.
4. **Климин, А.И.** Оценка эффективности маркетинговых коммуникаций на основе известности бренда [Текст] / А.И. Климин // Научно-технические ведомости СПбГПУ. Экономические науки. – 2010. – № 3(99). – С. 166–173.
5. **Краснов, Р.О.** Изучение модели потребительского поведения с целью формирования комплекса продвижения товара [Текст] / Р.О. Краснов, С.В. Салкуцан // Маркетинг и маркетинговые исследования. – 2002. – № 3. – С. 43–49.
6. **Михайлов, О.О.** КPI в отделе продаж [Текст] / О.О. Михайлов // Коммерческий директор. – 2012. – № 11. – С. 90–99.
7. **Павлов, Н.В.** Обобщенная схема решения маркетинговых задач по управлению продуктом [Текст] / Н.В. Павлов // Научно-технические ведомости СПбГПУ. Экономические науки. – 2010. – № 6(112). – С. 214–219.

DUBOLAZOV, Victor A. – *Saint-Petersburg State Polytechnical University.*

195251, Politekhnikeskaya str. 29. St. Petersburg. Russia. E-mail: info@kafedrapik.ru

ДУБОЛАЗОВ Виктор Андреевич – *заведующий кафедрой предпринимательства и коммерции Инженерно-экономического института Санкт-Петербургского государственного политехнического университета, доктор экономических наук, профессор.*

195251, Россия, Санкт-Петербург, ул. Политехническая, д. 29. E-mail: info@kafedrapik.ru

SALKUTSAN, Sergey V. – *Saint-Petersburg State Polytechnical University.*

195251, Politekhnikeskaya str. 29. St. Petersburg. Russia. E-mail: salkutsan@kafedrapik.ru

САЛКУЦАН Сергей Владимирович – *старший преподаватель кафедры предпринимательства и коммерции Инженерно-экономического института Санкт-Петербургского государственного политехнического университета.*

195251, Россия, Санкт-Петербург, ул. Политехническая, д. 29. E-mail: salkutsan@kafedrapik.ru
