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## THE ROPO EFFECT IN THE PURCHASING PROCESS

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### UDZIAŁ EFEKTU ROPO W PROCESIE ZAKUPU

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**Summary:** Nowadays new information technologies have transformed and influenced consumer behaviour; searching for information on the Internet is one of the most prevailing strategies in modern commerce. Due to the development of the Internet, the traditional sales model which entails making purchases on the basis of the information gathered in brick and mortar (traditional) stores is no longer dominant in most industries. The goal of this article is to present the intensity of the ROPO effect in the purchasing behaviour of Polish consumers in various industries and in different values. The paper involves the characteristics of the ROPO concept, a review of the main changes in the modern purchasing process and the presentation of the research results. The study indicated that the majority of clients obtain information from the Internet before making purchases in a brick and mortar shop. The conclusion of the article indicates the strategic implications resulting from the undertaken analysis, as well as directions for further research.

**Keywords:** ROPO effect, purchasing process, offline shopping, online shopping, omnichannel.

**Streszczenie:** Obecnie nowe technologie informacyjne zmieniły zachowania konsumentów i wpłynęły na nie; wyszukiwanie informacji w Internecie jest jedną z najbardziej rozpowszechnionych strategii we współczesnym handlu. W związku z rozwojem Internetu tradycyjny model sprzedaży, polegający na dokonywaniu zakupów na podstawie informacji zebranych w sklepach stacjonarnych, nie jest już dominujący w większości branż. Celem artykułu jest przedstawienie intensywności efektu ROPO w zachowaniach zakupowych polskich konsumentów w różnych branżach i w różnych wartościach. Artykuł obejmuje charakterystykę koncepcji ROPO, przegląd głównych zmian we współczesnym procesie zakupowym oraz prezentację wyników badań, które wskazują na istotny udział pozyskiwania informacji z Internetu przed zakupem produktów w sklepie stacjonarnym. Podsumowanie artykułu wskazuje na strategiczne implikacje wynikające z przeprowadzonej analizy, a także kierunki dalszych badań.

**Słowa kluczowe:** efekt ROPO, proces zakupu, zakupy *offline*, zakupy *online*, omnichannel.

## 1. Introduction

The wide availability of the Internet in Poland has transformed consumer behaviour in the purchasing process. The opportunity to make online shopping is the most significant change in consumer purchasing behaviour. An equally important alteration is the possibility to obtain information about products before making the purchase. The subject matter of this article is the ROPO effect (Research Online Purchase Offline) which is a widely observed phenomenon affecting the level of sales. The ROPO effect is based on the behaviour of consumers who, prior to purchasing a product or service at offline distribution points, actively search for information in online channels (Piorunowska-Kokoszko, 2014, p. 7278). The brand operator decides what information customers may find and in what way it may determine their buying decisions.

The ROPO effect appears to be a topical issue since an increasing number of companies offer their goods and services on the Internet. One can notice the growing emergence of new online stores which strive to attract the widest possible group of customers. Today, clients have the opportunity to buy almost anything online, starting with everyday products such as food and cosmetics, ending with computers, TVs, or even cars. Nowadays customers are able to purchase any item at virtually any time of the day or night without leaving home. For companies offering such services it is essential to be available to potential customers around the clock. For this reason, new online stores proliferate and are constantly expanding thus giving the opportunity to shop at any time.

Traditionally, the majority of brick and mortar stores operate eight hours a day, and expect customers to come during the limited opening hours, and it is obvious that this is not be the only way to operate . Due to tight schedules, most people are not able to use their services in the mornings and afternoons. Therefore, customers prefer the world of the Internet, where they can do the shopping or find information about the products and services they are interested in at any time. The Internet allows consumers to access all necessary information in a self-service mode.

Noticeably, for many brands the ROPO effect has serious business consequences since it significantly influences the level of sales. However, it may also cause the loss of customers; potential clients may choose the competitors who provide more sufficient, reliable and convincing information in a more comprehensible and clear form. The article indicates the share of the ROPO effect in the purchasing behaviour of Polish customers on the basis of the author's own study. For the purpose of this research, the following hypotheses have been formulated:

**H1:** The Internet (online sources) is the first place to search for information about the product before making the purchase.

**H2:** The higher the value of the purchase, the greater the number of people seeking information on the Internet.

The results of the analysis are presented in the next subsections of the article.

## 2. The influence of the development of e-commerce in Poland on purchasing behaviour

E-commerce is the process of selling and buying products and services, it involves commercial transactions with the use of electronic means conducted via the Internet, usually in the form of online stores and online auctions (Batko and Billewicz, 2013, p. 51). According to the report “E-commerce in Poland 2018. Gemius for e-Commerce Polska”, e-commerce in Poland is developing dynamically and the number of customers who choose this form of purchasing goods and services is constantly growing. The share of this type of sales in Polish trade is also systematically increasing (Gemius Poland, 2018, p. 8).

According to the Central Statistical Office report of 2017, 45.0% of the Polish population shop online (over 13 million Polish citizens aged 16-74, within a year of the survey date). The percentage of Poles buying online has increased by 13.4 percentage points compared to 2013. The highest percentage share was in the age group 16-24 (increased by 6.8 percentage points), which is illustrated in Table 1 (Główny Urząd Statystyczny [GUS]. 2017).

**Table 1.** Online shopping (in %)

| Specification | 2013 | 2014 | 2015 | 2016 | 2017 |
|---------------|------|------|------|------|------|
| Total         | 31.6 | 34.2 | 36.9 | 41.9 | 45.0 |
| Sex           |      |      |      |      |      |
| Men           | 34.0 | 35.9 | 40.0 | 42.9 | 45.5 |
| Woman         | 29.5 | 32.7 | 34.2 | 40.9 | 44.4 |
| Age           |      |      |      |      |      |
| 16-24 years   | 49.3 | 52.0 | 57.9 | 56.8 | 63.6 |
| 25-34 years   | 58.3 | 59.9 | 64.3 | 67.8 | 70.4 |
| 35-44 years   | 43.8 | 48.1 | 49.0 | 54.0 | 58.8 |
| 45-54 years   | 22.3 | 26.4 | 29.5 | 33.0 | 35.7 |
| 55-64 years   | 11.7 | 13.0 | 16.0 | 18.9 | 19.6 |
| 65-74 years   | 4.0  | 6.2  | 6.2  | 7.6  | 8.6  |

Source: own research on the basis of (GUS, 2017).

Every day, Internet users look for information about various issues, however numerous studies, such as the NetTrack Study conducted by Millward Brown AMG/KRC in 2011 shows that the majority of searches are related to making purchases (Millward Brown SMG/KRC, 2011):

- 8.3 million people were looking for information about the price of products and services (49.7%),

- 6.3 million were searching for information in the field of health and beauty (37.7%),
- 5.9 million were seeking for information on the automotive industry (35.3%),
- 5.5 million people were looking for recipes (32.9%).

Only one million respondents declared that they do not search for information on products or services on the Internet (5.9%) (Millward Brown SMG/KRC, 2011). Purchases based on information found online can be made directly in the online channel or in a brick and mortar store. Notably, consumers look for the possibility to choose the most convenient purchase channel independently and in this model, the seller's role is to provide such an opportunity in order to maximize sales. According to Frazier (1999, p. 232) "(...) the use of multiple channels of distribution is now becoming the rule rather than the exception". Ensuring the distribution and availability of products in multi-channeling requires high cost expenditure, as well as quality assurance in each channel. However, it is possible to devise an optimal structure which gives customers the satisfaction with the freedom of shopping, and at the same time enables the organization to achieve its market goals (Lembrych-Furtak, 2017, p. 151).

### 3. The ROPO effect in the purchasing process

Undoubtedly, the level of sales is one of the fundamental efficiency indicators in a given enterprise. Nowadays the traditional sales model is being transformed on account of new information technologies, and the prominence of the Internet in modern trade cannot be ignored. Numerous studies (Mróz-Gorgoń and Szymański, 2018, pp. 24-35; Bilińska-Reformat and Wolny, 2017, pp. 181-194) have shown that the majority of consumers browse websites before making their final purchasing decision. In this way they search for products, compare prices and look for other information about the possibility to purchase. Consequently, business organizations are obliged to meet customers' expectations and provide easy access to information about the products and services they offer.

A common term associated with the large and growing importance of the Internet in the purchasing processes is referred to as the ROPO effect (Research Online Purchase Offline), which means purchasing in offline distribution on the basis of information found online (Bilińska-Reformat, 2014, p. 186). The ROPO effect is primarily observed at the stage of searching for information which entails using the Internet as an external source of information (Awdziej and Tkaczyk, 2017, p. 8). The research conducted by TNS OBOP in cooperation with Google and Media Saturn Holding indicated that 74% of Internet users before making a decision to buy home appliances or electronic devices search for information on the Internet, mainly by the Internet search engine (Study of TNS OBOP..., 2011, pp. 14-49). The ROPO effect, which is characterized by obtaining information about products on the web and making purchases in the traditional channel, may be considered a convenient

shopping habit by many modern buyers. Potential customers search for information about commodities and services on their own using the easily accessible Internet network. Nowadays, brick and mortar shops are no longer an attractive source of information and they have become showrooms or pick-up points. The role of a shop assistant as a source of collecting information about products is also noticeably decreasing, so that consumers decide to gather information from the Internet on their own.

Nowadays, one can observe that customers tend to visit traditional channels of distribution having gained an extensive knowledge about the specification of the products they are interested in. Moreover, customers tend to have the informed purchasing decision and their choice is often shaped by modern information carriers such as websites, blogs, reviews, mobile applications, and electronic bulletins. Such independent, self-service knowledge acquisition by potential customers seems to be a positive phenomenon, but it can also raise concerns about their moving to competition. Symptomatically, the ROPO effect applies to the potentially most significant group of clients. This is due to the fact that this group of consumers initiates searching for product on the Internet on their own and they are ready to make a fast purchasing decision. This group requires special consideration and specific marketing actions<sup>1</sup> should be taken in order to exploit the business opportunity. It might be also claimed that the costs of such activities are lower than investing in actions directed to non-ROPO consumers; clients who do not make online searches need to be attracted and subsequently encouraged to make a purchase.

Thanks to the newest technological advancement, it is already possible to locate consumers who have been interested in given products, and what is more, it is possible to determine exactly which products they have browsed on the website. These data are particularly important in the case of abandoned baskets. The opportunity to continue the advertising message to customers who did not complete the order in an online store can be a huge advantage over competitors who do not use such information about its customers.

There are four universal reasons why consumers choose the ROPO strategy and do not decide to make an online purchase immediately (Piorunowska-Kokoszko, 2014, p. 7278):

- the consumer wants to take a closer look at the product,
- the consumer needs the product as soon as possible and cannot wait for its delivery,

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<sup>1</sup> For instance, Wi-Fi marketing involves the use of so-called intelligent Wi-Fi which facilitates collecting data about clients and subsequently enables marketing communication with the clients. Moreover, intelligent Wi-Fi enables displaying on customers mobile devices' screen the real-time offers and remarketing. A company which uses this solution may implement an omnichannel strategy by connecting online and offline sales. Recipients, after connecting to the Wi-Fi available in a brick and mortar store can see on the screens of their smartphones or tablets the welcome page which may be used to present commercials and information about promotions.

- the consumer wants to avoid shipping costs,
- the consumer does not want to disclose his/her personal data in the e-commerce platform.

The opposite phenomenon to the ROPO effect is referred to as the “reversed ROPO effect” which is defined as making online purchases made on the basis of information obtained offline (Bilińska-Reformat, 2014, p. 186). In such a strategy, the role of brick and mortar shops is to present the range to customers and to enable them to make the best choice, after which customers finalize the purchase via the Internet. The reason for the above may be the fact that clients can find a given product at a lower price in an online distribution. To determine the level of ROPO, as well as the reversed ROPO for specific industries, the author’s own research regarding customers’ purchase path was conducted.

#### 4. Research results

The main aim of this study is to examine the social phenomenon referred to as the ROPO effect. It was designed to find the most frequent purchase path depending on the industry and the value of the purchase. The research subject is: 1) to define the preferred locations for purchasing given products, 2) to determine the sources of collecting information about the products and 3) to stipulate the key features of distribution channels which affect the customers’ choice. The selected research method is the diagnostic survey conducted in December 2019. In order to conduct a reliable study and to obtain representative results, the sampling method was employed<sup>2</sup>. The research sample was chosen from the database of voluntary Internet users who were sent an invitation to participate in the research. The research group consisted of 105 respondents, 51.4% women and 48.6% men. Among the respondents, 26.7% were in the 30-39 age range, 25.7% in the 18-29 age range, 24.8% in the 40-49 age range and 22.9% in the 50+ age group. The respondents are technologically advanced users of the Internet and mobile devices. They are informed consumers from all over Poland coming from various environments and industries. The online survey is a quantitative research using the CAWI technique<sup>3</sup>, and the study group is random. The research is based on computer-assisted interviews in which respondents were asked to complete an online survey.

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<sup>2</sup> In statistics and methodology of quantitative research, a sample is referred to as a subset of individuals selected from the statistical population pursuant to a specific procedure. The most reliable and representative sample employed in statistical research is random selection; belonging to the sample group is contingent, which means that each individual has the same probability (greater than zero) of belonging to the sample. The above provides the basis for generalizing research results and enables to estimate the characteristics of a whole population.

<sup>3</sup> CAWI (Computer Assisted Web Interview) is a computer-assisted interview conducted electronically using online questionnaires. Online research (CAWI) is a quantitative measure which enables conducting research on large groups of respondents in relatively short time while ensuring anonymity and the possibility to conduct numerous independent measures collaterally.

The first part of the study is to determine what shopping path is chosen most frequently in various industries and to define the proportion of customers who decide to make a purchase at brick and mortar points of sale on the basis of information collected from the Internet. The respondents were asked to mark the source they choose when they start searching for information about products and also to state what channels of distribution they prefer. The collected information is compiled in the comparative data with the specification of consumer behaviour in different industries, the results are presented in Table 2. The study indicated that the ROPO effect is present when consumers use the Internet as the primary source of seeking information before making a purchase, and the reverse ROPO effect is present when consumers search for information at stationary points and subsequently they purchase via the Internet (Wolny, 2016, p. 289). Additionally, more than 25% of respondents making their final purchase in brick and mortar stores in the sector of electronics and household appliances looked for information on the Internet. Furthermore, the study showed that the ROPO effect occurs among every fourth respondent purchasing construction materials and interior furnishing. The ROPO effect was the least frequent in the clothing and footwear category (14.3%), as well as the health and beauty industry (15.2%). Noticeably, the reverse ROPO effect is most common among customers purchasing in the electronics and household appliances industry (14.3%), and sports (12.4%). By contrast, the reverse ROPO effect is least common in clothing and footwear sector, as well as the health and beauty category. It was shown that the Internet is the main source of information about products for more than half of the respondents in all the industries examined. In line with the above, it might be claimed that sufficient information about products available in the Internet is essential for all business organizations. This is especially evident for electronics

**Table 2.** The most frequent purchasing path (defined in %) in various industries

| Industry                               | I seek information about a product on the Internet and I buy online | I visit a brick and mortar shop; I choose a product and I buy in the store | Firstly, I go to a brick and mortar shop, I choose a product and then I buy online ( <b>reversed ROPO</b> ) | Firstly, I search for information in the Internet, then I go to a brick and mortar shop and I buy in the store ( <b>ROPO</b> ) |
|--|---|--|---|--|
| Clothes and footwear                   | 36.2  | 42.9   | 6.7   | 14.3   |
| Sports                                 | 36.2  | 32.4   | 12.4  | 19.0   |
| Construction works and home furnishing | 29.5  | 35.2   | 9.5   | 25.7   |
| Health and beauty                      | 35.2  | 41.9   | 7.6   | 15.2   |
| Electronics and home appliances        | 34.3  | 25.7   | 14.3  | 25.7   |

Source: own research.



and household appliances industry since 60% of respondents indicated that Internet is the first place to search for information before making the final purchasing decision. However, it should be emphasized that the presence of the ROPO effect, as well as the reversed ROPO effect is less common than making the purchase directly at the place of seeking information about the product.

The second part of the study was created to find the most frequent purchase path in relation to the purchase value. The goal is to determine how the value of the purchase determines the need to search for information before making the purchase at a traditional point of sale.

As presented in Table 3, the data analysis indicated that the ROPO effect is most frequent among respondents whose purchasing value is more than PLN 1000 (35.2%). Additionally, it was demonstrated that every third respondent before making a purchase in a brick and mortar store tends to search for information on the Internet about products priced over PLN 500. The ROPO effect is rarest among consumers whose purchasing value is below PLN 100 (5.7%). When it comes to products worth over PLN 500, consumers prefer making a purchase in brick and mortar stores than in the Internet; also every third customer of a traditional store looks for information and opinions in the Internet before making a final decision to buy a given product. It might be argued that a brick and mortar store can be considered a competitive asset for the consumers who expect to make a fast purchase of products with which they had already become familiarized on the Internet. The share of the ROPO effect increases dynamically with the increase of the purchase value. A particularly noticeable growth of the ROPO effect is present between purchases below PLN 100 (5.7%) and purchases in the range PLN 100-500 (21.0%).

**Table 3.** The most frequent purchasing path in relation to the purchase value (in %)

| Values         | I seek information about a product on the Internet and I buy online | I visit a brick and mortar shop; I choose a product and I buy in the store | Firstly, I go to a brick and mortar shop, I choose a product and then I buy online ( <b>reversed ROPO</b> ) | Firstly, I search for information on the Internet, then I go to a brick and mortar shop and I buy in the store ( <b>ROPO</b> ) |
|----------------|---|--|---|--|
| Up to PLN 100  | 38.1  | 50.5   | 5.7   | 5.7  |
| PLN 100-500    | 41.9  | 26.7   | 10.5  | 21.0   |
| PLN 501-1000   | 28.6  | 26.7   | 13.3  | 31.4   |
| Above PLN 1000 | 27.6  | 22.9   | 14.3  | 35.2   |

Source: own research.

The online survey proved the relevant impact of exploring the Internet before purchasing products in traditional shops. However, in order to explicitly confirm the influence of an Internet search on consumers' preferences, an in-depth analysis of



offline purchasing behaviour is required. In the subject literature one can find research substantiating the occurrence of the ROPO effect among Polish buyers, for instance the study of Wolny (2016, pp. 123-137) indicated that the ROPO effect is the strongest in areas such as cultural services, tourism and transport services.

## 5. Conclusion

As highlighted in the introduction to the study, the opportunity to search for information about products on the Internet, as well as an easy access to online shopping have influenced consumer purchasing behaviour. The research has led to the several conclusions – first of all, it showed that the ROPO effect is most frequent when purchasing higher value products. Secondly, the analysis indicated that currently one in three customers purchasing high value products in traditional brick and mortar stores obtains information about products from the Internet. Accordingly, it can be stated that both research hypotheses were confirmed; the study showed a significant share of obtaining information from the Internet before buying products in a brick and mortar store. Future studies should concentrate on defining to what extent the scope of information presented on websites affects the value of the offline shopping basket. Undoubtedly, the analysis of the subject literature shows that there are no studies indicating the participation of mobile devices in the process of obtaining information in brick and mortar facilities. The impact of information obtained from the Internet on an ongoing traditional shopping can significantly affect purchasing decisions. It is recommended to check the correlation between the amount of information obtained from the Internet and the value of the shopping cart. It appears that executives managing sales in a multi-channel model need to provide extensive online information about products in order to satisfy the needs of modern consumers. Marketing activities based on information gathered in databases concerning user behaviour on websites may be considered a useful tool to offer customers more convenient, related products in a brick and mortar store.

In conclusion, the ROPO effect is one of the most prevalent and dynamically developing shopping trends. Searching for information on the Internet is the fundamental factor influencing purchasing decisions about traditional shopping. On the basis of the own research and the analysis of reports delivered by IT companies, it can be concluded that potential customers consider the Internet the very first source of obtaining information about goods and services.

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