On-line shopping behaviour in the Czech Republic under the digital transformation of economy

Abstract. The paper presents selected aspects of shopping behaviour with a focus on the main reasons for on-line shopping. Basing on the results of extensive research, we determined that the main reasons for on-line shopping are the cost, followed by comfort and convenience, while shopping on-line. It holds true for all age groups observed. Age increase pushes shoppers to pay more attention to convenience of shopping, and therefore it can be considered an essential factor for making an on-line purchase. Further statistical analysis confirmed the fact that the Czech Republic has caught up with rest of Europe and the world in the area of Internet use and on-line shopping, and the commercial power of the Internet will continue to grow.

The paper focuses on consumer behaviour within digital economy on e-commerce markets in the Czech Republic, and examines customers’ purchases and their motives for on-line shopping. The survey was divided into two parts. Qualitative part of the research was based on structured interviews in 2015-2016 with companies in the Czech Republic. These interviews were important for the definition of the research questions and further quantitative research, focused on customers of the e-shops and Internet users. Quantitative research consisted of 41 questions, and was conducted among the e-shoppers who filled out the questionnaire. 2,432 respondents participated in the research, and 1,601 of them completed all the questions in the questionnaire.

The results we obtained show that the price of merchandise is the main reason for the shopping on the Internet in the Czech Republic. This fact rejected hypothesis about a dominant role of convenience for shopping and expected preferences of the customers. Convenience and price have impact on the behaviour of those Czech customers, who prefer brick-and-mortar stores, and still shop on-line irregularly.

Keywords: Digital Transformation; Customer; E-Shop; On-line Shopping Behaviour; E-Commerce

JEL Classification: M31; L81
DOI: https://doi.org/10.21003/ea.V165-24

© Institute of Society Transformation, 2017
1. Introduction

Traditional business models have changed under digital economy, the digital transformation influenced the product and services (Planning & Pfoertsch, 2016). According to OECD (2014), the Internet is entering every aspect of economy and society, and the digital economy can be considered as a driver for innovation and digitalized products, business models, social and vocational environment.

Wyckoff (2016) presents digital technologies as a part of economy. Data used in the study confirmed the fact of increasing number of Internet accesses in more than 300 million websites via mobile devices. The number of global Internet users increased to almost 50% of the population (Bishop, 2016), and similar trend of increase in numbers is seen with customers who prefer e-shops and the Internet as primary shopping channel. Customers’ intention to purchase was analysed by Pappas et al. (2016), who explained the factors behind online shopping behaviour.

Based on the available studies and analyses, it can be stated that large part of the population of the Czech Republic has shopped on the Internet. Most of these purchases were made for cost reasons, yet price cannot be considered the only rationale. The online shopping and customers’ preferences are influenced by other factors such as comparison of merchandise, home delivery, comfortable shopping, etc.

This paper aims to describe selected aspects of online shopping looking to define the main reasons for shopping on the Internet, criteria for e-shop selection, and factors influencing such purchases (for example, customer reviews, and convenience of shopping). These aspects were selected for the purpose of this paper, and were investigated in extensive survey focusing on changes of customers’ behaviour in the era of digital economy. The survey was conducted in the Czech Republic in 2015 and 2016.

2. Brief Literature Review

2.1. Digital environment and Internet as a shopping channel

Solomon (2010), Kotler (2007), Schiffman & Kanuk (2007), and others define general shopping behaviour as manifested by consumers in their search for goods, shopping, evaluation, and use of products and services which they expect to meet their needs and requirements. Customer shopping behaviour generally has five basic stages. The first stage determines the need to purchase a certain product, followed by collecting information and weighing alternatives. Based on the information gathered, customer then makes a purchasing decision, followed by post-purchase behaviour.

Information and communication technologies supported behavioural changes, and contributed to a shift from an industrial economy towards service economy (Berkout & Herlin, 2004). According to Rayna (2008), digitalization dramatically changed the way entire categories of goods in the economy are created, produced, distributed, exchanged, and consumed. Customers adopted the Internet instead of traditional channels for information search and product purchase. The study by Bhatnagar et al (2000) presents Internet shopping as quite risky but convenient enterprise. The balance of risk and convenience is understood as a backbone of shopping channel choice. The main aim of this article was to approach Internet as an online shopping space with delivery of merchandise (products or services) to e-shoppers, opposite to traditional shops.

Despite its relatively short existence, the Internet has significantly influenced the contemporary forms of business, claiming the era of the information revolution (Svatošová, 2015). With the onset of digital revolution Kotler et al (2007) characterise the benefits of this change for the consumer. The benefits mainly consist of substantial increase in the purchasing power of the customer, greater diversity of the goods and services available, vast amount of diverse information, increased opportunities to interact with vendors when making and processing orders, and also more possibilities for communication and exchange of experience among customers. E-commerce has fast become a phenomenon of the 21st century.

2.2. Online shopping in the Czech Republic

According to the Czech Statistical Office (2015) in the second quarter of 2015 nearly 3.7 million Czech inhabitants made Internet purchase. It is nearly 42% of total population of the Czech Republic older than 16 years, and 55% of the total Internet users. Available statistics show that the most lucrative group for on-line shopping are women on parental leave, as almost 65% of them shop on-line.

Figure 1 shows a dramatic change in on-line shopping since 2005. In all surveyed age groups there has been a sharp
increase in on-line shopping among Internet users, by hundreds of percent. Most frequent on-line buyers are individuals aged 16-24 (39.9%). Even senior age group, i.e., over 65 years, shows certain increase. Shopping on-line is thus not only the domain of the younger generation, but pertains to all age groups.

Due to the increase in demand for on-line shopping, significant growth in the number of Internet shops has been recorded in the last five years (FinExpert.cz, 2015). Experts estimate that the current number of e-shops has grown by about 80% since 2010, and that about 37,000 e-shops operate on the Czech on-line market at the moment. Nearly two-thirds of customers first compare offers in different on-line stores, and then chooses the best option. In contrast, 18% of Czech Internet users always buy in the same e-shop, which suggests that customers remain faithful to the service which meets their requirements (Mediaguru, 2012).

Study of the e-commerce by the company Gemius (2013), which annually conducts extensive research into on-line shopping in the Czech Republic, states that more than 90% of Internet users shop on the Internet, which is an increase of 6% over the past two years. Czech Internet users participated in the study use the Internet very often. 92% of them connect to the Internet every day or almost every day, and 6% - several times a week. Internet users shop on-line, not only to save money, but also because on-line services are available at any time, and home delivery of goods is offered, which helps them to save the time. Saving time is a very important factor to on-line buyers who take it into account when shopping via the Internet.

Nearly three quarters of Czech Internet users have opted out from completing at least one on-line purchase, and only 13% of respondents always complete their purchases. Regarding the choice of services, based on which users decide to buy on the Internet, most users (almost two thirds) first compare offers at different e-shops, and then choose the best offer.

Gemius (2013) also states that on-line sales in the Czech Republic grow similarly to on-line sales in Europe, by an average of 15-20%. Based on the presented results, it can be said that e-commerce is one of the drivers of economic growth. This fact is confirmed in the study by Udan et al (2014), which claims the total turnover of Czech e-shops in 2015 amounted to CZK 81 bln, which is 20% more than in 2014. Considering that on-line stores make up only 8% of all retail sales in the country, there is certainly a great potential for further growth. According to the Internet portal Heureka.cz (2015), the number of e-shops in the Czech Republic reduced to about 36,800 while the overall sales grew, suggesting a realignment of the market players. According to the research by the company Acomware (2016), in 2015 nearly 78% of e-shops increased their turnover, and 84% of e-shops expected a turnover increase in 2016.

Mobile devices and optimising websites for on-line shopping has become a very important factor for domestic purchasing. The number of visits to on-line stores via mobile devices has been rising and accounts for more than 30% of site visits (66.9%). Even senior age group, i.e., over 65 years, shows twofold increase compared to 2014 (Heureka.cz, 2015).

3. Research questions, hypotheses and data used

The aim of the paper is to provide an overview of customer behaviour on B2C markets in the Czech Republic, looking for the main reasons for on-line purchase in conditions of digital environment.

The survey comprises both qualitative and quantitative research. Structured interviews with 11 managers of the top management in selected companies in the Czech Republic were carried out during 2015 and 2016 (through the questions prepared in advance). The objective of this survey was to clearly define research questions for further quantitative survey, which focused on Internet users and potential customers of e-shops.

In the quantitative research part, on-line survey among Internet users was conducted. The questionnaire included a total of 41 questions. The presented paper only includes the selected ones. The research involved a total of 2,432 respondents. 1,601 of them completed the entire questionnaire.

Within the group, women comprised 60%, while men - 40% of the participants. The participants were predominantly university degree holders (48.2% in both sexes).

Regarding the respondents’ age, the most represented categories of users were 16-24 years (more than 35%), followed by the category of 25-34 years (30% of the respondents participating in the survey), and 35-44 years with almost 15%. The least represented category was seniors aged 65+ with only 3%.

The survey participants were divided further according to their Internet user skills. 63% of them identified themselves as the average Internet users. A detailed characteristic of the research sample is provided in Table 1.

<table>
<thead>
<tr>
<th>Tab. 1: Characteristics of research sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex</td>
</tr>
<tr>
<td>------------------------------------------</td>
</tr>
<tr>
<td>Male</td>
</tr>
<tr>
<td>Female</td>
</tr>
</tbody>
</table>

| Age | N | % | Education | N | % |
|------------------------------------------|
| 16-24 | 563 | 35.2 | Secondary with a level exam | 613 | 38.3 |
| 25-34 | 482 | 30.1 | University | 771 | 48.2 |
| 35-44 | 239 | 14.9 | Beginner | 182 | 11.4 |
| 45-54 | 184 | 11.5 | Average user | 1008 | 63 |
| 55-64 | 85 | 5.3 | Advanced user | 358 | 22.4 |
| 65+ | 48 | 3.0 | Professional user | 53 | 3.3 |

Source: Elaborated by the authors

In light of the literature cited above, previous studies and guided interviews, the following research questions (RQ) have been designed:

RQ1: What are the main advantages of on-line shopping?

The aim of the research question RQ1 was to determine advantages of on-line shopping from the customers’ perspective. The question was based on the initial assumption that the majority of Czech customers prefer on-line shopping to shopping in-store mainly because of lower prices. Therefore, the aim was to identify other advantages that on-line shopping brings to customers. The results of qualitative research also showed that on-line shopping is chosen for comfort or convenience.

Based on the previous studies, the following hypothesis was defined:

H1: The main reason why customers shop on-line is convenience when shopping.

Data obtained from the questionnaire survey were then subjected to statistical analysis using two kinds of statistical software, i.e., SPSS and XLStatistics. For result evaluation we used Chi-square test. Pseudo-random selection for the selection of respondents was applied.

4. Results and discussion

The research showed that about 85% of Czech internet users are shopping goods or services on-line. However, only 34% of them shop on-line regularly. Most respondents (51%) still shop on-line irregularly, and thus prefer brick-and-mortar stores. Only 15% of respondents stated that they do not shop on-line at all.

Kim et al (2012) in their study indicated that price is the most important factor that influences customers’ purchasing decision when shopping on-line. It can therefore be assumed that price is the dominant factor influencing on-line shopping worldwide. Table 2 of our study clearly shows price as a deciding factor for on-line shoppers as 75.8% of the respondents considered it to be the reason for their purchase.

The second most important factor when shopping on-line is convenience (70.1%).

Pilić, M., Južňovská, E., & Kwarteng, M. A. / Economic Annals-XII (2017), 165(5-6), 119-123
ECONOMICS AND MANAGEMENT OF ENTERPRISES

Tab. 2: Customers' reasons for on-line shopping

<table>
<thead>
<tr>
<th>Reason</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Price</td>
<td>75.8%</td>
</tr>
<tr>
<td>Convenience</td>
<td>70.1%</td>
</tr>
<tr>
<td>Quick product comparison</td>
<td>46.7%</td>
</tr>
<tr>
<td>Possibility of product return</td>
<td>9.2%</td>
</tr>
</tbody>
</table>

Source: Elaborated by the authors

The third valuable factor of choosing to shop on the Internet is the possibility of quick comparison of the goods (46.7%).

Another advantage of on-line shopping is the possibility of returning the goods without providing a reason within two weeks following the purchase (9.2%). Yet, this factor does not play an important role in choosing between an on-line shop and a physical or brick-and-mortar shop.

In Figure 2 below a detailed comparison between individual age categories and reasons for on-line purchase is presented. It is obvious that price dominates in all age categories as the primary reason of making on-line purchase except for the age group 65+, in which the respondents identified convenience as the primary reason. It can be noted that with increase age of the respondents the factor of convenience gains significance.

The Hypothesis 1 was rejected on the grounds of the results obtained. It has been proven that price plays a major role for most customers when choosing an on-line store. The main reason for making on-line purchase is thus not convenience, but the price of the purchased product or service.

The data presented in Table 3 were analysed using the Chi-square test, which examines the relationship between the defined variables. The $p$-value is being compared with the standard 5% significance level. If the $p$-value is lower than the standard significance level $\alpha = 0.05$, we reject the null hypothesis of independence of variables.

Since the $p$-value (1.222E-91) is smaller than the standard significance level $\alpha = 0.05$, we reject the null hypothesis $H_0$ of independence between shopping on the Internet and convenience when shopping on-line. Convenience, thus, has an impact on on-line shopping as shown in Figure 3.

In the traditional business environment, most customers tend to shop in big stores and supermarkets, where they can buy all the products they need, and often at better prices than in the smaller stores.

4. Conclusions

The aim of this paper was to explore on-line shopping behaviour with selected aspects influencing customer’s choice under digital economy.

It was found out based on undertaken empirical study that e-shop customers in the Czech Republic prefer convenience and price when shopping on-line to comparison of goods and the possibility of its return. Statistically, the influence of the convenience factor on shopping on-line was also confirmed.

Based on the study of relevant literature and conducted qualitative and quantitative research, we may state that on-line shopping is an integral part of the Czech economy. Majority of the Internet users use it for the purpose of purchasing, comparison of products, collecting information, and for other activities that are associated with on-line shopping.

The power of the Internet as a shopping space is estimated to grow further both nationally and internationally. Czech customers will continue to change
their shopping habits, and, as the result, will use the Internet for shopping to the full. Despite the fact that some customer groups remain prudent and reserved about shopping on-line, over time and with the development of digital technologies the change will eventually occur even in these groups of customers, both in their attitude towards on-line shopping itself, and in their attitude to selected Internet tools and ways of their use.

As part of our future research, the issue will be extended to on-line retailers and their perception of customer shopping behaviour.

The issue of consumer behaviour on the Internet should become a priority of future research, not only from the marketing and sales perspective, but especially from the psychological point of view, as far as it is very difficult to develop general models of customer behaviour both off-line and on-line. With each change to the business and Internet environment, with new technologies, new Internet features the customer adapts to the changes. This means that those who develop new technologies are also those who affect the customers the most, and on-line stores have to accommodate these new trends in order to keep competitive advantages.

References


Mendeley is a powerful reference manager and an academic social network with more than 3 million users. Create a free account to discover relevant research, connect and collaborate with the global community.

by Elsevier