

Effectiveness or Reorganization: Application of Information Technologies in Solving Marketing Problems of Modern Companies

Efectividad o reorganización: aplicación de tecnologías de la información para resolver problemas de comercialización de empresas modernas

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ABSTRACT:

The purpose of this article is to develop the concept of application of information technologies in solving marketing problems of modern companies in Russia. In order to determine the marketing problems of companies, study the state and dynamics of change, and prove the existence of close direct connection between marketing effectiveness of companies, level of information technologies development, and intensity of reorganizational processes in modern Russia, the authors use the methods of statistical, trend, and correlation analysis. The objects of the analysis are indicators of economy's global competitiveness that are contained in the overview of the Russian market of mergers and acquisitions and reports of the World Economic Forum for 2013-2017. As a result, the authors prove that modern economic reality places companies in strict limits and makes them perform dichotomic choice: whether to show high marketing effectiveness or conduct reorganization, and prove that information technologies open new possibilities and wide perspectives for solving marketing problems of

RESUMEN:

El propósito de este artículo es desarrollar el concepto de aplicación de tecnologías de la información para resolver problemas de comercialización de empresas modernas en Rusia. Para determinar los problemas de marketing de las empresas, estudiar el estado y la dinámica del cambio y demostrar la existencia de una estrecha conexión directa entre la efectividad del marketing de las empresas, el nivel de desarrollo de las tecnologías de la información y la intensidad de los procesos de reorganización en la Rusia moderna. los métodos de análisis estadístico, de tendencia y de correlación. Los objetos del análisis son indicadores de la competitividad global de la economía que se incluyen en la descripción general del mercado ruso de fusiones y adquisiciones y en los informes del Foro Económico Mundial 2013-2017. Como resultado, los autores prueban que la realidad económica moderna coloca a las empresas en límites estrictos y las hace realizar elecciones dicotómicas: si mostrar una alta efectividad de marketing o reorganización de conducta, y demostrar que las tecnologías de la información abren nuevas posibilidades y amplias

modern companies. The authors develop and present the concept of application of information technologies in solving marketing problems of modern companies in Russia, which shows the essence and advantages of two main directions of applying information technologies in solving marketing problems of modern companies: electronic trade and electronic marketing. This concept can be applied in other countries of the world, as it is universal.

Keywords: effectiveness, reorganization, information technologies, marketing problems, modern companies.

perspectivas para resolver problemas compañías. Los autores desarrollan y presentan el concepto de aplicación de tecnologías de la información para resolver problemas de comercialización de empresas modernas en Rusia, que muestra la esencia y las ventajas de dos direcciones principales de aplicación de tecnologías de la información para resolver problemas de comercialización de las empresas modernas: comercio electrónico y marketing electrónico. Este concepto se puede aplicar en otros países del mundo, ya que es universal.

Palabras clave: eficacia, reorganización, tecnologías de la información, problemas de comercialización, empresas modernas.

1. Introduction

In the 21st century, success of companies is based on highly-effective marketing, and the influence of the market mechanism on them has never been so strong. Modern companies are under strong and ever-growing pressure of the global competition, in the conditions of which their power in local markets reduce with appearance of foreign and transnational corporations with wider capabilities and better commercial offers, and entering large world markets requires serious adaptation.

On the other hand, founding on the usual measures of state support, performed within the economic policy with elements of protectionism, is impossible due to limitations on these measures from international trade agreements. In order to become full participants of the global economic relations, the countries of the world have to join integration processes and acquire responsibilities for creation of non-preferential and, therefore, equal conditions for all members of national markets, including domestic and foreign companies – which contradicts the idea of protectionism.

Therefore, the modern economic reality places the companies into strict limits and makes them perform dichotomic choice: showing high marketing effectiveness or conducting reorganization. The working hypothesis of this research supposes that information technologies open new possibilities and wide perspectives for solving the marketing problems of modern companies. Its verification by the example of the Russian experience predetermined the purpose of this article, which consists in development of the concept of application of information technologies in solving marketing problems of modern companies in Russia.

2. Materials and method

Difficulty and complexity of the set goal predetermined the necessity for applying several various methods. For determining the marketing problems of companies, studying the state and dynamics of change, and proving the existence of close direct connection between marketing effectiveness of companies, level of development of information technologies, and intensity of reorganization processes in modern Russia, the methods of statistical, trend, and correlation analysis are used. The objects of the analysis are the indicators of global competitiveness of economy which are found in the overview of the Russian market of mergers and acquisitions and the reports of the World Economic Forum for 2013-2017.

The indicator of the level of development of information technologies is the 9th pillar, and the indicator of the level of marketing effectiveness is the corresponding index, the formula for calculation of which is developed by the authors and supposes finding direct average of statistical indicators that reflect separate components of this effectiveness, including extent of marketing (11.08), nature of competitive advantage (11.04), degree of customer orientation (6.15), capacity for innovation (12.01), local supplier quality (11.02), state of cluster development (11.03), and export activity (11.06).

For determining the adequacy (correspondence) of marketing activity to existing market conditions, the values of the indicators of intensity of internal (6.01) and external (6.11) competition are analyzed. The indicators of intensity of reorganization processes are their

total cost and quantity. Dynamics of all the above indicators is given in Table 1.

Table 1

Dynamics of the values of the indicators of the level of development of information technologies, marketing effectiveness of companies, and intensity of processes of reorganization in Russia in 2013-2017.

Indicators	2013	2014	2015	2016	2017
9th pillar: Technological readiness	4.10	4.20	4.30	4.30	4.50
6.01 Intensity of local competition	4.50	5.00	5.00	5.00	5.00
6.11 Prevalence of foreign ownership	3.40	3.40	3.40	3.30	3.40
11.08 Extent of marketing	3.90	4.30	4.30	4.40	4.50
11.04 Nature of competitive advantage	3.10	3.40	3.40	3.40	3.40
6.15 Degree of customer orientation	4.10	4.40	4.40	4.50	4.50
12.01 Capacity for innovation	3.50	3.80	3.80	4.00	4.20
11.02 Local supplier quality	3.90	4.10	4.10	4.30	4.40
11.03 State of cluster development	3.10	3.10	3.10	3.40	3.50
11.06 Control of international distribution	3.70	4.00	4.00	3.70	3.70
Index of marketing effectiveness	3.61	3.87	3.87	3.96	4.03
Cost of implemented projects on reorganization of companies, \$ billion	107.30	92.20	57.30	36.00	39.30
Number of implemented projects on reorganization of companies	213.00	229.00	476.00	347.00	379.00

Source: compiled by the authors on the basis of (World Economic Forum, 2017), (KPMG, 2017).

3. Discussion

The theoretical basis of this research includes the materials of works of modern authors, devoted to studying:

- processes reorganization of companies (Zhang, 2016), (Xu, 2015), (Xing et al., 2014), (Sozinova et al, 2017a), and (Sozinova et al, 2017b);
- marketing effectiveness of companies (Popkova et al., 2016a), (Popova, et al., 2016b),(Ragulina et al., 2015), (Bogoviz et al., 2017), and (Kataeva et al., 2017);
- application of information technologies by modern companies (Orudjev et al., 2016), (Bogdanova et al., 2016), (Kuznetsov et al., 2016), (Kostikova et al., 2016), and (Simonova et al., 2017).

In the process of studying the existing scientific ideas in the set subject sphere of this research, we have come to the conclusion on insufficient elaboration and thematical separation of the publications devoted to analysis of its separate elements. Due to this, we have decided to continue the research aimed at comprehensive study of possibilities and perspectives of application of information technologies by modern companies for preventing their reorganization and for achieving their high marketing effectiveness.

4. Results

The results of complex analysis of the data from Table 1 with application of these methods are systematized and given in Table 2.

Table 2

Results of complex analysis of dynamics of the values of the indicators of the development level of information technologies, marketing effectiveness of companies, and intensity of processes of reorganization in Russia in 2013-2017

Indicators	Trend, %	Correlation (R2), %			
		with a	with conditions	with d	with e
9th pillar: Technological readiness (a)	9.76	-	-	-	-
6.01 Intensity of local competition	11.11	67.84	with b: 93.16	-71.56	59.16
6.11 Prevalence of foreign ownership	0.00	-45.88	with c: -45.88	53.25	-9.30
11.08 Extent of marketing (b)	15.38	87.22	-	-85.20	58.29
11.04 Nature of competitive advantage	9.68	67.82	-	-71.56	59.16
6.15 Degree of customer orientation	9.76	80.01	-	-85.84	57.81
12.01 Capacity for innovation	20.00	94.37	-	-87.64	51.22
11.02 Local supplier quality	12.82	91.65	-	-89.93	49.06
11.03 State of cluster development (c)	12.90	81.28	-	-80.21	29.94
11.06 Control of international distribution	0.00	-18.46	-	23.81	19.77
Index of marketing effectiveness	11.46	88.86	-	-86.87	57.22
Cost of implemented projects on reorganization of companies, \$ billion (d)	-63.37	-	-	-	-
Number of implemented projects on reorganization of companies (e)	77.93	-	-	-	-

Source: compiled by the authors.

The results of the performed trend analysis, provided in Table 2, showed that over the recent five years (2013-2017) foreign economic activity in the system of Russian entrepreneurship preserved at a stable level, which is proved by zero growth of foreign competition and export activities of companies. At that, all indicators of marketing effectiveness of companies and the level of development of information technologies showed moderate growth (10% on average). At that, despite reduction of the general cost of implemented projects on reorganization of companies by 63.37%, their number grew by 77.93%, which shows growth of intensity of reorganization processes in Russia.

The results of correlation analysis showed that marketing activities of Russian companies do

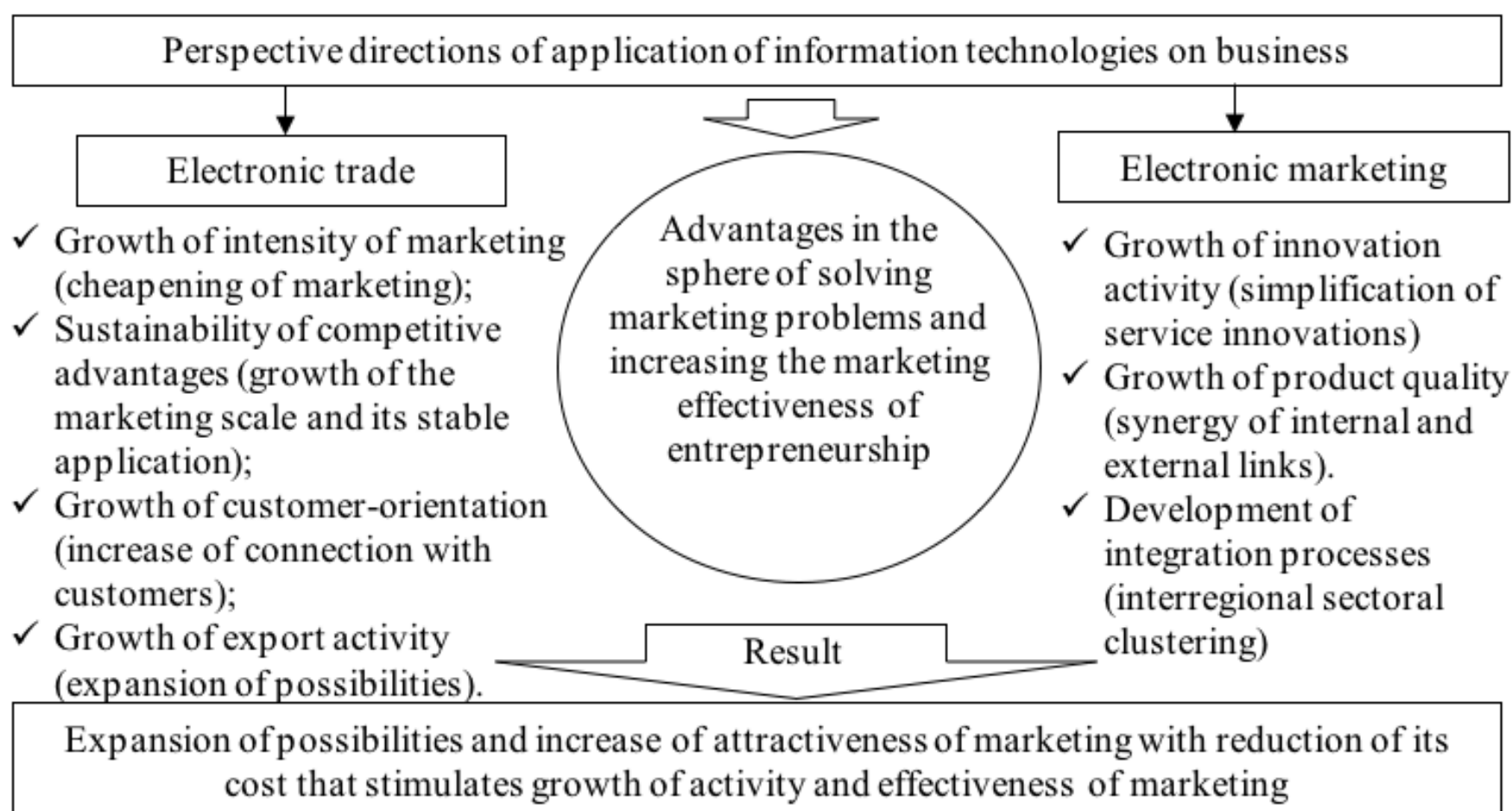
not fully conform to the requirements of the modern situation in the market. Thus, growth of foreign competition is not accompanied by integration (cluster) processes for strengthening of market positions of domestic players, but, on the contrary, leads to its reduction (correlation – 45.88%). However, growth of internal competition stimulates the increase of general marketing activity of Russian companies (correlation – 93.16%).

Despite negative connection of various indicators of marketing effectiveness and the corresponding index with the cost of implemented projects on reorganization of companies, their connection with the number of these projects is strong and direct. This shows that low marketing effectiveness stimulates forced reorganization of companies in modern Russia.

The lowest values of the corresponding indicators of marketing effectiveness of companies allowed determining its two key problems in modern Russia: unsustainability of competitive advantages and weak market positions due to insufficient integration activity (3.10 points out of 6). The values of other indicators of marketing effectiveness are not high either (4 points out of 6 on average). Perhaps, the determined weak connection with information technologies (their insufficient use) is a reason for these problems. The following authors' concept is offered for solving them (Figure 1).

Figure 1

The concept of application of information technologies in solving marketing problems of modern companies in Russia



Source: compiled by the authors

As is seen from Figure 1, within the offered concept two most perspective directions of application of information technologies in business are offered, each of which allows gaining advantages in the sphere of solving the determined marketing problems and increasing the marketing effectiveness of entrepreneurship.

1st direction: electronic trade. Due to creation of own Internet sites with platforms for online sale of the products, companies obtain wide possibilities in the sphere of marketing. Due to this, growth of intensity of marketing is achieved (cheapening of marketing), as well as sustainability of competitive advantages (growth of the scale of marketing and its stable application), growth of customer-orientation (strengthening of connection between customers by means of online communications, including feedback), and growth of export activity (expansion of possibilities with lack of the necessity for geographical expansion of foreign markets).

2nd direction: electronic marketing. Conduct of marketing research with the help of new information technologies (mobile communication and the Internet) leads to growth of

innovational activity (simplification of service innovations through offering all accompanying services on the basis of information technologies), growth of product quality (synergy of internal and external connections that allows collecting individual orders and setting strong relations with suppliers, as well as avoiding intermediaries), and development of integration processes (transregional sectorial clustering with preservation of geographical separation of its participants).

Establishment and development of the described directions will ensure expansion of the possibilities and increase of attractiveness of marketing with reduction of its cost, which stimulates growth of activity and effectiveness of marketing entrepreneurship in modern Russia.

5. Conclusion

Concluding the results of the performed research, it should be noted that the complex hypothesis that lies in its basis has been proved. Based on the official statistical information, it was proved by the example of modern Russia that achievement of high marketing effectiveness is necessary for modern companies, as, otherwise, they will have to use reorganization. Information technologies allow solving the existing marketing problems and stimulate elimination of barriers on the path of expansion, growth of scale, cheapening and stabilization of marketing activities of modern companies, thus ensuring their high marketing effectiveness.

The developed authors' concept of application of information technologies in solving marketing problems of modern companies in Russia shows the essence and advantages of two main directions of application of information technologies in solving the marketing problems of modern companies: electronic trade and electronic marketing. It could be used in other countries of the world, as it is universal. At that, specifying the methodological tools of implementation of this concept determines the perspectives of conduct of further scientific research on the basis of this article.

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