

PERCEIVED RISK WHEN BUYING ONLINE: EVIDENCE FROM A SEMI-STRUCTURED INTERVIEW

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Abstract

In order to gain deeper understanding in consumers' perceptions regarding risk involved when buying online, a semi-structured interview was employed. 30 internet users that have purchased a product or service using the Internet within the last three months were questioned regarding their fears when deciding to buy from an e-commerce web site. The respondents were selected according to a stratified sampling technique. Based on the respondents' answers but also taking into consideration previous empirical findings, I classify different types of perceived risk into: financial risk, privacy risk, performance risk, delivery risk, time risk, psychological risk and social risk. The results show that Romanian consumers perceive a high degree of risk when conducting an electronic transaction, which could be the reason why Romania has a small e-commerce adoption rate although the internet penetration rate is quite high. Further managerial implications are discussed.

Keywords: perceived risk, online buying, online consumer, semi-structured interview

1. Introduction

E-commerce has registered a steady growth in Europe within 2008-2010 time frames, from 28% to 36% of the population making an online purchase for private use (European Commission, 2011). European Commission reports significant e-commerce penetration rate variations among countries. In many Member States of the European Union, the percentage of population ordering online goods and services for private use is greater than 55%, this being the case of Denmark, Germany, France, Luxembourg, Netherlands, Finland, Sweden and UK. However there are countries where the e-commerce penetration is below 20%: Romania, Bulgaria, Hungary, Greece, Italy, Cyprus, Estonia, Latvia, Lithuania and Portugal (European Commission, 2011). What needs to worry us is that Romanian population is the EU laggard in adopting e-commerce. Romania has only 4% of the population shopping online for goods and services in 2010 (European Commission, 2011, p. 4). One could assume that Romanian face technology barriers such as internet access, but 42% of the Romanian households had Internet access and 23% of the household had broadband connection in 2010 (Eurostat News Release, 2010, p. 2). Moreover, 36% of the population is represented by internet users and 21% of the population is represented by frequent internet users which use the internet on a daily basis (Eurostat Data in focus, 2010, p. 2). Still, only 9% of the Internet users have bought goods or services for private use over the internet in the last 12

months (Eurostat Data in focus, 2010, p. 4). The reason why Romanians don't shop online could be attributed to various perceived risks in buying over the Internet.

2. Literature Review

According to (European Commission, 2011, p. 33) both online shoppers and non-online shoppers' main concerns are related to:

- Returning products that consumers don't like or repairing faulty products (57%)
- Delivery of wrong or damaged goods, no delivery of long delivery (68%)
- Misuse of personal data (21%)
- Theft of payment card details (20%)

Similar empirical evidence is obtained through academic literature review. Several studies show that performance risk, or the fear of product malfunctioning or not functioning or performing as expected, increase in online environment (Almoussa, 2011, p. 25). The incapacity of touching, feeling, testing or trying the product before purchase are majors concerns when buying online, concerns that increase the performance risk perceived (Teo, 2006, p. 504; Pechtl, 2003, p. 156; Rudolph et al, 2004, p 70; Saprikis et al, 2010, p. 6; Lim, 2003, p. 225)

Consumers also have concerns regarding the delivery process: the product may be damaged during transportation, the product may be delivered to a wrong address, and the delivery may be delayed (Naiyi, 2004, p. 180).

Various studies prove that fear of credit card fraud represents one of the most invoked concerns when buying online: (Delafrooz et al, 2011, p. 75; Pechtl, 2003, p.152; Rudolph et al, 2004, p. 70; Khalifa and Limayem, 2003, p. 237; Suki and Suki, 2007, p. 89; Saprikis et al, 2010, p. 6; Miyazako and Fernandez, 2001, p. 38; Suresh and Shashikala, 2011, p. 339)

The fear of misuse of personal data has also proven to be significant barrier in buying online (Rudolph et al, 2004, p. 70; Suki and Suki, 2007, p. 89; Miyazako and Fernandez, 2001, p. 38).

3. Methodology and data

The semi-structured interview was used to investigate the sample of the population. Also known as "moderately scheduled", the semi-structured interview is used for gathering qualitative information in specific situations from small samples (Laforest, 2009).

However, the semi-structured interview is not used for hypothesis testing (David and Sutton, 2004). The semi-structured interview is a variation of the in-depth interview with the advantage of enabling the interviewer to address all topics of interest by following the conversational guide or also known as interview guide. The researcher can also ask additional question in order to cover the list of key themes and issues that needs to be addressed (Corbetta, 2003). The semi-structured interview allows the moderator to interfere in the respondent speech in order to direct him or her to the desired topics.

3.1 Sampling procedure

The stratified sampling procedure was employed. Stratified sampling divides the population into strata or classes, usually based on demographic criteria and a sample is taken from each stratum (Deming, 1950).

The investigated community was divided by strata based on demographic criteria. The implementation of the stratified sampling followed Catoiu et al approach for stratified sampling (Catoiu et al, 2009):

- **Defining and constructing the sampling base.** The sample base contained both male and female respondents between the ages of 18 and 59, with low, medium or high income and with or without college education. Thus, according to sex criteria, there is female stratum and male stratum, according to age, there are 18-23 aged people, 24-39 aged people, and 40-59 aged people, according to education criteria there are non-college educated strata and college educated strata and finally, according to income, there are less than 1000RON income strata, between 1000 and 2000 RON income strata and over 2000 RON income strata.

- **Building strata that forms the structure of the sampling base.** Based on the above mention criteria, the number of constructed strata is 36 and the structure of the sampling base can be seen in Table I.

- **Selecting components to complete the sample size.** From each stratum a number of components proportional with the weight of strata among the entire investigated community was selected. The proportions of the investigated population were obtained from previous studies.

After calculating the weights, the sample structure and its specific dimension (30 respondents) have the following form:

Stratum	Sex	Age	Education	Income (RON)	Weight	Sample
1	f	18-23	non-college	<1000	2.78	2
2	f	18-23	non-college	1000-2000	1.835	1
3	f	18-23	non-college	>2000	1.30	0
4	f	18-23	college	<1000	4.74	2
5	f	18-23	college	1000-2000	3.12	1
6	f	18-23	college	>2000	2.22	1
7	f	24-39	non-college	<1000	3.48	1
8	f	24-39	non-college	1000-2000	2.29	1
9	f	24-39	non-college	>2000	1.63	0
10	f	24-39	college	<1000	5.92	2
11	f	24-39	college	1000-2000	3.91	2
12	f	24-39	college	>2000	2.77	1
13	f	40-59	non-college	<1000	1.57	0
14	f	40-59	non-college	1000-2000	1.03	0
15	f	40-59	non-college	>2000	0.73	0
16	f	40-59	college	<1000	2.66	1
17	f	40-59	college	1000-2000	1.76	0
18	f	40-59	college	>2000	1.25	0
19	m	18-23	non-college	<1000	2.78	1
20	m	18-23	non-college	1000-2000	1.835	1

21	m	18-23	non-college	>2000	1.30	0
22	m	18-23	college	<1000	4.74	2
23	m	18-23	college	1000-2000	3.12	2
24	m	18-23	college	>2000	2.22	1
25	m	24-39	non-college	<1000	3.48	1
26	m	24-39	non-college	1000-2000	2.29	1
27	m	24-39	non-college	>2000	1.63	0
28	m	24-39	college	<1000	5.92	2
29	m	24-39	college	1000-2000	3.91	2
30	m	24-39	college	>2000	2.77	1
31	m	40-59	non-college	<1000	1.57	0
32	m	40-59	non-college	1000-2000	1.03	0
33	m	40-59	non-college	>2000	0.73	0
34	m	40-59	college	<1000	2.66	0
35	m	40-59	college	1000-2000	1.76	1
36	m	40-59	college	>2000	1.25	0

Table I. Sample structure and size

3.2 Recruiting respondents

Although many potential respondents manifested an intention to join the study following a newspaper ad, recruiting criteria were verified by telephone. There were used identification questions for assessing sex, age, education and income. Potential respondents were also asked if they had made an online purchase during the last six month in order to select only current online consumers.

3.3 Conducting interviews

The interviews were conducted between the 27th of July and 14th of August, 2011 and the perceived risk topic was covered in 15 to 20 minutes.

4. Results and discussions

All respondents reported different fears when buying online. After analysing all responses a classification of perceived risk according to intensity was developed (See Table II).

No.	Type of risk	Observations
1	Financial risk	The biggest fear of respondents is the possibility of incurring financial loss due to credit card fraud.
2	Performance risk	The fear that the product will not performed as promised by online vendors was the second most common fear among respondents.
3	Time risk	Close related to performance risk, consumers fear that if the product doesn't perform as stated, the returning procedure takes considerable time. Also, the time spent waiting for the product to arrive to its destination is also perceived as a time loss.
4	Delivery risk	Consumers fear that the delivery will not take place within the time stipulated or that the product would suffer damage

		during handling and transportation.
5	Privacy risk	Consumers fear for the privacy of their personal data which may be illegally intercepted by other people and used in wrongful purposes. Consumers also fear that online vendors can alienate their database of consumers' personal information to third parties.
6	Psychological risk	Consumers feel that uncertainty around electronic transactions puts enormous pressure on them, especially when the good has a considerable financial value or the need for the product is highly urgent.
7	Social risk	Social risk was among the least mentioned types of risk. Consumers feel that if something goes wrong with the transactions, their referent groups (family members of friends) would think less of them for having made a bad decision.

Table II. Types of online perceived risks

4.1 Financial risk

Online consumers are reticent when it comes to online payment. Even though they search for information and they order goods online, the majority of respondents (83.33%) prefer alternative method payments, such as: cash at delivery, bank account transfer or Pay Pal.

Consumers fear for credit card fraud: "I've mostly read online about particular cases when hackers extracted money from people's accounts or emptied them completely" or "If there's the slightest possibility that someone else could intercept my credit card information and use it in his behalf, why shouldn't I avoid online payment? Besides, there are alternative payment methods".

This yields interesting findings as one respondent mentioned "I rather prefer to use my Internet banking service, access my account and transfer the amount required to the online vendor's account". It seems that consumers trust more Internet banking platforms than e-commerce platforms.

A consumer mentioned that he gave up a highly competitive price offer because there were no alternative payment methods "I once found an 85% price reduction on a (item the respondent wanted to purchase) but it turned out that the (name of the group buying site) only accepted credit card payment. I immediately dropped the offer".

Consumers fear that e-commerce platforms are not secured enough and need constant reassurance from other parties "I don't think small enterprises have the financial resources to highly secure their e-commerce platforms" or "If I don't see a third party seal such as TRUSTe or VerySign, it's likely I find another online vendor with those marks" since "a transaction guaranteed by third parties is more secure".

Consumers also doubts of online vendor goodwill: "I would never use my credit card information to purchase from an unknown vendor. I even think twice when purchase from online vendors with high reputation" or "Online vendors bob

up like a cork. There are so many unknown vendors that stuffed the market". Consumers usually buy online from well known online vendors "I fear less when I submit my credit cards information to (a well establish Romanian retailer of brand apparel)".

But consumers feel motivated for paying online "There are cases when if I pay online with my MasterCard I get a 5% price reduction". They find ways to cope with credit card fears: "I made a lower limit credit card just for buying online" or "I have a credit card that I only use for making electronic purchase. Even though its details were stolen, I couldn't care less since the amount of money I keep on my credit card is low"

4.2 Performance risk

When buying online, consumers perceive a higher performance risk of products due to the inability of touching, smelling or tasting the product. There are certain categories of products that consumers are not willing or are less willing to buy online. For example, apparel "I don't understand how other people buy online clothes and shoes. I personally need to touch the material, to see how it feels. I need to try it on before making a decision", cosmetics and perfumes "I always use a tester to apply (brand of a cosmetic product) on my skin before purchasing" or "There are cases when I buy online perfume. For example, when I had previously bought a certain brand and I am accustomed with its smell" or food "I even don't know if there are online food and groceries stores in Romania. I never indented to buy food online" or "If I am baking a cake and I'm missing some ingredient, I won't order it online (laughs) because until the ingredient is delivered my cake is already baked" or "I would never think of buying online groceries since they must be seen and touched prior to acquisition".

A higher performance risk is also encountered when the financial value of the product is high "I once indented to buy online (brand of a LCD), a complete bargain. But I was so worried that the presentation and the pictures presented on the web page were too good to be true, that I went to the nearest hypermarket and actually tested the product" or "A few months ago I was searching for (a brand of smart phone) and I found an online competitive offer. It turned out to be a fake product. I will consider twice before buying something valuable on the Internet".

4.3 Time risk

People fear of losing time when purchasing on the Internet. First of all, there is time loss due to a large variety of information "I think of myself as a rational consumer who engages in lots of search before making an actual purchase. I visit different e-commerce websites, read or watch video presentations, look at the pictures. I also read users' comments and forum discussion topics. But I keep wondering if this is the smart thing to do since I waste a lot of time (emphasize on "a lot")!" or "There is too much information on the Internet and it takes so much time to eliminate all the redundant one" or "I find myself reading other people's opinions and shared experience and still being confused. Usually there are mixed

opinions and I don't know whom to trust" or "There is so much information out there (on the Internet) that requires time and effort to cover it. Things were much simple when one went to the shop and read the labels (laughs)". Second of all, people lose time when waiting for the delivery that usually takes more than 24 hours "I don't buy things on the Internet that I urgently need" or "I lose a lot of time waiting for the product to arrive. It seems as forever since I am eager to get it" or "I hate the fact that I have to wait more than 10 days in order for a product to be delivered. I wish online stores had all the goods on stock".

If the product doesn't meet the consumers' expectations the time spent for searching, ordering and waiting for delivery are perceived as losses "Imagine that I searched for over a week for the perfect prom dress and when I finally found it, they delivered it in the wrong size. Now I had two choices, either turn to tailor for adjustments or return the item and hope to get my money back". The time spent for returning the item or the time spent trying to get money back are significant barriers when buying online "I always wonder: What if the product doesn't perform as expected? Would they (the online vendors) give me my money back? But even if they do so, that requires time" or "I once ordered a voucher from (an online group buying web site) and requested my money back since the service performed was lousy. Do you know how long it took them to refund? Four months of writing e-mails and giving phone calls".

4.4 Delivery risk

Consumers fear that delivery will be delayed due to various circumstances "My upmost fear when it comes to delivery is that they (the delivery company) won't deliver within the time frame we both agreed. If they are late I have to stay home and wait for the package. If they come earlier they might not find me or a member of my family at home" or "I always doubt they would deliver in time, but I was often wrong since most of my Internet purchases were delivered in time. I still fear though".

Consumers fear that the goods may be damaged when handled and transported "I know for sure that if they (the products) are not proper packaged and handled during transportation, they may come damaged".

4.5 Privacy risk

When entering personal information such as personal identification number, name, address and other personal information, consumers fear that they might be intercepted by hackers and used in wrongful purposes: "I am not content with sharing personal information, especially those e-commerce web sites requiring personal identification number. I think that the name and the delivery address is enough. When you go to the store and purchase, these kinds of details are not requested" or "I read about cases of identity theft on the Internet, sure not in Romania, but still... (Pauses)" or "Imagine that if my personal information becomes public, everybody will know my address and my phone number leaving me exposed to God knows what".

Consumers also fear that online vendors build databases of consumers and that they will receive unwanted marketing communication messages "Not once have I received unwanted e-mails or phone calls from online vendors to whom I previously purchased". Consumers even fear that those databases would be alienated to third parties by the online vendors "I think that they (online vendors) sell their customer databases since I receive so much targeted spam in my e-mail account. How could they otherwise know my personal information?"

4.6 Psychological risk

Consumers experience frustrations and stress thinking that something might go wrong with the delivery or that the ordered product might not perform as expected "When the delivery is delayed I often feel frustrated because this interferes with other things I have scheduled for the day" or "When I purchase apparel online I am always stressed until I try it on to see if it suits me" or "When something goes bad with the transaction (online transaction) I feel frustrated at myself for taking such a bad decision".

4.7 Sociological Risk

Consumers fear what other members of the referent groups, such as family, friends, co-workers might think if an online transaction has bad consequences "I fear that my husband will judge me for taking the wrong decision of buying online if something's wrong with the product" or "If I would receive a faulty product ordered online than my parents would always refer to this single case in the future". Also, referent groups, especially friends can think less of a consumer if they don't agree with a certain purchase "Although I am tempted to buy highly discounted products or different price offers on (a group buying web site offering huge discounts), I remember that my friends wouldn't agree with such purchases".

5. Concluding remarks

Due to the uncertainty of the online environment, consumers report higher degrees of risk when buying online than buying from the traditional store.

The most common fear among respondents was the fear of credit card fraud. Although they search for goods and service using the Internet, they inquiry and order the products online, there is a general preference for alternative methods of payments that doesn't require disclosure of credit card information. Consumers also developed credit card fraud reduction strategies. A couple of respondents declared that they use a low limit credit card for online purchases. A respondent mentioned that he buys online only from those e-commerce websites that are secured by third party seals. Most of the respondents who do pay online reveal credit card information only to those vendors with high credibility and reputation.

Another fear consumers experience when buying online is that they might experience faulty products or products that don't perform as expected. Since online buying relieves of some sensorial experiences such as touch (impossibility to touch the material of apparel), smell (impossibility to smell products such as perfumes)

or taste (impossibility to taste food or grocery products) and during an online transaction consumers cannot actually test or try the product, the performance risk is much higher.

Consumers also have concerns regarding the delivery. They fear that the delivery won't respect the agreed time frame and they would have to reorganize their entire schedule. They also fear that the products may be damaged while being handled and transported.

When receiving a faulty item or an item that doesn't correspond to its specifications consumers fear they would spend a lot of time trying to get the money back from the online vendor and exchanging the product. This is also the case with services bought online. When trying to get money back or exchange items, consumers become frustrated and stressed due to the fact that they made a wrong decision by choosing to purchase online.

Consumers also fear that a bad decision regarding the online transaction will have negative consequences among their referent groups. Friends or family can mock up their judgement.

Another interesting finding is the way consumers report these fear. They often invoke what they have heard from referent groups or mass-media or they invoke previous disconfirmation of their expectations. So, keeping a satisfied customer by meeting his or her expectations, building trust and reputation should ease the process of online buying.

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