

Economic efficiency management of the marketing activity of an ecology-oriented company

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Abstract. Management of any activity of a company has its ultimate goal, which should be measured. Company spends its resources for obtaining results, effectiveness of each action taken should be calculated in advance, effectiveness of one or another measurement shows the expediency of administrative policy of company in whole. Undoubtedly, this concerns also marketing measurements of an ecology-oriented company. The matter of determining effectiveness of these measurements is very important, especially at the stage of grounding the necessity of concrete measurement conducting. This raises a question about the methods of marketing strategy assessment of an ecology-oriented company, both at the stage of planning and at the stage of realization.

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Introduction

It is necessary to evaluate marketing efficiency due to following reasons. Firstly, marketing accumulates all information from consumers, that is it is possible to build a strategy on the basis of its results: how a company should develop this or that commodity line; which goods should be produced more, and which should be taken out of manufacture, and why; at which hours these or those goods are sold better; how existing goods should be improved; which factors influence purchase decision-making, etc. Secondly, marketing systematizes the whole sale chain of goods distributing, and it is possible to make a conclusion on the sale process optimization: which outlets are more comfortable for consumers and why; how to change package of goods; how to stimulate dealers and agents to sell more; which goods delivery schedule to the own and dealer's outlet should be settled, etc. Thirdly, marketing comprehensively analyses the market situation, so, creates the basis for maintaining competitive advantages: which price of the good to set, according to market prices of the similar goods; which producer manufactures the cheapest and the most qualified goods; which advertisement is used by competitors; commodity of which competing company is in demand, etc. Eventually, marketing and advertising activity of company demands financial investments. In more details, the elements of marketing strategy are described by the authors in another article [1].

As a result of conducted assessment of the effectiveness of marketing and advertising measures it is necessary to learn if the measures taken allowed

to achieve the objective stated and to which extent. The assessment of the effectiveness of marketing and advertising measures can be conducted at different stages: preliminary (stage of working out measures), intermediate (stage of partial realization), and final (on completion of the measure). And at each stage, the goal of effectiveness measurement is different, correspondingly, the methods employed for effectiveness assessment, are different. In order to evaluate the effectiveness of this or that marketing measure, as minimum, it is necessary to collect information, analyze it and make conclusions about effectiveness and ineffectiveness, based on that analysis.

The methods of collecting data while conducting marketing researches, as part of methodology of development of economic systems development strategy [2], can be divided in two parts: quantitative and qualitative. Quantitative researches are usually identified with conducting different inquiries with using structured closed questions, which many respondents answer to. Qualitative researches include collecting, analysis and interpretation of the data by observing what people do and talk about. Observations and conclusions are qualitative and realized in non-standard form.

Materials and methods

Based on the method of qualitative assessment of the marketing activity result, the assessment of economic effectiveness of ecology-oriented company marketing activity was conducted by using elements of mathematical model, what allows to manage the organizational processes,

directed to reducing administrative costs, image improving, creating of additional consumer motivation, increasing consumptive value of product, decreasing of ecological pressure.

In general, the formula of calculating effectiveness of ecology-oriented company marketing activity is the following:

$$\text{Effectiveness} = \text{Effect}/\text{Costs} \quad (1)$$

Effect of marketing activity can be depicted in terms of such indicator. Theoretically, we might say, by effect of marketing measure its quantified goal, should be understood, but in the program of marketing goals complex of different measures has different goals. That is why it is rational to choose one indicator and to calculate the effectiveness of each measure using it, e.g. changes of profit from production sale. Assume, that marketing department of an enterprise defined the goal of marketing measure in the following way: to rise the number of distributing channels by X during the period Y. Firstly, we determine how much the number of distributing channels in fact; secondly, this consequence led to sale increase, what, in turn, led to increase of profit from production sale. Thus, the effectiveness of this measure would be calculated by dividing profit growth just due to considered measure (ΔP_m) by costs, related to this measure (C_m):

$$E_m = \Delta P_m / C_m \quad (2)$$

Where E_m – effectiveness of marketing measure; ΔP_m – profit growth due to considered measure; C_m – costs of this marketing measure.

Economic effect of marketing activity can be depicted by the following indicators: sale increase (in value and physical terms), increase of profit from production sales, increase of share of the market of certain enterprise. Indicators, characterizing costs of marketing measure, determine amounts of money, given on marketing; or estimate of expenditures is formed for each measure.

Assessment of the marketing measure results should consist of a complex of different indicators both quantitative and qualitative. At the same time, it is necessary to take into account the specific features of field of enterprise activity, which is one of the key factors of choosing the assessment methods. Management of the enterprise should independently choose one or two quantitative methods of determination of the effectiveness, set the foundation of the indicators, which would show the dynamics of the enterprise activity and, simultaneously, the effect of measures, and add the qualitative analysis to this.

Let us determine the methods of assessment of ecology-oriented company marketing strategy, by the example of Marketing Agency 'MarkA' (MA 'MarkA'), referring to the conclusions, listed above:

1. Administrative costs reduction.

This goal has a quantitative assessment that is it should be expressed by quantitative indicators. Here, in order to calculate the effectiveness of the measures, directed to achieving this goal, such indicators as the next are needed: C_b – administrative costs during the period before realization of marketing measures, C_a – administrative costs during the period after realization of marketing measures.

$$Eac\% = (C_a - C_b) * 100\% / C_b, \quad (3)$$

where $Eac\%$ - effect of administrative costs reduction due to realization of ecological marketing measures; C_b – administrative costs during the period before realization of marketing measures, C_a – administrative costs during the period after realization of marketing measures.

Results

Administrative costs within the framework of realization of ecological marketing principles can be compounded of the indicators, related to consumption of resources, which can be calculated directly according to certain field of economy. Monthly administrative costs of MA 'MarkA' are:

- Electricity – 2500 rubles,
- Disposal plates and dishes – 300 rubles,
- Refilling of printer cartridges – 1400 rubles.

Total monthly costs according to these items constitute 4200 rubles. After entering project 'Ecooffice' and introduction of ecological principles into business-processes the monthly costs constituted:

- Electricity: 2500 minus 2500*0,25 = 1875 rubles,
- Disposal plates and dishes: 0 rubles,
- Refilling of printer cartridges: 933 rubles.

Total, 2808 rubles. Let us calculate the effect of introduction of the ecological principles: 4200 rubles – 2808 rubles = 1392 rubles. Considering, that MA 'MarkA' is a structural division of World Economy Department of Volgograd State Technical University, we can calculate administrative effect for the whole Department, if all other divisions would follow the ecological marketing principles. There are 5 of such divisions at the Department. That is why the total effect would constitute 1392 rubles * 5 = 6960 rubles per month. This sum is close to the size of minimal salary in Volgogradskiy oblast in 2013. Thus, introduction of the ecological marketing strategy allows to provide one working place at the Department.

2. Image improving, creating of additional consumer motivation, increasing consumptive value of product.

In our opinion, these goals can be evaluated also by the quantitative way. As the benchmarks, allowing to evaluate the marketing strategy

effectiveness, it is necessary to consider such indicators as: Ni – the number of clients interested (everyone who called, wrote, came to the company), P – profit, AO – amount of commercial offers. These indicators are calculated by determining the difference of the indicators for two periods analyzed. But it is recommended to calculate the effect according to this goal just by calculating the difference of sales. To our mind, just this indicator is the key indicator for the company and reflects benefits for the company from this or that marketing measure. On the current stage of the research for MA 'MarkA' there are no grounds for calculating quantitative indicators of image, consumer motivation and consumptive value of the services. This would be possible just in a year minimum. Because participating in the project 'Green' office', which results in achieving of the distinctive emblem, allocated on the company site [3], is being realized since May 14, 2013, so the first economic indicators of the effectiveness can be calculated on May 14, 2014.

It would be possible to calculate the effect of introduction of ecological marketing, reflecting the extent of company image improving, in the following way:

$$Eem = (Va - Vb) * 100 \% / Vb = 43 - 37 * 100 \% / 43 = 14\%, \quad (4)$$

Where Eem – effect of introduction of ecological marketing; Va – amount of views of the company site after entering the project; Vb – amount of views of the company site before entering the project.

3. Decreasing of ecological pressure

The effect of marketing strategy taking into account ecological principles consists of some qualitative indicators, one of the instruments of increasing improvements of which is the propaganda of the ecology-oriented approaches among the company's staff as the element of marketing system of ecological information [4]. Let us try to describe the qualitative indicators.

3.1. Ecological effect of using compact luminescent energy-efficient lamp consists of reducing electricity consumption, prevention of polluting substances emission and economizing fuel-energetic resources. Thus, one compact luminescent 18-Watt incandescent lamp, replacing standard 75-Watt incandescent lamp, is able to prevent generation of 1 ton of carbon dioxide, 4 kg of sulfur oxide and 1 kg of nitrogen oxide at the coal-fired station during its life time. Energy, which is economized by using one energy-efficient 18-Watt during its life-time, is enough to drive 1600 km.

3.2. Ecological effect of using electronic motor-starting devices is equal to 30% reduction of

power consumption on retention of brightness of illumination.

3.3. Ecological effect of employing systems of automatic control of illumination is equal to 25% reduction of electricity, also due to this fuel consumption at the electric power station reduces.

3.4. Ecological effect of installing multi-tariff electricity supply meters is in the following. Electric power stations work in two main modes: peak and low. Maximum of the power consumption falls at morning hours (approximately till 7.00 to 10.00), when most of enterprises start to work, and at evening hours (17.00 – 21.00), when most of the people are back home and turn on household appliances. At nights the power consumption significantly drops. Such 'staggered' rhythm of working increases the consumption of energy resources (coal, oil, gas) for power generation, because it leads to regular switching on and off energy blocks, and this, as it is known, the most effective work is possible during consonant optimal capacity. Multi-tariff electricity supply meters stimulate smoothing of power station work and as the result – the resource consumption polluting substances emission decrease.

3.5. Accumulation of dust on lamps and shades can reduce effectiveness of illuminator by 10-30%.

3.6. Dirty or dusty windows can reduce natural illumination in room up to 30%.

3.7. Electric kettles. It is very important to delete boiler scale from electric kettle. Possessing low thermal conductivity, it reduces the effectiveness of heat-transfer, that is why water in such kettles warms up slower, and, it means that more power is consumed.

3.8. Computer devices. All computers produced nowadays support the energy-saving mode. It is necessary to set the computer in such a way, that in the case of staff absence it would switch to waiting mode. At that first, the monitor switches to waiting mode automatically, if no one is using the computer for some minutes. A while after, if the work is not resumed, the computer also switches to waiting mode. If this mode is set correctly, the power consumption can be reduced twice.

3.9. Chargers. One ought not to leave charger for mobile phone, photo camera, player, laptop, etc. stuck in sockets, when there is no charged device. The charger at that continues to consume electricity, but is uses it not for charging but for warming up. Leaving office, it is necessary to switch off computers and other electric appliances everywhere where it is possible. Supply-line filters should be switched off too. Deenergization of electric

appliances allows both to economize electricity and provides fire safety.

3.10. Decreasing of temperature in room just by 1°C (this can be done at weekends or outside office hours), decreases power consumption approximately by 10%.

3.11. Room warmth-keeping. Up to 40% of warmth loss occurs through windows. Additional warmth-isolating of windows or replacing them by modern glass packet help to increase temperature in room by 4 – 5°C. This also lowers amount of warmth necessary for room warming by 20 – 30%.

3.12. One ton of waste paper (approximately 400 packs of A4-sized office paper) allows to economize approximately 5 m³ of wood and protect from cutting 20-25 trees. Thousands and thousands hectares of Russian wood are cut yearly for producing toilet paper from primary cellulose. Also, processing waste paper less dangerous for environment, than producing cellulose. While waste paper processing much less silt, demanding further utilization, than using primary cellulose.

3.13. If send 1 ton of waste paper for processing, 3 m³ less wastes will go to dump. Processing of an aluminum can economizes amount of electricity, which is enough for using TV-set for 3 hours. Electricity, economized while processing a glass bottle, is enough for 4-hour work of an electric 100-Watt lamp. Manufacture products from recycling demands much less resources than getting primary raw materials.

3.14. Manufacture of 1,000 of plastic spoons demand 10 times more power than manufacture of 1 steel spoon, even if it would have to be washed one thousand times.

Thus, analyzed quantitative and qualitative indicators allow to evaluate social-economic effects of employing ecological marketing measures. Effectiveness of these measures is assessable and is to be assessed quantitatively and qualitatively, what allows to make a conclusion about necessity of introduction of ecological marketing conception into marketing complex of Russian companies.

Conclusion

Prevention and reduce of entrepreneurial community impact on environment by producing mass consumer production and creation of the system of ecological management and regulating encourage effective formation of demand and supply at the market, uprise of additional marketing opportunities, related to reaping economic benefits (figure 3).

If marketing is a process, uniting working out and realization of processes of economic activity of an organization, price formation, promotion to the market and selling products, but ecological marketing is not just a new conceptual approach, but an

instrument, allowing to think over and work out methods and survival means. Ecological marketing both offers opportunities of realization of strategic development process in a new way and forms directions and ways of settling up many difficulties, directly linked with ecological risk appearance [5].

Thus, ecological marketing is a conception of marketing, which allows efficient planning manufacture of ecologically safe production and providing optimal relation between social and economic indicators during the whole product life cycle, what is a benchmark of successful elimination of natural risks influence and possible anthropogenic impact.

To the main principles of ecological marketing appear to be ground in ecological motivation, well-times problems solving, responsibility for ecological consequences, arising as result of executing decision-making of any level, and priority of ecological problems solving [6].

As the main targets of ecological marketing there should be marked out the following: arrangement of ecologically safe manufacturing processes; provision ecological compatibility of all manufactures of the enterprise; achievement optimal ecology-economic relations (maximal result with minimal loss); prevention of negative anthropogenic impact on the nature during the manufacture process, consumption and utilization of output; conversion of ecological restrictions into new opportunities of manufacture activity growth; renewal of products according to social responsibility to consumers and creation of 'green image' for the society; stimulating of nature protecting initiatives, reducing costs or encouraging incomes growth.

Findings

Nowadays the modern society pays more attention to the health and the health of their families. It happens because of large-scale spreading of informational propaganda about the worsening state of the environment and mass media reports and advertisement of ecology-oriented producers [7]. Such informational propaganda forms customer's ecological literacy and perception of the fact that the environment is aggressive and becomes more unsafe, motivating them to give preferences to products, useful for the health. In turn, this factor motivates the representatives of the science and entrepreneurial community to work out new approaches of promoting goods and services, cultivating ecological literacy of the customers as the basis of forming customer preferences and tastes [8].

According to the data of different researches Russians prefer domestic products, more qualitative, safe, and corresponding to the local climate conditions, to similar foreign products. This

circumstance is a 'marketing signal' for more efficient introduction and development of ecological innovations, which in the near future should be accepted both by the Russian enterprises and the governmental authorities.

The modern society began to aim not only to purchasing and consuming more qualitative products, but to improving and preserving the environment. This need is unique, so unique should be the way of its satisfaction. In order to make the business successful, it is necessary to understand the consumers' demands and satisfy them, what is the classical definition of marketing, which it should be referred to. Considered some existing definition of the term 'marketing' by Russian and foreign authors, it became evident, that almost all definitions were formulated by the authors, based on the priorities of producers, not concerning the consumers interests. The essence of the definitions is contradictory to fundamental life conservation law, developed in the scientific works of V. Vernandskiy, P. Kuznetsov, O. Kuznetsov, B. Bolshakov. According to this law, if in technical innovations the Human has the power above the nature and he is mighty geological force, but being within his aims, he is in the mercy of it. Not following this postulate and absence of approaches and means of negotiations of the managing decisions and programs with the life conservation law are the main reason of the global system crisis within the relations between society and nature [9].

From the standpoint of the considered problem of the article the classical definition of marketing should be corrected: marketing (in the narrow sense) is implementation of business-processes in the line of satisfaction of consumers' needs by producer [10]. Or in other words, marketing (in the broad sense) is such a strategy of producer when efficient satisfaction of consumers' preferences and solving problems of the modern society lead to enterprise success developing.

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