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The impact of information overload on consumer purchase intention toward health insurance products.

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Contents

Abstract

The main objective of this thesis was to investigate the impact of information overload on consumer purchase intention. Health insurance was selected as a product of interest, because it is highly demanding but at the same time complicated product and consumers knowledge regarding it is far from perfect. I also wanted to test how objective and subjective knowledge mediate the relationship between information overload and intention to purchase. Information overload was presented in terms of description of health insurance products. It was proposed that more complex description negatively affects information overload. Moreover it was expected the positive effect of a more complex description of health insurance products on objective knowledge and negative impact of a more complex description on subjective knowledge. It was also hypothesized that objective and subjective knowledge have positive impact on consumer's purchase intention. In order to collect primary data for this research Online survey questionnaire was prepared and filled out by 109 respondents. Around half of these respondents answered questions after observing products with more complex description. On the contrary another 50% of the respondents answered questions after observing a more simplified description of health insurance products. Different statistical tests were performed with the purpose of analyzing the obtained data. Despite of the insignificance of some results in most cases the direction of effects was in a line with my propositions that give reasons to conduct further research in this area with a new and more controlled study.

1 Introduction

Trying to comprehend how consumers purchase and which factors influencing consumer buying decisions have been one of the main question among marketing researchers. The information processing approach is a fundamental paradigm in customer purchasing behaviour. By means of offered product content, firms can improve the customers' knowledge and understanding of it.

For several decades marketing managers and researchers try to identify the most efficient amount of information that they need to represent while offering their products to customers. Due to the impetuous progress in information, communication technology and organizational design issues the "Information overload" phenomenon has become very popular topic among researchers.

Nobody can affirm that consumers' knowledge is faultless and complete. Knowledge can be divided into actual and perceived. Objective (or actual) knowledge is the information that we actually know. Subjective (or perceived) knowledge is what we think we know (Alba and Hutchinson 2000, 123).

Purchasing health insurance product is complicated decision. Health insurance purchases are more complicated for consumers demonstrated minor and moderate levels of financial, health, and health insurance literacy (Cude, 2005; Huston, 2010; Lusardi, 2008; National Association of Insurance Commissioners, 2010; Tennyson, 2011). It is immensely important to help consumers to have better understanding of health insurance products and to help mitigate decision making process for their particular situation. Consumers reckon that selecting a health insurance plan is of paramount importance, however the factors such as 'information overload, low health insurance literacy, lack of information or misinformation, and time constraints' can negatively affect on making more proper health insurance choices (Farley Short et al., 2002; Frank & Lamiraud, 2009; Hanoch & Rice, 2011; Lako, Rosenau, & Daw, 2011; Sinaiko & Hirth, 2011).

In order to ameliorate customers' product understanding companies can use their website's content that can influence and increase the knowledge of their customers. Usually, companies use the strategy of giving more and enriched information regarding product for their

consumers. Nevertheless, more detailed information may result in higher cognitive load and it can negatively affect cognitive outcomes of the consumers. (Jacoby 1984).

1.1 Problem Statement and Research Question

Referring to the previous paragraphs I would like to investigate the effect of information overload on consumer's intention to purchase health insurance product and to examine how objective and subjective knowledge mediate this effect.

Research question

How overloaded description of health insurance products impact consumer purchase intention and how objective and subjective knowledge mediates this impact?

2 Theory

In this section all variables will be explained based on existing studies. Then I will introduce hypotheses proposed on the basis of the existing literature

2.1 Literature and Definitions:

2.1.1 The concept Information Overload

Some authors contend that consumer decision making process is exposed to some doubts, wrong purchase decision may occur in spite of availability of appropriate information. Furthermore, some critics contend that customers can be exposed to information overload, therefore existense of extra information can deteriorate decision making process (Grether and Wilde, 1983)

İnformation overload is related to the assertion that superfluous information can be useless. So this statement verifies notion that more information is not always. better. Too much descriptive information can cause confused, irrational choice behavior. Thus, information

overload became prominent idea, particularly amongst policymakers (Grether and Wilde, 1983).

Moreover, if we are able to understand how customers interpret information, we can create more effective information systems

The most relevant researchs regarding information overload were carried out by Kohn, Speller and Jacoby (1974) and Berning, Jacoby and Speller(1974) According to these studies considerable amount of information regarding package can lead to worse buying decision (Speller, Kohn, Jacoby 1974). Moreover, amplifying information overload leads to 'dysfunctional consequences in terms of the consumer's ability to pick the brand which was best for him' (Speller, Berning, Jacoby ;1974)

2.1.2 Consumer Knowledge

Product knowledge is of paramount importance for the investigation of consumers' behavior. Consumers Product knowledge based on consumer's understanding or awareness about the product or consumer's confidence about it (Lin and Zhen 2005). According to previous researches consumer knowledge can be divided into two particular categories: objective and subjective knowledge (Brucks 1985; Carlson et al 2009; Moorman et al 2004; Park, Mothersbaugh, and Feick 1994)

Objective (or actual knowledge) is the information that we actually know, however there is also subjective (or perceived knowledge) is what we think we know (Alba and Hutchinson 2000, 123). Objective knowledge relies on the validity of recall metrics that are not exposed to any self-presentation and feedback biases, whereas subjective knowledge closely associated with consumers' assurance on their beliefs (Alba and Hutchinson 2000; Bearden, Hardesty, and Rose 2001; Carlson et al 2009; Tsai and McGill 2011).

A large number of researches considering variety of product categories have been devoted to consumers' product knowledge and this fact demonstrates substantial impact of knowledge on information processing and decision making (Cowley and Mitchell 2003; Carlson et al. 2009; Bettman and Park 1980; Brucks 1985). Consumers' intention to understand the product description can be explained by aiming to make more appropriate choice. Consequently

consumers becoming more assured about the quality of their choice and thus they estimate their experience more favorable. All in all, consumers' product knowledge is considered as a strong bond between product information that customer can access and customers' behavioral response.

Generally, online companies making efforts to improve consumers' understanding of their products and that's why they implement strategies intended to represent more extensive information. Consumers' knowledge of products relies on the extent of the obtained information. However, according to the cognitive load theory too much information can destroy its effectiveness (Jacoby 1984).

2.1.3 Purchase intention

Due to the fact that purchase intention of consumers helps to prognosticate sales of new or existing product/services marketing managers place high emphasis on intention to buy. Data regarding intention to purchase can be very beneficial for managers in their marketing decisions toward the effective marketing strategy, market segmentation and demand for the new and existing products (Tsitsou, 2006)

According to Crosno et al. (2009) intention to purchase is the likelihood that customer will choose a concrete brand of product category in concrete buying situation. The reason of great interest of marketing researchers in intention to buy is that it's closely connected with buying behavior. Several investigations revealed positive interrelation between purchase intention and purchase behavior (Morwitz and Schmittlein, 1992; Morwitz et al., 2007).The measuring unit of individual's intention to commit behavior is the only right predictor of his behavior (Fishbein and Ajzen, 1975)

2.2 Hypotheses

2.2.1 Information overload and Purchase intention

Investigations about information overload are quite debatable topic. Majority of previous investigations assess information overload based on the number of attributes and product alternatives introduced to customers. For instance, there was found an inverted-U-relationship between decision quality and the amount of information in initial researches conducted by Jacoby et al. (1974) and Scammon (1977) According to their findings information overload has favorable effects on consumer satisfaction level and consumers feel less confused about selection, nevertheless too much information contributes to reduced quality of consumer purchase decision. However, later studies produced inconsistent outcomes. Particularly, the data of Jacoby et al (1974) and Scammon (1977) were analyzed once again by Malhotra (1982) by applying logit regression model. According to this research and in defiance of initial ones it was concluded that when the amount of information is raised there is no downturn in choice quality. Two years later Muller (1984), in his field study, revealed that information quantity doesn't systematically impact purchase pattern of customer. Furthermore, as far as amount of information kept constant, greater quality of information ameliorates decision fidelity (Keller and Staelin, 1984). In this research they used approach where they combined traditional information quantity approach with quality of information, they observed that when quality of information is held constant, decision accuracy negatively affected information quantity.

Due to the technological advance in the beginning of 21 several researchers such as Huang (2000), Chen et al. (2009), Sicilia and Ruiz (2010) devoted their investigations to the link between decision quality and information overload in the context of online environment. According to Chen et al. (2009) rich information results in information overload and information overload accounts for the decline in quality of decision. They explored the impact of information filtering tools and information overload on decision consequences of experienced and novice customers. This study has shown that novice customer may undergo more considerable information overload issues.

Moreover, according to Lee and Lee (2004) information overload is negatively associated with customers' satisfaction, confidence and it increases the number of confused customers

Furthermore, Huang (2000) conducted a field experiment where shopping websites with different levels of information overload were visited by 115 participators. In his research distinguished 2 aspects of information overload: complexity and novelty. From the results of this study it was found that complexity leads to impulse buying behavior, boosting online transactions. On the other hand, due to the fact that novelty retains customers visiting websites, it is very valuable in shaping attitudes. Moreover, in the investigation conducted by Sicilia and Ruitz (2010) it was explored the effect of volume of online information on cognitive response of users in an online environment. High, medium and low level of information were examined on 105 undergraduate student. According to results of this study it was found an inverted U curve relationship between information processing and information load. Consequently, they assert that both shortage and abundance of information of information negatively affect attention regarding online purchasing. Finally, customer online buying intention is expected to be negatively affected by online information overload, in the same way as in traditional shopping environment.

H1: A more complex description of health insurance products negatively affects consumer's purchase intention..

2.2.2 Information overload and Objective knowledge

There is an interesting approach called "no pain, no gain" that can be explained as you can only achieve some benefits if you really make efforts for it. According to Klein and Yadav (1989) consumers implement more prudent approach prior to choosing in case if they need to deal with choice set complexity. There is an evidence from the research made by Sela, Berger, and Liu (2009) that an increased level of choice complexity results in more deliberate cognitive elaboration of the alternatives for choosing on the basis of arguments reasons). Consequently, advanced capability to absorb more information about the choice set is observed among customers while they making more complicated choice. (Nagpal and Krishnamurthy, 2008). According to Simonson and Nowlis(2000) and Shafir, Simonson and Tversky(1993) while facing with more complex choice customers turning on mechanism that searching argumentation for validating their choice. Hoeffler and Ariely (1999) assert that

the reason behind this statement is that thereby customers deliberate more thoroughly regarding trade-offs in the choice set and they have more clear understanding of their priorities, so they buy products that better correspond to their needs. According to Yoon and Simonson (2008) if customers deal with less complex choice they concentrate on the most promising product, however it's more myopic evaluation of choice set because it's based on only the part of available information about alternatives, that's why there is a decrease in objective knowledge about choice set. Finally investigation conducted by Tsekouras(2012) shows that objective product knowledge is increased by higher choice complexity. Accordingly, we can hypothesize that:

H2: A more complex description of health insurance product has positive effect on objective knowledge

2.2.3 Information overload and Subjective knowledge

Investigations related to subjective knowledge were conducted by many researchers such as Brucks (1985); Bearden, Hardesty and Rose (2001); Carlson, J. P., Vincent, L. H., Hardesty, D. M., & Bearden, W. O. (2009). They mentioned that subjective knowledge is the one that customers assume that they know and it's tightly linked with customer self-confidence. According to Thompson, Hamilton, Petrova (2009) and Klein, Yadav (1989) the sense of confidence in customers can be decreased by complexity of choice. Moreover, in comparison with consumers that struggling with data processing from choice set, customers that deal with more structured representation of data are more likely to feel themselves confident (Kelley and Lindsay 1993; Gill, Swann, and Silvera 1998). Schwarz (2004) asserts that subjective knowledge is associated with confidence and perceived challenge in processing of information. According to Tsai and McGill (2011) as appraisal of subjective knowledge greater and environment isn't difficult assess customers reveal more confidence. Moreover, according to investigations people show lack of confidence when they face with complex tasks (Kruger 1999). According to research of Billeter, Kalra and Loewenstein (2011) this consequence is called hard/easy effect.

As far as we have environment with choice without associated effort consumers feel themselves safer (Hoeffler and Ariely 1999). In hard choice condition with difficult trade-off customers think that they can't attain their target because of the choice complexity (Hoeffler and Ariely 1999). According to the investigation of Tsai and McGill (2011) Choice simplicity induce the sense of confidence arising from the concept that customer doesn't endeavor while making choice and still guarantee a desired result. In particular, confidence relies on realizability of accomplishing the task as far as customers perform at lower construal level. The choice task can be performed without obstacles if complexity of choice is lower. Correspondingly, complex choice creates difficulties of making an appropriate choice and diminishes confidence due to the fact that the feasibility of accomplishing the task associated with choice is becoming lower. Moreover, Kahneman and Tversky (1982) reckon that consumers' assessments are based on their assumption because consumers have some assumptions regarding the products in choice set. In case if this expectations are not met consumers feel lack of confidence. According to Tsekouras (2012) higher level of complexity of choice set and not easily distinguished options lead to greater possibility of incorrect attribution in customer's assertion because of the proximity of the utilities of product. Moreover according to Tsekouras (2012) findings higher complexity of choice reduces subjective knowledge. Due to all above mentioned information we can hypothesize that:

H3: A more complex description of health insurance product has negative effect on subjective knowledge

2.2.4 Consumer Knowledge and Purchase Intention

Research in the area of product knowledge and consumer behavior is of great importance.

Fu, Chui and Helander (2006) assert that product knowledge is proposed notions, principles and techniques that heading to perform some operations. It is information that is filtrated by consumer mind. Consumers execute some cost and benefit analysis and the gained information or knowledge impels consumer to draw the conclusion that's will or will not be buying behavior. In the research conducted by Bian and Moutinho (2011) the same

phenomena was described indicated by characteristics of product that influenced whole flow of the decision making. Moreover, owing to diverse levels of sensitivity of consumer mind the knowledge will also fluctuate from customer to customer. Due to the focusing predominantly on intention to purchase product knowledge will strongly affect buying behavior of customers

During product selection process consumers estimate product relying on understanding of it, therefore consumer understanding of it will have an impact on information seeking, the volume of information search and behavior (Zhu, 2004)

According to Lin and Chen (2006) consumer intention to buy positively affected by product knowledge, product involvement and country of origin image, there is a significant positive effect of product knowledge on consumer purchase intention under different product involvement. In their investigations Brucks(1985) and Rao and Sieben (1992) mentioned that the level of customer's product knowledge influence his/her information seeking behavior. Moreover, it affects consumer's information, decision information and intention to purchase (Lin, Chen 2006) Customer's knowledge of product will not only define buying decision but also will have indirect impact on intention to buy.(Lin, Chen 2006)

Lin , Yeh, Chung, Wen (2011) conducted study with participation of 292 respondents according to which customers' intention to purchase significantly positively affected by the product knowledge. Furthermore, Pedersen and Nysveen questioned 874 people and in accordance with the results of this survey they ascertained that product knowledge has direct positive influence on intention to buy. Finally, Eze, Tan and Yeo in their study also focused attention on influence of product knowledge in intention to purchase. Their data was collected 204 Chinese youngsters with age range from 21 till 31. According to results of this study it was revealed that customer purchase intention positively affected by product knowledge.

Due to all above mentioned we can hypothesize that

H4a: Objective knowledge has positive effect on consumer's purchase intention

H4b: Subjective knowledge has positive effect on consumer's purchase intention

Generally, this research can be differentiated from previous by adding mediating effects of objective and subjective knowledge on the relationship between information overload and purchase intention. Moreover, the effect of information overload on consumer knowledge will be examined in terms of product attributes, in contrast to the research conducted by Tsekouras (2012) the impact of information overload was examined in terms of choice set complexity. Finally, as it was mentioned before several studies show the impact of consumer knowledge on purchase intention, however the impact of objective knowledge on purchase intention and subjective knowledge on purchase intention haven't been examined separately. In conclusion, in my perspective, product of interest (health insurance product) is quite complicated and consumers' understanding of it is far beyond from perfect, therefore I hope it will be interesting to examine it in my research.

Conceptual Model

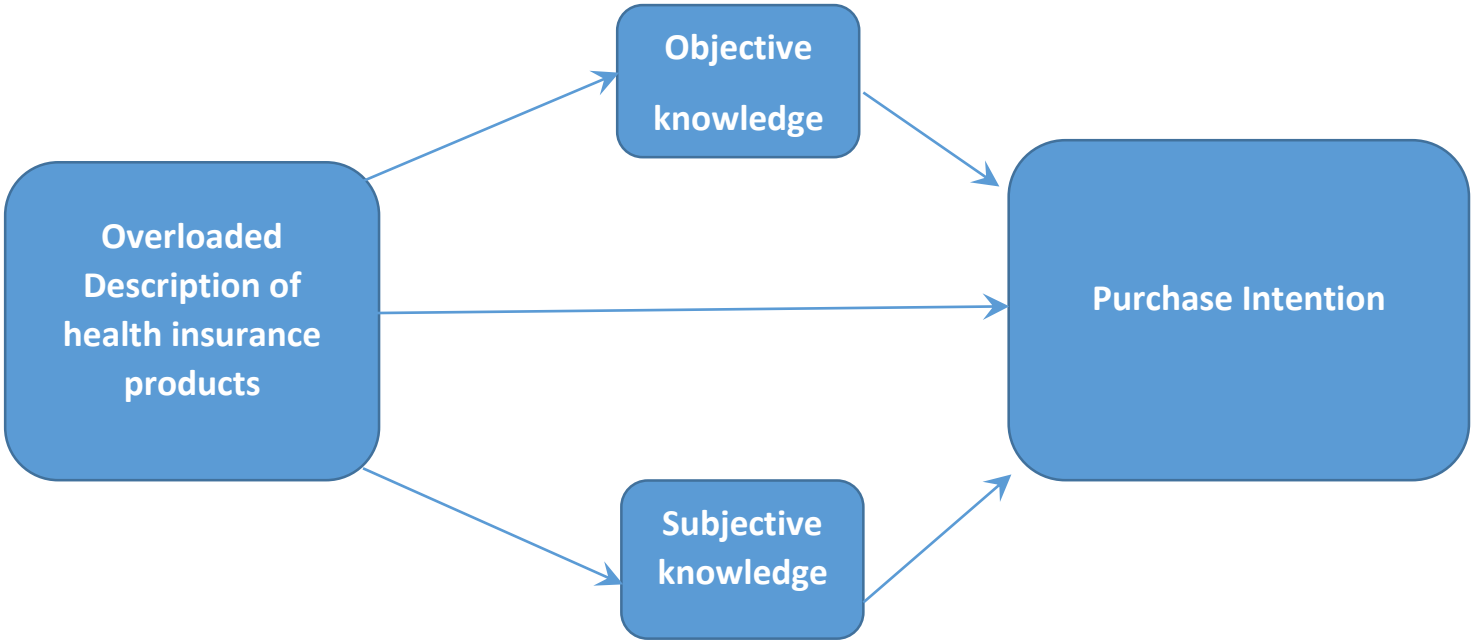


Table of Hypotheses

H1	*A more complex description of health insurance product negatively affects consumer's purchase intention.*
H2	*A more complex description of health insurance product description has positive effect on objective knowledge*
H3	*A more complex description of health insurance product description has negative effect on subjective knowledge*
H4a	*Objective knowledge has positive impact on consumer's purchase intention*
H4b	*Subjective knowledge has positive impact on consumer's purchase intention*

3 Methodology

This chapter is dedicated to methodology that includes research design, questionnaire design and measurements,

3.1 Research design

There are 3 distinct types of research design: exploratory, descriptive, causal research. The major goal of exploratory research is to collect some initial information for formulating hypotheses. Descriptive research depicts population elements as a sample. Causal research is used to describe cause and effect relationship between variables. I am going to use causal research because the main goal of my research is to investigate the impact of information overload on intention to buy.

In order to conduct my research I need to collect primary data via survey. Survey is considered as one of the main research technique for it.

3.2 The Questionnaire

Online platform will be used for data collection. Low cost is one of the main benefit of Internet as marketing research vehicle due to the fact that expentitures for printing and post are low. I am going to question approximately 100 respondents via Qualtrics (http://www.qualtrics.com/). It is an online survey software characterized by high level of customization and advanced options, it is user-friendly tool, so it is convenient for non-experienced users as well, it gives opportunity of randomization and it's free of charge.

First of all, I will introduce my survey to respondents by representing the brief description of it. After the Introduction respondents will be randomly assigned to one of the following two

conditions. In one condition respondents will see 6 different health insurance brands with only 3 attributes: price quality rating, policy rating and monthly premium. In another condition respondents will see the same 6 brands with all 7 attributes: price quality rating, policy rating, customer rating, free choice of healthcare, quality of hospital care, hospitals in

your area, monthly premium. Then respondents will answer the questions regarding purchase intention, their objective and subjective knowledge will be measured as well. The survey will involve 11 questions in total.

3.3 Measurements

1) Dependent variable:

3.3.1 Purchase intention

According to Johnson (1979) traditional 5-point purchase intention measurement scale was one of the most common purchase intention scale. However, in many investigations it was asserted that purchase probabilities form more accurate predictions than discrete measurement of intent (Juster, 1966; Granbois and Summer, 1975). Application of 0-100% scale was suggested by C. Joseph Clawson (Clawson, 1971) in 1958. Jamieson and Bass (1989) implemented "a 101-point (0 to 100) scale how likely they were to buy each of the 10 products" Accordingly, I am going to use 100% scale and the question:

How likely is it that you would buy a product from the given options?

2)Mediators:

Consumer product knowledge:

3.3.2 Objective knowledge

In order to measure objective knowledge free recall test will be implemented. According to Kanwar, Grund, and Olson (1990); Suh and Lee (2005); Khalifa and Lam (2002) recall from memory is comparatively successful method for evaluation of objective knowledge Based on research conducted by Tsekouras (2012) respondents will be asked to recall the brand of first 2 product, the product with highest policy rating, and the product with the highest monthly premium. Moreover, Eberhardt, Kenning, and Schneider (2009) assert that recall test is one of the most widely-implemented way of price knowledge evaluation

The following 3 items were used for measurement:

Could you recall the names of the first two products?

Could you recall the product with the highest policy ratings?

Could you recall the product with highest monthly premium?

Based on the research conducted by Min and Kim (2013) the items were coded dichotomously: "was coded dichotomously as 1 (complete recall) and 0 (otherwise)"

3.3.3 Subjective knowledge

Subjective knowledge measurement was adapted from Brucks (1985) and Moorman(2005) Seven point Likert scale (1 is much less and 7 is much more) was used. The following questions were given to respondents:

How knowledgeable do you feel about different health insurances?

How confident do you feel about using health insurance product information?

How satisfied are you with your response about the likelihood to buy a product?

3)Independent variable:

3.3.4 Complex product description

This approach was partially adapted from Jacoby, Speller, Berning (1974) and Jacoby Speller and Kohn(1974): the impact of information overload on decision-making performance was examined by varying the information regarding product via the number of attributes and the number of alternatives in a choice set. This research is focused on complexity of description of health insurance product, that's why only the number of attributes will be varied. Therefore, as it was already mentioned before in this survey respondents will be randomly assigned to one of the following conditions:

Condition 1 (4 attributes) - low complexity of product description

Brand	Price-quality ratings	Policy ratings	Monthly premium
Menzis	85/100	7.3/10	€ 90.75
Delta Lloyd	83	7.9	€ 94.67
Aevitae	73	6.0	€ 102.95
ONZV	76	6.0	€ 100.80
Achmea	100	6.0	€ 80.96
Unive Zekur	95	6.5	€ 82.50

Condition 2 (8 attributes) –high complexity of product description

Brand	Price-quality ratings	Policy ratings	Customer ratings	Free choice of healthcare	Quality of hospital care	Hospitals in your area	Monthly premiums
Menzis	85/100	7.3/10	7.6/10	Not available	3.0/5	Available	€ 90.75
Delta Lloyd	83	7.9	7.9	Available	3.0	Available	€ 94.67
Aevitae	73	6.0	7.7	Available	3.0	Not available	€ 102.95
ONZV	76	6.0	8.1	Available	3.0	Available	€ 100.80
Achmea	100	6.0	7.7	Not available	4.5	Not available	€ 80.96
Unive Zekur	95	6.5	7.5	Not available	3.5	Not available	€ 82.50

3.3.5 Complexity manipulation

Complexity manipulation was checked based on the research conducted by Lee and Lee (2004) and Malhotra (1982). In order to check the number of attributes manipulation 7 point likert-scale questions :

-There were many characteristics of Health insurance products to consider.

-I feel confused, because there was too much information about health insurance product.

-I was completely flooded by the provided information regarding health insurance products

-I was not able to make the best choice

anchored by 1 (strongly disagree)and 7 (strongly agree)

Table 1

Hypotheses	Dependent variable	Question	Independent variable	Scale
H1:	Purchase intention	Q1, Q2 (Jamieson and Bass, 1989)	Overloaded description	0-100% scale
H2:	Objective knowledge	Q6, Q7, Q8 (Tsekouras, 2012)	Overloaded description	Binary scale
H3:	Subjective knowledge	Q3,Q4,Q5 (Brucks (1985) and Moorman(2005))	Overloaded description	7-point likert scale
H4a	Purchase intention	It's mediating relationship and variable has been already measured	Objective knowledge	
H4b	Purchase intention	It's mediating relationship and variable has been already measured	Subjective knowledge	

Table 2

HYPOTHESES	STATISTICS
H1:. A more complex description of health insurance product negatively affects consumer's purchase intention.	Regression
H2: A more complex description of health insurance product description has positive effect on objective knowledge	Regression
H3: A more complex description of health insurance product description has negative effect on subjective knowledge	Regression
H4a:Objective knowledge has positive effect on intention to buy	Regression
H4b:Subjective knowledge has positive effect on intention to buy	Factor Analysis+Regression

4 Data analysis and Results Interpretation.

This chapter dedicated to analysis of obtained data and its interpretation.

Primary data was collected through online survey using Qualtrics Survey Software. The data was obtained during the period from 02.05.2015 till 11.05.2015. A total number of 158 respondents participated in this research. However, not all of the respondents have answered all presented questions. Consequently, 109 valid responses remained for further analysis.

The survey was about fictional purchase of health insurance product. In order to investigate the impact of product description complexity on consumers' purchase intention two different scenarios were created. The first scenario consisted of health insurance products with information about 4 attributes: brand name, price quality rating, policy rating and monthly premium. In the second scenario the number of attributes was extended by adding customer rating, free choice of healthcare, quality of hospital care, hospitals in your area. Approximately half of the respondents were assigned to simplified scenario and the rest were assigned to the complex scenario. Around 50 respondents didn't complete this survey, that's why their answers were eliminated.

Overall, the number of simplified description surveys is not significantly bigger than the number of surveys with complex description. This small difference of 7 respondents could only be explained by a random chance. The percentage number of both males and females who has competed the survey is almost equal to each other, however more males competed simplified condition (51.7%), but more women (56.9%) has filled in complex description survey. For both survey types the higher degree of education was master, 77.6% for simple and 64.7% for complex description. All in all, the data about respondents of simple and complex description type surveys is quite similar to each other.

Table 3. Descriptive statistics

Type of condition	(n)	Age	Gender		Level of education				
		Mean	*Male*	*Female*	*Primary School*	*Secondary School*	*High School/College*	*Bachelor's Degree*	*Master's Degree*
Simplified description	58	24.24%	51.7%	48.3%	-	-	5.2	17.2%	77.6%
Complex description	51	23.66%	43.1%	56.9%	3.9%	-	-	31.4%	64.7%
Total	109	23.95%	47.4%	52.6%	3.9%		5.2%	24.3%	71.15%

According to the table 4 for a simple condition the youngest respondent is 18 years old and has an education degree of secondary school. The oldest one is 33 years old respondent had finished a master program. Data about respondent who has filled in survey with a complex description (Table 5) reveals that the youngest one is also 18 years old, however has a lowest education level: primary school. The highest degree of finished education program is similar with a simple condition survey, but the respondent is older. The mean computed for gender in the table is 1.48 and thus shows that the number of men and women who has fully competed the survey of simplified scenario was almost equal. The same parameter for a complex scenario is a little bit higher and equals to 1.57, however this number could be also accepted as an almost equal number of both gender respondents.

As it can be observed from the tables below (Table 4&5) in the simple condition the average score of subjective knowledge is 3.95, whereas in the complex condition it is 4.11, which suggests that the respondents in the complex scenario seem to have higher subjective knowledge. Furthermore, the average score of the objective knowledge of the respondents in simplified scenario is 0.21, however in the complex condition the average score of the objective knowledge is 0.20. Thus, the respondents in the complex condition show lower objective knowledge. Moreover, the average score of purchase intention in simple condition is higher than in complex condition, 0.70 and 0.66 respectively, that means that people show higher purchase intention for health insurance products with simplified description rather than more complex one.

Table 4:Descriptive statistics for simple condition

	N	Minimum	Maximum	Mean	Std. Deviation
condition	58	0	0	.00	.000
Objective knowledge	58	.0000	1.0000	.212644	.3039588
Subjective knowledge	58	1.00	7.00	3.9483	1.29447
Perceived complexity	58	1.50	7.00	3.3966	1.34020
Purchase intention	58	.0000	1.0000	.704483	.2471889
Age	58	18	33	24.24	3.005
Gender	58	1	2	1.48	.504
Education	58	3	5	4.72	.555
Valid N (listwise)	58				

Table 5:Descriptive statistics for complex condition

	N	Minimum	Maximum	Mean	Std. Deviation
Condition	51	1	1	1.00	.000
Objective knowledge	51	.0000	1.0000	.202614	.2987264
Subjective knowledge	51	1.00	6.33	4.1111	1.32609
Perceived complexity	51	1.00	7.00	4.3775	1.61197
Purchase intention	51	.0000	1.0000	.655490	.2494339
Age	51	18	45	23.66	4.723
Gender	51	1	2	1.57	.500
Education	51	1	5	4.53	.857
Valid N (listwise)	51				

İ used factor analysis to create new average variables for subjective knowledge perceived complexity. In order to do this I used Principal Component Analysis as an extraction method. Varimax rotation was implemented as rotation method. As a result two components were extracted. From the table below (Table 6) it can be observed that all the items explained 69.6 % of variance. Moreover, as it is represented in the table Rotation Component Matrix (Table 7), all items related to subjective knowledge are highly loaded on the second component and all items related to perceived complexity are highly loaded on the first component

Table 6: Principal Component Analysis

Total Variance Explained			
Component	Initial Eigenvalues		
	Total	% of Variance	Cumulative %
1	2.765	39.500	39.500
2	2.107	30.097	69.597
3	.789	11.270	80.867
4	.459	6.557	87.424
5	.364	5.207	92.631
6	.332	4.748	97.379
7	.183	2.621	100.000
Extraction Method: Principal Component Analysis.			

Table 7

Rotated Component Matrix[a]		
	Component	
	1	2
How confident do you feel about using health insurance product information?	.000	.874
How knowledgeable do you feel about different health insurances?	.129	.833
How satisfied are you with your response about the likelihood to buy a product?	-.013	.849
There were many characteristics of Health insurance products to consider	.804	.124
I feel confused, because there were too much information about health insurance product	.924	.052
I was completely flooded by the provided information regarding health insurance products	.902	-.017
I was not able to make the best choice	.588	-.004
Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.		
a. Rotation converged in 3 iterations.		

Manipulations checks

In order to check if the manipulation of perceived complexity worked well four 7-point Likert scale questions were used for both simplified and complex condition. Independent t-test were conducted to check the manipulation. In this table, we can see the "sig." value of the equal variance assumed is higher than 0.05 therefore we will assumed that variance is equal between the two conditions The mean scores for simplified and complex description were 3.4 and 4.4 respectively. Two-tailed value of p is 0.001, which is lower than 0.05. Therefore it can be concluded that the difference between the means was statistically significant. In terms of perceived complexity of health insurance product description, it can be inferred that the expectations regarding perceived complexity manipulations were met, respondents indicated higher score when description of more health insurance attributes were shown

Table 8

Group Statistics					
	condition	***N***	***Mean***	***Std. Deviation***	***Std. Error Mean***
Percievedcomplexity	***Simple***	*58*	*3.3966*	*1.34020*	*.17598*
	Complex	*51*	*4.3775*	*1.61197*	*.22572*

Table 9:Independent Samples Test

Perceived Complexity	***Levene's Test for Equality of Variances***		***t-test for Equality of Means***				
	F	***Sig.***	***t***	***df***	***Sig. (2-tailed)***	***Mean Difference***	***Std. Error Difference***
Equal variances assumed	*2.560*	*.113*	*-3.468*	*107*	*.001*	*-.98090*	*.28284*
Equal variances not assumed			*-3.427*	*97.618*	*.001*	*-.98090*	*.28621*

In order to measure the effect on dependent variables multiple regression analysis was performed

Table 10: Multiple linear regression

	Dependent Variables								
	Purchase Intention			***Objective knowledge***			***Subjective knowledge***		
Independent Variables	*B*	*S.E.*	*Sig.*	*B*	*S.E.*	*Sig.*	*B*	*S.E.*	*Sig.*
Complex description	*-.060*	*.045*	*.190*	*-.010*	*.058*	*.863*	*.163*	*.251*	*.518*
Objective knowledge	*-.009*	*.076*	*.904*						
Subjective knowledge	*.065*	*.018*	*.000*						
N	*109*			*109*			*109*		
R^2	*.126*			*.000*			*.004*		

The effect of a more complex description on purchase intention

H1: A more complex description of health insurance product negatively affects consumer's purchase intention.

İn this case overloaded description is independent variable and intention to buy is dependent variable. In order to test this hypothesis I implemented regression analysis.

As it can be observed from table above (table 10) the coefficient of condition is negative (-0.060) , that is in a line with our research. However, p-value is 0.190 that is greater than 0.05. Therefore, overloaded description has no significant effect on consumers' intention to buy. Consequently, hypothesis H1 is not supported

The effect of a more complex description on objective knowledge.

H2: A more complex description of health insurance product description has positive effect on objective knowledge

I ran regression analysis to test this hypothesis, where overloaded description is independent variable and objective knowledge is dependent variable. As it can be observed from the table 10, the coefficient of complex description is negative (-0.010) and p value is greater than 0.005 (0.863). Consequently, there is no significant relationship between the variables: a more complex description of health insurance product has no significant effect on objective knowledge.Thus, hypothesis H2 is not supported.

The effect of a more complex description on subjective knowledge.

H3: A more complex description of health insurance product has negative effect on subjective knowledge

In order to test the impact of complex description of health insurance product description on subjective knowledge regression analysis was performed. According to the table 10 the coefficient of "complex description" is positive (0.163) and p-value is higher than 0.05 (p=0.518). Therefore, a more complex description of health insurance product has no significant effect on subjective knowledge. Hence, hypothesis H3 is not supported.

The effect of objective knowledge on purchase intention.

H4a: Objective knowledge has positive impact on consumer's purchase intention

In order to investigate the relationship between objective knowledge and purchase intention I did regression analysis. As it can be observed from the table above (table 10) the coefficient of "objective knowledge" is positive (β=-0.009), that is in a line with the research. However, p-value is higher than 0.05 (p=0.904). Therefore, there is no significant relationship between objective knowledge and purchase intention. Consequently, hypothesis H4a is rejected.

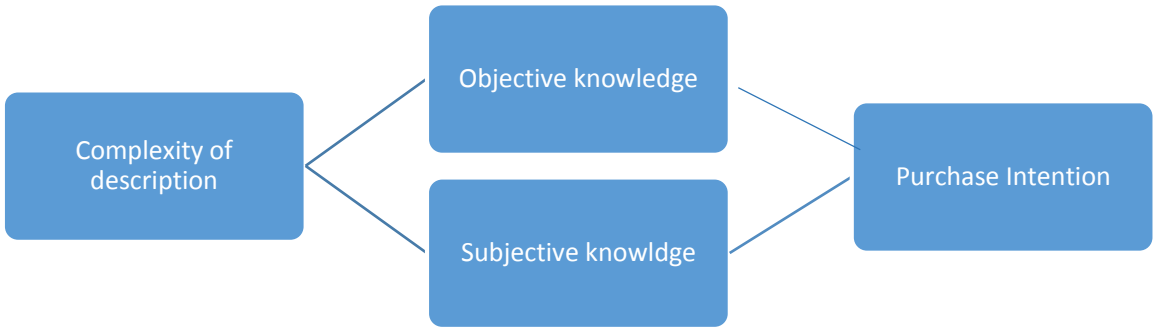
The effect of subjective knowledge on purchase intention.

H4B: Subjective knowledge has positive impact on consumer's purchase intention

Regression analysis was performed in order to check relationship between subjective knowledge and consumer's purchase intention. As it can be observed from the table below the coefficient of "subjective knowledge" is positive (β=0.065) and p-value is lower than 0.05 (p=0.00). Consequently, the effect of subjective knowledge on consumer's purchase intention is positive. Thus, hypothesis H4b is supported.

Mediation analysis.

In order to test mediation effect I followed instructions provided by Baron and Kenny (1986). This method consist of several steps: I need to perform several regression analyses and to check significance of the coefficients at the each step. If one or more of relationship between variables are insignificant, mediation is also not possible. Despite the fact that the effects of complex description on objective and subjective knowledge were already tested and were insignificant, it's still would be interesting to perform separate analyses.



1)So first of all I need to run simple regression in order to examine direct effect of the complexity of the description of health insurance product on purchase intention.

Table 11

	Dependent variable		
	Purchase intention		
Independent variable	*B*	*S.E.*	*Sig*
Complex description	*-.049*	*.048*	*.306*

As it can be observed from the table above a direct effect of complex description on the purchase intention is insignificant: p value is greater than 0.05 (β=-0.049; p=0.306)

2) Another simple regression was conducted to check the relationship between complex description and objective knowledge

Table 12

	Dependent variable		
	Objective knowledge		
Independent variable	*B*	*S.E.*	*Sig*
Complex description	*-.010*	*.058*	*.863*

As it is represented on the table above the p value is 0.863 that is greater than 0.05, so the relationship between complex description and objective knowledge is also insignificant.

3) The impact of complex description on subjective knowledge has also been examined, but this relationship is also insignificant.

Table 13

	Dependent variable		
	Subjective knowledge		
Independent variable	*B*	*S.E.*	*Sig*
Complex description	*.163*	*.251*	*.518*

4) Then I run simple regression in order to check the significance of impact of objective knowledge on purchase intention. From the table below it can be seen that p-value is higher than 0.05 (p=0.518)

Table 14

	Dependent variable		
	Purchase intention		
Independent variable	*B*	*S.E.*	*Sig*
Objective knowledge	*.028*	*.080*	*.731*

5) Finally, I've checked significance of the relationship between subjective knowledge and purchase intention. Subjective knowledge has significant effect on purchase intention with β coefficient equal to 0.064 and p value lower than 0.05 (p=0.000)

Table 15

	Dependent variable		
	Purchase intention		
Independent variable	*B*	*S.E.*	*Sig*
Subjective knowledge	*.064*	*.017*	*.000*

As a result 4 out of 5 relationships between variables are insignificant, so mediation is not possible

Additional Analyses

Due to the fact that majority of our variables was insignificant I decided to run new multiple regression analysis by adding 3 control variables (age, gender, education).Unfortunately , addition of these variables had no significant impact on the results. However, as it can be observed from the table below (table 16), it was found an increase in the value of R-squared: R^2=0.173. Consequently, it can be concluded that this variables accounts only for 17.3% of variation in purchase intention. So we need more variables to predict purchase intention.

Table 16

	Dependent Variables								
	Purchase Intention			***Objective knowledge***			***Subjective knowledge***		
Independent Variables	*B*	*S.E.*	*Sig.*	*B*	*S.E.*	*Sig.*	*B*	*S.E.*	*Sig.*
Complex description	*-.070*	*.045*	*.124*	*-.008*	*.059*	*.899*	*.270*	*.247*	*.278*
Objective knowledge	*.002*	*.075*	*.981*						
Subjective knowledge	*.077*	*.018*	*.000*						
Age	*.004*	*.006*	*.487*						
Gender	*-.039*	*.045*	*.393*						
Education	*-.022*	*.040*	*.576*						
N	*109*			*109*			*109*		
R^2	*.173*			*.007*			*.050*		

Moreover, the impact of objective knowledge on subjective knowledge also was tested, however it also didn't help to obtain significant results: as it can be observed from the table

below (table 17) objective knowledge has no significant effect on subjective knowledge (β=0.537; p=0.201).

Table 17

The effect of objective knowledge on subjective knowledge.

	Dependent variable		
	Subjective knowledge		
Independent variable	*B*	*S.E.*	*Sig*
Objective knowledge	*.537*	*.417*	*.201*
N	*109*		
R²	*.015*		

Furthermore, according to the table 18 the analysis of the effect of subjective knowledge on objective also didn't give any significant results (β=0.028; p=0.201).

Table 18

The effect of subjective knowledge on objective knowledge.

	Dependent variable		
	Objective knowledge		
Independent variable	*B*	*S.E.*	*Sig*
Subjective knowledge	*.028*	*.022*	*.201*
N	*109*		
R²	*.015*		

Another regression analysis was performed by replacement of "complex description" variable with "perceived complexity". A it can be observed from the table below (table 19), perceived complexity has insignificant impact on consumer's purchase intention, because p-value is still higher than 0.05 (β=-0.026, p=0.080)

Table 19

	Dependent Variables								
	Purchase Intention			***Objective knowledge***			***Subjective knowledge***		
Independent Variables	*B*	*S.E.*	*Sig.*	*B*	*S.E.*	*Sig.*	*B*	*S.E.*	*Sig.*
Perceived Complexity	*-.026*	*.015*	*.080*	*-.010*	*.058*	*.863*	*.163*	*.251*	*.518*
Objective knowledge	*-.032*	*.077*	*.680*						
Subjective knowledge	*.068*	*.017*	*.000*						
N	*109*			*109*			*109*		
R^2	*.138*			*.000*			*.004*		

According to the results from the table below (table 20) , adding "age", "gender" and "education" variables didn't improve situation, p value for perceived complexity is even higher and still insignificant.(β=-.022; p=.161)

Table 20

	Dependent Variables								
	Purchase Intention			***Objective knowledge***			***Subjective knowledge***		
Independent Variables	*B*	*S.E.*	*Sig.*	*B*	*S.E.*	*Sig.*	*B*	*S.E.*	*Sig.*
Perceived Complexity	*-.022*	*.016*	*.161*	*-.010*	*.058*	*.863*	*.163*	*.251*	*.518*
Objective knowledge	*-.016*	*.077*	*.840*						
Subjective knowledge	*.076*	*.018*	*.000*						
Age	*.003*	*.006*	*.686*						
Gender	*-.052*	*.045*	*.255*						
Education	*-.014*	*.040*	*.733*						
N	*109*			*109*			*109*		
R^2	*.170*			*.000*			*.004*		

5 Conclusion.

The last chapter of this thesis summarizes main findings of the research. Furthermore it involves managerial implications and limitations.

5.1 Main findings

The main objective of my research was to examine the impact of information overload on consumers' purchase intention. I also wanted to test if objective and subjective knowledge mediate this impact. With the purpose of measuring this impact 5 hypotheses were developed. The results of testing these hypotheses are summarized in the table below.

Summary of hypotheses

H1	*A more complex description of health insurance product negatively affects consumer's purchase intention.*	*Not supported*
H2	*A more complex description of health insurance product description has positive effect on objective knowledge*	*Not supported*
H3	*A more complex description of health insurance product description has negative effect on subjective knowledge*	*Not supported*
H4a	*Objective knowledge has positive impact on consumer's purchase intention*	*Not supported*
H4b	*Subjective knowledge has positive impact on consumer's purchase intention*	*Supported*

As it can be observed from the table above it was assumed that there is a negative effect of information overload on consumers' intention to purchase health insurance product (H1). Despite the fact that obtained results were in a line with this expectation, they were not statistically significant. As it was already mentioned in the literature review this topic was always debatable and the previous investigations regarding information overload also provided controversial results

Furthermore, the positive influence of more complex health insurance product's description on objective knowledge was hypothesized (H2), but unfortunately this hypothesis was also rejected due to the insignificance of obtained results.

It was also anticipated that more complex description of health insurance product will negatively affect subjective knowledge (H3). However, the relationship between these variables was also statistically insignificant.

Moreover, I wanted to test whether objective knowledge positively influence intention to buy health insurance product. According to the results, this hypothesis was also not accepted because of insignificance.

Furthermore, it was assumed that subjective knowledge has positive impact on intention to buy. In compliance with results of this research the relationship between subjective knowledge and intention to purchase was statistically significant and Hypothesis 4B was accepted.

Finally, it is important to mention that in spite of insignificance of some results the direction of the effects is in line with my propositions which recommends further research in this area with more improved study design and more variables.

5.2 Managerial implications.

Nowadays, information processing is one the major factors influencing consumer purchase decision. Marketeers are seeking for the new strategies in order to attract more customers, to improve marketing communication. Consumer knowledge and understanding of product is of paramount important for attaining these objectives, because when consumers have higher level of understanding of desired product the likelihood of purchasing it increases. Online

environment is becoming more and more popular source among customers for obtaining information regarding desired product and for purchase decisions as a consequence. In general, I think that the insights of this research will help marketing managers to design and provide more efficient amount of information about their products and it will help to increase customer satisfaction and confidence

5.3 Limitations.

One of the main limitations of this research is a small number of respondents. In total 109 respondents filled in the questionnaire: 58 people were displayed simplified description of health insurance product and 51 people saw complex description of health insurance product.

Furthermore, sampling method can also be considered as the limitations. Due to the lack of time, unfortunately, majority of respondents were students, so we can't really say that the whole entire population was represented.

Moreover, complexity of the names of insurance companies also acted as the reason of weak memorizing. Because of it some results are insignificant and cannot be correlated with the difficulty of the answered condition of the questionnaire.

Another limitation is whether the manipulation of complexity was sufficient. It would be interesting to alter the number of attributes for both conditions.

Moreover, despite the fact that it was given more complex description of health insurance products in complex condition, some respondents are still focusing only on a few of attributes.

Finally, as it was mentioned in "Results" section it is reasonable to include more variables for the future research.

6 Bibliography

Alba, J. W., & Hutchinson, J. W. (2000). Knowledge calibration: What consumers know and what they think they know. Journal of Consumer Research, 27(2), 123-156.

Alba, J.W. and W.J. Hutchinson (1987), "Dimensions of Consumer Expertise," Journal of Consumer Research, 13(4), 411-454.

Baron, R. M., & Kenny, D. A. (1986). The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. Journal of personality and social psychology, 51(6), 1173.

Bearden, W. O., Hardesty, D. M., & Rose, R. L. (2001). Consumer self-confidence: refinements in conceptualization and measurement. Journal of Consumer Research, 28(1), 121-134.

Bian, X., & Moutinho, L. (2011). The role of brand image, product involvement, and knowledge in explaining consumer purchase behaviour of counterfeits: Direct and indirect effects. European Journal of Marketing, 45(1/2), 191-216.

Billeter, D., Kalra, A., & Loewenstein, G. (2011). Underpredicting learning after initial experience with a product. Journal of Consumer Research, 37(5), 723-736.

Brucks, M. (1985), "The effect of product class knowledge on information search behavior", Journal of Consumer Research, Vol. 12 No. 1, pp. 1-16.

Brucks, M. (1985). The effects of product class knowledge on information search behavior. Journal of consumer research, 1-16.

Carlson, J. P., Vincent, L. H., Hardesty, D. M., & Bearden, W. O. (2009). Objective and subjective knowledge relationships: A quantitative analysis of consumer research findings. Journal of Consumer Research, 35(5), 864-876.

Carlson, J. P., Vincent, L. H., Hardesty, D. M., & Bearden, W. O. (2009). Objective and subjective knowledge relationships: A quantitative analysis of consumer research findings. Journal of Consumer Research, 35(5), 864-876.

Crosno, J. L., Freling, T. H., & Skinner, S. J. (2009). Does brand social power mean market might? Exploring the influence of brand social power on brand evaluations. psychology & marketing, 26(2), 91-121.

Cude, B. J. (2005). Insurance Disclosures: An Effective Mechanism to Increase Consumers' Insurance Market Power?. Journal of Insurance Regulation, 24(2).

Eze, U. C., Tan, C. B., & Yeo, A. L. Y. (2011). Key Determinants of Purchase Intentions for Cosmetics Products: Gen-Y Perspective. In International Conference on Marketing.

Eze, U. C., Tan, C. B., & Yeo, A. L. Y. (2011). Key Determinants of Purchase Intentions for Cosmetics Products: Gen-Y Perspective. In International Conference on Marketing.

Fishbein, M., & Ajzen, I. (1975). Belief, attitude, intention and behavior: An introduction to theory and research.

Frank, R. G., & Lamiraud, K. (2009). Choice, price competition and complexity in markets for health insurance. Journal of Economic Behavior & Organization, 71(2), 550-562.

Gill, M. J., Swann Jr, W. B., & Silvera, D. H. (1998). On the genesis of confidence. Journal of Personality and Social Psychology, 75(5), 1101.

Granbois, D. H., & Summers, J. O. (1975). Primary and secondary validity of consumer purchase probabilities. Journal of Consumer Research, 31-38.

Grether, D. M., & Wilde, L. L. (1983). Consumer choice and information: New experimental evidence. Information Economics and Policy, 1(2), 115-144.

Grether, D. M., & Wilde, L. L. (1983). Consumer choice and information: New experimental evidence. Information Economics and Policy, 1(2), 115-144.

Hanoch, Y., & Rice, T. (2011). The economics of choice: lessons from the US health-care market. Health Expectations, 14(1), 105-112.

Hoeffler, S., & Ariely, D. (1999). Constructing stable preferences: A look into dimensions of experience and their impact on preference stability. Journal of Consumer Psychology, 8(2), 113-139.

Huang, M. H. (2000). Information load: its relationship to online exploratory and shopping behavior. International Journal of Information Management, 20(5), 337-347.

Huston, S. J. (2010). Measuring financial literacy. Journal of Consumer Affairs, 44(2), 296-316.ISO 690

Jacoby, J., Speller, D. E., & Berning, C. K. (1974). Brand choice behavior as a function of information load: Replication and extension. Journal of consumer research, 33-42.

Jacoby, J., Speller, D. E., & Kohn, C. A. (1974). Brand choice behavior as a function of information load. Journal of Marketing Research, 63-69.

Jamieson, L. F., & Bass, F. M. (1989). Adjusting stated intention measures to predict trial purchase of new products: A comparison of models and methods. Journal of Marketing Research, 336-345.

Johnson, J. S. (1979). A study of the accuracy and validity of purchase intention scales. Phoenix, AZ: Amour-dial Co. privately circulated working paper.

Juster, F. T. (1966). Consumer buying intentions and purchase probability: An experiment in survey design. Journal of the American Statistical Association, 61(315), 658-696.

Kahneman, D., & Tversky, A. (1982). The psychology of preferences. Scientific American.

Kanwar, R., Grund, L., & Olson, J. C. (1990). When do the measures of knowledge measure what we think they are measuring. Advances in Consumer Research, 17(1), 603-608.

Keller, K. L., & Staelin, R. (1989). Assessing biases in measuring decision effectiveness and information overload. Journal of Consumer Research, 504-508.

Keller, K. L., & Staelin, R. (1989). Assessing biases in measuring decision effectiveness and information overload. Journal of Consumer Research, 504-508.

Kelley, C. M., & Lindsay, D. S. (1993). Remembering mistaken for knowing: Ease of retrieval as a basis for confidence in answers to general knowledge questions. Journal of Memory and Language, 32(1), 1-24.

Khalifa, M., & Lam, R. (2002). Web-based learning: effects on learning process and outcome. Education, IEEE Transactions on, 45(4), 350-356.

Klein, N. M., & Yadav, M. S. (1989). Context effects on effort and accuracy in choice: An enquiry into adaptive decision making. Journal of Consumer Research, 411-421.

Klein, N. M., & Yadav, M. S. (1989). Context effects on effort and accuracy in choice: An enquiry into adaptive decision making. Journal of Consumer Research, 411-421.

Kruger, J. (1999). Lake Wobegon be gone! The" below-average effect" and the egocentric nature of comparative ability judgments. Journal of personality and social psychology, 77(2), 221.

Lako, C. J., Rosenau, P., & Daw, C. (2011). Switching health insurance plans: results from a health survey. Health Care Analysis, 19(4), 312-328.

Lee, B. K., & Lee, W. N. (2004). The effect of information overload on consumer choice quality in an on-line environment. Psychology & Marketing, 21(3), 159-183.

Lin, L. Y., & Zhen, J. H. (2005). Extrinsic product performance signaling, product knowledge and customer satisfaction: an integrated analysis–an example of notebook consumer behavior in Taipei city. Fu Jen Management Review, 12(1), 65-91.

Lin, T, Y., Yeh, R, C., Chung, P., Wan, L, R., Chen, S, J., (2011). Study of product brand image and individuals product knowledge and perceived risk affecting on consumer purchasing behavior

Long-Yi Lin Chun-Shuo Chen, (2006),"The influence of the country-of-origin image, product knowledge and product involvement on consumer purchase decisions: an empirical study of insurance and catering services in Taiwan", Journal of Consumer Marketing, Vol. 23 Iss 5 pp. 248 – 265

Lusardi, A. (2008). Financial literacy: an essential tool for informed consumer choice? (No. w14084). National Bureau of Economic Research.

Malhotra, N. K. (1982). Information load and consumer decision making. Journal of consumer research, 419-430.

Min, D., & Kim, J. H. (2013). Is power powerful? Power, confidence, and goal pursuit. International Journal of Research in Marketing, 30(3), 265-275.

Moorman, C., Diehl, K., Brinberg, D., & Kidwell, B. (2004). Subjective knowledge, search locations, and consumer choice. Journal of Consumer Research, 31(3), 673-680.

Morwitz, V. G., & Schmittlein, D. (1992). Using segmentation to improve sales forecasts based on purchase intent: Which" intenders" actually buy?. Journal of Marketing Research, 391-405.

Morwitz, V. G., Steckel, J. H., & Gupta, A. (2007). When do purchase intentions predict sales?. International Journal of Forecasting, 23(3), 347-364.

Muller, T. E. (1984). Buyer response to variations in product information load. Journal of applied psychology, 69(2), 300.

Nagpal, A., & Krishnamurthy, P. (2008). Attribute conflict in consumer decision making: The role of task compatibility. Journal of Consumer Research, 34(5), 696-705.

National Association of Insurance Commissioners. (2010). New NAIC Insurance IQ Study Reveals Americans Lacking in Confidence, Knowledge of Insurance Choices. Retrieved from http://www.naic.org/Releases/2010_docs/iiq_new.htm. Accessed on October 12, 2012

Nysveen, H., & Pedersen, P. E. (2005). Search mode and purchase intention in online shopping behaviour. International Journal of Internet Marketing and Advertising, 2(4), 288-306.

Park, C. W., Mothersbaugh, D. L., & Feick, L. (1994). Consumer knowledge assessment. Journal of consumer research, 71-82.

Rao, A.R. and Sieben, W.A. (1992), "The effect of prior knowledge on price acceptability and the type of information examined", Journal of Consumer Research, Vol. 19 No. 2, pp. 256-70.

Scammon, D. L. (1977). " Information load" and consumers. Journal of consumer research, 148-155.

Schwarz, N. (2004). Meta-cognitive experiences in consumer judgment and decision making. Journal of Consumer Psychology, September.

Sela, A., Berger, J., & Liu, W. (2009). Variety, vice, and virtue: How assortment size influences option choice. Journal of Consumer Research, 35(6), 941-951.

Shafir, E., Simonson, I., & Tversky, A. (1993). Reason-based choice. Cognition, 49(1), 11-36.

Short, P. F., McCormack, L., Hibbard, J., Shaul, J. A., Harris-Kojetin, L., Fox, M. H., ... & Cleary, P. D. (2002). Similarities and differences in choosing health plans. Medical Care, 289-302.

Sicilia, M., & Ruiz, S. (2010). The effects of the amount of information on cognitive responses in online purchasing tasks. Electronic Commerce Research and Applications, 9(2), 183-191.

Simonson, I., & Nowlis, S. M. (2000). The role of explanations and need for uniqueness in consumer decision making: Unconventional choices based on reasons. Journal of Consumer Research, 27(1), 49-68.

Sinaiko, A. D., & Hirth, R. A. (2011). Consumers, health insurance and dominated choices. Journal of Health Economics, 30(2), 450-457.

Suh, K. S., & Lee, Y. E. (2005). The effects of virtual reality on consumer learning: an empirical investigation. Mis Quarterly, 673-697.

Tennyson, S. (2011). Consumers' insurance literacy: Evidence from survey data. Financial Services Review, 20(3), 165.

Thompson, D. V., Hamilton, R. W., & Petrova, P. K. (2009). When Mental Simulation Hinders Behavior: The Effects of Process-Oriented Thinking on Decision Difficulty and Performance. Journal of Consumer Research, 36(4), 562-574.

Tsai, C. I., & McGill, A. L. (2011). No pain, no gain? How fluency and construal level affect consumer confidence. Journal of Consumer Research, 37(5), 807-821.

Tsekouras, D. (2012). No Pain No Gain: The Beneficial Role of Consumer Effort in Decision-Making (No. EPS-2012-268-MKT). Erasmus Research Institute of Management (ERIM).

Yeh, R. C., & Chung, P. (2011). Study of Product Brand Image and Individual's Product knowledge and Perceived Risk Affecting on Consumer Purchasing Behavior.

Yoon, S. O., & Simonson, I. (2008). Choice set configuration as a determinant of preference attribution and strength. Journal of Consumer Research, 35(2), 324-336.

Yuan Fu, Q., Ping Chui, Y., & Helander, M. G. (2006). Knowledge identification and management in product design. Journal of Knowledge Management, 10(6), 50-63.

Zhu, P.-T. (2004), "The relationship among community identification, community trust, and purchase behavior- the case of RVs communities", Masters degree thesis, Graduate School of International Business, National Dong Hwa University, Shoufeng.

7 Appendices

7.1 Survey

Dear Participant,

Thank you for taking your time to fill in the survey for my master's thesis! I am a student of master's in Economics and Business (Marketing) at Erasmus University Rotterdam. I am carrying out a research to understand consumers' purchase decisions for health insurance products.

The survey is based on the fictional purchase of a health insurance, and it is divided into three segments. Firstly, you will be asked to mention your intention (probability) to buy a health insurance from the given set of options. Secondly, you will fill in some evaluation questions about your purchase experience. Finally, there will be some demographic questions. The survey will take you around 5 to 10 minutes approximately. I kindly request you to read the instructions before each segment carefully. If you have any questions regarding this research please do not hesitate to contact me.

Narmin Gasimova

Email: 384420ng@eur.nl

After the Introduction respondents will be randomly assigned to 1 of the following 2 conditions.

Condition 1 (Simple choice set with only three attributes)

Question 1:

Imagine that you are looking for a new health insurance for you or your family. Since health insurances come with different features and benefits, you might need to make trade-offs between these features/benefits and prices.

On the following page, you will find some health insurance products. As in real choice situations, you can either make a choice or choose to postpone it, here you are asked to mention you likelihood (probability) to buy a health insurance from the given set of options.

Brand	Price-quality Ratings	Policy ratings	Monthly premium
Menzis	85/100	7.3/10	€ 90.75
Delta Lloyd	83	7.9	€ 94.67
Aevitae	73	6.0	€ 102.95
ONZV	76	6.0	€ 100.80
Achmea	100	6.0	€ 80.96
Unive Zekur	95	6.5	€ 82.50

How likely is it that you would buy a product from the given options? (Please mention your probability from 0% to 100%)

Condition 2 (Overloaded choice set with seven attributes)

Question 2:

Imagine that you are looking for a new health insurance for you or your family. Since health insurances come with different features and benefits, you might need to make trade-offs between these features/benefits and prices.

On the following page, you will find some health insurance products. As in real choice situations, you can either make a choice or choose to postpone it, here you are asked to mention you likelihood (probability) to buy a health insurance from the given set of options

Brand	Price-quality ratings	Policy ratings	Customer ratings	Free choice of health care	Quality of hospital care	Hospitals in your area	Monthly premiums
Menzis	85/100	7.3/10	7.6/10	Not available	3.0/5	Available	€ 90.75
Delta Lloyd	83	7.9	7.9	Available	3.0	Available	€ 94.67
Aevitae	73	6.0	7.7	Available	3.0	Not available	€ 102.95
ONZV	76	6.0	8.1	Available	3.0	Available	€ 100.80
Achmea	100	6.0	7.7	Not available	4.5	Not available	€ 80.96
Unive Zekur	95	6.5	7.5	Not available	3.5	Not available	€ 82.50

How likely is it that you would buy a product from the given options? (Please mention your probability from 0% to 100%)

Thank you for your choice. Now I would like you to answer some questions regarding your product knowledge and memory recall. I kindly request you to answer truthfully as your responses are very valuable for my research.

Question 3:

How confident do you feel about using health insurance product information?

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)	
Not at all	❍	❍	❍	❍	❍	❍	❍	Very much

Question 4:

How knowledgeable do you feel about different health insurances?

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)	
Not at all	❍	❍	❍	❍	❍	❍	❍	Very much

Question 5:

How satisfied are you with your response about the likelihood to buy a product?

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)	
Not at all	❍	❍	❍	❍	❍	❍	❍	Very much

Question 6:

Please type in the names of the first two products?

_____

Question 7:

Please type in the product with the highest policy ratings?

_____

Question 8:

Please type in the product with highest monthly premium?

_____

Question 9

There were many characteristics of Health insurance products to consider

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)	
Strongly disagree	❍	❍	❍	❍	❍	❍	❍	Strongly agree

Question 10

I feel confused, because there were too much information about health insurance product

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)	
Strongly disagree	❍	❍	❍	❍	❍	❍	❍	Strongly agree

Question 11

I was completely flooded by the provided information regarding health insurance products

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)	
Strongly disagree	❍	❍	❍	❍	❍	❍	❍	Strongly agree

Question 12

I was not able to make the best choice

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 (7)	
Strongly disagree	❍	❍	❍	❍	❍	❍	❍	Strongly agree

Finally, some demographic questions

Question 13:

What is your age?

Question 14:

What is your gender?

❍ Male
❍ Female

Question 15:

What is the highest level of education you have completed or currently enrolled in?

- ❍ Primary school
- ❍ Secondary school
- ❍ High school/Some college
- ❍ Bachelor's degree
- ❍ Master's degree

THANK YOU!