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## THE INFLUENCE OF INFORMATION TECHNOLOGY ON QUALITY OF RELATIONSHIP WITH CUSTOMERS

The article contains characteristic of changes, which take place in the information society. Enterprises are increasingly advanced technologically, their competitiveness depends on client satisfaction. The article points the importance of customer relationship management for success of modern enterprises at the global market. Author presents trends concerning Internet market and benefits for participants of the open virtual market.

### 1. INTRODUCTION

Processes of markets globalisation and globalisation of business activity cause the increasing of international competition in the global dimension. Globalisation changed rules of competition and the way of managing a company. It is possible to determine globalisation as the process, in which markets and production in different countries became more and more interdependent in the connection with dynamics of an interchange of goods and services, the flow of capital and the technology.<sup>1</sup> The process of the globalisation creates new possibilities for company's competitiveness by using benefits from the location and of applying modern technologies. Functioning of enterprise on many markets increases the flow of not only goods and services but also the technology. The crucial factor, which enabled the globalisation process, is a development of the information technology. Progress in telecommunications, Internet and e-business enables acceleration of global interaction.<sup>2</sup> Internet networks became the base of functioning of societies. It is possible to describe the information society as the stage in the development of civilisation, the society and the economy are concentrated on the production, distribution and using the information. The information and the knowledge became basic production factors.<sup>3</sup> Organisation of enterprise's activity in the globalisation conditions requires the competent management his potential and sources of the competitive advantage. An ability of using new technologies enables better co-operating and the communication with customers. Technological factors enable transformations in processes of globalisation and performance of enterprises.

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<sup>1</sup> B. Liberska, *Globalizacja. Mechanizmy i wyzwania*, Wydawnictwo PWE, Warszawa 2002, p. 18.

<sup>2</sup> M. Miczyńska-Kowalska, *Marketing w warunkach globalizacji*, In: J. Stankiewicz, *Organizacja w warunkach nasilającej się konkurencji*, Wydawnictwo Uniwersytetu Zielonogórskiego, Zielona Góra 2004, p. 309-310.

<sup>3</sup> B. Gregor, M. Stawiszyński, *E-commerce*, Oficyna Wydawnicza, Bydgoszcz 2002, p. 20.

## 2. QUALITY OF RELATIONSHIP WITH CUSTOMERS

Global information society, of which development we are witnesses at present, is entailing deep transformations in enterprise's surroundings. Enterprise being active in conditions of changeable surroundings must be competitive and deep his market orientation. An aim of the market orientation is definition of customer needs, of the target market and adapting products for target market into the more effective way than the competition.<sup>4</sup> The market orientation of enterprise is directed for creating durable relations between the enterprise and his customers. Therefore the company must be prepared for implementing constant changes, which will help with better adapting to requirements of consumers. A feature of contemporary marketing is orientation on diversified groups of customers. This tendency is in accordance with contemporary trends, where it is to observe possible growing significance of individual consumer. Traditional marketing is oriented for getting a large number of new consumers. New marketing conceptions emphasise significance of creating long-lasting connections with customers.<sup>5</sup> Relationship marketing should be the mean part of marketing strategy in era of globalisation and information society. Basic differences between traditional transaction marketing and relationship marketing have been shown in table 1.

Table 1. Differences between transaction marketing and relationship marketing.

<b>Transaction marketing</b>	<b>Relationship marketing</b>
Concentration on isolated sale	Concentration on supporting customers
Features of product are most important	Benefits from the purchase of the product are most important
Short temporary horizon	Long temporary horizon
Not very essential customer service (the most important product and its quality)	The customer service is very important (as equally important as the product and its quality)
Limited customer loyalty	Customer loyalty very important
Moderate contact with the customer	Permanent contact with the customer

Source: G. Broniewska, *Marketing partnerski a kompleksowe zarządzanie przez jakość*, Problemy Jakości, 1998/9.

The global market is characterised by similarity of products. For enterprises it is harder to compete with their help. Enterprises are attempting not only to get new customers but also to improve relations with customers. Converting the purchaser into the loyal customer is perceived as one of the most effective ways standing out on the market and achieving the competitive advantage.<sup>6</sup> They are assessing that enterprises are spending six times of more funds to get the new customer than for stopping him by the company. Meanwhile the customer loyalty is worth on average ten times more than the one-time purchase of the product.<sup>7</sup> Traditional marketing, the marketing of the relation, consists

<sup>4</sup> W. M. Grudzewski, I. Hejduk, *Przedsiębiorstwo przyszłości*, Wydawnictwo Difin, Warszawa 2002, p. 47.

<sup>5</sup> G. Broniewska, *Marketing partnerski a kompleksowe zarządzanie przez jakość*, Problemy Jakości, 1998/9.

<sup>6</sup> E. Frąckiewicz, E. Rudawska, *Zarządzanie relacjami z klientem z wykorzystaniem koncepcji Customer Relationship Management*, Przegląd Organizacji, 2004/8.

<sup>7</sup> J. Grifin, *Customer Loyalty. How To Earn It, How to Keep It*, Jossey-Bass Publishers, San Francisco 1997, p. 213.

action of creating, holding and broadening the relations with the customer. Recruiting of customer is for the enterprise only first stage. It is possible to determine the marketing of the relation as the process of managing relations with present customers, maximisation of their loyalty, holding them, increasing of incomes and selective attracting new customers<sup>8</sup>. It is possible also to treat the relationship marketing as strategy of the enterprise which „building of the connection with customers and managing of the relation in target of the optimisation of the benefit in a long time. It is connected with using computer technology, the enterprise can increase its incomes and better identify needs of customer.”<sup>9</sup> Enterprises should consciously shape their relations with customers and improve their quality. To this purpose should fully exploited abilities resulting from applying new technologies. Possibilities of the Internet should be fully used for establishing relations with customers and creating the positive image and the reputation of enterprise. It is one of basic requirements for the functioning enterprise in the information society when he wants to be modern, competitive and to be a success on the global market.

### 3. INFORMATION TECHNOLOGY IN MARKETING STRATEGY

More great meaning in marketing activity begin playing Internet and information technologies. They help develop optimal relations between enterprises, consumers, suppliers and distributors. Development of modern information technology enables conduct of marketing activity by Internet. Internet marketing fulfils expectations of modern consumers, because it offers wide gamut of product and rich information on their themes. It enables fitting of offer for individual requirements and separate treatment of each customer. Many enterprises discover these new directions of development. Electronic commerce is not only source of benefit for clients, but also important factor of enterprise's development.<sup>10</sup> Conduct of marketing activity in Internet differs from traditional marketing. Basic difference is communication of enterprise with consumers. For traditional marketing is characteristic that enterprise sends information for many groups of consumers, however does not have capability to receive reflexive information. This model does not answer customers' requirements (lack of capability of dialog among partners of transactions). Using of Internet in marketing communication enables receipt of reflexive information and maintenance of relations between partners of transactions.<sup>11</sup> Internet has followed to widen of traditional market area. It is possible to differ following virtual areas in Internet network: area of information, area of communication, area of distribution and area of transaction.<sup>12</sup> Virtual area of information consists from new channels of information transfers. Enterprise can accessible information about products. Using of network as source of data is particularly interesting for small and medium enterprises. It results from fact, that

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<sup>8</sup> A. Tiwana, *Przewodnik po zarządzaniu wiedzą: e-biznes i zastosowania CRM*, Wydawnictwo Placet, Warszawa 2003, p. 25.

<sup>9</sup> A. Banasik, J. Beliczyński, *Zarządzanie relacjami z klientami. Aplikacje systemu CRM*, Wydawnictwo Akademii Ekonomicznej w Krakowie, Kraków 2003, p. 5.

<sup>10</sup> M. Miczyńska-Kowalska, *Marketing w warunkach globalizacji*, In: J. Stankiewicz, *Organizacja w warunkach nasilającej się konkurencji*, Wydawnictwo Uniwersytetu Zielonogórskiego, Zielona Góra 2004, p. 313.

<sup>11</sup> J. Wielki, *Elektroniczny marketing przez internet*, Wydawnictwo PWN, Warszawa 2000, p. 100.

<sup>12</sup> P. Adamczewski: *Internet w praktyce biznesu*, Wydawnictwo Akademii Ekonomicznej w Poznaniu, Poznań 2001, p. 48-49.

Internet network lowers costs and improves process of accelerating information about current economic situation.

Virtual area of communication enables fast, cheap and unlimited geographically using of network. Internet enables immediate communication. Low cost is advantage of this type of information exchange. This feature of Internet network is particularly valuable in case of necessity of intercommunication with trade partners localised abroad.

Virtual area of distribution presents channel of distribution for commodities and services, which can be recorded in the digital form and send by global network. Use of Internet in role of channel of distribution means decreasing of costs of potential purchaser reaching, acceleration of distribution process and better conditions for supplier and recipient. Each customer can buy product in any time, because he is not limited by hours of work sale section. Internet can enrich basic product with additional services, which increase its value. Virtual area of transaction enables realisation of formal economic transaction, like orders, invoices or disbursements. Internet lowers costs related with transaction, that has great importance for enterprises.

Internet is not only computer network about global coverage. It has become distributions channel of products, values and information.<sup>13</sup> Effective management of modern organisation requires complex and integrated information about its key decision and business processes, and influence of market surroundings.<sup>14</sup>

Using of Internet does not mean automatic obtainment of competitive superiority, but its skilful using enables cheap and easy access to information. Areas related with marketing, connected with particular benefits by Internet using are: distribution, marketing and sale, service.<sup>15</sup> Internet provides direct access to client in processes of distributions. It limits role of intermediary that allows decreasing cost of distribution. Growing number of distribution grade causes, in result of adding brokerage of individual intermediary, appreciation of final product prices.<sup>16</sup>

New capabilities of interactions, that give internet cause partial resignation from services of wholesaler and retail vendors through structure of own distribution channel in the form of www pages. It is possible to transfer a product to customer electronically. By using of Internet for transmission of product enterprise decreases cost of distributions, boosts speed of deliveries and improve client satisfaction.<sup>17</sup>

Marketing and sale is next area of implementation of Internet. Activity in Internet enables not only sale and promotion in network, but also devolving information of product, observation of market, stockpiling and analysing of information. Orders can be accepted

<sup>13</sup> A. Drab-Kurowska, *Wykorzystanie sieci Internet w biznesie jako element przewagi konkurencyjnej w dobie rozwoju społeczeństwa informacyjnego*, in: A. Szewczyk, *Problemy społeczeństwa informacyjnego*, Wydawnictwo Printshop, Szczecin 2007, p. 378.

<sup>14</sup> B. F. Kubiak, A. Korowicki: *Business Intelligence Systems w procesach biznesowych i zwiększanie konkurencyjności organizacji*, in: *Human Computer Interaktion w reorganizacji procesów gospodarczych i tworzeniu zintegrowanych systemów informacyjnych*, Wydawnictwo Uniwersytetu Gdańskiego, Gdańsk 2003, p. 13.

<sup>15</sup> T. Szapiro, R. Cierniak, *Internetowa strategia firmy*, Wydawnictwo Difin, Warszawa 1999, p. 70.

<sup>16</sup> A. Drab-Kurowska, *Wykorzystanie sieci Internet w biznesie jako element przewagi konkurencyjnej w dobie rozwoju społeczeństwa informacyjnego*, in: A. Szewczyk, *Problemy społeczeństwa informacyjnego*, Wydawnictwo Printshop, Szczecin 2007, p. 380.

<sup>17</sup> A. Drab-Kurowska, *Wykorzystanie sieci Internet w biznesie jako element przewagi konkurencyjnej w dobie rozwoju społeczeństwa informacyjnego*, in: A. Szewczyk, *Problemy społeczeństwa informacyjnego*, Wydawnictwo Printshop, Szczecin 2007, p. 380.

directly at using of network. It enables decreasing costs of transaction, accepting more orders at smallest engagement of enterprise's stock. Simultaneously time of realisation of order undergoes reduction that goes up quality of customer service.<sup>18</sup>

Sale in Internet network enables simple reaching to homogeneous group of target consumer. By creation of own www page enterprise gains capability to being into world-wide market. Cost of building of Internet page is relatively low to number of potential client. Enterprise gains access to huge amount of potential customers. Enterprise has access to huge amount of information about clients. In Internet exist special applications, which enable assemble and sort such information. Access to information about products of other enterprises seems also very important. Incremental role of new intermediary is characteristic for feature of product distribution in Internet, which substitute traditional trade. Its task is control and keeping of relations among vendors in network. Lack of experience of producer has contributed to appearing on market new subject, which have taken over tasks of existing intermediaries. Also operations related with service can be realise with using of Internet. They purpose to boost the value of product. Enterprise's activity in network can assure cheap and individual contact with customer. Enterprise can react to their requirements faster that means increment of their satisfaction and loyalty.<sup>19</sup> Globalisation of market and development of information society make optimal conditions for application of customer relationship management, which use modern information technologies and enables construction of profitable and lasting relations between enterprise and client. Information technology enables boost of ability of enterprise for recognition of customer requirements, keeping contact with them and supplying values, which they expect. From the point of view of client main purpose of implementation of information technology is opportunity of fast finding and procurement of products and better access to information and business offers. From the point of view of enterprise basic function of information technology is capability of achievement of better results than this has place at using of traditional method. Client should be treated as investment, which is source of long-range benefit for enterprise. In order to achieve it, it is necessary not only win new client, but first of all detain loyal customers, so that they have become faithful given enterprise or brand.<sup>20</sup> Enterprises can not challenge requirement of using of marketing information and information technology for improvement of relations with customers and using of chance result from globalisation of market and development of information society.

#### 4. OWN RESEARCH

Quality means fulfilment of customer expectations. Quality is the sum of features of product as well as customer's satisfaction. Therefore the quality be defined as adaptation to requirements and expectations of customer.

Noritaki Kano has proposed the model of consumer's satisfaction levels. He explains quality perception by customer and distinguishes the following levels of the customer's satisfaction:

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<sup>18</sup> A. Drab-Kurowska, *Wykorzystanie sieci Internet w biznesie jako element przewagi konkurencyjnej w dobie rozwoju społeczeństwa informacyjnego*, in: A. Szewczyk, *Problemy społeczeństwa informacyjnego*, Wydawnictwo Printshop, Szczecin 2007, p. 380.

<sup>19</sup> T. Szapiro, R. Cierniak, *Internetowa strategia firmy*, Wydawnictwo Difin, Warszawa 1999, s. 70.

<sup>20</sup> K. Mazurek-Łopacińska, *Orientacja na klienta w przedsiębiorstwie*, PWE, Warszawa 2002, s. 161.

- must -be satisfaction - satisfaction customers' basic needs. Fulfilment of basic requirements is accepted by customer as obvious,
- one - dimensional satisfaction - fulfilment additional requirements, which be waited and formulated by customer,
- delighted satisfaction - product possesses features, which customer did not require directly and he did not wait.<sup>21</sup> Fulfilment customer's basic requirements is obvious, that enterprise will be competitive it is necessary to fulfil additional requirements. Fulfilment of additional requirements is connected with growth of value for customer.

Two hundred respondents from Silesia province have been asked for analysing the aspects connected with using Internet in contacts with customers. The research was conducted in the period between January and October 2007. The aim of analysis was checking how information technology contributes to improvement of quality of relations with customers and how is its influence their satisfaction. Respondents had estimated, in scale since 1 to 3, significance of influence of separate factors on level their satisfaction. Nine different factors have been taken into consideration (table 2.).

Table 2. Factors of customer's satisfaction

<b>X<sub>1</sub></b>	decrease costs of transaction,
<b>X<sub>2</sub></b>	capability comparison offers of many competitive products
<b>X<sub>3</sub></b>	lower product price
<b>X<sub>4</sub></b>	reduction of indispensable time of transaction,
<b>X<sub>5</sub></b>	capability of better perception of transaction object
<b>X<sub>6</sub></b>	better quality of delivery
<b>X<sub>7</sub></b>	unrestricted access to offer
<b>X<sub>8</sub></b>	free choice of place and time of transaction
<b>X<sub>9</sub></b>	easiness and security of transaction

Source: own elaboration

Then all individual consumers' answers have been added up. On this basis they have been divided on three groups answering the levels of satisfaction distinguished in Kano's model. Levels of customer's satisfaction have been shown in table 3.

Table 3. Levels of customer's satisfaction

<b>I</b>	Assessment of customer satisfaction: <b>9-14</b> points	must -be satisfaction	Satisfaction customers' basic needs. Customer as obvious accepts fulfilment of basic requirements.
<b>II</b>	Assessment of customer satisfaction: <b>15-21</b> points	one - dimensional satisfaction	Fulfilment additional requirements, which be waited and formulated by customer.
<b>III</b>	Assessment of customer satisfaction: <b>22-27</b> points	delighted satisfaction	Product possesses features, which customer did not require directly and he did not wait. Fulfilment of additional requirements is connected with growth of value for customer.

Source: own elaboration on basis G. Benes, *Qualitätsmanagement als interdisziplinäres Problem*, Deutscher Universitätsverlag, Wiesbaden 1997, p. 47.

<sup>21</sup> G. Benes, *Qualitätsmanagement als interdisziplinäres Problem*, Deutscher Universitätsverlag, Wiesbaden 1997, p.47.

The conducted analysis showed that the use of information technology visibly contributes to improvement of customer's satisfaction level. The results of conducted analysis have been shown in table 4.

Table 4. Level of customer satisfaction – the results of analysis

Customer satisfaction level	must -be satisfaction (9-14)	one - dimensional satisfaction (15-21)	delighted satisfaction (22-27)	$\Sigma$
Quantity of customer	41	132	27	200
Proportional part of customer	20,5 %	66 %	13,5 %	100 %

Source: own study

Internet can be for consumers the source of additional advantages. It is quick, comfortable and easily accessible source information about products, their prices and quality. Enterprises in their marketing strategy should consider fact that the level of acceptance of information technology grows up among potential customers. The customers treat Internet as source of additional value. The basic product has been enriched about additional attributes in form of lower price, better accessibility, easiness and security of transaction, reduction of time of transaction. The customer gains the possibility of comparison offers of many competitive products. He has the unlimited access to enterprise and his products and can choose also freely the place and the time of transaction. All these aspects create additional value for customer and they contribute to growth of customer's satisfaction resulting with improvement of quality his relations with enterprise. Thanks information technology enterprise can improve quality of one's relations with customers, because this is effective tool of their building. Relations with customers should be for enterprise capital, which should be built and protected with all accessible tools. The information technology creates the possibilities of development and improvement of these relations, which should be fully used through enterprise.

## 5. CONCLUSIONS

Implementation of information technology boosts capabilities of enterprises in local as well as global dimension. Progress in sphere of information technology enables changes in system of communication and transformation of economic processes. Internet networks become presently a base of functioning of society and must be use by enterprises acting in conditions of global market. They are using for keeping and perfecting relations with clients and analysing of market information. It is particularly important in face of market globalisation, which promotes standardisation of product and competition growth. In these conditions enterprises can compete only with fast access to information and quality relations with clients. Ability Internet using is stimulator of enterprise's development, facilitates management and establishing of contact with partners and clients in country and abroad. Enterprise becomes real participant of global market.

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### **WPŁYW TECHNOLOGII INFORMACYJNEJ NA JAKOŚĆ RELACJI Z KLIENTAMI**

W artykule przybliżona została problematyka wykorzystania przez współczesne przedsiębiorstwa technologii informacyjnej w ich kontaktach z klientami. Podkreślone zostało znaczenie orientacji rynkowej przedsiębiorstw i konieczność podjęcia działań związanych z kształtowaniem trwałych i długoterminowych relacji z klientami. Omówiono podstawowe założenia marketingu relacji, konfrontując je z tradycyjnymi założeniami marketingu transakcyjnego. Przeprowadzona analiza wykazała, iż wykorzystanie technologii informacyjnej w widoczny sposób przyczynia się do poprawy jakości tych relacji oraz podniesienia poziomu satysfakcji klientów.