Relationship Marketing Management of a Small Industrial Enterprise in B2B Market in The Context of Digital Economy

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Abstract — **In the article the prospects for the transformation of marketing technologies for managing small businesses into the conditions of a new industrial revolution are analyzed and methodical approach to assessing the effectiveness and degree of achievement of the relationship marketing goals is proposed. The problems and features of marketing of small industrial enterprises in the B2B market are highlighted. The conclusion is made about the relevance of the use of relationship marketing for small industrial enterprises in the B2B market. Four groups of values of industrial customers are identified: economic, technological, social and strategic ones. The 4R Ettenberg relationship marketing management model is specified: Relationship, Retrenchment, Relevance, Reward, on the basis of which a methodology might be developed for assessing the effectiveness of relationship marketing management of a small industrial enterprise in the B2B market, which was tested by Adeplast LLC, a manufacturer of a wide range of profile-molded products from polyvinyl chloride. The conclusion is made about the transformation of marketing technologies for managing small and medium-sized businesses in the direction of digitalization and activation of the marketing of B2B industrial enterprises in the Internet environment.**

Keywords – marketing of small industrial enterprises, performance, digital marketing

I. INTRODUCTION

The problem of small and medium entrepreneurship development in the Russian Federation has been one of the most relevant issues, which was reflected in adopting a series of federal & regional documents aimed at boosting an increase of SMEs (Small and Medium Enterprises). The countries where up to 80 per cent of GDP is formed thanks to small and medium businesses have a competitive advantage in the changeable world and the economies are more flexible & adaptive ones [1]. State objective stipulated in the 'SMEs Development Strategy up to 2030" is a rise of SMEs share in Russia's GDP by 40 per cent up to 2030 [2]. One of the key directions of reaching the stated goal is increasing the turnover of MSEs in the processing industry by 20 per cent. It shpuld be noted that as of now this share does not exceed 20 per cent in Russia, where is the global level is 35 per cent and higher with the amount of industrial enterprises accounted for 9 per cent and characterizing with a downward trend [3]. Also, the transition of middle enterprises to small ones and small business to microbusinesses has enhanced recently.

The main problems of small industrial enterprises are the high degree of instability in the market, its dependence on the limited number of customers, difficulties in receieving bank loans and state orders, as well as administrative barriers. Internal problems include the dominance of informal management style, lack of strategic vision and restrictions in recources. Decisions in small enterprises are generally based on personal relationships and the general manager's experience, whereas managerial functions are ambiguous and usually not fixed on a certain employee or a unit [4]. As a rule, there are no marketing departments at small enterprises with a CEO being responsible for several marketing functions and delegating others to his subordinates. The lack of an organizational center of marketing management, which is responsible for certain issues and weak design of business processes lead to switching duties between employees which significantly reduces company's performance.

All these factors in different degrees influence the outcomes of small enterprises' activities. Besides, the unfulfilled potential of small business in Russia is tightly connected with its low integration in the market environment. It results in the necessity to use more efficient forms of business organization and marketing tools by small industrial enterprises having significant market limitations [5].

Under the conditions of a falling demand and growing competition in the B2B market the success of small industrial businesses to a large extent is determined by its ability to interact with partners efficiently. Relationship Marketing

concept is becoming the most appropriate one, as it assumes that long-term relationships with customers represent the main object to be managed by an industrial enterprise. The use of this concept is one of the most valuable resources bringing profit in the long-term perspective.

In a digital economy, small industrial enterprises have the opportunity to transform the relationship marketing management system by introducing Internet technologies into it. The digital economy does not only involve new technologies, but a fundamentally new approach to interaction with the consumer. Priorities of the national policy in the field of society & industry "digitalization" are reflected in the 'Digital Economy Government Program' of the Russian Federation, which recommends changing the ideology of working with the customer, moving from a one-time sale to long-term agreements on product maintenance, predictive repair, building and maintaining feedback in order to promptly correct deficiencies and develop better solutions. Customer experience, omnichannel marketing and digital transformation of the sales network come to the fore in the process of interaction with customers [6].

The possibility of transforming marketing of small enterprises, increasing its effectiveness by introducing Internet technologies is recognized by most of the authors who have studied this issue. The effectiveness of relationship marketing might be enhanced by introducing online collaboration between enterprises, co-creating a product, exchanging ideas, and accessing new markets [7].

At the same time, small enterprises both Russian and global ones lag behind large corporations in terms of applying digital technologies. For instance, only 28.5% of small and medium-sized businesses in the European Union use social media, with 25.7% using cloud computing [8]. In Western Europe there are 10% large companies that are fully digital and only 2% of the small ones are so. At the same time 42% of small and medium-sized enterprises and 21% of large ones do not use digital technologies at all. (Fig.1).
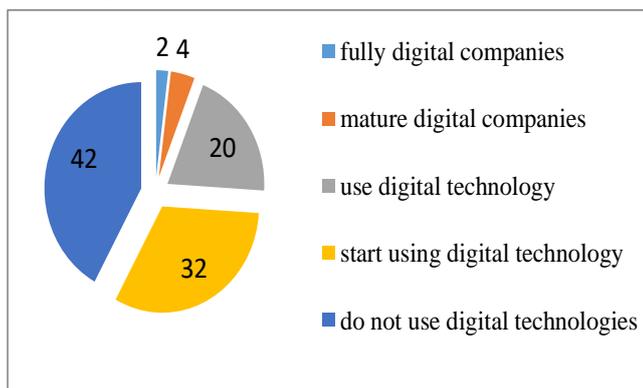

Fig.1. The distribution of small and medium-sized businesses in the EU (the number of employed is from 2 to 249 people) by the level of application of digital technologies in 2012, %. Done with the help of the IDC European Vertical Markets Survey 2012 [8]

A reputable consulting company McKinsey has noted that small businesses with a strong web presence grow twice as fast compared to those who do not have or have a minimal presence in the Internet [9]. According to H. Kim, I. Lee, & C. Lee "all firms that use the unique value of the Internet in

managing innovation and reengineering business processes are likely to have a sustainable competitive advantage" [10].

Digitalizing relationship marketing is an advantage for small industrial enterprises which are really flexible. The low level of bureaucratization and hierarchy in such companies creates conditions for more active interaction between all employees and promotes mobility in the information transfer both within the company and more rapid decision-making regarding the relationship with certain partners.

In this regard, the purpose of the study is to assess the effectiveness of the relationship marketing management of a small industrial enterprise in the B2B market through the development of a methodical approach to measuring the achievement of marketing goals, as well as defining Internet marketing tools for small and medium businesses in a digital economy.

II. LITERATURE REVIEW

In the papers on relationship marketing, most authors consider values and duration of relationships as a key result of relationship management. The focus of the industrial company on relationship marketing implies: the need to build business processes with a view to ensuring the result desired by the customer; creating value cooperation through additional services; human relations; constancy of exchange; mutual trust; readiness to adapt to each other; competent work of the personnel, knowledge of the specifics of its own production; the specifics of the production of partners; orientation on all the nuances of market offers; constant willingness to interact; the importance of the company's reputation; building personalized communications; consideration of relationships with customers as the most valuable asset; transition from market-based product management to value process management [11].

The researchers note that the majority of industrial small businesses do not use the capabilities of the management system and assessment of the effectiveness of relationship marketing, as they are not able to measure the return on marketing investment [12]. The problem of relationship marketing management and evaluation of results is widely discussed by both scientists and business practitioners, but a comprehensive methodological approach to its solution is still under development. The main difficulty lies in establishing the relationship between marketing activities and financial results of the company, the discrepancy between the effect of marketing activities and the period of cost [13].

According to the dictionary of the ISO 9000-2011 standard, effectiveness is the degree of implementation of planned activities and the achievement of planned results. In essence, effectiveness is the degree of achievement of a goal set by an enterprise, the level at which the chosen strategy was implemented.

Authors, who consider the performance of marketing, evaluate it as the result of individual marketing activities or in general the marketing system. O. Oiner, developing the scientific approaches of foreign researchers, identifies three elements involved in the formation of marketing performance: marketing productivity; marketing efficiency as internal efficiency, including internal performance standards ("to do things right") and resource management systems; external effectiveness [14]. R. G. Guchetl also emphasizes the

importance of evaluating the performance of marketing functions as an overall strategic result of the company's activities and offers an integral indicator of marketing performance for an industrial enterprise in terms of business prospects for the Norton and Kaplan balanced scorecard: product, customer relations, promotion, distribution, training and growth [15]. The proposed methodological approach allows presenting the marketing service work to the top management of an industrial enterprise and helps to convert a large amount of data obtained from a variety of information sources into a system of marketing performance indicators.

In the process of interaction, the producer and the consumer, forming a "process of value creation", create value in the industrial market jointly. For consumers of industrial products it is important to understand that the company with which they interact is experiencing a genuine interest in them and their needs, requirements and value system. The competition of manufacturers ceases to concern only the supply of goods; it develops into competition by building such a model of interaction with customers, in which the latter can identify their values and fulfill hidden needs [16].

Value in the industrial market is considered as a multidimensional concept, representing a combination of various parameters involved in creating additional benefits from relationships. D. T Wilson, S. Jantrania consider the parametres that include strategic value, behavioral and economic factors [17]. J.N. Sheth, B.I. Newman, B.I. Gross structure the five components of the value of the product offer for industrial customers: functional, social, emotional, cognitive, situational ones [18]. R. T. Rust, T.Ambler, G. Carpenter, V. Kumar, R. K.Srivastava put forward the concept of value relationships as the company's ability to create long-term contacts with customers [19].

For small industrial enterprises, in regard of the small size of activities and more modest financial results, the main task remains to maintain business sustainability. Ensuring the sustainability of business is formed through the preservation and strengthening of relationships with customers. The goal of a small business in the B2B market is to succeed in customizing relationships, bringing a product or service of a company to a specific customer. Through this, a small industrial business can create additional value (individual for each consumer), which is unique.

The authors propose to regard the "effectiveness of relationship marketing in the industrial market" as the level of implementation of the elements of the relationship marketing mix, aimed at creating social, economic and technological values of an industrial enterprise and achieving its strategic goals.

The key elements of enhancing the effectiveness of relationship marketing, according to the authors, are the orientation of the marketing mix towards customization of relationships with customers, considering mutual values created as a result of interaction and the contribution of all elements of the marketing mix to the achievement of the company's goals.

III. RESEARCH METHODOLOGY

For small industrial enterprises a pressing question is choosing the optimal set of marketing activities which allows, at minimum cost, to cover all possible areas of creating

mutually beneficial relationships with consumers. The literature presents several consumer-oriented models, considering its role in the success of the company's marketing activities: 4C models - R. F. Lauterborn [20], 11C - I.H. Gordon [11], 4R model - D.E. Schultz [20] and E. Ettenberg [21].

The authors have proposed a relationship marketing management model adapted to the B2B market and small business based on the 4R E. Ettenberg model. This model, according to the authors, suits best for the specifics of relationship marketing in the industrial market and can be integrated into the company's business processes to achieve its strategic goals.

Developing the ideas of E. Ettenberg, it is suggested for small industrial enterprises to develop marketing programs for the four elements of the 4R relationship-marketing complex, each of which includes marketing activities for two competencies (table 1).

TABLE I.   THE STAGES OF ASSESSING THE EFFECTIVENESS OF RELATIONSHIP MARKETING MANAGEMENT OF A SMALL INDUSTRIAL ENTERPRISE IN THE B2B MARKET BASED ON THE 4R MODEL

Competencies that make up the elements of the 4R model	Relationship Marketing Objectives	Values of an indicator, %	
		Plan	Fact
1 R – Relationship			
Service - engineering support to reduce the technological risks of industrial products customers	Reduce the number of complaints from regular customers by _%		
Experience - interaction with consumers, aimed at building trust between partners, informality of relationships	Consumer retention rate increase (CRR) by _ %		
2 R – Retrenchment			
Time - saving time of a customer due to the use of Internet technologies, building direct contacts with consumers in the Internet	Growth in the number of calls to the company via the Internet by_%		
Convenience - the fulfillment of orders in full, the guarantee of compliance with the deadlines for the fulfillment of orders, production planning with regard to the forecast of the demand of regular customers	Increasing the number of orders completed on time by _%		
3 R – Relevance			
Expertise - conformity of the manufacturer's products to the latest standards and technology of customers	Increasing the level of compliance with the technical characteristics of consumer technology products by _%		
Product - individualization of product offers in accordance with the needs of regular customers of industrial products	Increased satisfaction with product quality by _ %		
4 R – Reward			
Costs - development of flexible payment terms, special prices for regular customers	Growth in the number of regular customers by _%		
Growth - increasing loyalty of regular customers	Growth of the lifetime value of loyal customers by _%		

Each of the proposed 4R elements is aimed at achieving additional values for industrial users:

- economic: reduction of customer costs as a result of organizing business processes, taking into account the characteristics of the technology of target consumers

- technological: optimization of technological processes of target customers as a result of engineering support and compliance with the deadlines for the execution of orders;

- social: building trust between partners and long-term relationships as a result of the fulfillment of mutual obligations and informational support of target customers;

- strategic: improving the competitiveness of consumer companies in industry markets as a result of effective interaction with manufacturers.

The proposed methodology is used for assessing the effectiveness of relationship marketing management of small industrial enterprises on the basis of a system of indicators, which allows determining the degree of achievement of the marketing goals set. As a result of applying the proposed methodology, each element of the 4R model is assigned two coordinates corresponding to the planned and actual values of the levels of achievement of marketing objectives for two competencies: 1R: service and experience; 2R: time and convenience; 3R: examination and product; 4R: costs and growth, which builds a graph of performance (fig.2).
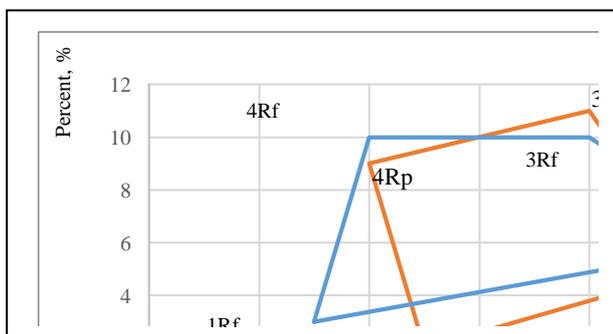

Fig.2. Graph of the effectiveness of relationship marketing in a small industrial enterprise in the B2B market, where Rp - planned indicators of the 4R model, Rf - actual indicators.

In order to identify discrepancies between the actual relationship marketing indicators and planned ones, authors proposed to supplement the performance chart for analyzing gaps (GapAnalysis). This method allows you to assess the degree of readiness to perform the transition from the current state to the desired one [22]. The "Gap" is defined as the difference between the planned values of the performance indicators of the 4R model and the actual values.

The proposed methodology allows us to estimate the level of achievement of marketing goals for each element of the relationship marketing mix, identify the causes of "breaks" and develop ways to eliminate them.

IV. Results of the Approbation Methods Estimating the Effectiveness of Relationship Marketing Management in Small Industrial Enterprises

The relationship marketing mix based on the "4R" model was developed by the authors for the target segment "Large customers" of Adeplast, LLC - a manufacturer of a wide range

of PVC-shaped products from PVC in the Ural region (table 2).

TABLE II. EFFECTIVENESS OF RELATIONSHIP MARKETING MANAGEMENT RELATIONS IN THE ADEPLAST, LLC

4R	Operational Marketing Objectives	Marketing Activities	Values of an indicator %	
			plan	fact
1 R – Relationship)				
Service	Reduce the number of complaints from regular customers by 5%	- organization of information technical online service, - organization of personnel training; - engineering support, technical support of the customer	5	6.2
Experience	Consumer retention rate increase by 3%	- creating personal communications between employees and management; - assigning personal managers to targeted industrial users	3	4
2 R – Retrenchment				
Time	Growth in the number of calls to the company via the Internet by 5%	- maintaining information databases; - improvement of the corporate website; - organization of online sales, online orders	5	4.1
Convenience	Increasing the number of orders completed on time by 2%	- organizing and supporting permanent warehouse stocks in the region of location of targeted customers; - production planning taking into account the demand forecast of targeted customers	2	2.4
3 R – Relevance				
Expertise	Increasing the level of compliance with the technical characteristics of consumer technology products by 4%	- knowledge of the technology features of industrial users: - organization of comprehensive sales.	4	3.7
Product	Increased customer satisfaction by 2%	- manufacturing products for individual orders and optimization of the range in accordance with the needs of the target segment of industrial products customers	2	2.5
4 R – Reward				
Costs	Growth of number of regular customers by 3%	- development of flexible payment terms, special prices, - development of conditions for granting deferral and installment payments	3	2.9
Growth	Growth of the lifetime value of regular customers by 5%	- development of a marketing support program for customers of industrial products - development of individual work plans with target customers	5	4.2

Based on assessing the marketing management effectiveness of the Adeplast LLC (fig.2), conclusions were made about the degree of marketing goals achievement for all elements of the 4R model.
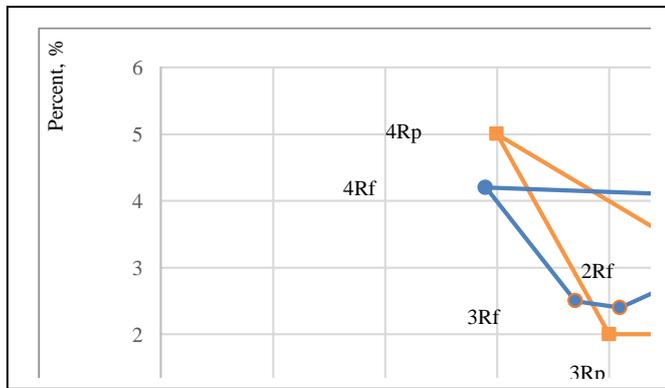
Fig.3. Evaluation of the effectiveness of relationship marketing management by Adeplast, LLC

To the greatest extent the potential of the organization was fulfilled for the element 1R - Relationship. The actual percentage reduction in the number of complaints from regular customers (6.2%) exceeded the planned (5%) by 1.2 percentage points; and the consumer retention rate increased by 4% compated to the planned 3%. For the other three elements of the 4R model: Retrenchment, Relevance, Reward, there are "gaps" between the actual and planned results, which are presented graphically on fig.4. The gap in the competence of "Time" showed the need to enhance the Internet interaction of Adeplast, LLC with industrial products customers. For this purpose it was recommended to crate an online store of finished products and semi-finished products, online support of the warehouse program, the development of an electronic passport of product customers.
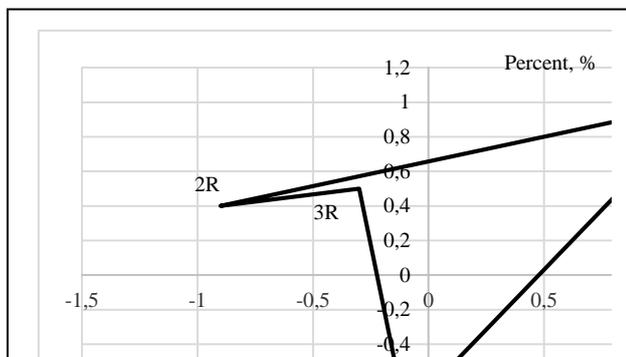

Fig 4. Evaluation of the effectiveness of relationship marketing management method, GapAnalysis

The competence gap of "Expertise" is of little importance (-0.3%), which generally indicates the correctness of the marketing strategy aimed at increasing the level of compliance with the technical characteristics of consumer technology products. It was proposed to develop options for finished sets of profiles and accessories for the manufacture of finished window products in order to increase the level of complexity of sales.

For the element 4R - Reward, gaps were identified in two competencies: "Costs" and "Growth". In this regard, in order to retain customers, a more thorough analysis of the profitability of the target segment and the development of special object prices for specific large orders of regular customers are needed. In order to increase the growth rate of the lifetime value of regular customers, it is recommended to

focus marketing efforts on target customers with minimum values of the CLV lifetime value metric. Organizing visits to such enterprises by personal sales managers and technical support specialists create personal contacts with decision makers on procurement, ensure that the information sent to the organization is targeted, and the feedback is regularly monitored.

In order to identify additional values of corporate clients, the authors conducted in-depth interviews with representatives of the target segment. As a result, we found out the importance for customers of such tools as meeting deadlines for orders and customization of product offers, the possibility of technical advice online, orders and payment for goods via the Internet, Internet communications, which allow to save the resources of the company.

V. CONCLUSION

Case study research showed that the performance of a small industrial enterprise might be evaluated with the use of a proposed methodology based on relationship marketing concept. Its main advantage is relative simplicity and visual representation of a degree to which marketing goals were attained. This will allow to develop a backed up marketing strategy and plan for a certain period.

The methodology suggested shows the importance of understanding values and the specific features of a relationship marketing mix for its practical use by small enterprises in applying marketing tools aimed at increasing loyalty of target audience and to create conditions for building long-term relationships with customers. Implementing online-technologies into the relationship marketing mix show high level of interest of industrial consumers in interacting with them.

The authors identified the following promising areas of relationship marketing transformation of Adeplast, LLC in the digital economy:

- activation of Internet technologies: improvement of Internet communications,

- SMM - promotion, organization of orders and payments online,

- improvement of information technical online service,

-creation of an online store of finished products,

- online support of the warehouse program,

- development of the electronic passport of the customer of products.

Further studies will be connected with the selection of performance indicators for relationship marketing tools on the Internet, as well as managers and employees of small industrial companies for the implementation of planned marketing activities in the B2B market.

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