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# INDUSTRIES AND SECTORS: ISSUES AND POLICIES

## THE ROLE OF INFORMAL SOURCES OF INFORMATION IN THE POLISH CONSUMER MARKET

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**Key words:** Informal sources of information, ROPO, consumer behaviour, purchase behavior, B2C.

**Abstract:** The paper presents results of the research conducted in 2009 with the participation of 466 Internet users via an online survey. The research showed that consumers before the purchase utilize formal sources of information about the product more often than informal ones. Nevertheless, the more they refer to the formal sources, the more they refer to the informal ones. It was also proved that in the tested group the place of residence, the time spent using the Internet and the value of a product had an influence on the prevalence of formal sources.

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## Literature review

The Internet influenced the purchase processes both by the development of e-commerce and by providing customers with an easy access to information about products. Therefore, apart from online purchases one should also take into consideration the ROPO effect (i.e. Research Online Purchase Offline). It has been confirmed by numerous studies. According to Forrester Research, online research influenced a striking 42% of online and offline sales in 2009 (eMarketer, 2010a). The research conducted among the customers of popular Polish chain stores offering consumer electronics and home appliances showed that 64% of respondents looked for information about products on the Internet before the purchase (Google and TNS OBOP, 2008). Other studies carried out among Polish Internet users showed that the web is a key source of information on products for 78% of them (Gazeta.pl and Next, 2010).

Customers' buying behaviour regarding information search and conducting a transaction may vary depending on whether the product was a search or experience good (Huang, Lurie and Mitra, 2009), the availability of channels (Young-Hyuck and Hyung-Jin Park, 2008) and the consumer's ability to retrieve the information (Kurozovich, Viswabathan, Agrwal, Gosain and Weitzman, 2008).

Numerous studies have demonstrated that informal sources of information play a vital role in the purchase process. According to the research quoted by eMarketer, American online moms put their faith in consumer reviews nearly 12 times more than in descriptions provided by the manufacturer. Other studies presented by the company show that the most credible source of information about a brand on a social networking website is a customer and finally a brand itself. The cultural aspect is also very important. Consumers from Eastern Europe put more trust in consumer-based word-for-mouth than Asian or South American customers, staying more sceptical about the brand as a source of information (eMarketer, 2010c)

## Research questions and methodology

In the scope of the aforementioned issues, it was decided to investigate in what way the purchase process is influenced by both formal and informal sources of information. After Schiffman and Kanuk (2004) we define informal sources of information as sources that do not get any profit for the increase in sales that they generate.

The research designed to explain this phenomenon focused on providing answers to the following questions:

- What are the relations between formal and informal sources of information about a product?
- What influence on selection of sources of information about a product do consumers' particular demographic features have?
- To what extent can the product's features (i.e. value), as well as online activity and experience in using the Internet influence the choice of particular information about the product?

The study analyzed the information collected in September and November 2009, provided by a quota sample-group of 466 Internet users aged from 18 to 94 years. The average age of the group members was 33. The most present in the group were subjects between 18 and 26 years of age. The number of women was lower (47%) compared to men (53%). The structure of the group in question regarding particular demographic features in a satisfactory manner reflected the population structure, as presented in Statistical Yearbook of Poland 2008. The research comprised only people who during the last six months purchased a high involvement product, belonging to the group of consumer electronics or home appliances, at a price higher than € 125.

The research was conducted by means of questionnaires distributed via Internet, using the custom online panel provided by the GfK Polonia research company. The questions included in the survey concerned purchasing products from a specific category, use of the sources of information and responders' demographic features (particulars). In order to eliminate the influence of material's interference with the results, the answers were subjected to rotation.

In the question concerning sources of information, the respondents had a choice of the following sources of information:

- formal: advertisements placed in media other than the Internet; online information services and/or online advertisement; marketplace and street sellers; stores offering general line of merchandise, for example supermarkets, hypermarkets, electrical retailers (large retail stores selling consumer electronics and home appliances); specialist stores on the traditional market; online specialist stores,

online auction sites; other sources of information;

- informal: Internet forums; friends; family; other sources of information;
- hybrid (which provide both formal and informal product information): search engines; price comparison services.

### **Statistical methods applied in the research**

Empirical analysis was based on the classical test theory. During the statistical elaborations of data, one-way analysis of variance (ANOVA), Student's t-test, a z-test and correlation of each person's results using Pearson's method were utilized as methods of analysis.

The application of one-way analysis of variance and Student's t-test allowed to compare average general scores obtained by both types of sources (formal vs informal) and to investigate the influence of demographic variables and dependent control variables related to online activity on the use of particular sources of information. The z-test helped to assess the level of differences in number of indications for each source of information. The application of Pearson's method allowed to compare the results of the same subjects in order to determine the degree of dependence between sources of information. The meaning ascribed to the "other sources" variable did not exceed the value of 0,5. That is way the variable was excluded from the further analysis. Statistical analysis was performed using SPSS 17.0 software.

### **Findings**

The findings show that formal and informal sources of information are used to different extents. Table 1 shows the number of indications for each source of information in a percentage coverage.

The relevance of disproportions between particular sources was determined with 95% probability. The results of the analysis indicate that the sources „friends, family”, „electrical retailers”, „specialist stores on the traditional market” and „online specialist stores” options were selected significantly more frequently than other sources of information.

On the other hand, the source „marketplace and street sellers” was indicated considerably less frequently compared to other sources of information about a product.

TABLE 1. THE NUMBER OF INDICATIONS FOR EACH SOURCE OF INFORMATION IN A PERCENTAGE COVERAGE (N=466)

Source of information about a product	Frequency of indication
Electrical retailers (large stores selling consumer electronics and home appliances)	71.0%
Price comparison services	70.6%
Search engines	70.0%
Friends, family	62.2%
Online specialist stores	55.6%
Specialist stores on the traditional market	54.7%
Online auction sites	54.3%
Stores offering general line of merchandise, for example supermarkets, hypermarkets	52.0%
Internet forums	51.3%
Online information services and/or online advertisement	49.4%
Advertisements placed in media other than the Internet	48.1%
Marketplace and street sellers	19.5%

Table 2 represents research hypotheses and results of falsification. The research revealed that the formal sources of information about a product are used significantly more often than the informal ones ( $t=31.641$ ;  $p<0.000$ ). The obtained results confirm that in the purchase process the formal sources of information predominate over the informal ones. Thus, the H1 hypothesis was rejected. In comparison with the entire group, the informal sources obtained the lowest general average score ( $M=1.14$ ,  $SD=0.76$ ), whereas the general average score for the formal sources amounted to 4.05 ( $SD=2.15$ ). In total, the percentage use of each source of information before a purchase can be described follows: informal sources - 22%, formal sources - 78%

In addition, the application of Pearson’s method revealed a moderate positive correlation ( $r=0.38$ ;  $p<0.000$ ) between general scores obtained by formal and informal sources of information. The findings suggest that while using a larger number of formal sources of information, customers tend to refer more often to informal sources, which validates hypothesis H2.

Hypotheses from H3 to H18 relate to the influence of demographic features on the number of formal and informal sources indicated by respondents.

Hypothesis H11 was rejected because, compared to the entire group, the respondents living in an agglomerations that have under 10 thousand inhabitants or that range in population from 100 to 200 thousand indicated a significantly smaller number of formal sources of information. The values of  $t$  that appeared in the differential analysis of particular groups comprised within -2.344 and -3.135. The rate of differences between the scores is lower than 0.01.

Hypothesis H15 was rejected because the persons who use the Internet from 10 to 20 hours per week ( $M=3.85$ ,  $t=-2.36$ ,  $p<0.019$ ) and from 20 to 30 hours per week ( $M=3.62$ ;  $t=-2.86$ ,  $p<0.005$ ) referred to a considerably lower number of formal sources than persons whose online activity exceeds 30 hours per week ( $M=4.44$ ).

The differential analysis based on the product value revealed that the number of formal sources of information used by customers before the purchase of a product changes with the product’s value. The consumers who acquired a product, the value of which was higher than € 500, referred to a significantly bigger number of formal sources ( $M=4.49$ ) than the consumers who bought a product for a price ranging from € 125 to € 250 ( $M=3.59$ ,  $t=3.44$ ,  $p<0.001$ ) or a product for a price ranging from € 250 to € 500 ( $M=3.82$ ,  $t=-3.03$ ,  $p<0.003$ ).

TABLE 2. RESEARCH HYPOTHESES AND RESULTS OF FALSIFICATION.

N°	Research hypotheses	Result
H1	During the purchase process customers use a larger number of informal sources of information than formal ones.	Rejected
H2	In the purchase process the number of informal sources to which the customer refers increases with the number of formal sources they use.	Validated
H3	Sex does not influence the number of formal sources used by a customer.	Validated
H4	Sex does not influence the number of informal sources used by a customer.	Validated
H5	Age does not influence the number of formal sources used by a customer.	Validated
H6	Age does not influence the number of informal sources used by a customer.	Validated
H7	Education does not influence the number of formal sources used by a customer.	Validated
H8	Education does not influence the number of informal sources used by a customer.	Validated
H9	Earnings do not influence the number of formal sources used by a customer.	Validated
H10	Earnings do not influence the number of informal sources used by a customer	Validated
H11	Place of residence does not influence the number of formal sources used by a customer.	Rejected
H12	Place of residence does not influence the number of informal sources used by a customer.	Validated
H13	Experience in using the Internet does not influence the number of formal sources used by a customer.	Validated
H14	Experience in using the Internet does not influence the number of informal sources used by a customer.	Validated
H15	Online activity does not influence the number of formal sources used by a customer.	Rejected
H16	Online activity does not influence the number of informal sources used by a customer.	Validated
H17	The value of a product does not influence the number of formal sources used by a customer.	Rejected
H18	The value of a product does not influence the number of informal sources used by a customer.	Validated

The present findings show that the number of references to formal sources of information increases with the price of a product. Thus, hypothesis H17 was rejected. At the same time, the number of references to informal sources of information about a product did not change significantly, which confirms hypothesis H18.

As for the other hypotheses relating to the influence of demographic features and controlled characteristics on the use of sources of information, the data examination with the use of one-way analysis of variance (ANOVA) failed to reveal any correlation.

### Conclusion

The research showed that before the purchase the respondents refer to formal sources of information about a product more often than to informal ones. However the more they refer to formal sources, the more they tend to use informal sources of information about a product. It was also proved that place of residence, time spent using the Internet and value of a product have an influence on frequency of the use of formal sources, whereas sex, age, education, earnings

and experience in using the Internet have no such influence.

### **Limitations**

The research conclusions have the following limitations. The research concentrated on the declared use of sources of information and not on the degree of influence of each source. The influence of a particular source is largely determined by its accessibility, and not exclusively by the consumer's motivation. High skill in operating the Internet may positively influence the role of specialist sources of information (which can be hard to find for inexperienced users of the Internet). The research concerned high involvement products from the category of consumer electronics and home appliances. In the other product categories informal sources of information may have a different importance. The research was conducted among Internet users, thus, among the people who have easier access to various sources of information. Certain research indicate that Eastern European consumers seem to be more sceptical about formal sources and put higher trust in informal sources than people from other countries, the fact that can disturb the transfer of results to other countries (eMarketer, 2010c).

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