

THE INFLUENCE OF THE NUMBER OF OPINIONS ON THE ATTRACTIVENESS OF RETAILERS OFFER IN ONLINE SHOPPING

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Abstract: The research investigates consumers' online shopping behaviour. The Authors suggest that due to high perceived risk of online shopping consumers are prompted to use cues of shoppers' reputation. One of such cues can be a number of opinions expressed by the previous customers. In the series of two experiments a number of other consumers' opinions has been manipulated to influence choice of product supplier. The results suggest that other consumers' opinions could be used as a shoppers' quality cue. The subjects didn't choose the cheapest version of product but they made a trade-off between price and number of opinions.

1 PERCEIVED RISK

Risk is perceived to be a factor in most purchase decisions. In buying process, risk emerges from any of the following factors: 1/ uncertainty as to buying goals, 2/ which of several purchases (product, brand, model, etc.) best matches the buying goals, 3/ possible adverse consequences if the purchase is made (or not made) (Cox, 1967). The concept of perceived risk often used by researchers defines risk in terms of the consumer's perception of the uncertainty and adverse consequences of buying a product (or service) (Dowling and Staelin, 1994).

In generally, perceived risk is defined as comprising the following components: financial, psychological, performance, time, social and time-related risk (Stone and Gronhaug, 1993). Consumers are credited with the capacity to receive and handle considerable quantities of information and undertake extensive pre-purchase searches and evaluation.

Financial risk is the perception that a certain amount of money may be lost or required to make a product work properly. Performance risk is the perception that a product purchased may fail to

function as originally expected. Time risk is the perception that time, convenience, or effort may be wasted when a product purchased is repaired or replaced. Psychological risk is the perception that a negative effect on a consumer's peace of mind may be caused by a defective product. And finally, social risk is refers to the perception that a product purchased may result in disapproval by family or friends.

However the majority of research on perceived risk has been focused on the choice of product. The product class has been found to contribute to the risk inherent in the purchase decision (Dowling and Staelin, 1994). Therefore two product groups could be distinguished: class risk (the riskiness of buying an average product) and specific product risk (determined by the particular product under consideration and other factors such as the purchase situation). There are also some empirical studies explicitly addressing perceived risk and the selection of retailers. Dash, Schiffman and Berenson observe differences in the level of perceived risk between specialty store and department store shoppers (Dash, Schiffman and Berenson, 1976), while Mattson

(1982) shows that the selection of store type varies with social and financial risk inherent in the purchase situation. In the literature on e-commerce, the risk associated with online shopping in general (Garbarino and Strahilevitz, 2004) and with specific retailer (Jarvenpaa, Tractinsky and Vitale, 2000) has been found to be adversely related to intention to buy. Biswas and Biswas (2004) demonstrate that signals such as reputation matter more in e-commerce because of higher risks associated with buying online.

1.1 Perceived Risk in Online Shopping

Risk perception regarding the Internet is identified as a primary obstacle to the future growth of e-commerce and is one of the main predictors of consumers' decisions to shop online or a conventional store. To understand online customer behaviour the nature of perceived risk in online shopping should be taken into account and studies should be focused on prevalent motivators and drives of customers once they enter online environment. Noort, Kerkhof and Fennis (2007) argued that because of the inherent risk on online shopping, avoiding losses rather than achieving gains may become the consumers prime goal.

Motivational factors are important in decision making process. Higgins' regulatory focus theory states that a different psychological system operates when the goal is loss-avoidance rather than achieving gains (Higgins, 1997). Regulatory focus theory posits two separate and independent self-regulatory orientations: prevention and promotion. A prevention focus emphasizes safety, responsibility, and security needs. Goals are viewed as oughts and there is a strategic concern with approaching non-losses (the absence of negatives) and avoiding losses (the presence of negatives). A promotion focus emphasizes hopes, accomplishments, and advancement needs. Goals are viewed as ideals, and there is a strategic concern with approaching gains (the presence of positives) and avoiding non-gains (the absence of positives). Accordingly, we expect online shopping (vs. conventional), by its risky nature, to induce a prevention-focus self-regulation among customers.

In spite of the wide advantages of online shopping (e.g. vast selection, screening, product comparison, comfortable shopping, time saving shopping), there are also numerous factors that still make consumers uncertain about online shopping. The Internet, just like any type of non-store shopping, makes it difficult to examine physical

goods; consumers must rely upon somewhat limited information and pictures shown on the computer screen (Jarvenpaa and Tractinsky, 1999). Moreover, there is bound to be much uncertainty regarding security, reliability, standards and some communication protocols (Turban, 1999).

To identify perceived risk in e-commerce, Tan (1999) examined costs and benefits of in-store versus online shopping. The results showed that perceived risk is higher when purchasing products through the Internet than when purchasing by in-store means. With the respect to specific types of perceived risk in online shopping, Bhatnagar (2000) emphasized two types of risk in online shopping: product category risk and financial risk. Product category risk is associated with performance risk, which refers to a negative perception about quality of a product. Therefore the risk is higher when the product is technologically complex or the price is high. Financial risk includes both tangible and intangible assets of consumers. That means consumers are quite apprehensive, not only losing certain amounts of money, but also about losing private information required in the transaction (Szymanski and Hise, 2000).

1.2 Retailer Reputation as a Selection Factor

Word-of mouth communication plays an important role in reducing consumer risk perception of product performance to a greater extent than any other information sources in e-commerce (Tan, 1999). With respect to reducing consumer perceived risk and uncertainty, word-of-mouth is more relied on by consumers than any other information, because it is based on consumer experience and is especially vivid. Vividity (as opposed to colourlessly) presented information tends to have a stronger influence on product judgement and risk reduction. Consequently, marketers must participate actively in creating positive word-of-mouth, because dissatisfied customers will disseminate news of their bad experiences with the retailer (Harrison-Walker, 2001). That is, dissatisfied customers participate in negative word-of-mouth communication, and this means that new and existing customers become aware of a perceived risk or uncertainty for future purchase opportunities. Thus, marketers must effectively maintain and develop their website communities, forum, and feedbacks sites in order to retain satisfied customers and reduce their perceived risk.

On the Web, there are concerns about seller credibility due to the availability of an wide number of retailers, which is partially due to the perceived low entry and setup costs for sellers on the Web than in the conventional economy. As a result, it is perceived that almost anyone can set up a retail presence on the Internet at a very low cost. It is also difficult for consumers to distinguish a high-image store from a low-image store on the Web, just from appearance. On the other hand, conventional stores would have to undergo high monetary expenses to open up a high-image store in terms of location, appearance and layout. Therefore, it becomes difficult for the consumers to distinguish between "fly-by-night operators" and regular "honest" sellers in the online markets. (Biswas, Biswas, 2004).

As the result of the higher level of uncertainty associated with online shopping, customers' actions towards collecting information on online retailer reputation would be stronger than in conventional retailing.

1.3 Quality Cues

The marketing literature has brought numerous studies on quality signals and cues used by customers. The most frequently analyzed cues are price (Rao, 2005), brand equity (Erdem and Swait, 1998), retailer reputation (Biswas and Biswas, 2004; Dawar and Parker, 1994), product ingredients (Richardson, Dick and Jain, 1994), warranties or guarantees (Purohit and Srivastava, 2001). Researchers have shown that the most important cues are brand, then price and retailer reputation. The total effect of different cues has not been the sum of their singly effects. This is because the role of particular cues (excluding brand) have been abating in multi-cue situation (Rao and Monroe, 1989). There have been some interactions between cues as well. While the respondents have been presented expensive tires, the products have been evaluated positively or negatively depending on additional information on the manufacturer reputation (Miyazaki, Grewal and Goodstein, 2005). Analogically to product evaluation, customers have been used cues to evaluate unknown quality (credibility, reliability) of retailer. The number and character of customers opinions about the retailer have been likely to play the role of the cues in online context. If the customer has not acquire other possibilities to evaluate retailer reputation (retailer quality), the number of opinions have been of great consequence.

2 ONLINE SHOPPING IN POLAND

The e-commerce market in Poland is full of potential. It is growing faster than Western European markets and is overtaking Southern European countries such as Spain and Italy. The value of Polish e-commerce was estimated to be ca. €2.4 billion online in 2008. However the market value is expected to grow quickly as Polish consumers become wealthier. Polish online consumers use the Internet to gather information about products and services but still head to a high-street store for the actual purchase. It's essential that e-retailers in Poland find ways to turn these "lookers" into "buyers".

There is a lot of different research and studies on attitudes of Polish customers towards online shopping. Most of them is focused on the barriers of growing interest of online shopping as well as disadvantages that Polish customers perceive while shopping online.

As The National Online Shopping Test showed Polish customers preferred most attractive offers from price perspective (The National Online Shopping Test, 2008). There is the basic argument for great popularity of online auctions. Over 61% of the respondents declared to spend money on online auctions compared to 34% of respondents shopping in online stores.

In value terms, 60% of e-commerce market is generated by online auction platforms and 40% of the market by online shops (Digital Landscape Report, 2008)

As D-Link Technology Trend research has revealed, Polish online customers have becoming more and more interested in the opinions of other customers published on the Web (e.g. feedback opinions, customer's comments on retailer's reputation). In 2008 over 77% of online shoppers was looking for other customers' opinions compared to 69% in 2007. The research showed, that there was a slight decrease in the customers interests to use price comparisons (53% respondents compared to 77% in 2007) (D-Link Technology Trend, 2008).

The mentioned facts facilitate introductory research hypotheses that the number and quality of other customers' opinion on online seller's reputation are more important for Polish online customers than price level.

The hypotheses could be supported by Polish customers' preferences towards terms of payment in online shopping. According to D-Link Technology Trend Report, most customers prefer bank transfer

(66%) or cash on delivery (48%). The other payments (credit cards, special cards for Internet payments) are used occasionally by 1-2% of respondents (D-Link Technology Trend, 2008). According to Digital Landscape Report, 70% of payments is on cash on delivery basis, 23% - payment card and 7% - bank transfer. The mentioned Polish customers' preferences towards online payment methods are significantly different from other countries. In general, 70% of world online shopping payments is on payment cards basis and only 5% - cash on delivery (Digital Landscape Report, 2008). Poles rarely used payment or credit cards because they are concerned about security or they do not have a card allowing them to pay other the Internet. Polish customers prefer cash on delivery to secure the transaction, to avoid possible adverse consequences and to protect themselves against dishonest online retailer.

3 RESEARCH HYPOTHESES

Regarding previous notes on perceived risk in online shopping it could be stated that online customers would take strong actions towards collecting information on online retailer reputation. Concerning customers' buying process, information on the reputation of online retailer would be as important as other elements of retailer's offer (e.g. price, product). Customers will rely upon other consumers' opinions and experiences to make decisions about which merchants (online shop) are reliable and trustworthy to do business with.

Customers could use the number of opinions as quality index and trade-off between quality of store and price level. Here, the customers' opinions would play a role of quality cue for online retailer. Based on the preceding research, this study presents the following hypothesis:

H1: The higher number of opinions on online retailers (in comparison with other online shops) the higher the perceived online shop's attractiveness.

H2: The lower the price differences the higher the perceived online shop's attractiveness.

The number of customers' opinions published on the Web would be a critical determinant of purchase intention. Customers would be influenced by the number of opinions and by its character (positive or negative). Customers would be influenced by both positive and negative opinions. Although it seems that a number of negative opinions should exercise more impact on consumers' decisions comparing to a number of positive opinions. People willingness to

give greater weight to negative entities (events, objects) is well recognized in the literature (Kahneman, Tversky, 1979; Rozin, Royzmann, 2001).

H3: Negative opinions have a greater influence on perceived online shop's attractiveness in comparison to the total number of opinions.

4 STUDY 1

4.1 Design and Procedure

In order to verify the research hypotheses, the study has been divided into two sub-research: The Study 1 and The Study 2. The empirical study was conducted through laboratory experiment in January-February 2009.

One admitted shortcoming was that the collection or participation rate was lower than it might have been using other methodologies. However the research method was advantageous in that it offered preliminary data for future research projects at reasonable cost.

For The Study 1, they were 59 participating respondents who were students of one of the top university of economics in Poland. Two questionnaires were excluded due to missing data.

The hypotheses were tested using a 2 (price differences: high vs. low) x 2 (number of customers' opinions: high vs. low) between-subjects design.

All the participants were provided with a scenario. The scenario explained that the participants should select and evaluate online shops while purchasing a relatively expensive cellular phone. The product itself (cellular phone) has not been the object of customers' choice and it was stated in advance of the research. The participants has received description of seven online shops similar to those known from price comparison Web sites.

It has included shop's number (instead if the shop's name), the number of other customers' opinions, the product name (exactly the same for each shop) and the product price (in increasing order).

The participants has been asked to answer the questions in which online shop would they do shopping and to evaluate the attractiveness of online shop No 3.

Two independent variables, price difference and the number of opinions, were manipulated to change the potential attractiveness of online shop No 3. The lower, in comparison to the higher, price difference, was manipulated through reducing the price in

online shop No 1 from 719 PLN to 689 PLN. The price level in online shop No 3 was 724 PLN and it was constant. The higher, in comparison to the lower number of opinions was manipulated through changing the number of opinion on shop No 3 from 974 opinions to 94 opinions. The number of opinions in other shops was constant and presented as 22 opinions for the shop No 1 and 2763 opinions for the shop No 5.

The dependent variable has been the attractiveness of online shop No 3. It has been presented in point scale from 0 to 100 points (100 - the most attractive). The additional dependent variable has constituted the choice of the most attractive online shop.

4.2 Research Results of Study 1

Supporting the Hypothesis 1 and Hypothesis 2, analysis of variance (ANOVA) with the attractiveness of online shop No 3 as a dependent variable revealed significant main effects for both price difference, $F(1,53)=10.09$, $p<.001$, and the number of opinions on online shop $F(1,53)=5.16$, $p<.05$. The respondents perceived online shop No 3 as more attractive in comparison to online shop No 1 while price difference was lower ($M=78.8$) than while price difference was higher ($M=66.1$). Simultaneously, respondents perceived online shop No 3 as more attractive while the number of opinions from other customers was high ($M=76.6$) then while the number of opinions from other customers was lower ($M=68.1$). The findings support the general research hypothesis that the customers pay attention to both the price of the product and the number of opinions on online retailer.

The selection of online shop as a second dependent variable revealed much stronger influence of customers' opinions on the selection of online shop. The respondents decided on the online shop No 5 (58% of respondents) which was characterized by relatively high price level and simultaneously with distinctly higher number of customers' opinions in comparison to other online shops. Online shop No 3 was selected by 26% of respondents whereas the cheapest online shop by 9% of respondents. It allows to make a conclusion that the price did not play an important role while selection of online retailer.

The observed relatively low importance of price factor while selecting online retailer (shop) seems to be somehow surprising. Polish customers are perceived to be relatively price sensitive. It should

result in higher share of online shop No 1 in customers' decision making process. But the research revealed a different results. The Authors suppose that it is the result of the research structure. The research experimental plan did not force the respondents to spend their own money. It is easier then to accept a higher price level. However the mentioned comments did not shake the research hypothesis that in decision-making process in online retailing, the important decision-making factor is the number of opinions about online shop as well as the price. The number of customers' opinions performs a role of quality signal of online shop.

The number of opinions itself does not reveal their the character: positive or negative. As the review of customers' opinions on several Web sites shows the published opinions are generally positive and schematic. Negative opinions appear just occasionally. But the existence of negative opinions, even very few, should affect customer's selection of online shop. That was the point of interest for The Study 2.

5 STUDY 2

5.1 Design and Procedure

The Study 2 was similar to The Study 1. The way of information presentation was similar but the number of negative customer opinions about online shop was attached. Table 1 presents the information delivered to respondents.

Table 1: Stimuli used in the Study 2.

Shop number	Number of consumers' opinions	Number of negative consumers' opinions	Price
1	172	1	699
2	5	0	723.9
3	864*	5*	724
4	33	0	769
5	2763	16	769
6	659	4	794
7	72	0	811

*The number was manipulated

A total of 66 students participated in the Study 2 and three questionnaires were excluded due to the lack of answers.

The hypotheses were tested through 2 (the number of customers' opinions: high vs. low) x 2 (number of negative customers' opinions: high vs. low) between-subjects design.

Leaving out of account online shop No 3, the relation of total number of opinions to the number of negative opinions was as 172 to 1. It corresponds to 5 negative opinions out of total 864 and 3 negative opinions out of total 518. The used numbers of customers opinions were relevant; the reduction of total number of opinions by 40% (from 864 to 518) resulted in the reduction of total number of negative opinions by 40% (from 5 to 3). If it is supposed that the total number of negative opinions deeply affected purchase intention then the general number of customers' opinions, online shop No 3 should have better customers' evaluation while having 518 customers' opinions including 3 negative than while having 864 opinions including 5 negative. In both situations the relation of total number of customers' opinions to the number of negative opinions was at the same level.

5.2 Research Results of Study 2

For the Study 2, both the manipulation of the total number of opinions and the number of negative opinions did not bring satisfactory outcomes ($F < 1$). The respondents gave a higher evaluation to online shop with total number of 518 customers' opinions and three negative opinions ($M = 83.6$) than to shop with total number of 864 customers' opinions and five negative opinions ($M = 76.7$), the difference between two options was not statistically valid ($t(31) = 1.44$, ns.).

The interesting findings were observed between The Study No 1 and 2 in the context of the general customers' preferences towards online shop. As the Study 2 showed, online shop No 1 was preferred by 48% of respondents, shop No 3 – 22% and shop No 5 – 20% of respondents.

The results and outcomes of The Study 2 are not statistically valid. However some interesting comments could be formulated on the above findings. It implies that respondents were influenced by the number of negative opinions rather than the relation of the total number of customers' opinions to the number of negative opinions. Hence the online shops with the lower number of negative opinions were preferred.

There were no introductory assumption that the lower number of negative opinions the better. The assumption could be formulated provided suitably high number of total customers' opinions.

Therefore there is a nonlinear relation in applying the number of opinions as quality signal for online shop. It is necessary to cross the minimal threshold of opinions for online shop to be

acceptable. Below the minimal threshold, the shop is not acceptable. Above the minimal threshold, the total number of opinions is of relatively low importance. As The Study 1 has indicated, the number of opinions levelled at 22 has not executed the minimal level. Hence the low scores for shop 1 has been observed. For the Study 2, the number of 172 opinions for the shop 1 has executed the minimal level and therefore more customers has selected that online shop.

The general deduction derived from the studies is that customers are interested in shopping with the lowest possible price but while minimal safety conditions are fulfilled. The factors reducing perceived risk are important in decision making process and online shop selection.

6 CONCLUSIONS

The goal of the study reported here was to examine the relation between the number of customers' opinions on online shop and the evaluation criteria of online shops' decision-making process where to shop. With respect to research outcomes, the number of customers' opinions could play an advisory role in evaluation of online shop attractiveness. However the results did not authorise the statement that there is a linear correlation between the number of opinions and perceived shop's attractiveness. It could be presumed that there is a nonlinear correlation. There is a minimal level of opinions and if the number cross the minimal threshold, the online shop becomes acceptable. Further research should focus on defining the minimal threshold. Has it got an absolute character or it depends on the number of opinions for other online shops included into consideration set?

The research indicated that respondents did not include the relation of the number of negative opinions to the total number of opinion while evaluation shop attractiveness. It could not be excluded that other order rules or heuristic methods are implemented. The future research could be designed to examine and comment on those procedures.

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