

THE INTERNET AND ITS USE IN PRE-PURCHASE STAGE IN EUROPE AND ASIA – MANAGEMENT OF MARKETING EFFORTS

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Abstract: The online shopping cannot be considered to be an emerging trend because it became a standard way of doing business. The focus of online retailers's interest should be aimed to the customer behavior during purchasing process. The aim of this paper is to describe and analyse use of the Internet in the pre-purchase stage in the selected countries from Europe and Asia. We found that there is a significant negative correlation between selected World Bank indicators (GDP per capita, The Internet users per 100 people) and use of the Internet in pre-purchase stage with use of Internet. Furthermore, there is a significant difference between European and Asian online consumers when using the Internet during pre-purchase stage in several observed activities.

Key words: online shopping, pre-purchase stage, online customer behavior

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Introduction

Although financial crisis has reduced shopping budgets and weakened the confidence of consumers in shopping, evidence shows that online retailing continues to be a valuable alternative or complement to traditional retailing (Rezaei et al., 2014; Ferencová and Jurková, 2011). As digitalization of the offline processes and the Internet technology reduce economic and political barriers and encourages globalization, it helps to outreach online selling (Rezaei et al., 2014; Vejačka and Bucko, 2015; Štefko et al., 2016). Over the past years, the Internet has developed into a global marketplace for goods and service exchange with 24 hour availability and worldwide coverage (Javadi et al., 2012). Global online shopping industry has grown significantly (Bacik et al., 2015; Pietrasieński and Ślusarczyk, 2015) and it is possible to notice the flow of the capital on the international level (Ślusarczyk and Kot, 2012). The development of e-commerce has incited the increase of trust in security of electronic banking and its use in everyday life (Mihók et al., 2008). Its connection with e-commerce via the option of on-line purchase for goods increases the speed and efficiency of order processing. This is reflected in more favorable prices for consumers (Delina, 2014; Kot et al., 2012).

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Convenient and fast shopping is mostly used by young generation since this generation is increasingly familiar with the use of the Internet banking (Vejačka, 2013). The use of smart mobile devices and the option of on-line smartbanking payment influence the development of electronic commerce, too. Acquaintance with and trust in the security of smartbanking applications affect the customer behavior (Bucko, 2014; Bucko et al., 2015). Online shopping allows customers to perform a variety of shopping activities wherever the World Wide Web is available. Retailers are increasingly offering online shopping platforms, known as e-shops. With the use of encrypted and secure gateways, retailers provide the online experience which is risk free and pleasant (Sinha, 2010).

However, it is important not only to provide possibilities discussed previously, but companies should also be able to determine if these opportunities are appreciated by consumers. Thus, companies should start with exploration of consumer behavior. Consumer behavior represents a study of processes that are involved when an individual consumer or a group of selected consumers, buy or use products in order to satisfy their needs and desires (Solomon et al., 2013). With the rapid movement to online selling, sellers cannot use the knowledge gathered from in-store customer behavior, as in-store and online customers are influenced by different motivational factors (Liu et al., 2013). There are many factors that affect online consumer behavior (Bacik et al., 2015), still a complete coverage of all potential factors is almost impossible (Jevadi et al., 2012). Trenz (2015) discuss 3 stages of purchasing process – pre-purchase stage, purchase stage and post-purchase stage – which is presented on the Figure 1. The switch between channels represents the change in the source of information about the product of intentional purchase.

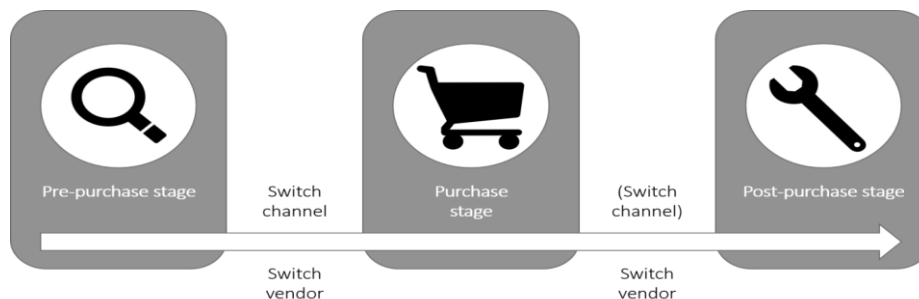


Figure 1. General purchasing process (Trenz, 2015)

In our paper, we focus primarily on behavior in the pre-purchase stage (although we focus on the Internet users who purchase products from abroad regardless the industry of seller), that is connected to product or brand awareness. During pre-purchase stage, the customers inform themselves about the product. Since the pre-purchase stage entails no obligations, customer often change the vendor in order to find the most suitable deal (Trenz, 2015). In this phase of the purchasing

process, users tend to look for information that can help them select the right product or seller. Comparison in general plays a certain role at this stage. As consumers can compare product price and features online with ease and switch stores until they find the most suitable solution for them, e-service quality became a key factor (Bai et al., 2014). Users would also look for product/brand reviews in order to avoid a purchase of unreliable product or a purchase from an unreliable source. Hu et al. (2015) claims that customer loyalty is influenced by online customer complaint behavior. The focus of this paper is aimed on activities executed prior to a purchase that can help online sellers to improve their online presence in order to provide the right experience to the potential customers. In the environment of World Wide Web, consumers are continually in interaction with various brands, websites and marketing influences. Many of them are often rejected because they do not meet the expectations of their potential customer (Solomon et al., 2013). Previous research has shown that the frequency of shopping online as well as the spending during online shopping is positively associated with the Internet experience during shopping (Doolin et al., 2005).

Objectives and Methods

The aim of this paper is to describe and analyze the use of the Internet in the pre-purchase stage in the selected countries from Europe and Asia. By decomposition of the main objective, two partial objectives were specified. First partial objective was to find the dependence on The World Bank indicators and use of Internet in the pre-purchase stage. Second partial objective was focused on determination of differences between continents in the use of the Internet during the pre-purchase stage. To accomplish the objective of the paper, secondary data from the Consumer Barometer and from The World Bank was used. The data in the Consumer Barometer is gathered from two sources:

- 1) core questionnaire that is focused on the population of adults;
- 2) connected customer study that is used to enumerate the total audit population and is used to weight the results (Consumer Barometer, 2015).

The data from The World Bank was gathered from Data section of The World Bank official website (The World Bank, 2015).

Based on the objective of the paper, the following working hypothesis were formulated:

H1: There is a significant association between GDP per capita and the use of the Internet in order to make a purchase decision in the analyzed countries.

H2: There is a significant association between Internet users per 100 people and the use of the Internet in order to make a purchase decision in the analyzed countries.

H3: There is a significant difference between European and Asian countries in the use of the Internet in order to make a purchase decision.

Sample, Material, Procedures and Data Analysis

The sample consists of nationally representative population (online and offline) at the age of 16+ in each country surveyed except China, India, South Korea, Malaysia, Philippines, Vietnam and Japan (age of 20+). The sample consisted of 189,760 participants from 44 countries [n(Europe) = 29, n(Asia) = 15] (Consumer Barometer, 2015). Surveys were administered by TNS Infratest on behalf of Google. The survey data was collected in all countries via telephone or face-to-face interviewing. Surveys were administered from January to March 2014 and from January to March 2015. The World Bank data we were interested in consisted of 2 indicators – Gross Domestic Product per Capita (GDP per Capita) and Number of Internet users per 100 people. Data was gathered from the World Bank's databases.

The data was analyzed using software IBM SPSS and Microsoft Excel. To analyze the data, descriptive statistics was used (tables, mean, min, max, standard deviation). In order to test hypothesis H1 and H2, Pearson correlation coefficient was used. Hypothesis H3 was tested with the use of F-test and t-test.

Results and Discussion

Based on the objective of the paper, we initially analyzed the portions of the Internet users who executed selected actions in the pre-purchase stage of the buying process. The overview is presented in Table 1. By comparing means, we can see that users mostly use the Internet for product/price/features comparison (51,73%), searching of opinions/reviews/advice (29,02%) and discovery of relevant brands (26,36%). Users in the pre-purchase stage do not use the Internet to look for redeemed offers, coupons or promotions (11,52%), made contact/request contact with retailers or brands (8,61%) and investigation of financing options (4,66%).

Table 1. The overview of actions performed by Internet users

| Action | Mean (in %) | Min (in %) | Max (in %) | Standard Deviation |
|--|-------------|------------|------------|--------------------|
| Got ideas/inspiration online | 24,27 | 10,00 | 55,00 | 9,12 |
| Discovered relevant brands online | 26,36 | 17,00 | 54,00 | 7,13 |
| Compared products/price/features online | 51,73 | 35,00 | 66,00 | 6,68 |
| Watched relevant videos online | 11,89 | 5,00 | 24,00 | 4,44 |
| Looked for opinions/reviews/advice online | 29,02 | 12,00 | 41,00 | 6,31 |
| Looked for redeemed offers, coupons or promotions online | 11,52 | 5,00 | 23,00 | 4,25 |
| Checked where to buy/product availability online | 19,95 | 11,00 | 30,00 | 4,70 |
| Got locations/directions online | 14,68 | 8,00 | 33,00 | 5,43 |
| Made contact/request contact (with brands, retailers) online | 8,61 | 3,00 | 19,00 | 2,94 |
| Investigating financing options online | 4,66 | 1,00 | 15,00 | 3,18 |

In order to accomplish one of our partial goals, the determination of association between World Banks indicators and pre-purchase behavior of Internet shoppers, we tested the following statistical hypotheses:

- a) H_0 : There is no correlation between GDP per capita and the use of the Internet in the pre-purchase stage.
 H_A : There is a correlation between GDP per capita and the use of the Internet in the pre-purchase stage.
- b) H_0 : There is no correlation between the number of Internet users per 100 people and the use of the Internet in the pre-purchase stage.
 H_A : There is a correlation between the number of Internet users per 100 people and the use of the Internet in the pre-purchase stage.

GDP per capita and the Internet users per 100 people belonged to indicators that interested us. We used Pearson correlation at the α level of 0,05 to define correlation between those indicators and activities executed during the pre-purchase stage by Internet shoppers. The results can be found in Table 2.

Table 2. The dependence between World Bank indicators and use of the Internet in pre-purchase stage (H1, H2)

| Action | Pearson coefficient | |
|--|---------------------|-----------------------------------|
| | GDP per capita | The Internet users per 100 people |
| Got ideas/inspiration online | -0,109 | -0,347* |
| Discovered relevant brands online | -0,549** | -0,732** |
| Compared products/price/features online | -0,363* | -0,091 |
| Watched relevant videos online | -0,637** | -0,703** |
| Looked for opinions/reviews/advice online | -0,622** | -0,391** |
| Looked for redeemed offers, coupons or promotions online | -0,359* | -0,308* |
| Checked where to buy/product availability online | -0,527** | -0,473** |
| Got locations/directions online | -0,487** | -0,483** |
| Made contact/request contact (with brands, retailers) online | -0,392** | -0,495** |
| Investigating financing options online | -0,639** | -0,653** |
| * significant at $\alpha = 0,05$, ** significant at $\alpha = 0,01$ | | |

The results given in Table 2 point to a paradox. It might be assumed that countries with higher GDP per capita and higher volume of the Internet users per 100 people will use the Internet in the pre-purchase stage more compared to countries with a lower level of these indicators. However, based on our results, we can see that there is a strong negative correlation between World Bank indicators and actions taken with the use of the Internet during the pre-purchase stage. Especially, the negative correlation between the Internet users per 100 people and its use

during the pre-purchase stage should be a subject of further discussion. In the Figure 2, there is presented the strongest observed negative correlation between the Internet users per 100 people and use of the Internet in the pre purchase stage, concretely the discovery of relevant brands online.

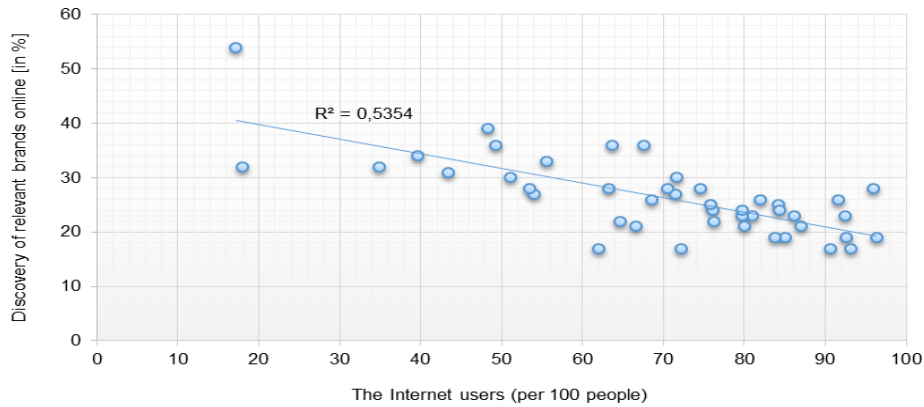


Figure 2. The negative correlation between The Internet users per 100 people and discovery of relevant brands online

Alternatively, Figure 3 presents two cases of the strongest observed negative correlation between GDP per capita and use of the Internet in the pre purchase stage, concretely watching of relevant videos online and investigation of the financing options online.

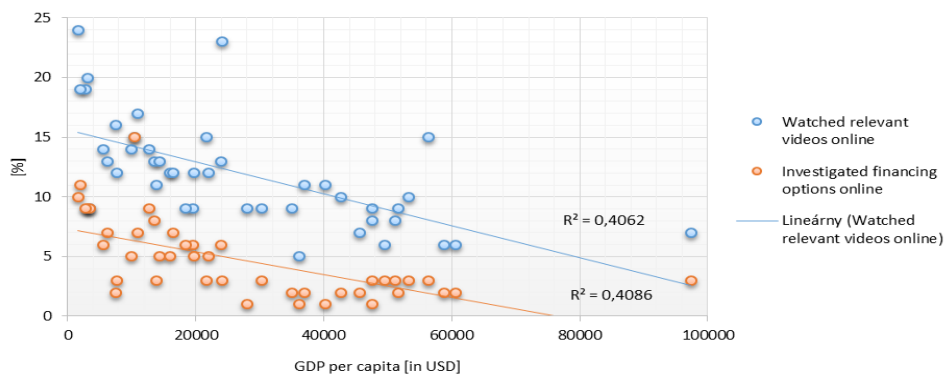


Figure 3. The negative correlation between GDP per capita and watching of relevant videos/discovery of the financing options online

It might be assumed there are limitations in the data that distort the results. In addition, further research of conditions that caused calculated results should be conducted in order to discover the cause of the negative correlation or other variables that might influence the use of the Internet in the pre-purchase stage.

However, based on the available data and calculated statistics, we reject the null hypothesis in a) (except the case of getting ideas/inspiration online) and b) (except the case of comparison of products/price/features online) and accept both alternative hypotheses. There is a significant correlation between World Bank indicators and the use of the Internet in order to make a purchase decision in analyzed countries.

The second partial goal of our paper was focused on a comparison of the Internet use the pre-purchase stage between European and Asian countries. In order to determine the difference, we tested the following hypotheses at the α level of 0,05:

c) H_0 : There is no significant difference between average values of European and Asian countries in the use of the Internet in order to make a purchase decision.

H_A : There is a significant difference between average values of European and Asian countries in the use of the Internet in order to make a purchase decision.

First, we used F-test Two-Sample for Variances in order to determine if the variance is equal. The results can be found in Table 3.

Table 3. Results of F-Test Two-Sample for Variances

| Action | F | p-value |
|--|------|---------|
| Got ideas/inspiration online | 0,15 | 0,000** |
| Discovered relevant brands online | 0,26 | 0,001** |
| Compared products/price/features online | 0,45 | 0,034* |
| Watched relevant videos online | 0,36 | 0,010** |
| Looked for opinions/reviews/advice online | 1,05 | 0,475 |
| Looked for redeemed offers, coupons or promotions online | 0,63 | 0,14 |
| Checked where to buy/product availability online | 0,51 | 0,063 |
| Got locations/directions online | 0,42 | 0,024* |
| Made contact/request contact (with brands, retailers) online | 0,12 | 0,000** |
| Investigating financing options online | 0,22 | 0,000** |
| <i>* significant at $\alpha = 0,05$, ** significant at $\alpha = 0,01$</i> | | |

Based on the results given in Table 3, we used Two-sample t-test assuming equal/unequal variances. As the results in Table 4 display show, the statistically significant difference between European and Asian countries during the pre-purchase stage with the use of the Internet was observed in discovery of relevant brands online, watching relevant videos online, looking for redeemed offers, coupons or promotions online and getting locations/directions online. In those four cases, we rejected the null hypothesis from c) and accept the alternative hypothesis. In the remaining activities, we could not reject the null hypothesis from c),

assuming there is no statistically significant difference between European and Asian countries in the use of the Internet in order to make a purchase decision. However, the actions where the differences were noticed should be the subject of further research. It can be beneficial in determination of shopping preferences based on the geographic, demographic, behavioral or psychographic features of the Internet users as well as the development of online environment on European and Asian markets.

Table 4. Results of Two-sample t-test

| Action | T-test assuming equal variances | | T-test assuming unequal variances | |
|--|---------------------------------|---------|-----------------------------------|---------|
| | t Stat | p-value | t Stat | p-value |
| Got ideas/inspiration online | - | - | -1,10 | 0,287 |
| Discovered relevant brands online | - | - | -3,69 | 0,002* |
| Compared products/price/features online | - | - | -1,01 | 0,322 |
| Watched relevant videos online | - | - | -2,92 | 0,009* |
| Looked for opinions/reviews/advice online | -2,02 | 0,050 | - | - |
| Looked for redeemed offers, coupons or promotions online | -2,03 | 0,049* | - | - |
| Checked where to buy/product availability online | -1,13 | 0,263 | - | - |
| Got locations/directions online | - | - | -2,81 | 0,011* |
| Made contact/request contact (with brands, retailers) online | - | - | -1,52 | 0,147 |
| Investigating financing options online | - | - | -1,60 | 0,128 |

* significant at $\alpha = 0,05$, ** significant at $\alpha = 0,01$

The summary of the results:

- there is a statistically significant negative correlation between GDP per capita and the use of the Internet in the pre-purchase stage (except the case of getting ideas/inspiration online) and between the Internet users per 100 people and the use of the Internet in the pre-purchase stage (except the case of comparison of product/price/features online) in European and Asian countries. We consider this to be a paradox and a subject of further research.
- there is a statistically significant difference between European and Asian countries in discovery of relevant brands online, watching relevant videos online, looking for redeemed offers, coupons or promotions online and getting locations/directions online. In the other cases, there was not found a statistically significant difference between European and Asian users when using the Internet in the pre-purchase stage.

The results might be affected by several limitations: the number and composition of countries included to our sample, use of aggregated data and the accuracy

of data from both used databases. Moreover, as Clark and Avery (1976) discuss in their paper, there are certain bias when using correlation analysis on aggregated data. It is incorrect to assume that relationship existing at one level of analysis will be same at another level. This limitation might be overcome by gathering additional data about users on more granular level.

Managerial Implications

The results of the study can be used by marketing and sales managers and directors of companies that sell products online to European and Asian customers. In case there was a real causality (not only correlation) between variables tested in working hypotheses H1 and H2, it would mean the less developed markets are more suitable for development of online business, thus are more suitable for this kind of business. Companies that are willing to take this risk can try to reach potential customers on these markets and take over the market share from companies that are not attracted in these markets. In case these efforts are successful, companies can gain a competitive advantage as a result of being established on the market before the competition is. Moreover, the results obtained by testing hypothesis H3 didn't show a significant difference between European and Asian online users. This means that companies that are focused on selling online on both continents are not forced to distinguish their online promotion activities. We assume these companies should focus more on cultural differences instead of geographic ones. These implications are valid in cohesion with limitations of this study.

Summary

Online shopping has become a regular purchase form of today's consumers. As the online and offline shopping differs, sellers cannot rely on data on offline shopping behavior anymore. The aim of this paper was to describe and analyze the use of the Internet in the pre-purchase stage in the selected countries from Europe and Asia. The results of this paper show that there is a significant negative correlation between selected World Bank indicators (GDP per capita, the Internet users per 100 people) and the use of the Internet in the pre-purchase stage (except two cases). Moreover, we have found that there is a significant difference between European and Asian countries in the use of the Internet during the pre-purchase stage in the following observed activities: discovery of relevant brands online, watching relevant videos online, looking for redeemed offers, coupons or promotions online and getting locations/directions online. There was not found any significant difference in the other observed activities. The results can be used by managers in the field of marketing and sales as a basis for the composition of online presence, online marketing campaigns and online reputation management for the companies that sell products online and offline (as pre-purchase stage is the phase of research) in the region of Europe and Asia.

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INTERNET I JEGO WYKORZYSTANIE W FAZIE PRZEDZAKUPOWEJ W EUROPIE I AZJI – ZARZĄDZANIE DZIAŁANAMI MARKETINGOWYMI

Streszczenie: Zakupy online nie mogą być uważane za pojawiający się trend, ponieważ stanowią dziś standardowy sposób prowadzenia działalności gospodarczej. Centrum zainteresowania sprzedawców online powinno być skierowane na zachowanie klientów podczas procesu zakupu. Celem niniejszego artykułu jest opisanie i analiza wykorzystania Internetu w fazie przedzakupowej w wybranych krajach z Europy i Azji. Stwierdzono, że istnieje znaczna ujemna korelacja pomiędzy wybranymi wskaźnikami Banku Światowego (PKB na jednego mieszkańca, liczbą użytkowników Internetu na 100 osób) oraz korzystanie z Internetu w fazie przedzakupowej z wykorzystaniem Internetu. Co więcej, w kilku zaobserwowanych działaniach występuje znaczna różnica między europejskimi i azjatyckimi konsumentami internetowymi podczas korzystania z Internetu w fazie przedzakupowej.

Słowa kluczowe: Zakupy online, etap przedzakupowy, zachowanie klienta online

互聯網及其在歐洲和亞洲的預購階段的使用 - 市場營銷管理

摘要：網購不能被認為是一種新興趨勢，因為它成為商業的標準方式。網絡零售商的興趣重點應在於採購過程中的客戶行為。本文的目的是描述和分析歐洲和亞洲選定國家在購買前階段互聯網的使用情況。我們發現世界銀行指標（人均國內生產總值，每100人的互聯網用戶）與互聯網在使用互聯網的預購階段之間存在顯著負相關。此外，歐洲和亞洲網絡消費者在幾次觀察活動的預購階段使用互聯網時，存在顯著差異。

關鍵詞：在線購物，預購階段，在線客戶行為。