THE CUSTOMER-SUPPLY RELATIONSHIP IN POSTMODERN INFORMATION-BASED SOCIETY

Eva Chlebišová¹, Hana Svobodová²

¹Technical University Ostrava, Czech Republic, eva.chlebisova.st@vsb.cz
²Technical University Ostrava, Czech Republic, hana.svobodova@vsb.cz

Abstract

Current postmodern society is characterized by increasing influence and integration of the information technologies into the people’s – customers’ - life. These social changes are generally caused by the transformation of the global economy from material into information, in which the demand for information, knowledge and experiences oversize the demand for materials. The Internet, which enables the information sharing in former unexpected quantity, was the main source of this change.

The high demand for information, their fast real time accessibility and interactivity cause uncertain and turbulent changes in economy and involve global mark etspace. The customers rely on the accessibility of new interactive information and mobile technologies and the phenomenon of the social networks as twitter.com or facebook.com appears. This paper is based on the revision of the current literature, which is intent on the current market environment and forming of the current marketing approaches. The main aim is to describe the supply forming in the information society, where the role of the customer includes production of the offer and consumption of the offered products.

Keywords: marketing evolution, information economy, on-line social networks, internet, marketing communication, innovation process

Introduction

The 21st century is the century of change in many spheres. The process of globalization, the dynamics of changes and their unpredictability are the main sources of the market evolution. Also the advent of new technologies and new materials is bringing new concepts of the design and product quality and leads to the dramatic shortage of the product life cycle. As we can see recently, the basis of the change is the development of information technologies enabling more efficient information proceeding and new communication possibilities. These social changes are generally caused by the transformation of the global economy from material into information, in which the demand for information, knowledge and experiences oversize the demand for materials from the view of the size of money spent on the information and knowledge business. This new economy is bringing new future, but it is hard to forecast how. The consequential effects in firms are just the subjects of speculations, but some of the tendencies are already visible (outsourcing, partnering, and alliances). This is the period of uncertainty for marketing theorists and empirics as well. The main question is what kind will be the differences and boundaries in marketing. The term “boundaries” presents thoughts, symbols, languages, traditions, standards, rules, limitations and processes, which create the social environment.

Change of the marketplace

The first of the fundamental changes is the change of position of the firms’ economy value. The economic, psychological and social values become less found on the physical level (products) and more in the virtual sphere (information and thoughts). The shift from material value to the informational is described in the Table 1.

The traditional marketplace with the physical product and services exchange is changing into the marketspace in which goods and services are exchanged via informational channels electronically through computer networks. The next stage is ubiquitous U-space where value is gained from networks (Rayport & Sviokla, 1994; Watson et al., 2004). The markets and exchange of goods, services and information independent on space and time is our current reality.
Table 1. Matter, symbols and networks
(Berthon et al. 2000; Watson et al., 2004)

<table>
<thead>
<tr>
<th>Raw materials (content)</th>
<th>Processing (converting – transforming)</th>
<th>Transmission (conveying – transmitting)</th>
</tr>
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<tbody>
<tr>
<td>Age of the Material</td>
<td>Age of the Information</td>
<td>Age of the Network</td>
</tr>
<tr>
<td>Physical goods and services</td>
<td>Informational goods, services and experiences</td>
<td>Value extracted from networks</td>
</tr>
<tr>
<td>Mechanism (processing materials and energy)</td>
<td>PC (processing symbols)</td>
<td>Portable devices and communication systems (processing information and signals)</td>
</tr>
<tr>
<td>Transport (matter and energy)</td>
<td>Telecommunications (of symbols)</td>
<td>Electromagnetic spectrum and light (signals and information)</td>
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The driving forces of marketing seem to be the same – firms, supply and customers. By these elements we are able to observe the changes revealing inside and among every element. These three elements and three relationships among them generate six approaches where the traditional properties and limitations of the marketing are changed by the age of networks and information.

Customers influencing companies

At the beginning of the past decade, the marketers started to search and evaluate possibilities and capabilities of future markets and customers. In 1995 Kashani held a research which aim was to focus contemporary managerial problems and to indentify the future challenges. One of the main findings was that customers and their requirements are going to change accordingly to the increasing power of the customers, their expectations, needs, competences and knowledge. The respondents of this study, mostly managers and marketers, considered the increasing customer sensitivity to be the key success factor in competitive markets. This research has predicted the need to employ customers into the firm’s strategies creation. (Kashani, 1995)

The source of the individual customer power is significantly considered to increase with the availability of the communication technologies and the Internet. In the previous periods the customers had limited possibilities to ensure at least the equal position as the firms had. The Internet brought the possibility to gain real-time information independent on a distance and to connect consumers in very easy and low cost way and hereby establish new balance on the markets – the consumers’ power is increasing and the information asymmetry is becoming weak. The main reasons of the customers’ empower are (Leyland et al., 2002):

- customers are enabled to gain accurate recent information about the products which ensures achieving of the real value of products and ability to compare them (shopping agents);
- customers have access to technical information about products and services and their product tests;
- customers are able to contact other consumers and gain appropriate references when making purchase decisions (chats and comments);
- customers are able to aggregate their purchase volumes and cooperate and thereby gain better purchasing conditions inclusive discounts (cooperating systems “e-co-ops”);
- customers have access to inexpensive legal services and advices threw the interactive sites of the consumer associations;
- customers are able to declare and proclaim their disaffection with the goods and services (spoof sites).

These mentioned reasons of the customers’ empower could be summarized in two terms: customer’s competence and global customer. The customer’s competence is characterized as the movement of the informational advantage from firms to the customers, embodying ability to gain all relevant and mostly technical information to evaluate the attributes of given product and service and make appropriate purchasing decision. This competence is also apparent from the view of customer communication with firms. While in past the companies had the advantage to communicate on a mass scale and the customers had just a little chance to attend on their attitudes in public, nowadays are customers enabled to communicate in no less visible way to damage or support firm’s reputation. Firms have to cope with the fact that the word-of-mouth is very important source of information influencing the customers’ purchase process (Leyland et al., 2002).

Whether the customers are affecting all tools and functions of the marketing (4 P’s) using their creativity, the communication is no exception (Berthon et al., 2008). These customers – “adfluencers” - are using available and inexpensive software facilities to create videos with their own message, to change the content or to parody the original ones, because they want to influence what the company is saying or doing. These messages are usually spreading to other customers and thus create the new approach to mass communication. The ads are undertaking the liberalisation process when the mass communication is no longer in the hands of firms but express the ideas of the customers (Berthon, et al. 2008). The websites for video sharing and hosting (youtube.com, stream.com), social networks (facebook.com, twitter.com) and Podcasting are becoming new communication channels for advertising, especially for new forms of viral marketing (Schwartz, 2009).

**Customers’ interrelationships**

With the advent of global information networks and portable devices, geography became even less bearing on the customer segmentation (Watson et al., 2004). The global customer’s potential consists in unification of the demand, individual needs and purchase behaviours.

The Internet is the medium with almost unlimited consequence, which could drive customers to adapt purchase regarding the global public opinion and has indispensable role in influencing customers’ opinions and their life style in global scale. The newly unified global demand leads to the anticipation of the future unified production with less diversity but more emphasis on the services distinguishing products.

The ability of the customers to connect globally to the information exchange and to form the information groups has lead to the creation of the social groups in various on-line communication communities, on-line social networks, in which they could discuss their hobbies, values, needs or goals.

The social networks are important channels for information transmission, because members (agents) are able to obtain information from each other. Their importance lies above all in internal social interaction that relates to consumption choices and affects allocation of members’ budgets. The choices of members are considered to be interdependent because the decision of one member can affect the preferences of other members, e.g. through jealousy or envy (Mayer, 2009). Lack of information could cause that goods or services are unknown, but on the other side, personal references based on the well available information are supposed to be very important by making purchase decision of other agents, which enables marketers to use these relationships for building brand preference.

In the case of number of information and the availability of information may also have negative impacts on consumer behaviour. In accordance to power of mediums we could use the terms as media literacy and media terrorism. Media literacy is defined as the ability to distinguish relevant information from the fiction used to build an image or an attitude to the product or life style. The media terrorism is approving as the need to consume the goods, which is becoming the trend due to medial pressure. Then consumers need more information to continue with this trend to ensure a social status and they are beginning to be “information addicted”.

Other new approach of the customer-supply relationship arises from the utilisation of virtual reality. Parallel virtual environment provide customers an alternative way to fulfill the needs through living alternative lives where market mechanism also works and thereby new possibility for marketing utilization appears (e.g. The Sims 2). Many consumers are now faces to this medial and technological pressure and are not able to emancipate from it.
Firms and new challenges

The changes inside and among firms are bringing changes also into the management of firms. The move to the information, knowledge and capabilities to learn is becoming the source of primary competitive advantage. The idea is more important than the material conversion and therefore is increasing a number of information processors. Marketing as a function is replaced by marketing philosophy and so marketing becomes a part of all firms’ processes. The diffusion of the marketing skills through the whole company (which could be also advantageous) could cause that the specialist marketing skills fall behind. This hypothesis was also presented in Kashani’s research, where respondents indicated the specialist marketing skills as the last relevant to marketing performance (Kashani, 1995).

Changes among firms

All mentioned effects have international impacts. The traditional time and space boundaries are withering away and companies are obliged to cooperate, because concentration of economical power requires high level of cooperation. This leads to foundation of new strategic alliances (co-ventures, spin-ins, spin-outs, clusters are well known) and co-competition. Hereby the competition could be imagined as a type of relationship among companies creating market as a network (McLoughlin & Horan, 2002). The efforts to change companies’ strategies meet with increasing dubiety and risk diversification. The development of new strategies represents new approach to customer, supplier, and competitor relationship management, because the global marketing requires a high level of cooperation and connection in whole market chain.

According to the existence of global customers, and therefore uniformity of the products, the companies and customers are emphasizing services connected with the products as a source of the competitive advantage. The shift from material to intangible value means that the traditional products are changing into services, knowledge and solutions. The differences in firms’ offer, which had traditionally separate products (physical in permanent condition), services (passing and abstract character), experiences (objective offer efficiency) and solution (subjective offer efficiency), are crumbling. Nowadays products are designed as a mixture of traditional material products, intangible services, functions (solutions) and experiences.

Supply creation and innovation

With the shift to the information-intensive products and services through the Internet, the relationship between firms and their offers is becoming more durable. We could observe three-staged process, where every stage represents growth of information intensity in firms’ offerings:

1. Firms developing material offers – contact with products determines by property transfer;
2. Firms maintaining demand, sometimes for the products’ lifetime (e.g. brand loyalty, loyalty systems, software with irregular update);
3. Firms offering in real time (e.g. software real-time services hired from network-based suppliers, which are serviced and improved by supplier ad infinitum).

Also the advent of the Internet and new technologies is creating new fields for firms’ activities, for example virtual reality represents new space for vendor activities, where vendors are able to provide information to increase prospects adoption (Swann, 2001). The growing potential of the mobile commerce (M-commerce, the new type of E-commerce) applications, enable firms to carry on transactions by telecommunication networks and deliver added value in interactive relationships (Lin & Wang, 2006). Companies have to increase investments into new technologies that will encourage collaboration with the empowered customers and provide customers approach to information and interactions. (Hennessy, 2008)

Although investing and exploiting of new technologies becomes an important challenge to gaining interactivity into firms’ processes, the basis of nowadays offerings is innovation.

Firms are competing by their products and their managers are trying to develop novelties with new attributes. At the same time that firms are adopting and launching products into markets, customers are sorting themselves among firms to test and find the best product catering their needs. This dual dynamics is a mechanism, which can result in domination of the firm on the market (Zhang & Rongqiu, 2008).

The problem is how to innovate to gain adequate competitive advantage or to create new segment of consumer. Companies relying on conventional methods of research and development are affected by decreasing customer satisfaction and declined profits. The traditional methods are based on the information collecting about the customers on target markets, but ideas of these customers are supposed to be limited by
their current experiences with products. The main problem of these methods is that most of the products have not potential to be a novelty and mostly have only marginal contribution to the firm’s portfolio. Then producers have to shift and use methods based on cooperation with the lead users. (Lilien et al., 2008; Berthon et al., 2007)

The lead users are defined as users of a given product or service, who need another solution (and therefore are motivate to innovate), which has potential to be the source of innovation-related benefit in the future. These lead users are mostly found on the markets with more extreme conditions so they may be able to bring solutions that are novel when applied to the target markets. The research conducted by the 3M showed that the lead user based product development brings significantly more novel ideas than traditional processes and address more original customer needs. The sales of the lead user-developed products have a potential to be eight times higher than those developed by other methods. (Lilien et al., 2008)

Lead user concept gained attention in 70’s and 80’ as a method, which could decrease risks and expenditures connected with new product development. In 2007, Berthon and others suggested approach based on the cooperation with the creative customers. Creative customers are those who modify and adapt proprietary offerings and thereby are important source of ideas and innovations. These consumers are difficult to manage, because their solutions and ideas are mostly stochastic and independent on an organisation, but it is source of ideas that the firm might not cultivate by itself. (Berthon et al., 2007)

Research and the Internet

The digital media enable firms to involve the customers in new research techniques as crowdsourcing, communities, and co-creation.

In the section 2.2 we discuss the importance of the on-line social networks for demand creation. The importance of the social networks for firms, and accordingly for supply creation, is that social networks associate consumers on every type of the market and hereby provide information about every kind of good, brand or issue. Personal profiles on facebook.com or myspace.com enable companies to gain information about personal preferences, recommendations and conversations, which are recent and continuously complemented by customers. Marketers and researchers have to carry on researches with cooperation with customers but not only about them. The way to do it is to use on-line communities for discussion and intensify qualitative research.

The crowdsourcing approach is based on the creation of on-line discussion where customers debate the firm’s function. That could be defined as a type of outsourcing, whereat customers are asked to suggest a better idea for firm’s function. This digital discussion platform is widely used by the Nike, Procter & Gamble, or Starbucks (www.mystarbucksidea.com).

The co-creation method moves the engagement of consumer to another level. The firm engage the chosen group of consumer on the beginning of the innovation process and create on-line communities or seminars to cooperate and develop.

The Web 2.0 enabled firms to use and develop new tools and methods to come close to customers, engage them and find new information and interpret them.

Customer-supply interrelationship

There are two main changes in the customer-supply relationship. First is the high level of interactivity, which enables producers to develop new products in conformity to consumer solutions and suggestion on the base of mutual communication and relationship. Customers are becoming co-producers of the current offer. The second change consists in the nature of the supply coveted by customers. There is evident shift from material to immaterial and from physical to abstract, when more and more consumers are searching for ideas of the product and for product experiences, needing more information about the quality to ensure the credibility of a product or a brand. This culminates in the third change where the differences between customers and suppliers disappear and they are becoming unified. That has enabled significant increase of customers’ interaction and so customers are becoming producers as well as consumers of the current offer.

With the shift form material to immaterial and from physical to abstract, more and more customers sought for qualitatively different types of offers: the transmission of abstract thoughts (imagination, emotional experiences) in the same way as material things (trains, automobiles). Traditional product hierarchy projecting imaginations, when imagination represents products’ features, is turning into imaginations initiating product, when the product fulfils imaginations.
This approach provides a theoretical platform for the experience economy—the shift from goods/services to the experience production.

**Conclusion**

Changes in information technology turned relationships among customers and firms. Customers are connected in wide social networks gaining and providing significant information about current market offers and firms are able to quickly adapt their offers to provide additional value to customers.

In this paper, we discussed changes in market relationships caused by the importance of information technologies, changes in social interactions, and increasing firms’ capabilities to compete by changing their offers. In the first part, we presented the main market evolution stages emphasizing the shift from material to immaterial values and the interactions of three main subjects on the market. The main part of this paper is focused on the particular changes inside these subjects and among them. Presented conclusions emphasize the importance of interactivity in both directions—from customers to firms (by using customers’ ability to express needs and opinions by means of the internet) and from firms to customers (by exploiting cooperation with customers to design new products and to innovate)—to form adequate supply. The significant shift from material goods to immaterial values demanded by customers, which is brought by information possibilities, is also mentioned. These alternations bring new challenges to the current marketing approaches.

Traditional boundaries among supply, customers, and companies are ruined and the current information era is more than before conducted by competitive fight. The capability to keep the market share by material offer is threatened. Nevertheless, when competitive fight grows stronger, the weaker firms determine and survivors will use more new possibilities and set new limits. The firms’ success will depend on capabilities of taking the opportunities, which are provided by the network society.

**References**