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E-commerce – trends and development opportunities E-commerce – trendy i możliwości rozwoju

Streszczenie: W artykule scharakteryzowano narzędzia komunikacji marketingowej z e-konsumentami oraz trendy rozwoju e-commerce. Szczególną uwagę poświęcono zagadnieniu rekomendacji i personalizacji. Środowisko Internetu oferuje narzędzia będące skutecznym nośnikiem przekazu marketingowego i zarządzania relacjami z e-klientami. Zasoby informacji o produktach, które są dostępne dla klientów, znacznie przewyższają możliwości ich percepcji. Różnorodność źródeł oraz szybki wzrost ilości informacji docierających do konsumentów spowodowały konieczność ich selekcji, w celu ograniczenia niepewności towarzyszącej podejmowaniu decyzji. Internauci mogą korzystać z rekomendacji pochodzących od innych konsumentów, które są dostępne w społecznej przestrzeni Internetu, gdyż rozwój mediów i serwisów społecznościowych pozwala na publikację i wymianę treści. Również wiele sklepów internetowych oferuje profesjonalne systemy rekomendacji, które pomagają konsumentowi dokonać selekcji informacji, wybrać spersonalizowaną ofertę i lepiej dopasować parametry zakupu do indywidualnych potrzeb. Rekomendacje są ważnym elementem zarządzania relacjami z e-konsumentami, gdyż pozwalają na personalizację oferty, zwiększają satysfakcję z zakupu oraz pozwalają na zminimalizowanie towarzyszącego mu ryzyka. Praca porusza również problem rosnącego znaczenia wirtualnych społeczności oraz zmieniającej się pozycji konsumenta jako współtwórcy wartości.

Słowa kluczowe: e-commerce, media społecznościowe, personalizacja, systemy rekomendacji, e-CRM, Web 2.0

Abstract: The paper describes the tools of marketing communication with e-customers and trends concerning e-commerce. Special attention has been paid to personalization and recommender systems. The paper treats the characteristics of consumer behaviours on the business-to-customer market and the main barriers in customer relationship management. In this context the relationship with e-customers and the tools of marketing communication in electronic customer relationship have been described. The rapid growth of e-commerce has created product overload where customers on the Web are no longer able to effectively choose the products they are exposed to. There is a lot of imperfect information and a large supply available for consumers, and so it is extremely difficult to identify their own needs and preferences and ways for satisfying them. Recommendations are a type of communication and an especially important issue in e-marketing. It is easy to find many websites where a customer needs advice before taking the decision to purchase a product. Therefore, recommendations are a powerful tool to assist customers in these decisions. The paper refers to the challenges resulting from the growing importance of network and virtual communities, where the consumer is perceived as a value co-creator.

Keywords: e-commerce, social media, personalization, recommender systems, e-CRM, Web 2.0

Introduction

With the rapid growth of the Internet and market globalization, companies have accepted and adopted new information and communication technology in the performance of their activities, not just to support traditional activities, but also

to support those arising from new opportunities, mainly from the Internet. Most companies are establishing Websites which are regarded as a new channel to conduct business transactions, and customers can make purchases through company Websites.

A website is a key component of the online marketing strategy. It enables companies to access a global market with low operating costs, to offer in-depth information, and to provide customers with an electronic service with superior quality by means of interactivity, which increases the competition among companies.¹ Communication is the basic function of the Internet. Website communication can be seen through the facets of content, form and interaction. The content of communication relates to the type of information that is transmitted. The Internet can be used to obtain different types of marketing information: regarding physical inventory, promotional activities, product characteristics, pricing structures, and market conditions². In addition, the content can be customised, meaning that it is tailored towards a specific customer relationship and websites can offer a variety of information that can be customised for each customer³. The Internet can also reduce the cost of communication with customers. Moreover, it improves the workflow as a result of integrating with other enterprise systems and facilitating a better market segmentation. Therefore, it enables and enhances customer interactions, relationships and personalization opportunities. The distinct advantages of the Internet are enhanced customer interactions and relationships, and personalization options⁴.

Customer Relationship Management in the online environment

With the utilization of the advancement of IT technology, organizations and firms can operate effectively and efficiently. Today most CRM programmes, applications, and services depend more heavily on IT than in the past. These programmes, software applications, and services constitute a part of electronic CRM (e-CRM). Electronic CRM is the electronically delivered or managed subset of CRM. It arises from the consolidation of traditional CRM with e-business applications and covers a broad range of information technologies used to support a company's CRM strategy. CRM helps firms in many ways due to the tracking communication between firms and their customers. There are many ways that CRM can help firms, which are: analyzing customer revenue and cost data in order to identify current and future high-value customers, targeting direct marketing efforts, capturing relevant product and services behaviour data, creating new distribution channels, developing new pricing models, processing transactions faster, providing better information, managing logistics and the supply chain more

¹ H. Li, R. Suomi, *A Proposed Scale for Measuring E-service Quality*, International Journal of e-Service, Science and Technology, Vol. 2, No. 1, 1999, pp. 1-10.

² D.R. Deeter-Schmelz, N. K. Kennedy, *An exploratory study of the Internet as an Industrial communication tool - Examining buyer's perceptions*, Industrial Marketing Management, Vol. 31, 2002, p. 150.

³ L.K. Geller, *The Internet: the ultimate relationship marketing tool*, Direct Marketing, Vol. 61, No. 5, 1998, p. 37.

⁴ A. Kennedy, *Electronic Customer Relationship Management: opportunities and challenges in a digital world*, Irish Marketing Review, Vol. 18, No.2, 2006, pp. 58-68.

efficiently, deploying knowledge management systems, tracking customer defection and retention levels, and tracking customer satisfaction levels⁵.

Electronic customer relations delivered over the Internet have a specific aim to locate, build and improve long-term customer relationships in order to enhance their individual potential. E-CRM is an important tool for identifying user behaviour and attitudes toward the company's products. Every contact with the customer is an opportunity to build a strong relationship with the users.

Technological advances have influenced customer relationship management to the extent that gathering customer information, interacting with customers, and building relationships with them have become easier. Implementable technology innovations in business lead to an increase in available information and knowledge about markets, customers, and competitors, and as a result companies can offer more, newer, and better services to satisfy the specific needs of their customers. Technology contributes to the offering of individually customized goods and services. Readily available information technology and flexible work processes permit companies to customize goods or services for individual customers in high volumes at low cost⁶. Mass customization is the ability to provide individually designed goods and services to every customer: consumers can choose from large assortments and match product configurations to their exact preferences⁷. Interactive communication gives companies the ability to learn and to store more information about the customer, which in turn gives companies the ability to personalize services to the exact customer desires and needs and to develop relationships with their customers⁸. Information technology contributes to the acquisition, storage, and the analysis of customer data. And so, the trend towards customization has intensified. Gathering and storing information about customers provides enterprises with precious market knowledge. Managers can learn about individual customer behaviour and develop tools that consider customer heterogeneity and result in the offering of individualized service⁹. Information technology increases interaction between the company and the customer, increases market knowledge, and assists segmentation, customization, and personalization. Through customization and personalization, technology helps improve service and increase revenues¹⁰. Relationship marketing has become feasible because firms are now able to interact with individual customers and process information much more efficiently than previously¹¹. One of the main consequences of technology to customer relationship management is the increased number of levels on which businesses can interact with their customers in order to satisfy their needs. Companies can interact with customers at the

⁵ P. Greenberg, *CRM at the speed of light*, McGraw-Hill, Los Angeles 2004, p. 27.

⁶ J.H. Gilmore, J. B. Pine, *The four faces of mass customisation*, Harvard Business Review, Vol. 75, No. 1, 1997, pp. 91-101.

⁷ R. Lusch, S. Vargo, *The service-dominant logic of marketing*, Sharpe Armonk, New York, 2006, p. 74-76.

⁸ R. Rust, A. Zeithaml, K. Lemon, *Customer-centred brand management*, Harvard Business Review, Vol. 82, No. 9, 2004, pp. 110-118.

⁹ T. Beane, D. Ennis, *Market segmentation: a review*, European Journal of Marketing, Vol. 21, No. 5, 1987, pp. 20-42.

¹⁰ Ch. Grönroos, *From marketing mix to relationship marketing: towards a paradigm shift in marketing*, Management Decision, Vol. 32, No. 2, 1994, pp. 4-21.

¹¹ Ch. Grönroos, *Relationship marketing: the strategy continuum*, Journal Academy of Marketing Science, Vol. 23, No. 4, 1996, pp. 252-254.

aggregate level by way of offering service improvements and other general improvements. At the segment level, companies can achieve specific niches and offer tailored products and services through mass customization. Finally, interacting with customers at the individual level is possible through CRM tools, direct contacts, and personalized goods and services¹². The Internet gives a company the ability to customize services and to develop customer relationships¹³. In this context, the ability to acquire, manage, and model customer information is the key asset for any firm seeking to obtain and sustain market advantage¹⁴.

Personalization and recommendation in e-commerce

Nowadays, an unprecedented number of companies are using the Internet to market and sell products. This movement toward e-commerce has allowed companies to provide customers with more choice of products. However, increasing choice has also caused product overload where the customer is no longer able to effectively choose the products. Personalized services for individual customers are now popular in e-commerce sites. Properly designed and well-executed personalized services enable e-commerce companies to capture the unique needs and preferences of individual customers, help them build customer loyalty, and thereby, strengthen their competitiveness in the marketplace. Personalization of product information has become one of the most important factors that impact a customer's product selection and satisfaction. Personalized service requires firms to understand customers and offer goods or services that meet their needs¹⁵.

Personalization can be defined as serving the unique needs of individual customers. The main problem here is to identify customer needs and provide the best possible solution. Here we are ultimately taking about quality customer service, because customers are becoming choosier and success depends mainly on personalized services¹⁶. Personalized services for individual customers are now popular in e-commerce sites. Properly designed and well-executed personalized services enable e-commerce companies to capture the unique needs and preferences of individual customers, help them build customer loyalty, and thereby, strengthen their competitiveness in the marketplace.

The rapid development of e-commerce affords an opportunity to predict customers' reactions after they have used a product. Many online stores, such as Amazon.com and Dell.com encourage customers to write online reviews on their websites; information from these reviews is then often used to support a firm's product strategy and customer relationship management¹⁷. In the online reviews, customers can discuss their needs, preferences, personal profile, and voice their opinions about a product. From such data, it is easy to obtain personalized in-

¹² B. Pine, V. Bart, A. Boynton, *Making mass customization work*, Harvard Business Review, Vol. 71, No. 5, 1993, pp. 108-118.

¹³ R. Rust, *The rise of e-service*, Journal of Service Research, Vol. 3, No. 4, 2001, pp. 283-284.

¹⁴ R. McKenna, *Marketing in an age of diversity*, Harvard Business Review, Vol. 66, No. 5, 1988, pp. 88-96.

¹⁵ P. Greenberg, *CRM at the speed of light*, McGraw-Hill, Los Angeles 2004, p. 37.

¹⁶ D. Adebajo, *Classifying and selecting e-CRM applications an analysis-based proposal*, Management Decision, Vol. 41, No. 6, 2003, pp. 570-577.

¹⁷ J. Chevalier, D. Mayzlin, *The effect of word of mouth on sales: online book reviews*, Journal of Marketing Research, Vol. 43, No. 3, 2006, pp. 345-354.

formation and customers' after-use satisfaction level of the product. Using personal information and responses, the online store can more accurately predict customers' true attitudes toward a specific product, and recommend a more suitable product for the potential customer to enjoy¹⁸.

Many companies provide customers with tools to create their own individual Web pages. Companies can efficiently deliver customized information, such as product information and warranty information, when the customer logs on to the personalized page. Not only can a customer pull information from the vendor's site, but the vendor can also push information towards the consumer. In addition, these Web pages can record customer purchases and preferences. Typical personalized Web pages include those for bank accounts, stock portfolio accounts, and credit card accounts. On such sites, users can see their balances, records of all current and historical transactions, and more¹⁹.

Information overload is one of the most important problems that customers face in a website. Recommender systems address this problem by filtering the most relevant information for the customer according to his preferences. The recommender system is a tool where data about users and products is used to give recommendations of products that would suit customers' needs. Thus, a recommender system directly interacts with customers, helping them to locate the products they are looking for. Consumers become increasingly involved in the process of creating products and services, which to a certain point was the domain of companies. Recommender systems can be considered software programmes that attempt to predict what items a user may be interested in and give some previous information about the user's profile²⁰.

One of the most important challenges both in marketing and recommender systems is to find out useful information about potential customers or users of a certain product or service. They are developed to deal with information overload and provide personalized recommendations, content and services to users. Recommendation systems are decision aids that analyze a customer's prior online behaviour and present information on products to match the customer's preferences²¹.

As a type of information technology aimed to support personalized service, recommendation systems are widely used by e-commerce sites. These software systems have been applied in many areas including e-commerce. A recommender system is a typical software solution used in e-commerce for personalized services. It helps customers find the products they would like to purchase by providing recommendations based on their preferences, and is particularly useful in e-commerce sites that offer a lot of products for sale. Recommender systems are used as a support for decision-making tools in a purchase process. These systems allow potential buyers to use explicit preferences based on past buying

¹⁸ W. Reinartz, M. Krafft, W. Hoyer, *The customer relationship management process: its measurement and impact on performance*, Journal of Marketing Research, Vol. 41, 2004, pp. 293-305.

¹⁹ E. Constantinides, S. Fountain, *Web 2.0: Conceptual foundations and marketing issues*, Journal of Direct Data and Digital Marketing Practice, Vol. 9, No. 3, 2008, pp. 231-244.

²⁰ S. Aciar, Ch. Serarols-Tarrés, M. Royo-Vela, J. Rosa- Esteva, *Increasing effectiveness in e-commerce: recommendation applying intelligent agents*, International Journal of Business and System Research, Vol. 1, No.1, 2007, pp. 81-97.

²¹ G. Häubl, V. Trifts, *Consumer decision making in online shopping environments: the effect of interactive decision aids*, Marketing Science, Vol. 19, No. 1, 2000, pp. 4-21.

behaviour of thousands of other buyers in order to find the products they are looking for²². Online recommendation shapes the behaviour of customers based on redundant information with the objective to develop, improve and retain relations with the customers and to offer them customized products²³.

E-commerce sites suggest products to their customers and provide consumers with information in order to help them decide which products to purchase by way of recommender systems. The products can be recommended based on the top overall sellers on a site, on the demographics of the customer, or on an analysis of the past buying behaviour of the consumer as a prediction for future buying behaviour. The forms of recommendation include suggesting products to the customer, providing personalized product information, summarising community opinion, and providing community critiques. These recommendation techniques are part of the personalization of a site because they help the site to adapt itself to each customer²⁴. Amazon.com and Dell.com have successfully implemented a recommendation system, which finds a similar user group for the target buyer and recommends products that have been rated by users in the reference group but not yet viewed by the target buyer. Systems recommend items that are similar to items already purchased by people in the same preference group. However, it has some limitations. One is its difficulty in measuring the similarities between users, and the other is the scalability issue. As the number of customers and products increases, the computation time of algorithms grows exponentially. That is, the quantity of products that customers may have purchased is relatively few compared with large product sets. In this situation, the recommender systems may be unable to make any product recommendations for a particular customer, as these customers may have purchased too few common products, thus leading to poor recommendations²⁵. The recommended items are similar to the customer's past preferences (customer profiles). A customer profile that contains information about the customer's tastes, preferences, and needs can be explicitly obtained through questionnaires or implicitly learned from the customer's transactional behaviour over time²⁶. Recommender systems enhance e-commerce sales in three ways:

- Converting browsers into buyers: Visitors to a website often look over the site without purchasing anything. Recommender systems can help consumers find products they wish to purchase;
- Increasing cross-sell: Recommender systems improve cross-sell by suggesting additional products for the customer to purchase. If the recommendation are good, the average order size should increase;

²² M. Klusch, *Information agent technology for the Internet: a survey*, Data and Knowledge Engineering, Vol. 36, 2002, pp.337–372.

²³ G. Adomavicius, A. Tuzhilin, *Toward the next generation of recommender systems: a survey of the state-of-the-art and possible extensions*, IEEE Transactions on Knowledge and Data Engineering, Vol. 17, 2005, pp.734–749.

²⁴ J. Schafer, J. Konstan, J. Riedl, *E-commerce recommendation applications*, Data Mining and Knowledge Discovery, No. 5, 2001, pp. 115-153.

²⁵ L. Hung, *A personalized recommendation system based on product taxonomy for one-to-one marketing online*, Expert Systems with Applications, Vol. 29, No. 2, 2005, pp. 383-392.

²⁶ G. Adomavicius, A. Tuzhilin, *Toward the next generation of recommender systems: a survey of the state-of-the-art and possible extensions*, IEEE Transactions on Knowledge and Data Engineering, Vol. 17, 2005, pp.734–749.

- Building loyalty: Recommender systems improve loyalty by creating a value-added relationship between the site and the customer. Sites invest in learning about their customers, use recommender systems to operationalize that learning, and present custom interfaces that match customers needs. Consumers repay these sites by returning to these ones that best match their needs²⁷.

In the e-commerce application, recommender systems can potentially turn browsers into buyers by providing personalized shopping information that interests the customer, thus improving cross-sales and attaining customer loyalty. Offering online personalized recommendation service helps improve customer satisfaction. Conventionally, a recommendation system is considered as a success if clients purchase the recommended products. Recommender systems help e-commerce sites to increase sales and conversion rates by providing visitors with a personalized shopping experience. However, the act of purchasing itself does not guarantee satisfaction and a truly successful recommendation system should be one that maximizes the customer's after-use satisfaction.

Social networks as the tool of recommendation

The important tool of recommendation is online networking. It supports communication and collaboration among customers. Consumers today are increasingly utilizing technology as an effective tool in their shopping experience. The popularity of Web 2.0 has helped in the growth and popularity of social networks and has created a new form of collaboration and communication. Shopping has always been a social experience and social networking allows consumers to interact with other people. Social network has not only transformed the research and purchase consideration phase, but it also provides shoppers with a platform to advocate the products.²⁸ The Internet has become a key communication channel and growing Internet usage is motivating some changes in consumer purchasing processes²⁹. Consumers are increasingly turning to social networks in order to get information on which to base their decisions. They are using several online formats to share ideas about a given product, service, or brand and contact other consumers who are seen as more objective information sources³⁰. Web 2.0 is a collection of open-source, interactive and user-controlled online applications, expanding the experiences, knowledge and market power of the users as participants in business and social processes. Web 2.0 applications support the creation of informal users' networks facilitating the flow of ideas and

²⁷ J. Schafer, J. Konstan, J. Riedl, *E-commerce recommendation applications*, Data Mining and Knowledge Discovery, No. 5, 2001, pp. 115-153.

²⁸ J. Chevalier, D. Mayzlin, *The effect of word of mouth on sales: online book reviews*, Journal of Marketing Research, Vol. 43, No. 3, 2006, pp. 345-354.

²⁹ L. Casalo, C. Flavian, M. Guinahu, *The impact of participation in virtual brand communities on consumer trust and loyalty. The case of free software*, Online Information Review, Vol. 31, No. 6, 2007, pp. 775-792.

³⁰ R. Kozinets, *The field behind the screen: using netnography for marketing research in online communities*, Journal of Marketing Research, Vol. 39, No. 1, 2002, pp. 61-72.

knowledge by allowing the efficient generation, dissemination, sharing and editing of informational content³¹.

Information technology has created an innovative way in which people communicate and interact. Social networking websites have become a popular virtual meeting place for consumers to converge and share information. Social networks allow consumers to voluntarily post personal information, upload photographs, send and receive messages, blog, and join groups. Consumers now have the means to communicate their opinions about products and companies to other consumers³².

Representative online networking tools and methods include the following:

- Forums- sites for exchanging ideas and information usually around special interests. Available from internet portals, forums offer users the opportunity to participate in discussions,
- Chat rooms- found on a variety of websites, they offer real-time conversation,
- Blogs and wikis- they are becoming a major online networking tool. Blogs enable companies to approach focused segments of customers. Many business-to-customer sites sponsor blogs for their customers. By monitoring the discussion on a blog, companies can gain insight into factors such as customers' satisfaction. Blogs are often combined with Podcasts, that is, digital audio or video that can be streamed or downloaded to portable devices. Companies utilize wikis and blogs as a form of online communication with their customers. One company that does provide a wiki is the online visual search company Riya.com. They have used a wiki, for example, to let customers participate in the construction of the company's FAQ page,
- Social networks- applications allowing users to build personal websites which are accessible to other users for the exchange of personal content and communication,
- Usenet groups - are collections of online discussions grouped into communities,
- Discussion lists - a redistribution tool through which an e-mail is sent to one address and is then automatically forwarded to all people who subscribed to the list. The three main reasons as to why the company may use such lists are: to learn more about customers, to market products and services, and to gather and share information with a community of people with similar interests. If a company hosts a discussion list, it can define the subject matter to be discussed, and determine the frequency of the publication, and even make it a revenue-gathering tool³³.

Very popular are social shopping services, where online recommendations enable rational shopping decisions and decrease risk. The main idea of social shopping is the creation of virtual communities that are based on relationships and confidence between Internet users.

³¹ E. Constantinides, S. Fountain, *Web 2.0: Conceptual foundations and marketing issues*, Journal of Direct Data and Digital Marketing Practice, Vol. 9, No. 3, 2008, pp. 231-244.

³² S. Pookulangara, K. Koesler, *Cultural influence on consumers' usage of social networks and its' impact on online purchase intention*, Journal of Retailing and Consumer Services, Vol. 18, 2001, pp. 348-354.

³³ E. Constantinides, S. Fountain, *Web 2.0: Conceptual foundations and marketing issues*, Journal of Direct Data and Digital Marketing Practice, Vol. 9, No. 3, 2008, pp. 231-244.

This consumer-generated content refers to online content that is produced by people who were hitherto assumed to be only users or consumers of online content³⁴. The consumer-generated media is defined as any positive or negative statement about product or service made by potential, actual, or former customers, which is available to a multitude of people and instructions via the Internet.³⁵ The Web 2.0 is a new step in the evolutionary process of the Internet as a marketing environment. Applications offer new and previously unknown possibilities and empowerment not only in the form of information sourcing but also as forums of dialogue. What is more, producers and vendors must also face up to their social and commercial responsibilities. The power of these media can be very substantial and there are already several cases involving the exposure of product failures or corporate misconduct, forcing companies to respond. One highly publicized case includes the recall of a Dell laptop model after blogs exposed serious shortcomings of this product. This case started with a blog posting that reached millions of users and ultimately reached the wider public through the traditional media. An important effect of the Web 2.0 is a visible shift in consumer attitudes. The shift in customers needs is reflected in the growing demand for online services, where consumers can not only interact with enterprise but also access peer communities³⁶. This consumer behaviour is increasingly influenced by peer opinions and the collective intelligence³⁷. The dynamic growth of the Internet users and the implementation of the philosophy of Web 2.0 have created a specific source easily accessible to collective intelligence. Companies use this collective intelligence of the Internet users in the form of crowdsourcing. Companies and brands are increasingly making recourse to social media like Facebook or Twitter. Creating new and personalized products goes beyond firms. Organization in the form of open calls, engages customers to interact and participate in the product development. Enterprises are increasingly using the potential of online communities to build competitive advantage. Cheap and fast access to information, distribution and communication channels contributed to the development of this form cooperation with customers. The Internet is an important medium of gathering and changing marketing information. Social networking websites can be used in marketing communication, especially in the building of a brand community. Customers use social networks to obtain information, brand recognition, and opinions about brand, products and retailers. In the social media era customer preferences and decisions are increasingly based on content provided beyond the control of enterprise. Peer reviews, referrals, blogs, tagging, social networks, online forums and other forms are uncontrollable forms of online communication among customers and an effective tool of recommendation.

³⁴ P. Dwyer, *Measuring the value of electronic word of mouth and its impact in consumer communities*, Journal of Interactive Marketing, Vol. 21, No. 2, 2007, pp. 63-79.

³⁵ T. Henning-Thurau, U. Hansen, *Relationship Marketing*, Routledge, New York 2000, p. 137.

³⁶ E. Constantinides, S. Fountain, *Web 2.0: Conceptual foundations and marketing issues*, Journal of Direct Data and Digital Marketing Practice, Vol. 9, No. 3, 2008, pp. 231-244.

³⁷ J. Surowiecki, *The Wisdom of Crowds*, Anchor Books, New York 2005, p. 82.

Research methodology

This paper has conceptualised a methodology for evaluating e-commerce tools, perspectives and future trends in e-commerce development. The primary purpose of research was the description of consumers' behaviour and their attitudes to e-commerce tools. The analysis of consumer behaviour and preferences allow for the correlation between the trends in e-commerce development and e-customer preferences. The respondents to the conducted survey come from Silesia province. The customers were asked to indicate the dimensions, which influence their satisfaction level in e-commerce and the acceptance for trends in contemporary e-commerce. In total 300 questionnaires were distributed to potential respondents, and 183 of the 300 customers replied. Among the 183 respondents, 67 of them indicated that they have little or no experience of online shopping, and 16 questionnaires were uncompleted. The remaining 100 respondents are the basis of the study. The 100 completed questionnaires have been used in the analysis of data. In the questionnaire, each respondent determines the importance of every factor with a four-point Likert scale (unimportant, neutral, important, and very important). The factors for e-customer satisfaction reflect the contemporary trends in e-commerce development and have been selected from prior literature studies. Respondents included 54% males and 46% females. 37 % of the respondents were under the age of 25, 41% were aged 26–40, 20% were aged 41–50, and 2% were over 50. All respondents are Internet users and most of them are intensive users. 23% of them access the Internet less than 7 hours per week, 69% of them access the Internet between 7 and 35 hours per week, and 8% of them access the Internet over 20 hours per week. All respondents regularly browse e-commerce sites and have experience of online shopping. The results of the conducted survey are presented in table 1.

Table 1. Trends in e-commerce development- users' opinions

Trends in e-commerce development	Users' answers (n=100)			
	unimportant	neutral	important	very important
Service personalization	3	4	52	41
Product personalization	1	6	49	44
Recommendations	4	3	57	36
Crowdsourcing	21	35	34	10
Social shopping services	23	37	29	11
Web 2.0 tools (blogs, wikis, forums)	2	5	41	52
Personalized Web pages	6	11	45	38
Personalized accounts	4	16	43	37
Online reviews on the websites	2	7	45	46
Participation in the process of product improving	5	8	44	43
Social networks	9	17	31	43

Source: own elaboration

Internet users accept the contemporary trends in e-commerce development. The most important factors which influence e-customer satisfaction are connected with personalization and recommendation. Also very important is the

opportunity to participate in the process of product improvement and interactivity with online relations. Social networks facilitate an exchange of information about products, services and brands. Web 2.0 tools, online reviews, social shopping services and customer social networks are not only source of information, but also effective tools of interactive communication and recommendation. Future trends in e-commerce are connected with users' participation in product development, and the creation of opinions, reviews and recommendations.

Conclusion

The Internet provides a platform that allows the exchange of information, interactive communication, user participation, and the creation of opinions. E-commerce in multiple ways increases firms' ability to gather information about customers and support the development of relationships. Information overload in the online environment has meant that customers are no longer able to effectively choose the products which are offered on e-commerce sites. It is difficult for e-consumers to identify their own needs and preferences. Recommendations, online reviews and opinions are the most effective tools to assist customers in their decisions. Social networking websites, Web 2.0 tools and recommender systems offer customers the opportunity to participate in the process of product improvement and access to information and recommendations. They are also a valuable source of marketing feedback, which enables a suitable level of personalization.

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