



**SCHOOL OF ECONOMICS
AND MANAGEMENT**
Lund University

Department of Business
Administration

Master Thesis

Spring, 2009

**AN EMPIRICAL STUDY ON CONSUMERS' CHOICE OF
E-COMMERCE TYPE – B2C AND/OR C2C**

Author:
Merve Şeker

Advisors:
Karin Alm
Ulf Johansson

ACKNOWLEDGEMENT

I would like to express my gratitude to all those, who gave me the possibility to complete this thesis. First of all, I would like to sincerely thank my supervisors, Karin Alm and Ulf Johansson, for their constant guidance. Without their able supervision, the pieces would not come together.

I owe a lot to my bestest friend Ezgi Baran, for her friendship and support during my sleepless nights studying on this research paper.

I also would like to thank to Kamil Yuksel, Muge Yucel, and Gokhan Kaya for sharing their profound knowledge in statistics.

Finally, I wish to give many thanks to my parents, Feray Şeker and Erdal Şeker, and my great sister Muge Pekagac and her dearest husband Kursad Pekagac. Thank you for making me feel like I own the greatest family ever. Thank you for all your encouragement, love and support.

ABSTRACT

Title: An Empirical Study on Consumers' Choice of E-commerce Type – B2C and/or C2C

Date of the Seminar: June 2nd, 2009

Course: BUSM08 – Master thesis in International Marketing and Brand Management

Author: Merve Şeker

Advisors: Karin Alm, Ulf Johansson

Keywords: E-commerce, B2C, C2C, Theory of Planned Behaviour

Thesis purpose: The overall purpose of this research is to provide a better understanding of Turkish consumers' choice of e-commerce types, when purchasing online. Mainly, this thesis aims to find out the factors triggering consumers to favour a specific e-commerce type, B2C or C2C.

Methodology: A quantitative strategy was pursued in this thesis. Data was collected through self administered structured questionnaires, and analysed with the software Statistical Package for Social Sciences (SPSS).

Theoretical perspective: This study mainly benefited from Decomposed Theory of Planned Behaviour, which is modelled with the use of several theories, namely Theory of Reasoned Action, Theory of Planned Behaviour and Technology Acceptance Model.

Empirical Data: The research design in this thesis is sample survey research design that is conclusive and single cross-sectional. 228 self administered structured questionnaires were conducted among the Internet users in Turkey.

Conclusion: Combining academic data with empirical data have produced results helping both scholars and internet sellers to better understand the online consumer behaviour in Turkey. From an academic standpoint, this research has contributed to marketspace literature by identifying consumers' motivations behind their choice of e-commerce type for purchasing. From a practical perspective, this research has provided the internet sellers of both B2C and C2C stores with a greater understanding as to what influences electronic consumers' choice of a certain e-commerce type, when purchasing; accordingly with a foundation that they can base their marketing strategies on.

TABLE OF CONTENTS

1. INTRODUCTION	7
1.1. Background Information on e-commerce types - B2C and C2C	7
1.2. Background information on Turkey.....	8
2. RATIONALE AND MOTIVATION	9
3. RESEARCH QUESTION	10
4. PURPOSE	11
5. OUTLINE	12
6. THEORETICAL FRAMEWORK AND HYPOTHESIS DEVELOPMENT.....	13
6.1. Theory of Planned Behaviour	13
6.1.1. Decomposed Theory of Planned Behaviour	13
6.2. Past Purchasing Experience and Choice of E-commerce Type	17
6.3. Product Type and Choice of E-commerce Type.....	17
6.4. Gender, Age, Education Level and Choice of E-commerce Type.....	18
7. METHODOLOGY	19
7.1. Research Design and Method	19
7.2. Measurement and Scaling	19
7.2.1. Dependent Variable	20
7.2.2. Independent Variables	20
7.3. Preparation of the questionnaire	22
7.4. Validity and Reliability	23
7.5. Sampling	24
7.6. Data Collection	25
7.7. Data Processing.....	25
7.8. Limitations	26
8. DATA ANALYSIS AND PRESENTATION.....	28
8.1. Descriptive Statistics.....	28
8.1.1. Screened Data	28
8.1.2. Main data	29
8.1.3. Product Type.....	32

8.2.	Multinomial Logistic Regression.....	33
8.2.1.	Case-to-variable ratio.....	34
8.2.2.	Overall test of relationship.....	34
8.2.3.	Accuracy	35
8.2.4.	Numerical Errors	37
8.2.5.	Testing of Hypotheses	38
9.	DISCUSSION	53
9.1.	Discussion of Perceived Usefulness	53
9.2.	Discussion of Perceived Ease-Of-Use	54
9.3.	Discussion of Normative Beliefs	54
9.4.	Discussion of Control Beliefs	55
9.5.	Discussion of Past Purchase Experience.....	56
9.6.	Discussion of Product Type	56
9.7.	Discussion of Demographical Variables – Age, Gender, Education Level	57
10.	CONCLUSION	58
10.1.	Academic Contribution	58
10.2.	Practical Implications	59
10.3.	Contribution and Further Research	59
11.	REFERENCES	61
12.	APPENDICES.....	65
12.1.	Appendix 1 – ICT Usage in Turkey (%).....	65
12.2.	Appendix 2 – Decomposed Theory of Planned Behaviour.....	66
12.3.	Appendix 3 – Results of the ICT Usage in Households and by individuals	67
12.4.	Appendix 4 – Questionnaire in English	68
12.5.	Appendix 5 – Questionnaire in Turkish	71
12.6.	Appendix 6 – Cronbach’s Alpha for questions on 'Online Retail Stores'	74
12.7.	Appendix 7 – Cronbach’s Alpha for questions on 'Online Auction Stores'	75
12.8.	Appendix 8 – SPSS tables.....	76

LIST OF FIGURES AND TABLES

Figures:

Figure 1 – A sample question from the questionnaire	21
Figure 2 – E-commerce Type Choice (Frequency; Percentage)	30

Tables:

Table 1: Resume of Theoretical Models	14
Table 2 – Cronbach’s Alpha Values	24
Table 3 – Gender Distribution of the Sample Population	28
Table 4 – Age Distribution of the Sample Population	29
Table 5 – Education Level Distribution of the Sample Population	29
Table 6 – Age vs. E-commerce Type Choice Cross-tabulation	30
Table 7 – Gender vs. E-commerce Type Choice Cross-tabulation	31
Table 8 – Education Level vs. E-commerce Type Choice Cross-tabulation	32
Table 9 – Product Type Frequencies	33
Table 10 – Model Fitting Information	35
Table 11 – Case Processing Summary	36
Table 12 – Classification	37
Table 13 – Parameter Estimates-Standard Error	38
Table 14 – The Likelihood Ratio Test	39
Table 15 – Parameter Estimates – Online Auction Stores vs. Online Retail Stores	40
Table 16 – Parameter Estimates – Indifferent vs. Online Retail Stores	41
Table 17 – Likelihood ratio test – Perceived Usefulness of Online Retail Stores	42
Table 18 – Likelihood Ratio Test – Perceived Usefulness of Online Auction Stores	42
Table 29 – Likelihood Ratio Test – Perceived Ease-of-Use of Online Retail Stores	42
Table 20 – Likelihood Ratio Test – Perceived Ease-of-Use of Online Auction Stores	43
Table 21 – Likelihood Ratio Test – Normative Beliefs for Online Retail Stores	43
Table 22 – Parameter Estimates – Normative Beliefs for Online Retail Stores	44

Table 23 – Likelihood Ratio Test – Normative Beliefs for Online Auction Stores	44
Table 24 – Parameter Estimates – Normative Beliefs for Online Auction Stores	45
Table 25 – Likelihood Ratio Test – Control Beliefs for Online Retail Stores	45
Table 26 – Parameter Estimates – Control Beliefs for Online Retail Stores	46
Table 27 – Likelihood Ratio Test – Control Beliefs for Online Auction Stores	46
Table 28 – Likelihood Ratio Test – Past Purchasing Experience on Online Retail Stores	47
Table 29 – Parameter Estimates – Past Purchasing Experience on Online Retail Stores	47
Table 30 – Likelihood Ratio Test – Past Purchasing Experience on Online Auction Stores	48
Table 31 – Parameter Estimates – Past Purchasing Experience on Online Auction Stores	48
Table 32 – Likelihood Ratio Test – Gender	49
Table 33 – Likelihood Ratio Test – Age	49
Table 34 – Parameter Estimates –Age	50
Table 35 – Likelihood Ratio Test – Education Level	50
Table 36 – Parameter Estimates – Education Level	51
Table 37 – Hypotheses Testing Summary	52

AN EMPIRICAL STUDY ON CONSUMERS' CHOICE OF E-COMMERCE TYPE – B2C AND/OR C2C

1. INTRODUCTION

The mass adoption of the internet has changed the way businesses are conducted in today's world just as the industrial revolution changed the way agrarian societies lived in the previous centuries. Enabled by various internet technologies, all countries are connected throughout the globe, and consequently boundaries for businesses are no longer defined by individuals' geographical locations (Aljifri, Pons and Collins, 2003:130). These developments have enhanced the emergence of a new kind of commerce, namely e-commerce. E-commerce can be defined as the sales of goods through human-computer interaction over the internet or other online systems, where payment may or may not be made online (Goel, 2007:1; McGoldrick, 2002:587). This new type of commerce has created an environment that encourages globalisation of world markets; thus, forming a global marketplace. Complementing the physical marketplace, the electronic marketplace is directing us into a new generation of the economy (Hosseini, 2004:284).

E-commerce is a phenomenon, developing over time, which has caught the substantial attention of media and academicians in the recent years. Although the level of media focus has shown cyclical changes due to the dot.com boom and crash in the beginning of the 21st century, the academic research seemed to have increased continuously. Therefore, it is believed that the steady growth in e-commerce literature more precisely follows the actual evolution of the e-commerce phenomenon (Wareham, Zheng, and Straub, 2005:1). Although e-commerce is an evolving phenomenon, for the Internet shopping medium to be profitable vast numbers of consumers need to buy goods and services online (Schonfeld, 2000). Hence, in order to exploit the market potential of this relatively new shopping medium and effectively market products online, understanding consumers' decision making process for purchasing through the Internet medium is crucial.

1.1. Background Information on e-commerce types - B2C and C2C

E-commerce has been categorised in the literature according to the parties – individuals, businesses, and governments – involved in the transactions (McGoldrick, 2002:587). The types of e-commerce, where buyers are consumers, include business-to-consumer (B2C) and consumer-to-consumer (C2C) (Balfagih, Mohamed, and Mahmud (2008).

B2C e-commerce can be defined as retailing via internet, which has later become *e-tailing*. Through B2C e-commerce, the consumer gets the good delivered at home by visiting a web site in preference to visiting a store (Gumesson, 2002:107). Successful companies conducting businesses online can be exemplified by both brick-and-mortars such as Nike and

Wal-Mart, who uses Internet medium as an additional channel to their physical stores; and companies like Amazon, who has the Internet medium as the only sales channel.

C2C e-commerce encompasses the electronically facilitated transactions between consumers and is usually in the form of online auctions, where consumers bid to purchase an item posted for sale. A successful example includes eBay, arguably the most famous online auction market place in the world. However, C2C e-commerce can also happen in online communities, chat rooms, third-party consumer listing services, and Web-based discussion forums (Jones and Leonard, 2007:40).

Due to the difference in their nature, e-commerce types have attracted the attention of researchers since the emergence of Internet medium as a shopping channel. Considerable amount of research has been devoted to develop an understanding of consumers' behaviour intentions in using Internet medium as an alternative to physical stores. Some research, moreover, has focused on only one e-commerce type. However, a thorough research on several databases regarding consumers' decision making on e-commerce type choice produced limited results. Previous research shows that researchers have not yet considered both e-commerce types at the same time in one research in order to analyse whether there exists reasoning behind the consumers' web site choice. It is yet to be explored whether a consumer chooses a certain web site for a specific reason, when it is the case that he or she is not indifferent between purchasing on a B2C web site and C2C web site. Thus, whether or not consumers' attitudes against B2C and C2C e-commerce differ requires further academic exploration.

1.2. Background information on Turkey

E-commerce has grown and become a crucial tool for individuals living in highly developed countries; however, it has yet to take root in lesser-developed countries (Aljifri, Pons and Collins, 2003:130). Hence, the emerging online markets represented by the lesser-developed or developing nations have not yet as fully examined as the online markets of the developed nations of the world. Provided that these nations are thought to lag behind the rest of the world in Information and Communication Technologies (ICT) diffusion, e-commerce sector is assumed to be less dynamic in these nations. Nevertheless; Turkey, being an emerging market that effectively bridges developing nations of Middle East with developed nations of Europe, is evidently on its way to leveraging internet technology (Stafford, Turan and Khasawneh, 2006). According to the results of ICT usage survey conducted on Turkish households and individuals by the State Institute of Statistics of Turkey, there has been an increase in the computer use and internet use, from 16.80 % and 13.25 % to 34.3 % and 32.2 %, in the period of 2004-2008 (Turkish Statistical Institute, 2009) (See Appendix 1 – ICT Usage in Turkey). Internet Usage World Stats (2009), which publishes data collected from various trustworthy sources such as Nielsen Online, International Communication Union (ICU) and GfK, reveals further remarkable figures regarding the growth of internet usage in Turkey. In the ranking of the number of internet users, the report places Turkey among the top ten countries of Europe with 26.500.000 users in 2008. Moreover, the statistics show that there has been 1.225 % increase in the number of internet users between 2000 and 2008. As the numbers highlight clearly, the potential of Turkish online market cannot be disregarded. Thus, in the view of the growing markets that are evolving, researchers must attempt to understand the motivations of this unique group of technology users.

2. RATIONALE AND MOTIVATION

Previous academic researchers have shown great interest in understanding consumers' shopping behaviour and why they choose to shop through the Internet Medium, mainly with the purpose of enhancing retailers to understand their electronic consumers better and market their products online more effectively. Some researchers have focused on the individual factors, such as demographics, innovativeness, and past online shopping experience (Boyer and Hult, 2006; Chih-Chung and Chung, 2005; Crespo and Rodriguez, 2008; Ergin and Akbay, 2008; Limayem, Khalifa and Frini, 2000; Ranganathan and Jha, 2007; Goldsmith and Flynn, 2005; Goldsmith and Goldsmith, 2000; Shim, Eastlick, Lotz and Warrington, 2001; Stafford, Turan and Raisinghari, 2004). Other researchers have explored web site related characteristics, like web site design, service quality, site usability, and site trustworthiness (Crespo and Rodriguez, 2007; Lee and Lin, 2005; Li, Srinivasan and Sun, 2009; Ranganathan and Jha, 2007; Yu and Wu, 2007). Yet another group of researchers have examined the influence of product category (Li and Gery, 2000; Liang and Huang, 1998; Rhee, Riggins and Kim, 2009).

Having shed light on the online decision making process of consumers, previous research seem to mainly focus on driving factors of Internet medium usage for shopping. However, there lies a problem simply focusing on e-commerce in general and disregarding the fact that e-commerce can be categorised into B2C e-commerce and C2C e-commerce, in both of which consumers are involved in the process as buyers. It is imperative to consider the differences in B2C and C2C, when analysing the shopping behaviour of consumers. For example, when a consumer intends to purchase a brand new electronics, the seller needs to know what makes the individual to go on a C2C web site rather than a B2C website or vice versa. Considering that C2C auction markets have become a popular area of e-commerce in recent years (Jones and Leonard, 2007; Lin, Tu and Fang, 2007), e-tailers need to be aware of the motivations behind web site choice of consumers, in order not to lose their customers away.

With the intention of finding existing research on factors influencing consumers' choice of e-commerce type when they intend to purchase online, a thorough search on several databases was done. However, existing research seems to be limited to studies on consumer behaviours on either B2C e-commerce or C2C e-commerce. They intend to explain why and how electronic consumers use the Internet medium, but lack including the possible impact of different e-commerce types' characteristics on their purchase decision making. It is evident that understanding the determinants of e-commerce type choice has not been in the focus of academic research. Considering that there might be a specific reason leading a consumer involve in a certain e-commerce type, it is essential to explore the reasoning behind their web site choice. Based on the findings of aforementioned studies, a research question will be generated in the following subsection with the intention to contribute to the current knowledge in the area of e-commerce.

3. RESEARCH QUESTION

Existing academic research has shown great interest in understanding consumers' shopping behaviour through the Internet medium and has provided valuable information with regard to targeting the right segment and marketing the right products to electronic consumers. The literature review shows that while the impact of factors related to individuals, product types, and web sites on consumers' shopping behaviour were explored in depth, the choice of e-commerce type in relation to these factors has not yet been investigated.

Researchers, therefore, need to identify the factors influencing consumers' choice of e-commerce type, B2C and/or C2C, when purchasing online. As the question of how the intention to purchase is influenced at the individual level remains open, this research examines the following question:

What are the factors affecting the choice of e-commerce type – B2C and/or C2C – through which consumers intend to purchase?

4. PURPOSE

The overall purpose of this research is to provide a better understanding of Turkish consumers' choice of e-commerce types, when purchasing online. In view of the posed research question, this thesis aims to find out the factors triggering consumers to favour a specific e-commerce type, B2C or C2C.

From an academic standpoint, this research intends to contribute to e-commerce knowledge through a comprehensive analysis of electronic consumers' online shopping behaviour and choice of online stores. As each available study appears to focus only on one type of e-commerce, either B2C or C2C, identifying consumers' motivations behind their choice of a specific web site for purchasing will provide a gainful insight into marketplace literature, while enhancing future research. Moreover, as this research will be carried out in an emerging country, Turkey, it can be used by academicians as a springboard for cross-cultural studies.

From a practical perspective, this research will provide the internet sellers, being an individual or an entity, with a greater understanding as to what influences electronic consumers' choice of a certain e-commerce type, when purchasing. Additionally, findings of this research will help depicting a picture of Turkish online market for sellers targeting this emerging market.

Combining academic data with empirical data will ultimately produce results helping both scholars and internet sellers better understand the online consumer behaviours in Turkey.

5. OUTLINE

Following the introduction, the research question and the purpose of this thesis were presented in the previous sections. In order to answer the proposed research question, the paper will have the following structure.

Next section will start with the theoretical framework. In this section, literature will be reviewed thoroughly. Firstly the models used in the previous research will be introduced. Then, decomposed Theory of Planned Behaviour will be explained in details. The components of the model that are taken into further consideration with regard to the above stated research question, will be defined. Finally, after identifying the relevant variables, hypotheses will be formulated.

Section 7 will give details about methodology. The research design and methods that are suitable for this research will be discussed. Accordingly, how the questionnaire was prepared, sampling process, how the data was collected and processed will be mentioned respectively.

In Section 8, data will be analysed and the results will be presented. The subsequent section, Section 9, will include the discussion of these results.

Finally, Section 10 will present the conclusion that will sum up the whole paper, giving a concrete answer to the research question. This section will include academic contributions and practical implications with recommendations for future research.

6. THEORETICAL FRAMEWORK AND HYPOTHESIS DEVELOPMENT

While trying to understand the factors influencing consumers' choice of e-commerce type, it is imperative looking at the main entities involved in the transactions first. When traditional commerce has evolved into electronic commerce, both consumers and stores have also been transformed into new entities: e-consumers and e-stores. An e-consumer exhibits characteristics of not only a traditional consumer, but also a computer user. As e-consumers perform e-commerce activities through virtual stores, they develop behaviour as a result of their interaction with a system. Thus, understanding e-consumers requires understanding the interaction of these two new entities. In order to explore this interaction, research from two disciplines, which are Social Psychology and Information System, will be brought together. The following subsections will explain the relevant theories that will be used to answer the abovementioned research question.

6.1. Theory of Planned Behaviour

Previous literature shows that researchers, who seek to understand the consumers' electronic shopping behaviours and intend to model the e-commerce use, tend to refer to general technology adaptation theories (McGoldrick, 2002:596). Probably the most well-established one of these theories includes the Theory of Planned Behaviour (TPB). TPB was developed from the Theory of Reasoned Action (TRA), which is a general theory of social psychology claiming that behaviour intention is an antecedent of an individual's execution of behaviour. The theory suggests that the deciding factors affecting behaviour intention are attitude, subjective norm and perceived behavioural control. *Attitude toward behaviour* is an individual's positive or negative evaluation of a particular behaviour's performance; which is determined by individual's set of behavioural beliefs about the consequences of that behaviour. *Subjective norm* is the perceived social pressure on an individual whether he should or should not perform such behaviour; which is determined by individual's total set of normative beliefs regarding the expectations of significant individuals or groups such as spouse, family and friends. *Perceived behavioural control* is an individual's perception of his or her ability to perform a particular behaviour, which is determined by individual's control beliefs about the presence of facilitators or obstacles concerning the performance of the behaviour (Ajzen, 1991).

6.1.1. Decomposed Theory of Planned Behaviour

Taylor and Todd (1995) have compared the existing models – TRA, TPB and Technology Acceptance Model (TAM) – that have been used to explain the acceptance of new products and behaviours. TRA forms the foundation for other models. While TPB develops the model by augmenting subjective norm and perceived behavioural control, as mentioned in the previous section, TAM includes the *innovation characteristics* into the model of TRA as direct antecedents of the attitude. Bringing all these models together, Taylor and Todd

(1995) have expanded the model of TPB by decomposing its elements (See Appendix 2 – Decomposed Theory of Planned Behaviour).

Taylor and Todd (1995) argue that decomposed TPB provides a fuller understanding of usage behaviour and intention. They further point out that the choice of an appropriate model depends on the degree of parsimony that the researcher would sacrifice, in other words, the number of variables the researcher would use. While higher parsimony is preferable for practical applications, as it facilitates understanding; it may be sacrificed in order to contribute to a greater understanding of a phenomenon. Thus, based on their reasoning, decomposed TPB will be partially used to serve the purpose of this research (See Table 1 – Resume of Theoretical Models).

Table 1: Resume of Theoretical Models

Theoretical model	Variables	Causal relationship	Scope of application
TRA	Behavior Intention (BI) Attitudes (A) Personal influence/Subjective Norm (SN)	A > BI SN > BI	General behaviour model
TPB	Behavior Intention (BI) Attitudes (A) Personal influence/Subjective Norm (SN) Perceived Behavioral Control (PBC)	A > BI SN > BI PBC > BI	General behaviour model
TAM	Behavior Intention (BI) Attitudes (A) Innovation Characteristics Perceived Usefulness (PU) Perceived Ease-of-Use (PEOU)	A > BI PU > A PEOU > A PEOU > PU	Specific technology adoption model
Decomposed TPB (as used in this thesis)	Behavior Intention (BI) Attitudes (A) Personal influence/Subjective Norm (SN) Perceived Behavioral Control (PBC) Innovation Characteristics Perceived Usefulness (PU) Perceived Ease-of-Use (PEOU)	A > BI SN > BI PBC > BI PU > A PEOU > A PEOU > PU	Specific technology adoption model

Source: Crespo and Rodriguez (2008)

6.1.1.1. Behavioural Beliefs and Choice of E-commerce Type

Attitudes toward behaviour can be measured by innovation characteristics that are composed of *perceived usefulness* – user’s belief that using a specific system will increase his or her performance in that particular activity – and *perceived ease-of-use* – user’s belief that using a specific system will be free of effort (Davis, 1989).

Among the components of attitude toward internet shopping, attributes related to transaction services such as security, privacy, safety, and post sales services, appear to be the most significant contributors, which then influence Internet purchase intentions (Shim, Eastlick, Lotz and Warrington, 2001). Crespo and Rodriguez (2008) state that an individual’s overall perception of the Internet as a shopping medium is a result of perceived advantages in comparison to other channels. Cheaper prices, comparative shopping, better customer service and saving time have been rated as the most important, in terms of perceived consequences of online shopping that drive individuals to perform this behaviour (Limayem, Khalifa and Frini, 2000). Thus, if a consumer realises a bigger relative advantage in terms of the influence of perceived attributes in online shopping, it is more likely that he or she will engage in a virtual transaction.

Regarding the perceived ease of use, Crespo and Rodriguez (2008) points out that perceived easiness of this activity is also considered to have the same impact on consumers. If an electronic consumer perceives his or her experience on the Internet as easily-observed, affordable and easy to use, then the individual will intend to purchase more (Rhee, Riggins and Kim, 2009). Moreover, site accessibility, reasonable website loading speed, good product description, transaction efficiency (fast retrieval of information and ease of payment), and navigation efficiency are found to be the factors facilitating online shopping (Limayem, Khalifa and Frini, 2000).

Based on the relevant literature on online shopping, it can be stated that positive attitude toward online shopping results in a higher Internet purchase intention (Chih-Chung and Chung, 2005; Kim and Park, 2005; Lin, Tu and Fang, 2007; Stern, Royne, Stafford and Bienstock, 2008; Yu and Wu, 2007). According to the theoretical models and the empirical findings mentioned above, the following hypotheses are proposed:

H1: Perceived usefulness of online retail stores will influence the choice of a particular e-commerce type, through which the consumer intends to purchase.

H2: Perceived usefulness of online auction stores will influence the choice of a particular e-commerce type, through which the consumer intends to purchase.

H3: Perceived ease-of-use of online retail stores will influence the choice of a particular e-commerce type, through which the consumer intends to purchase.

H4: Perceived ease-of-use of online auction stores will influence the choice of a particular e-commerce type, through which the consumer intends to purchase.

6.1.1.2. Normative Beliefs and Choice of E-commerce Type

With regard to subjective norm/normative beliefs component of the model, previous research points out that an online shopper is affected by his or her social environment, which is composed of family members, friends, and acquaintances (Chih-Chung and Chung, 2005). Extent of social pressure has a direct impact on the individual's involvement in an online shopping process. The higher the social influence is, the higher the behaviour intention will be (Crespo and Rodriguez, 2008). Among the social groups and individuals, media/commercials and family/relatives appear to have the highest influence followed by friends and internet commercials (Limayem, Khalifa and Frini, 2000; Yu and Wu, 2007). These studies lead to the development of the following hypothesis:

H5: Normative beliefs for online retail stores will influence the choice of a particular e-commerce type, through which the consumer intends to purchase.

H6: Normative beliefs for online auction stores will influence the choice of a particular e-commerce type, through which the consumer intends to purchase.

6.1.1.3. Control Beliefs and Choice of E-commerce Type

In order the act of Internet shopping to occur consumers require certain skills, opportunities, and resources such as time and Internet connection (Shim, Eastlick, Lotz and Warrington, 2001). In addition to these components, Ranganathan and Jha (2007) highlight the importance of computer self-efficacy. Computer self-efficacy refers to the confidence in using the internet, which eases the execution of computer oriented actions.

However, perceived behaviour control also refers to the issues of individual data confidentiality and security. Consumers' intention to shop online decreases, when there is low transaction security, difficulty in finding the shopping cart or products, and high duration time of transaction (Chih-Chung and Chung, 2005). In the study of Ranganathan and Jha (2007), customer concerns in online shopping are grouped into three: security, privacy of personal information, and assurance of delivery. The study of Crespo and Rodriguez (2008) also support these findings. Regardless of product or service type, high perceived riskiness associated with engaging in e-commerce, has a negative impact on consumers' online purchasing behaviour (Rhee, Riggins and Kim, 2009). Liang and Huang (1998) define two types of uncertainties in a transaction. First one is the product uncertainty, which is about whether or not the ordered product will meet the consumer's expectation. The second is the process uncertainty that is consumer's confidence in the transaction process. Li, Shibo, Srinivasan, and Sun (2009) mention an additional uncertainty, which is caused by seller credibility. These aggregated perceived risks affect both experienced and inexperienced consumers' decision processes in electronic shopping (Liang and Huang, 1998).

Based on the previous literature cited above, when there are more barriers, less assistance, and high possibility of security breaches, consumers tend to show lower behaviour intention. In line with these findings, the following hypothesis is proposed:

H7: Control beliefs for online retail stores will influence the choice of a particular e-commerce type, through which the consumer intends to purchase.

H8: Control beliefs for online auction stores will influence the choice of a particular e-commerce type, through which the consumer intends to purchase.

6.2. Past Purchasing Experience and Choice of E-commerce Type

Consumers' past purchasing experience has an influence on their future shopping decisions. The more experience a consumer has on the Internet, the more likely it is that he or she will engage in an online shopping behaviour (Chih-Chung and Chung, 2005; Liang and Huang, 1998; Ranganathan and Jha, 2007). Many attitude-behaviour researchers find prior experience particularly important in predicting behaviour; therefore, it is essentially required to include past experience with Internet shopping (Shim, Eastlick, Lotz and Warrington, 2001).

Regarding these arguments, it can be stated that past purchasing experience on a C2C web site will positively influence the intention to purchase on a C2C web site and past purchasing experience on a B2C web site will positively influence the intention to purchase on a B2C web site. Thus, following hypothesis can be formulated:

H9: Past purchasing experience on an online retail store will influence the choice of a particular e-commerce type, through which the consumer intends to purchase.

H10: Past purchasing experience on an online auction store will influence the choice of a particular e-commerce type, through which the consumer intends to purchase.

6.3. Product Type and Choice of E-commerce Type

After the introduction of the Internet as a shopping medium, identifying the most suitable products for this new medium has been in the focus of several marketers and researchers.

Rhee, Riggins and Kim (2009) have explored the influence of product and service characteristics on consumer online shopping behaviour. Their study categorises the products and services according to three dimensions: cost and frequency of purchase, value proposition, and degree of differentiation. This recent study reveals that more expensive, infrequently purchased goods require much more product research and investigation than cheaper, frequently purchased goods. Li and Gery (2000) proposed a different classification: convenience goods, shopping goods, and specialty goods. The findings show that shopping goods, which consumers buy only after they gather extensive information and compare choices, have higher e-tailing compatibility than others. Liang and Huang (1998) have also argued that different products have different consumer acceptance on the electronic market. Their study suggests that products that require detailed examination or trial before purchase and after-sales services appear to be less suitable for marketpace (Liang and Huang, 1998).

In line with these authors, the following hypothesis is proposed:

H11: Product category will influence the choice of a particular e-commerce type, through which the consumer intends to purchase.

6.4. Gender, Age, Education Level and Choice of E-commerce Type

According to the reports of Turkish Statistical Institute (2009), in the period of January-March 2008, while 40.6 % of the male individuals uses internet in Turkey, this figure drops to 24.0 % for females (See Appendix 3 – Results of the ICT Usage in Households and by individuals). Supporting these figures, Ergin and Akbay (2008) discuss the role of gender in explaining differences in online purchasing behaviours. Emphasizing its major role, the authors conclude that gender effect can be observed not only in the offline world but also in the online world. Stafford, Turan and Raisinghari (2004) also contribute to the literature with similar findings. They suggest that males find online shopping more appealing than women.

Results of the reports of Turkish Statistical Institute (2009) also point out markedly that there is a negative correlation between computer and internet usage, and age. As the age of the individuals increase, the usage percentages decrease regardless of gender. This relationship is further confirmed by Stafford, Turan and Raisinghari (2004). The authors suggest that as the population age, online activity decreases, mostly due to the fact that consumers become less tolerant to recent and unusual ideas.

Contrary to the age factor, correlation is positive between computer and internet usage, and education level regardless of gender. Individuals with higher education seem more likely to use computer and internet in comparison to individuals with lower education or without a diploma (See Appendix 3 – Results of the ICT Usage in Households and by individuals).

Following these arguments, subsequent hypotheses are formulated:

H12: The choice of a particular e-commerce type, through which the consumer intends to purchase, will vary between men and women.

H13: The choice of a particular e-commerce type, through which the consumer intends to purchase, will vary according to different age groups.

H14: The choice of a particular e-commerce type, through which the consumer intends to purchase, will vary according to different education levels.

7. METHODOLOGY

In this section, how the data collected and analysed systematically will be discussed. Several steps have been undertaken in order to answer the posed research question. The following subsections will explain these steps, starting with the selection of research design and method. Then data collection and data analysis will be presented.

7.1. Research Design and Method

The empirical material can be examined in terms of research design, a framework for the collection and analysis of data; and research methods, techniques for collecting data (Bryman and Bell, 2007:39-40). To start with, the determination of research design is required for the latter steps of research method implementation and data analysis.

The research design in this thesis is conclusive research, which aims to examine the relationships by testing specific hypothesis. Moreover, it is single cross-sectional in nature, which is also known as sample survey research design, denoting that only one sample of respondents is drawn from the target population (Malhotra and Birks, 2003:62-66). As discussed in the previous section, in order to identify the factors influencing the choice of e-commerce type, through which the consumers intends to purchase, several hypotheses were proposed based on previous relevant literature and secondary sources such as Turkish Statistical Institute. According to these hypotheses, the impact of behavioural beliefs, normative beliefs, and control beliefs; past purchasing experience; product type; and gender, age, education level will be tested and their relation to behavioural intention, which is the intention to choose a specific e-commerce type – B2C and/or C2C – for purchasing, will be examined.

A quantitative strategy was pursued in this thesis by quantifying data and applying statistical analysis (Malhotra and Birks, 2003:132). Self administered structured questionnaires were conducted among the Internet users in Turkey to find the factors affecting their choice of e-commerce type, through which they intend to purchase. Due to limited resources in terms of time and money, and impossibility of analysing the whole target population, sample surveys are found to serve the purpose of this thesis best (Hakim, 200:77).

7.2. Measurement and Scaling

This subsection will introduce the dependent and independent variables respectively. Details on how they will be measured through the questionnaire will be provided. Accordingly, scaling for each question will be discussed.

7.2.1. Dependent Variable

The dependent variable that this thesis aims to examine is the choice of e-commerce type, through which the consumers intend to purchase. In order to make the e-commerce types clear in the minds of the respondents, who are Turkish internet users, two distinct examples were mentioned in the beginning of the questionnaire, so that they can compare, analyse and answer accordingly. These examples were chosen in accordance with the discussions in Turkish forums and reports on top rated sites provided by Alexa (2009). As a result, GittiGidiyor.com and Hepsiburada.com were chosen as examples of Turkish C2C and B2C web sites, respectively. GittiGidiyor.com, one of the most well-known online auction sites in Turkey, has gone under a strategic relationship with e-Bay, which resulted in the expansion of its platform and a broader service range for its customers (eBay Inc., 2009). Hepsiburada.com, offering a wide variety of products to its customers, is one of the most preferred online shopping web sites in Turkey (Hepsiburada.com, 2009).

In the questionnaire, respondents that intend to purchase online in the next 6 months were asked to declare whether they would have a specific e-commerce type preference. They were required to choose one out of three options: 'retail stores', 'auction stores', and 'indifferent'. With the help of this question, overall tendency toward a specific e-commerce type, if there existed any, could be assessed.

7.2.2. Independent Variables

According to the proposed hypotheses, independent variables to be tested include behavioural beliefs, normative beliefs, and control beliefs, past purchasing experience, product type, and gender, age, education level. In order to test the relationship between these independent variables and dependent variable, fixed-response alternative questions that require the respondent to select from a predetermined set of responses, were asked (Malhotra and Birks, 2003:225).

Firstly, behavioural beliefs were tested by questions related to technological aspects, which are perceived usefulness and perceived ease-of-use. Perceived usefulness questions, on one hand, referred to the issues such as prices, comparative shopping, customer service, time consumed during purchasing, product rarity, sense of achievement and perceived enjoyment. While some of these issues were defined according to the suggestions from previous literature (Limayem, Khalifa and Frini, 2000; Shim, Eastlick, Lotz and Warrington, 2001), some were identified through the unstructured interviews conducted with the electronic consumers during the questionnaire preparation period (See 7.3. Preparation of the questionnaire). Perceived ease-of-use questions, on the other hand, concerned the issues such as web site content and web site design. These consisted of six dimensions, which are information about the products and the company, decision making aids, shopping instructions, mental effort, navigation, visual presentation (Crespo and Rodriguez, 2008; Limayem, Khalifa and Frini, 2000; Rhee, Riggins and Kim, 2009).

For behavioural beliefs, each aspect was asked twice, one referring to online retail stores and the other to online auction stores. Accordingly, this ended up with four separate independent variables: *perceived usefulness of online retail stores*, *perceived usefulness of online auction*

stores, perceived ease-of-use of online retail stores, and perceived ease-of-use of online auction stores.

Regarding scales for behavioural beliefs questions, Likert scale, in which responses range from strongly agree to strongly disagree, was used. The main reason behind this choice was that Likert scale is the most suitable rating scale for internet surveys. For the researcher, it is easy to construct and administer, and for the respondents it is easy to understand how to use it (Malhotra and Birks, 2003:305). Due to the fact that questions aimed to measure consumers’ choice of e-commerce type, if there existed any, respondents were constantly reminded of the e-commerce types in every question. This was achieved through requesting from the respondents to state their degree of agreement with the statements for each e-commerce type separately. Figure 1 illustrates a sample question taken from the questionnaire.

Figure 1 – A sample question from the questionnaire

Below are some statements regarding attitudes toward online purchasing. For each statement, please state your degree of agreement.

1: Strongly Disagree, 2: Disagree, 3: Neither Agree nor Disagree, 4: Agree, 5: Strongly Agree

	1	2	3	4	5
Prices are cheap.					
Online retail stores					
Online auction stores					
I can get good service (pre-sale, sale and post-sale).					
Online retail stores					
Online auction stores					

Secondly, normative beliefs were assessed by questions regarding the impact of social groups and individuals. In this research social pressure from three groups, which are family, media and friends, were taken into consideration (Chih-Chung and Chung, 2005; Limayem, Khalifa and Frini, 2000; Yu and Wu 2007). For normative belief questions, also Likert scale was used, asking respondents to state their degree of agreement with the statements for each e-commerce type separately. Thus, there were two independent variables regarding normative beliefs: *normative beliefs for online retail stores* and *normative beliefs for online auction stores*.

Thirdly, control beliefs were measured by questions concerning obstacles and facilitators perceived by the individual. Questions about need for assistance, transaction process efficiency, transaction process complexity, security, privacy, product uncertainty, and seller credibility aimed to explore the influence of these obstacles and facilitators on the choice of a specific web site (Chih-Chung and Chung, 2005; Crespo and Rodriguez, 2008; Liang and Huang, 1998; Ranganathan and Jha, 2007). Likert scale was chosen as the scale for control

beliefs questions, asking respondents to state their degree of agreement with the statements for each e-commerce type separately. This resulted in two independent variables again: *control beliefs for online retail stores* and *control beliefs for online auction stores*.

Finally, questions about past purchasing experience, product types, and gender, age, education level were asked to weigh up their impact on consumers' choice decisions. The impact of past purchasing experience was tested by an open-ended question. The respondents were asked to assert their number of purchases through each e-commerce type in the past six months separately, which later was grouped as 'none', '1 to 3', and '4 or more'. Accordingly, *past purchasing experience on online retail stores* and *past purchasing experience on online auction stores* were considered as two different independent variables.

Regarding *product type*, a variety of products were listed for respondents to decide through which e-commerce type they would purchase these products. Options of 'I would be indifferent between e-commerce types' and 'I would not purchase this product online' were also included in order not to force respondents to make a choice. Products were chosen carefully considering three product attributes, which were used in the classification of products by several authors (Li and Gery, 2000; Liang and Huang, 1998; Rhee, Riggins and Kim, 2009). These are cost of the product, frequency of purchase of the product and effort put in to obtain the product. Consequently, three groups were identified. First group included products having low cost, purchase frequency and effort. Books, CDs/DVDs and tickets (air flight, train, bus, concert, etc.) were chosen as representatives of this group. Second group contained products having medium cost, purchase frequency and effort. This group corresponded to cosmetics, clothes and accessories (bags, belts, glasses etc.). Third group embodied products having high cost, purchase frequency and effort. Peripherals of computer, telecommunication and electronic devices (mobile phone, MP3 player, etc.), and domestic appliances (personal care, kitchen appliances, etc.) stood for this group.

Questions relating to *gender, age, and education level* were asked in the end of the questionnaire, since they might be considered as personally sensitive information by the respondent.

Regarding age, respondents were asked to state their ages in an open-ended question. Responses were later classified into four groups. Looking at the results of ICT usage in households and by individuals, a dramatic drop in the percentages can be recognised, when the age increases above 55 (See Appendix 3 – Results of the ICT Usage in Households and by individuals). Due to the insignificance of the age groups above 55, segmentation included age groups 'below 25', 'between 26 and 35', 'between 36 and 45', and 'above 45'.

The question on education level included three options, which the respondents could choose from. These were 'high school and lower', 'university', 'post-graduate and higher'.

7.3. Preparation of the questionnaire

After the questions were formed with the help of the questionnaires used in the previous literature as explained in the previous subsection, three steps were taken to reach the final version of the questionnaire. These steps included unstructured interviews, pilot testing and translation, which will be explained henceforth.

In order to make sure the questionnaire contained questions that could gather all the information required, five unstructured interviews on a one-on-one basis with the internet users were conducted. The interviewees were asked to explain their past online purchasing experience and their choice of e-commerce type, through which they have made their purchases, were enquired. These interviews were used to verify whether posed hypotheses covered all the necessary information required for the questionnaire, and accordingly adjustments were made.

Once the questionnaires were ready, pilot testing was done. Debriefing was used as the technique for pilot-testing (Malhotra and Birks, 2003:346). After completing the questionnaire, 15 respondents were told it was a pilot-test and asked to explain their answers and state any problems they encountered while answering the questionnaire. In this way questionnaires were revised for improvements (See Appendix 4 – Questionnaire in English).

As a final step before the distribution of the questionnaires, the text was translated to Turkish in order to reach more respondents. The translated version was proofread by three Turkish post-graduate students studying in different departments in Lund University. Being from different departments provided different perspectives, verifying the clarity of the sentences and the terms used. According to their suggestions, changes were made with regard to linguistic attainments (See Appendix 5 – Questionnaire in Turkish).

7.4. Validity and Reliability

Content validity, which evaluates the representativeness of the content, was used to assess the questionnaire validity (Malhotra and Birks, 2003:314). The questionnaires were developed according to the suggestions of previous researchers. However, modifications were made with reference to the interviews conducted with electronic consumers so that the major dimensions should not be omitted and the content validity of the questionnaire should fit the requirements (See 7.3. Preparation of the questionnaire).

In order to assess reliability, Cronbach's Alpha test was used. Through this test, the consistency of the scales for each group of questions was measured (See Appendix 6 – Cronbach's Alpha for questions on 'Online Retail Stores' and Appendix 7 – Cronbach's Alpha for questions on 'Online Auction Stores'). The scales for questions on perceived usefulness of online retail stores, perceived usefulness of online auction stores, perceived ease-of-use of online retail stores, perceived ease-of-use of online auction stores, normative beliefs for online retail stores, normative beliefs for online auction stores, control beliefs for online retail stores and control beliefs for online auction stores were tested. Considering 0.60 as the threshold value that demonstrates consistency (Malhotra and Birks, 2003:314), all the scales surpassed this value, ranging from 0.77 to 0.92 (See Table 2 – Cronbach's Alpha Values).

Table 2 – Cronbach’s Alpha Values

		Alpha
PUretail	Perceived Usefulness of online retail stores	0.8223
PUauction	Perceived Usefulness of online auction stores	0.8372
PEUretail	Perceived Ease-of-Use of online retail stores	0.8755
PEUauction	Perceived Ease-of-Use of online auction stores	0.8970
NBretail	Normative Beliefs for online retail stores	0.7926
NBauction	Normative Beliefs for online auction stores	0.7705
CBretail	Control Beliefs for online retail stores	0.8063
CBauction	Control Beliefs for online auction stores	0.9207

7.5. Sampling

Defining target population requires sampling unit, extent and time to be identified (Malhotra and Birks, 2003:358-359). In this thesis, sampling unit, which is the object that possesses the information sought by the researcher, is the internet users that intend to purchase online. Extent refers to the geographical boundaries, which is Turkey, an emerging market. Finally, time refers to the period under consideration, which is spring of 2009.

Since the objective of this thesis is to contribute to the understanding of online purchasing behaviour, every individual with a potential to purchase through the Internet medium formed our target population. In order to make sure right respondents were approached, one screen question was asked regarding the intention to purchase online. The respondent, who has not purchased online before and also who would not consider purchasing in the following six months, has only filled out the gender, age and education level section of the questionnaire without answering other questions. In this way, demographics-related responses of the respondents, who were filtered through the screen question, could also be analysed.

The sample population of this research included 283 respondents. Of these respondents, 12 of them were discarded due to incompleteness and inconsistency in their data (See 7.7. Data Processing). Of the remaining 271 respondents, 43 respondents were screened. As a result, responses of 228 respondents were taken into consideration for analysis.

Regarding the sampling techniques, snowball sampling technique was used. In this technique, the researcher randomly selects the first group of respondents, who later lead the researcher to other possible respondents (Malhotra and Birks, 2003:362-366). Although it is a non-probability sampling technique relying partially on personal judgement of the researcher, obtaining referrals of referrals enable the researcher reach a relevant sample group in a shorter period of time. Considering that the response rate in electronic questionnaires is very low and the time constraint is the major limitation for this thesis, snowball sampling technique suited the best. Accordingly, questionnaires were distributed both online and personally to Turkish internet users from different gender, age group and education level to the possible extent. Then, they were asked to forward the questionnaires to the possible respondents, as to carry out the process in waves.

7.6. Data Collection

Data was collected in a structured way through formal questionnaires, which present questions in prearranged order (Malhotra and Birks, 2003:224). Questionnaires were distributed both via internet and in person. Since they were self-administered, questions were kept simple and detailed instructions were provided (Malhotra and Birks, 2003:330).

Questionnaires were sent to people working in companies from different industries and in universities, who formed the first group of respondents as mentioned in the previous subsection. Later, they were asked to distribute the questionnaires within their working environment to people regardless of their age, gender and education level. Required data was obtained within three weeks.

7.7. Data Processing

Data processing includes the data preparation phase, which starts with checking the questionnaires. This is followed by editing the data, coding the data and finally statistically adjusting the data. Data preparation phase requires special attention, as it has a direct impact on the quality of the statistical results and eventually the interpretation of the researcher (Malhotra and Birks, 2003:421-435).

In order to have consistent, complete and satisfactory results; data preparation started while the fieldwork was still in progress. During the collection process, each questionnaire was checked for completeness and variance. For electronic questionnaires, required fields were marked; hence, the respondents were prevented to skip the questions without any response. However; for paper questionnaires distributed in person, some of them returned physically incomplete. Moreover, some of them showed little variance. For example, same answer was ticked for every question. In such cases, these questionnaires were discarded, as they were considered unacceptable. Distinguishing, counting and classifying the acceptable questionnaires, while the fieldwork was under way, helped in meeting the sample requirements, as well. In order to reach the required sample, corrective actions, such as distributing additional questionnaires, were taken.

After the checking of the questionnaires, they were reviewed for increasing accuracy and precision, which forms the editing step (Malhotra and Birks, 2003:423). In this phase, questionnaires were classified according to the screen question asked in the beginning. The respondents, who failed to fulfil the requirements of the sample group, were eliminated here. With regard to this thesis, respondents that have never purchased through online stores and would never consider purchasing online in the following six months were discarded. However, it is noteworthy mentioning here that as they provided valuable information related to demographics, their data were also taken into consideration in the corresponding descriptive analysis (See 8.1. Descriptive Statistics).

In order to prepare the raw data for analysis through the use of Statistical Package for Social Sciences (SPSS), version 11.5, they were converted into a more suitable form, which required coding of the questionnaire. In the coding process, a code was assigned for each possible answer to each question, which was entered on a spreadsheet in Microsoft Excel according to the answers of each respondent. The data was then transferred into SPSS for

analysis, which will be presented in the following section in details (See Section 8. Data Analysis and Presentation).

Final step of the data preparation is the adjustment of the data statistically. Two adjustments, which consisted of variable re-specification and scale transformation, were made on the coded data. (Malhotra and Birks, 2003:433-435)

Considering variable re-specification, data acquired from each question having multiple statements, which aimed to measure one independent variable, was transformed into one single variable. As mentioned previously, these independent variables are perceived usefulness of online retail stores, perceived usefulness of online auction stores, perceived ease-of-use of online retail stores, perceived ease-of-use of online auction stores, normative beliefs for online retail stores, normative beliefs for online auction stores, control beliefs for online retail stores and control beliefs for online auction stores (See 7.2.2. Independent Variables). The transformation was achieved through the calculation of the mean scores of the listed statements under each question, in order to obtain the summated scale for the principal factor (Gravely, 1998:55; Malhotra and Birks, 2003:314). Internal consistency reliability, Cronbach's Alpha, was used to evaluate the reliability of the summated scales (See 7.4. Validity and Reliability). In addition to these variables, data obtained from nine products, was also transformed into three new variables, representing aforementioned three product categories. Responses were coded as 1 being online auction stores, 2 being indifferent and 3 online retail stores. Mean scores were calculated for every three products from the same category, with the purpose of obtaining an overall score for that specific product category. Empty cells were later recoded as 4, standing for those, who would not purchase that specific type of product online.

In order to make the data regarding age and past purchasing experience suitable for analysis, scales were transformed (Malhotra and Birks, 2003:434). While age responses were categorised into four (below 25, between 26 and 35, between 36 and 45, and above 45); past purchasing experience was grouped into three (none, 1-3, and 4+).

7.8. Limitations

The techniques used in this research to gather data was found to be the most suitable, considering the time and budget; however it needs to be stated that these techniques were subject to some limitations.

Sample survey was chosen as the main research method in order to find an answer to the posed research question. Accordingly, non-probability sampling was used as the sampling technique for selecting the respondents. This technique relies on the personal judgment of the researcher limiting the objective evaluation and generalisation of the sample results. However, non-probability sampling is a less expensive and time-consuming sampling technique, suiting best for this research. Besides, screen question enabled the control of the sample groups, eliminating undesirable respondents. Therefore; in order to increase the representativeness of the sample population, special attention was paid to the data preparation phase, which was carried out during the fieldwork, eliminating the unacceptable questionnaires with the purpose of reaching the required sample.

Secondly, content validity was used as a technique to assess the validity of the questionnaires. One limitation regarding this technique is the subjectivity of the researcher, as the researcher decides whether the content is comprehensive enough of the whole required information. Although being subjective, content validity can also be considered as a systematic evaluation of the previous questionnaires used in the field. Hence, it can be stated that a thorough research on the previous literature and complementary interviews carried out to test the validity of the questionnaire content, served the purpose of validity test satisfactorily.

Finally, in this study summated scales were used for individual dimensions under each variable, in order to assess the overall impact of these dimensions. Although this method was intentionally chosen to provide a bigger picture, it should be stated here that the use of summated scale has limited this research in examining the impact of individual dimensions. However, the limited time frame defined for this research would not allow a more detailed study, focusing on a large number of dimensions individually.

8. DATA ANALYSIS AND PRESENTATION

This section will present the results of the sample survey. In the first subsection descriptive findings will be revealed in order to give a general overview of the acquired data. Following the descriptive findings, results of the multinomial logistic regression, which was conducted to analyse the relationship between the dependent variable and independent variables, will be displayed.

8.1. Descriptive Statistics

This subsection will start with the descriptive analysis regarding screened data, followed by main data. They will be examined in terms of age, gender, and education level through the use of cross tables and frequency tables, which were prepared in SPSS. Finally, product type analysis will be provided.

8.1.1. Screened Data

The number of respondents for the sample survey was 271. Of these respondents, 43 respondents were screened; because they have not satisfied the requirements of the target population. Following Tables 3, 4 and 5 summarise the characteristics of the sample population in details.

Table 3 – Gender Distribution of the Sample Population

	Main Data		Screened Data		Total	
	Frequency	%	Frequency	%	Frequency	%
Female	118	52%	25	58%	143	53%
Male	110	48%	18	42%	128	47%
Total	228	100%	43	100%	271	100%

Of the main data, which embodies responses after the data was filtered, 52 % is female and 48% is male. Considering the screened data, respondents that have not purchased online in the past six months and would not consider purchasing online in the next six months, do not seem to differ in terms of gender, while 58% of the screened data is female, 42% is male. Although the percentage of screened female respondents is slightly higher than screened male respondents, these figures are not satisfactory enough to result in a conclusion like females use the internet for shopping less than males.

Table 4 – Age Distribution of the Sample Population

	Main Data		Screened Data		Total	
	Frequency	%	Frequency	%	Frequency	%
25 and under	71	31%	9	21%	80	30%
26-35	91	40%	11	26%	102	38%
36-45	41	18%	8	19%	49	18%
46 and above	25	11%	15	35%	40	15%
Total	228	100%	43	100%	271	100%

Looking at the age distribution of the sample population, there seems to be no pattern with regard to frequencies and percentages of the screened data. Therefore, a relationship between age and online purchasing cannot be observed here.

Table 5 – Education Level Distribution of the Sample Population

	Main Data		Screened Data		Total	
	Frequency	%	Frequency	%	Frequency	%
High school and lower	25	11%	28	65%	53	20%
University	119	52%	12	28%	131	48%
Post-graduate and higher	84	37%	3	7%	87	32%
Total	228	100%	43	100%	271	100%

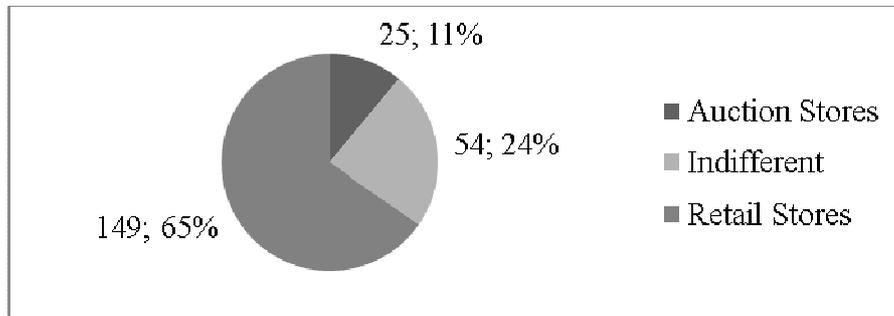
Education level distribution points out that most of the respondents, who have not purchased online in the past six months and would not consider purchasing online in the next six months, have lower education levels. Figures demonstrate that 65% of the screened respondents has high school education or lower. Moreover, this percentage decreases as the education level increases. Hence, it can be stated that education level could be considered to have an impact on whether or not to purchase online.

8.1.2. Main data

The following analyses take into consideration only the main data, which excludes the screened data. The main data, as previously stated, consists of 228 respondents. In view of these respondents' e-commerce type choice, while 25 of them (11%) declared that they would be more likely to purchase through online auction stores in the next six months, 149 of them (65%) favoured online retail stores. Rest of the respondents, which composed 54 of

the total respondents (24%), revealed that they would consider both alternatives and not make a specific choice (See Figure 2 – E-commerce Type Choice (Frequency; Percentage)).

Figure 2 – E-commerce Type Choice (Frequency; Percentage)



8.1.2.1. Age, Gender, Education Level

After having looked at the overall e-commerce type choices of the sample population; demographics with regard to age, gender and education level were cross-tabulated with the e-commerce type choice. The following tables (6, 7 and 8) present these findings.

Table 6 – Age vs. E-commerce Type Choice Cross-tabulation

			E-commerce Type Choice			Total
			Auction Stores	Indifferent	Retail Stores	
Age	25 and under	Frequency	2	14	55	71
		% within Age	3%	20%	77%	100%
		% within E-commerce Type Choice	8%	26%	37%	31%
	26-35	Frequency	9	19	63	91
		% within Age	10%	21%	69%	100%
		% within E-commerce Type Choice	36%	35%	42%	40%
	36-45	Frequency	9	14	18	41
		% within Age	22%	34%	44%	100%
		% within E-commerce Type Choice	36%	26%	12%	18%
	46 and above	Frequency	5	7	13	25
		% within Age	20%	28%	52%	100%
		% within E-commerce Type Choice	20%	13%	9%	11%
Total	Frequency	25	54	149	228	
	% within Age	11%	24%	65%	100%	
	% within E-commerce Type Choice	100%	100%	100%	100%	

Table 6 demonstrates that majority of 228 respondents is 'between 26 and 35', with 40% of the total, while 31% is '25 and under', 18% is 'between 36 and 45', and 11% is '46 and above'. Looking at the cross-tabulation between age and e-commerce type choice, figures reveal that online auction stores are more preferable among older ones, with 22% and 20% for age groups of 'between 36 and 45' and '46 and above' respectively. However, these findings are reversed for online auction stores. These stores are preferred more by age group of '25 and under' with 77%, in comparison to older age groups.

Table 7 – Gender vs. E-commerce Type Choice Cross-tabulation

			E-commerce Type Choice			
			Auction Stores	Indifferent	Retail Stores	Total
Gender	Female	Frequency	9	26	83	118
		% within Gender	8%	22%	70%	100%
		% within E-commerce Type Choice	36%	48%	56%	52%
	Male	Frequency	16	28	66	110
		% within Gender	15%	25%	60%	100%
		% within E-commerce Type Choice	64%	52%	44%	48%
	Total	Frequency	25	54	149	228
		% within Gender	11%	24%	65%	100%
		% within E-commerce Type Choice	100%	100%	100%	100%

Table 7 represents the cross-tabulation between gender and e-commerce type choice. Of the total respondents 52% is female and 48% is male. When males are compared to females, they seem to prefer online auction stores more with 15% in comparison with 8%. However, tendency toward online retail store is higher in females with 70% than males with 60%.

Table 8 demonstrates the figures of cross-tabulation between education level and e-commerce type choice. Accordingly, most of the respondents have a university degree, with 52% of the total. This percentage is followed by respondents having a post-graduate or higher degree, with 37% of the total. The rest of the respondents have an education level of high school or lower composing 11% of the total. Within different education levels, the highest percentage for online auction store preference is observed in 'post graduate and higher' with 14%, and lowest in 'high school and lower' with 4%. With regard to online retail stores, highest percentage is examined in 'university' with 72% and lowest in 'high school and lower' with 56%, a slightly lower percentage than 'post graduate and higher'.

Table 8 – Education Level vs. E-commerce Type Choice Cross-tabulation

		E-commerce Type Choice				
		Auction Stores	Indifferent	Retail Stores	Total	
Education Level	High school and lower	Frequency	1	10	14	25
		% within Education Level	4%	40%	56%	100%
		% within E-commerce Type Choice	4%	19%	9%	11%
	University	Frequency	12	21	86	119
		% within Education Level	10%	18%	72%	100%
		% within E-commerce Type Choice	48%	39%	58%	52%
	Post-graduate and higher	Frequency	12	23	49	84
		% within Education Level	14%	27%	58%	100%
		% within E-commerce Type Choice	48%	43%	33%	37%
	Total	Frequency	25	54	149	228
		% within Education Level	11%	24%	65%	100%
		% within E-commerce Type Choice	100%	100%	100%	100%

8.1.3. Product Type

Having mentioned in the methodology section, products were classified according to the level of cost of the product, frequency of purchase of the product and effort put in to obtain the product. Consequently, three product groups were identified, having low, medium and high levels of these attributes. In order to analyse the impact of the product type on e-commerce type choice, frequency tables are required; because, in the questionnaire the impact of product type was assessed by a direct question. In view of this, frequencies of the responses to product type questions will provide us with some information regarding the influence of the product type on e-commerce type choice. Table 9 shows the frequencies of each product type with their percentage of the total.

As figures in the frequency table point out, respondents are more likely to purchase through online retail stores regardless of the product type. However, comparing product types within each dependent variable category, it can be stated that through online auction stores 'product type 3' are purchased more than other product types with 7.5%. Through online retail stores 'product type 1' is more likely to be purchased with 73.2% in comparison to other product types. Moreover, 'Product type 2' appears to be a product group, which respondents would not consider purchasing online, with 17.5% in relation to 'product type 1' and 'product type 3' with 1.8% and 4.4% respectively.

Table 9 – Product Type Frequencies

	Product Type 1*		Product Type 2 **		Product Type 3***	
	Frequency	%	Frequency	%	Frequency	%
Online Auction Stores	4	1,8%	5	2,2%	17	7,5%
Indifferent	53	23,2%	55	24,1%	73	32,0%
Online Retail Stores	167	73,2%	128	56,1%	128	56,1%
I would not purchase this product online	4	1,8%	40	17,5%	10	4,4%
Total	228	100,0%	228	100,0%	228	100,0%

*Books, CDs/DVDs, Tickets

**Cosmetics, Clothes, Accessories

***Peripherals of computer, Telecommunication & Electronic devices, Domestic Appliances

8.1.3.1. Testing of Hypothesis 11 – Product Type

Hypothesis 11 asserts that product category will influence the choice of a particular e-commerce type, through which the consumer intends to purchase. Referring to the frequency and percentage values of three different product types, which were presented in the previous subsection, the relationship between the product category and e-commerce type choice is not supported. Hence, the hypothesis is not substantiated.

8.2. Multinomial Logistic Regression

In order to analyse the relationships between the dependent variable and the independent variables a multinomial logistic regression was applied. A logistic regression was found to be the most suitable regression model due to the nature of the outcome variable and the lenient assumptions the model makes unlike other regression models. In logistic regression, outcome variable is either binary or dichotomous. Over the past years, when the case is that dependent variable is discrete, having two or more possible values, logistic regression model has become the typical method of analysis (Hosmer and Lemeshow, 2000:1). Therefore, considering the dependent variable in this research, which has three possible outcomes that are online auction stores, indifferent and online retail stores; a multinomial logistic regression was found to be more fitting. With regard to assumptions, multinomial logistic regression model does not make any assumptions concerning normality, linearity, and homogeneity of variance for the independent variables unlike multiple regression and discriminant analysis (Meyers, Gamst and Guarino, 2006). Hence, it is a more preferable method of analysis, as there are no such requirements imposed.

Multinomial logistic regression compares multiple groups through a combination of binary logistic regressions. The groups are defined by a dummy coded dependent variable, in which the group with the highest numeric score is used as the reference group. Hence, multinomial logistic regression analysis requires that the dependent variable be non-metric and independent variables be metric or dichotomous. Since SPSS will automatically dummy-code nominal level variables, they can be included as well, since they will be dichotomized in the analysis. Moreover, in SPSS, non-metric independent variables are included as *factors*; and metric independent variables are included as *covariates* (Schwab, 2006). Thus, before running the multinomial logistic regression analysis in SPSS, the variables were classified into metric and non-metric to see whether the level of measurement requirements of the model was satisfied.

The dependent variable in this research is the e-commerce type choice, whose outcome is non-metric. Among the independent variables, age, gender, education level, past purchase experience on online retail stores and past purchase experience on online auction store are non-metric, while perceived usefulness of online retail stores, perceived usefulness of online auction stores, perceived ease-of-use of online retail stores, perceived ease-of-use of online auction stores, normative beliefs for online retail stores, normative beliefs for online auction stores, control beliefs for online retail stores and control beliefs for online auction stores are metric.

After making sure that requirements of the model were satisfied, the confidence interval was set to 95% and the multinomial logistic regression analysis was run in SPSS 11.5. The following subsections will introduce the results of this analysis with the SPSS output illustrations (See Appendix 8 – SPSS tables).

8.2.1. Case-to-variable ratio

In order to fulfil the sample size requirement of the model, Hosmer and Lemeshow (2000:347) defines a ratio called case-to-variable ratio. According to the authors, this ratio, which is the minimum number of cases per independent variable, is set to 10. In this research, total number of independent variables, including both metric and non-metric, is 13; while total number of valid cases is 228. These figures give a ratio of approximately 17.5 (228/13), which is greater than the minimum case-to-variable ratio of 10.

8.2.2. Overall test of relationship

The logistic regression compares the final model that contains all the independent variables with a model that does not contain any independent variables in order to test the overall relationship among the independent variables and the groups defined by the dependent variable (auction, indifferent and retail). The difference in the likelihood values of the two models follows a chi-square distribution and the significance test for the final model chi-square is used to probe the presence of a relationship between the dependent variable and the combination of the independent variables. Consequently, with a 95% confidence interval, a significance level less than or equal to 0.05 indicates a presence of a relationship (Schwab,

2006). Table 10 is an SPSS output, named 'Model Fitting Information', presenting the value of final model chi-square.

Table 10 – Model Fitting Information

Model	-2 Log Likelihood	Chi-Square	Df	Sig.
Intercept Only	392,852			
Final	303,781	89,070	36	,000

The 'Model Fitting Information' output reveals that the probability of the final model chi-square (89.070) was 0.000, less than the level of significance of 0.05. Therefore; the null hypothesis that there was no difference between the model without independent variables and the model with independent variables was rejected. It can be stated that including the independent variables improves the intercept only model, the model that does not contain any independent variables. This supports the existence of a relationship between the independent variables and the dependent variable.

8.2.3. Accuracy

In order to assess the predictability of the multinomial logistic regression model, classification accuracy, which determines whether derived model correctly classifies each group of the dependent variable, was used. 25% improvement rate over the accuracy achievable by chance alone was used as a benchmark. Although the independent variables had no relationship to the groups defined by the dependent variable, group memberships are expected to be predictable by chance, which is referred to as by chance accuracy (Schwab, 2006).

The proportional by chance accuracy rate was used to calculate the by chance accuracy used. This rate was computed by squaring the proportion of cases for each group and then summing these squared proportions. As 25% was set as the improvement rate, the classification accuracy rate should be at least 25% higher than the proportional by chance accuracy rate (Schwab, 2006). Table 11 is the SPSS output of 'Case Processing Summary', illustrating the number of cases and the proportion of valid cases in each group defined by the dependent variable.

Table 11 – Case Processing Summary

		N	Marginal Percentage
Dependent Variable	Auction	25	11,0%
	Indifferent	54	23,7%
	Retail	149	65,4%
Gender	Female	118	51,8%
	Male	110	48,2%
Age	1 – 25 and under	71	31,1%
	2 – 26-35	91	39,9%
	3 – 36-45	41	18,0%
	4 – 46 and above	25	11,0%
Level of education	high school & lower	25	11,0%
	University	119	52,2%
	post-graduate & higher	84	36,8%
Retail experience	1 – none	87	38,2%
	2 – 1-3	72	31,6%
	3 – 4+	69	30,3%
Auction experience	1 – none	177	77,6%
	2 – 1-3	47	20,6%
	3 – 4+	4	1,8%
Valid		228	100,0%
Missing		0	
Total		228	

With reference to the marginal percentages of each dependent variable group, the proportional by chance accuracy can be computed as follows:

$$1.25 * ((0.11*0.11) + (0.23*0.23) + (0.654*0.654)) = 1.25 * 0.496 = 0.619$$

The proportional by chance accuracy is found to be 62%. Looking at Table 12, the classification accuracy rate is 71.9%, which is greater than the proportional by chance accuracy rate of 62%. The higher the percentage, the more predictable the model is assumed to be. However, a classification accuracy of above 50% for a model is suggested to be acceptable (Kahn, 2006:109). It can be concluded that the criteria for classification accuracy is satisfied.

Table 12 – Classification

Observed	Predicted			
	Auction	Indifferent	Retail	Percent Correct
Auction	13	3	9	52,0%
Indifferent	7	12	35	22,2%
Retail	2	8	139	93,3%
Overall Percentage	9,6%	10,1%	80,3%	71,9%

8.2.4. Numerical Errors

Multinomial logistic regression is calculated by the maximum likelihood method, which attempts to review the repetitions to find an answer. However, this repeated process can sometimes result in numerical errors, producing implausible results. There can be three reasons behind these improbable results. Firstly it can be caused by multicollinearity, in which two or more independent variables are highly inter-correlated, making it hard to detect the strength of the impact of each separate predictor. Secondly, some independent variables may have no cases or zero cells, which occurs when all the subjects have the same value for a dummy-coded independent variable. Finally, numerical errors can be the result of complete separation, where any two groups of the dependent variable can be perfectly separated by scores on one of the independent variables. Analyses that indicate numerical problems should not be interpreted (Schwab, 2006).

Multicollinearity in the multinomial logistic regression can be detected by looking at the standard errors for the B coefficients, presented in SPSS output of parameter estimates (See Table 13 – Parameter Estimates-Standard Error). A standard error larger than 2.0 indicates numerical problems (Schwab, 2006). None of the independent variables in this research had a standard error larger than 2.0; therefore, it is apparent that multicollinearity does not exist.

Table 13 – Parameter Estimates-Standard Error

	auction*	indifferent*
	Std. Error	Std. Error
Intercept	3,527	2,337
PURETAIL	0,424	0,275
PUAUCTIO	0,486	0,299
PEORETAI	0,52	0,32
PEOAUCTN	0,571	0,362
NBRETAIL	0,332	0,191
NBAUCTIO	0,25	0,182
CBRETAIL	0,477	0,3
CBAUCTIN	0,464	0,296
[GENDER=1]	0,57	0,376
[GENDER=2]	.	.
[AGE3=1]	1,165	0,68
[AGE3=2]	0,909	0,644
[AGE3=3]	0,85	0,697
[AGE3=4]	.	.
[EDUCATIO=1]	1,334	0,599
[EDUCATIO=2]	0,612	0,426
[EDUCATIO=3]	.	.
[RETEXP=1]	0,752	0,582
[RETEXP=2]	0,778	0,518
[RETEXP=3]	.	.
[AUCEXP=1]	0,755	1,383
[AUCEXP=2]	0	1,35
[AUCEXP=3]	.	.

* The reference category is: retail.

8.2.5. Testing of Hypotheses

After having satisfied the requirements concerning the number of valid cases, the overall relationship of the dependent and independent variables, the classification accuracy, and the numerical errors, this subsection will analyse the individual relationships. These relationships could be tested in two ways: Likelihood ratio test and Wald test. The Likelihood ratio test assesses the overall relationship between an independent variable and the dependent variable; while the Wald test measures whether or not the independent variable is statistically significant in differentiating between the two groups in each of the embedded binary logistic comparisons.

The interpretation of an independent variable's role in differentiating dependent variable groups is the same as used in binary logistic regression, except in multinomial logistic

regression there is multiple interpretations for an independent variable in relation to different groups, defined by the dependent variable.

Having an overall relationship to the dependent variable, an independent variable may or may not result in being statistically significant in differentiating between pairs of groups defined by the dependent variable. However, the role of an independent variable's significance in differentiating pairs of groups should not be interpreted, before the overall relationship to the dependent variable in the likelihood ratio test is proved. Thus, the rest of this section will continue with the presentation of the likelihood ratio test results and Wald test results, which then will be followed by the findings of the posed hypotheses' testing (See Table 14 – The Likelihood Ratio Test, Table 15 – Parameter Estimates – Online Auction Stores vs. Online Retail Stores, and Table 16 – Parameter Estimates – Indifferent vs. Online Retail Stores)

Table 14 – The Likelihood Ratio Test

Effect	-2 Log Likelihood of Reduced Model	Chi-Square	Df	Sig.
Intercept	303,781	0,000	0	.
PURETAIL	304,046	0,264	2	0,876
PUAUCTIO	303,836	0,055	2	0,973
PEORETAI	304,816	1,034	2	0,596
PEOAUCTN	304,531	0,749	2	0,687
NBRETAIL	317,898	14,116	2	0,001
NBAUCTIO	314,735	10,954	2	0,004
CBRETAIL	310,475	6,693	2	0,035
CBAUCTIN	304,285	0,504	2	0,777
GENDER	304,714	0,932	2	0,627
AGE3	322,843	19,062	6	0,004
EDUCATIO	316,486	12,705	4	0,013
RETEXP	322,428	18,647	4	0,001
AUCEXP	315,154	11,372	4	0,023

Table 14 shows the Chi-Square and level of significance values for the Likelihood Ratio test, which are required in testing the statistical significance of a relationship between an independent variable and a dependent variable. These values examine the relationship of a particular predictor, given that the rest of the predictors are in the model. Accordingly, the relationship is considered to be statistically significant, if the level of significance is less than 0.05, since the confidence interval is set to 95% (Schwab, 2006).

Table 15 – Parameter Estimates – Online Auction Stores vs. Online Retail Stores

		Wald	Df	Sig.	Exp(B)
auction*	Intercept	9,117	1	0,003	
	PURETAIL	0,211	1	0,646	0,823
	PUAUCTIO	0,049	1	0,824	0,898
	PEORETAI	0,003	1	0,959	1,027
	PEOAUCTN	0,377	1	0,539	0,704
	NBRETAIL	10,505	1	0,001	0,341
	NBAUCTIO	8,689	1	0,003	2,089
	CBRETAIL	3,28	1	0,07	0,422
	CBAUCTIN	0,294	1	0,588	1,286
	[GENDER=1]	0,61	1	0,435	0,641
	[GENDER=2]	.	0	.	.
	[AGE3=1]	7,233	1	0,007	0,044
	[AGE3=2]	5,242	1	0,022	0,125
	[AGE3=3]	0,024	1	0,878	1,14
	[AGE3=4]	.	0	.	.
	[EDUCATIO=1]	4,053	1	0,044	0,068
	[EDUCATIO=2]	0,309	1	0,579	0,712
	[EDUCATIO=3]	.	0	.	.
	[RETEXP=1]	3,224	1	0,073	0,073
	[RETEXP=2]	7,218	1	0,007	0,107
	[RETEXP=3]	.	0	.	.
	[AUCEXP=1]	.	1	.	0,000
	[AUCEXP=2]	6,200	1	0,013	6,554
	[AUCEXP=3]	.	0	.	.

*The reference category is: retail.

Tables 15 and 16 are the SPSS outcomes of parameter estimates. These tables reveal the results for Wald test, while providing the Exp (B) values. Wald test is no different than the Likelihood Ratio test in terms of interpretation, because level of significance forms the basis of testing whether a relationship between the independent variable and the dependent variable exists or not. However, The Wald test shows the binary regression findings of pairs of dependent variable categories. Exp (B) refers to the exponentiation of the coefficients, indicating how the outcome of the comparison group changes with the independent variable in question, when compared to the outcome of the reference group. A ratio less than 1 indicates that the outcome is more likely to be in the referent group; whereas, a ratio more than 1 shows that the outcome is more likely to be in the comparison group. Moreover, when the independent variable is categorical, then SPSS program compares each category of the independent variable with the one that is coded highest by default, if not set otherwise, in

order to measure the likelihood of the outcome to appear in the comparison group of the dependent variable relative to the reference group of the dependent variable (Schwab, 2006).

Table 16 – Parameter Estimates – Indifferent vs. Online Retail Stores

		Wald	Df	Sig.	Exp(B)
indifferent*	Intercept	0,003	1	0,96	
	PURETAIL	0,008	1	0,93	1,025
	PUAUCTIO	0	1	0,988	1,004
	PEORETAI	0,982	1	0,322	1,373
	PEOAUCTN	0,188	1	0,665	1,17
	NBRETAIL	4,261	1	0,039	0,674
	NBAUCTIO	4,24	1	0,039	1,456
	CBRETAIL	4,229	1	0,04	0,54
	CBAUCTIN	0,351	1	0,553	1,192
	[GENDER=1]	0,57	1	0,45	0,753
	[GENDER=2]	.	0	.	.
	[AGE3=1]	0,061	1	0,805	0,845
	[AGE3=2]	0,346	1	0,556	0,685
	[AGE3=3]	0,728	1	0,394	1,812
	[AGE3=4]	.	0	.	.
	[EDUCATIO=1]	0,011	1	0,918	1,064
	[EDUCATIO=2]	4,564	1	0,033	0,403
	[EDUCATIO=3]	.	0	.	.
	[RETEXP=1]	10,379	1	0,001	0,154
	[RETEXP=2]	6,786	1	0,009	0,288
	[RETEXP=3]	.	0	.	.
	[AUCEXP=1]	1,083	1	0,298	4,216
	[AUCEXP=2]	6,042	1	0,014	3,639
	[AUCEXP=3]	.	0	.	.

*The reference category is: retail.

8.2.5.1. Hypothesis 1 - Perceived usefulness of online retail stores

Hypothesis 1 states that perceived usefulness of online retail stores will influence the choice of a particular e-commerce type, through which the consumer intends to purchase. Looking at Table 17 that shows the Likelihood ratio test results, the level of significance for this independent variable is 0.876, which is more than 0.05. The relationship between perceived usefulness of online retail stores and e-commerce type choice is not scientifically significant. Thus, this hypothesis is not substantiated.

Table 17 – Likelihood ratio test – Perceived Usefulness of Online Retail Stores

Effect	-2 Log Likelihood of Reduced Model	Chi-Square	Df	Sig.
Intercept	303,781	0	0	.
PURETAIL	304,046	0,264	2	0,876

8.2.5.2. Hypothesis 2 – Perceived usefulness of online auction stores

Second hypothesis claims that perceived usefulness of online auction stores will influence the choice of a particular e-commerce type, through which the consumer intends to purchase. The likelihood ratio test shows a value of 0.973 for the level of significance for this independent variable, which is more than 0.05 (See Table 18 – Likelihood Ratio Test – Perceived Usefulness of Online Auction Stores). Therefore, the relationship between perceived usefulness of online auction stores and e-commerce type choice is scientifically not supported. Accordingly, Hypothesis 2 is rejected.

Table 18 – Likelihood Ratio Test – Perceived Usefulness of Online Auction Stores

Effect	-2 Log Likelihood of Reduced Model	Chi-Square	Df	Sig.
Intercept	303,781	0	0	.
PUAUCTIO	303,836	0,055	2	0,973

8.2.5.3. Hypothesis 3 – Perceived ease-of-use of online retail stores

Recalling Hypothesis 3, perceived ease-of-use of online retail stores will influence the choice of a particular e-commerce type, through which the consumer intends to purchase, is suggested. Having a level of significance of 0.596 that is more than 0.05, the relationship between perceived ease-of-use of online auction stores and the e-commerce type choice is not scientifically proven (See Table 19 – Likelihood Ratio Test – Perceived Ease-of-Use of Online Retail Stores). Hence, this hypothesis is not supported.

Table 19 – Likelihood Ratio Test – Perceived Ease-of-Use of Online Retail Stores

Effect	-2 Log Likelihood of Reduced Model	Chi-Square	Df	Sig.
Intercept	303,781	0	0	.
PEORETAI	304,816	1,034	2	0,596

8.2.5.4. Hypothesis 4 – Perceived ease-of-use of online auction stores

Regarding perceived ease-of-use of online auction stores, it has been hypothesised that this independent variable will influence the choice of a particular e-commerce type, through which the consumer intends to purchase. Looking at Table 20, a value of 0.687 is revealed for the level of significance that is above 0.05 in the Likelihood ratio test, pointing out that perceived ease-of-use of online auction store does not have a scientific impact on e-commerce type choice. Therefore, Hypothesis 4 is not substantiated.

Table 20 – Likelihood Ratio Test – Perceived Ease-of-Use of Online Auction Stores

Effect	-2 Log Likelihood of Reduced Model	Chi-Square	Df	Sig.
Intercept	303,781	0	0	.
PEOAUCTN	304,531	0,749	2	0,687

8.2.5.5. Hypothesis 5 – Normative beliefs for online retail stores

Hypothesis 5 suggests that normative beliefs for online retail stores will influence the choice of a particular e-commerce type, through which the consumer intends to purchase. The likelihood ratio test shows a value of 0.001 for the level of significance for this independent variable, which is less than 0.05 (See Table 21 – Likelihood Ratio Test – Normative Beliefs for Online Retail Stores). In view of this, it is evident that there is a scientifically significant relationship between normative beliefs for online retail stores and e-commerce type choice. Thus, this hypothesis is supported.

Table 21 – Likelihood Ratio Test – Normative Beliefs for Online Retail Stores

Effect	-2 Log Likelihood of Reduced Model	Chi-Square	Df	Sig.
Intercept	303,781	0	0	.
NBRETAIL	317,898	14,116	2	0,001

Looking at the SPSS output of parameter estimates, in comparison of the groups 'online auction stores' and 'online retail stores' that are defined by the dependent variable, the probability of Wald statistics (10.505) for this variable is 0.001. Since this value is less than 0.05, normative beliefs for online retail stores play a significant role in differentiating 'online auction stores' from 'online retail stores'. This variable has also a significance level value of 0.039 that is less than 0.05 in the comparison of 'indifferent' and 'online retail stores', meaning that normative beliefs for online retail stores are also significant in distinguishing

'indifferent' from 'online retail stores' (See Table 22 – Parameter Estimates – Normative Beliefs for Online Retail Stores).

Table 22 – Parameter Estimates – Normative Beliefs for Online Retail Stores

	auction*				indifferent*			
	Wald	Df	Sig.	Exp(B)	Wald	Df	Sig.	Exp(B)
Intercept	9,117	1	0,003		0,003	1	0,96	
NBRETAIL	10,505	1	0,001	0,341	4,261	1	0,039	0,674

*The reference category is: retail.

In both of the dependent variable category comparisons the Exp (B) values are less than 1, which are 0.341 and 0.674 for 'online auction stores' and 'indifferent' respectively. This indicates that an increase in the normative beliefs for online retail stores will result in the outcome more likely to be in the referent group that is 'online retail stores' in this case, given the other variables are held constant.

8.2.5.6. Hypothesis 6 – Normative beliefs for online auction stores

Bringing Hypothesis 6 to mind, this hypothesis asserts that normative beliefs for online auction stores will influence the choice of a particular e-commerce type, through which the consumer intends to purchase. In the Likelihood ratio test, this independent variable has a significance level value of 0.004. This value is less than 0.05, pointing out to a scientifically significant relationship between normative beliefs for auction retail stores and e-commerce type choice (See Table 23 – Likelihood Ratio Test – Normative Beliefs for Online Auction Stores). Accordingly, this hypothesis is substantiated.

Table 23 – Likelihood Ratio Test – Normative Beliefs for Online Auction Stores

Effect	-2 Log Likelihood of Reduced Model	Chi-Square	Df	Sig.
Intercept	303,781	0	0	.
NBAUCTIO	314,735	10,954	2	0,004

The level of significance in Wald test for this variable is 0.003 and 0.039 in comparison of 'online auction stores' with 'online retail stores' and 'indifferent' with 'online retail stores'. These values are both less than 0.05, which lead us to the conclusion that normative beliefs for auction retail stores are significant in distinguishing the comparison category from

referent category. Looking at the Exp (B) values, it is evident that given the other variables are held constant, the outcome is more likely to be in the comparison category, when an increase is observed in normative beliefs for auction stores, with values 2.089 and 1.456 that are more than 1 (See Table 24 – Parameter Estimates – Normative Beliefs for Online Auction Stores).

Table 24 – Parameter Estimates – Normative Beliefs for Online Auction Stores

	auction*				indifferent*			
	Wald	Df	Sig.	Exp(B)	Wald	Df	Sig.	Exp(B)
Intercept	9,117	1	0,003		0,003	1	0,96	
NBAUCTIO	8,689	1	0,003	2,089	4,24	1	0,039	1,456

*The reference category is: retail.

8.2.5.7. Hypothesis 7 – Control beliefs for online retail stores

With regard to control beliefs for online retail stores, it has been hypothesised that this independent variable will influence the choice of a particular e-commerce type, through which the consumer intends to purchase. Examining Table 15, the level of significance computed in the Likelihood ratio test is found to be 0.035 for this independent variable (See Table 25 – Likelihood Ratio Test – Control Beliefs for Online Retail Stores). The relationship between control beliefs for online retail stores and e-commerce type choice is said to be scientifically significant, since computed level of significance values is less than 0.05. Hence, Hypothesis 7 is supported.

Table 25 – Likelihood Ratio Test – Control Beliefs for Online Retail Stores

Effect	-2 Log Likelihood of Reduced Model	Chi-Square	Df	Sig.
Intercept	303,781	0	0	.
CBRETAIL	310,475	6,693	2	0,035

For this predictor, the Wald test results indicate a level of significance value of 0.070 in comparison of 'online auction stores' with 'online retail stores'; while 0.040 in comparison of 'indifferent' with 'online retail stores'. Provided that 0.50 is the benchmark level of significance, control beliefs for online retail stores do not explain the difference in the outcomes of the former category comparison, but are significant in distinguishing the categories in the latter category comparison. Having an Exp (B) value (0.540) less than 1 for the latter category comparison, it is apparent that a positive change in the value of the

independent variable will increase the probability of the outcome to be in the referent group that is 'online retail stores' given the other variables are held constant (See Table 26 – Parameter Estimates – Control Beliefs for Online Retail Stores).

Table 26 – Parameter Estimates – Control Beliefs for Online Retail Stores

	auction*				indifferent*			
	Wald	Df	Sig.	Exp(B)	Wald	Df	Sig.	Exp(B)
Intercept	9,117	1	0,003		0,003	1	0,960	
CBRETAIL	3,280	1	0,070	0,422	4,229	1	0,040	0,540

*The reference category is: retail.

8.2.5.8. Hypothesis 8 – Control beliefs for online auction stores

Hypothesis 8 states that control beliefs for online auction stores will influence the choice of a particular e-commerce type, through which the consumer intends to purchase. Having a level of significance of 0.777 that is more than 0.05, the relationship between control beliefs for online auction stores and the e-commerce type choice is not scientifically proven (See Table 27 – Likelihood Ratio Test – Control Beliefs for Online Auction Stores). Therefore, this hypothesis is rejected.

Table 27 – Likelihood Ratio Test – Control Beliefs for Online Auction Stores

Effect	-2 Log Likelihood of Reduced Model	Chi-Square	Df	Sig.
Intercept	303,781	0	0	.
CBAUCTIN	304,285	0,504	2	0,777

8.2.5.9. Hypothesis 9 – Past purchasing experience on online retail stores

As mentioned previously in this paper, Hypothesis 9 asserts that past purchasing experience on an online retail store will influence the choice of a particular e-commerce type, through which the consumer intends to purchase. The likelihood ratio test shows a value of 0.001 for the level of significance for this independent variable, which is less than 0.05, pointing at a scientifically significant relationship between past purchasing experience on online retail stores and e-commerce type choice (See Table 28 – Likelihood Ratio Test – Past Purchasing Experience on Online Retail Stores). Thus, this hypothesis is supported.

Table 28 – Likelihood Ratio Test – Past Purchasing Experience on Online Retail Stores

Effect	-2 Log Likelihood of Reduced Model	Chi-Square	Df	Sig.
Intercept	303,781	0	0	.
RETEXP	322,428	18,647	4	0,001

Past purchasing experience is a categorical variable, which is categorised according to the number of past purchases in the previous six months, including 'none' that is set to be the reference category, 'between 1 and 3', and 'more than 4'. The Wald test results reveal a significant value of 0.013 for 'more than 4' in the comparison of 'online auction stores' with 'online retail stores'. In comparison of 'indifferent' and 'online retail stores', both 'more than 4' and 'between 1 and 3' have levels of significance that are less than 0.05 (See Table 30 – Parameter Estimates – Past Purchasing Experience on Online Retail Stores). Thus, it can be stated that past purchasing experience on online retail stores is significant in distinguishing 'indifferent' with 'online retail stores'.

Looking at the Exp (B) values, each of the abovementioned significant categories have a value less than 1 (See Table 29 – Parameter Estimates – Past Purchasing Experience on Online Retail Stores). This implies that 'more than 4' is more likely to prefer 'online retail stores' to 'online auction stores' when compared to 'none'. Moreover, this statement further supported in the comparison of 'indifferent' with 'online retail stores'. Both 'between 1 and 3', and 'more than 4' are more likely to prefer 'online retail stores' to 'indifferent', while holding all other variables in the model constant.

Table 29 – Parameter Estimates – Past Purchasing Experience on Online Retail Stores

	auction*				indifferent*			
	Wald	Df	Sig.	Exp(B)	Wald	Df	Sig.	Exp(B)
Intercept	9,117	1	0,003		0,003	1	0,96	
[RETEXP=1]	3,224	1	0,073	0,073	10,379	1	0,001	0,154
[RETEXP=2]	7,218	1	0,007	0,107	6,786	1	0,009	0,288
[RETEXP=3]	.	0	.	.	.	0	.	.

*The reference category is: retail.

8.2.5.10. Hypothesis 10 – Past purchasing experience on online auction stores

Hypothesis 10 suggests that past purchasing experience on an online auction store will influence the choice of a particular e-commerce type, through which the consumer intends to purchase. The level of significance in the Likelihood ratio test for this independent variable is 0.023, which is less than 0.05 (See Table 30 – Likelihood Ratio Test – Past Purchasing

Experience on Online Auction Stores). Consequently, it is evident that past purchasing experience on online auction stores has a scientifically significant influence on e-commerce type choice. Therefore Hypothesis 10 is substantiated.

Table 30 – Likelihood Ratio Test – Past Purchasing Experience on Online Auction Stores

Effect	-2 Log Likelihood of Reduced Model	Chi-Square	Df	Sig.
Intercept	303,781	0	0	.
AUCEXP	315,154	11,372	4	0,023

As stated previously past purchasing experience is a categorical variable, having three categories that are 'none', which is set to be the reference category, 'between 1 and 3', and 'more than 4'. Regarding past purchasing experience on online auction stores, for 'between 1 and 3' the Wald test results indicate a level of significance value of 0.013 in comparison of 'online auction stores' with 'online retail stores', and 0.014 in comparison of 'indifferent' with 'online retail stores' (See Table 31 – Parameter Estimates – Past Purchasing Experience on Online Auction Stores). Both of these values are less than 0.05, pointing at the significant role of the predictor in distinguishing pairs of groups defined by the dependent variable.

Having Exp (B) values (6.554 and 3.639) that are more than 1, it is evident that 'between 1 and 3' prefers 'online auction stores' to 'online retail stores' in the former comparison, and 'indifferent' to 'online retail stores' in the latter comparison, when compared to 'none', given the other variables are held constant.

Table 31 – Parameter Estimates – Past Purchasing Experience on Online Auction Stores

	auction*				indifferent*			
	Wald	Df	Sig.	Exp(B)	Wald	Df	Sig.	Exp(B)
Intercept	9,117	1	0,003		0,003	1	0,96	
[AUCEXP=1]	.	1	.	0	1,083	1	0,298	4,216
[AUCEXP=2]	6,2	1	0,013	6,554	6,042	1	0,014	3,639
[AUCEXP=3]	.	0	.	.	.	0	.	.

*The reference category is: retail.

8.2.5.11. Hypothesis 12 – Gender

Considering gender, Hypothesis 12 claims that the choice of a particular e-commerce type, through which the consumer intends to purchase, will vary between men and women. In the

Likelihood ratio test, this independent variable has a significance level value of 0.627, which is more than 0.05 (See Table 32 – Likelihood Ratio Test – Gender). A scientifically significant relationship between gender and e-commerce type choice, does not exist. Hence, hypothesis 12 is rejected.

Table 32 – Likelihood Ratio Test – Gender

Effect	-2 Log Likelihood of Reduced Model	Chi-Square	Df	Sig.
Intercept	303,781	0	0	.
GENDER	304,714	0,932	2	0,627

8.2.5.12. Hypothesis 13 – Age

With regard to age, it has been hypothesised that the choice of a particular e-commerce type, through which the consumer intends to purchase, will vary according to different age groups. Having a level of significance of 0.004 that is more than 0.05, the relationship age groups and the e-commerce type choice is scientifically proven (See Table 33 – Likelihood Ratio Test – Age). Therefore, this hypothesis is supported.

Table 33 – Likelihood Ratio Test – Age

Effect	-2 Log Likelihood of Reduced Model	Chi-Square	Df	Sig.
Intercept	303,781	0	0	.
AGE3	322,843	19,062	6	0,004

The Wald test results present a level of significance value of 0.007 for '25 and below' and 0.022 for 'between 26 and 35' in comparison of 'online auction stores' with 'online retail stores', both of which are less than 0.05. As this predictor is categorical in nature, the program compares each age group with the one coded highest that is '46 and above' in this case, for 'online auction stores' relative to 'online retail stores'.

Exp (B) values of 0.044 for '25 and below' and 0.125 for 'between 26 and 35', which are less than 1, indicate that respondents from these age categories prefer 'online retail stores' to 'online auction stores', when compared to the respondents from '46 and above', given the other variables are held constant (See Table 34 – Parameter Estimates –Age)

Table 34 – Parameter Estimates –Age

	auction*				indifferent*			
	Wald	Df	Sig.	Exp(B)	Wald	Df	Sig.	Exp(B)
Intercept	9,117	1	0,003		0,003	1	0,96	
[AGE3=1]	7,233	1	0,007	0,044	0,061	1	0,805	0,845
[AGE3=2]	5,242	1	0,022	0,125	0,346	1	0,556	0,685
[AGE3=3]	0,024	1	0,878	1,14	0,728	1	0,394	1,812
[AGE3=4]	.	0	.	.	.	0	.	.

*The reference category is: retail.

8.2.5.13. Hypothesis 14 – Education Level

Final hypothesis suggests that the choice of a particular e-commerce type, through which the consumer intends to purchase, will vary according to different education levels. The likelihood ratio test shows a value of 0.013 for the level of significance for this independent variable, which is less than 0.05, indicating a scientifically significant relationship between education level and e-commerce type choice (See Table 35 – Likelihood Ratio Test – Education Level). Thus, Hypothesis 14 is substantiated.

Table 35 – Likelihood Ratio Test – Education Level

Effect	-2 Log Likelihood of Reduced Model	Chi-Square	Df	Sig.
Intercept	303,781	0	0	.
EDUCATIO	316,486	12,705	4	0,013

Regarding education level, the Wald test indicates a significance for 'high school and lower' with 0.044 that is less than 0.05 in comparison of 'online auction stores' with 'online retail stores'; while this value is significant only for 'university' with 0.033 in comparison of 'indifferent' with 'online retail stores'. This predictor is categorical in nature as well, therefore the program compares each education level with the one coded highest that is 'post graduate and above' in this case, for pairs of groups defined by the dependent variable relative to each other.

The Exp (B) for 'high school and lower' in comparison of 'online auction stores' with 'online retail stores' is 0.068 that is less than 1, pointing out that 'high school and lower' prefers 'online retail stores' to 'online auction stores', when compared to 'post graduate and above', given the other predictors are held constant. The Exp (B) for 'university' in comparison of 'indifferent' with 'online retail stores' is 0.043. Since this value is less than 1, it is evident that 'university' prefers 'online retail stores' to 'indifferent', when compared to 'post graduate and

above', while holding the other variables constant (See Table 36 – Parameter Estimates – Education Level)

Table 36 – Parameter Estimates – Education Level

	auction*				indifferent*			
	Wald	Df	Sig.	Exp(B)	Wald	Df	Sig.	Exp(B)
Intercept	9,117	1	0,003		0,003	1	0,96	
[EDUCATIO=1]	4,053	1	0,044	0,068	0,011	1	0,918	1,064
[EDUCATIO=2]	0,309	1	0,579	0,712	4,564	1	0,033	0,403
[EDUCATIO=3]	.	0	.	.	.	0	.	.

*The reference category is: retail.

Following table summarises the results of the hypotheses testing.

Table 37 – Hypotheses Testing Summary

H1	Perceived usefulness of online retail stores will influence the choice of a particular e-commerce type, through which the consumer intends to purchase.	Not Supported
H2	Perceived usefulness of online auction stores will influence the choice of a particular e-commerce type, through which the consumer intends to purchase.	Not Supported
H3	Perceived ease-of-use of online retail stores will influence the choice of a particular e-commerce type, through which the consumer intends to purchase.	Not Supported
H4	Perceived ease-of-use of online auction stores will influence the choice of a particular e-commerce type, through which the consumer intends to purchase.	Not Supported
H5	Normative beliefs for online retail stores will influence the choice of a particular e-commerce type, through which the consumer intends to purchase.	Supported
H6	Normative beliefs for online auction stores will influence the choice of a particular e-commerce type, through which the consumer intends to purchase.	Supported
H7	Control beliefs for online retail stores will influence the choice of a particular e-commerce type, through which the consumer intends to purchase.	Supported
H8	Control beliefs for online auction stores will influence the choice of a particular e-commerce type, through which the consumer intends to purchase.	Not Supported
H9	Past purchasing experience on an online retail store will influence the choice of a particular e-commerce type, through which the consumer intends to purchase.	Supported
H10	Past purchasing experience on an online auction store will influence the choice of a particular e-commerce type, through which the consumer intends to purchase.	Supported
H11	Product category will influence the choice of a particular e-commerce type, through which the consumer intends to purchase.	Not Supported
H12	The choice of a particular e-commerce type, through which the consumer intends to purchase, will vary between men and women.	Not Supported
H13	The choice of a particular e-commerce type, through which the consumer intends to purchase, will vary according to different age groups.	Supported
H14	The choice of a particular e-commerce type, through which the consumer intends to purchase, will vary according to different education levels.	Supported

9. DISCUSSION

This section will discuss the factors that affect the e-commerce type choice of the Turkish online shoppers. The discussion will be based on empirical findings from 228 questionnaires, which was presented in the previous section in details. These empirical findings will be combined with the theory in order to provide a wider perspective. Following this section, the conclusion will be presented in a separate section, focusing on the academic contributions, practical implications and further research.

9.1. Discussion of Perceived Usefulness

Referring to the theoretical framework section, perceived usefulness, which is user's belief that using a specific system will increase his or her performance in that particular activity, was hypothesised separately for online retail stores and online auction stores. Each construct was represented by seven questions that reflect different dimensions of perceived usefulness, which included price, comparative shopping, customer service, time consumed during purchasing, product rarity, sense of achievement and perceived enjoyment. Before the analysis, these dimensions were summed up in a single variable for online retail stores and online auction stores separately, in order to assess the total impact of all dimensions.

According to the research data, none of the hypotheses with regard to perceived usefulness were supported. Although previous literature suggests that there is a positive relationship between perceived usefulness and behaviour intention (Crespo and Rodriguez, 2008; Limayem, Khalifa and Frini, 2000; Shim, Eastlick, Lotz and Warrington, 2001); findings of this research indicates that perceived usefulness of neither online retail stores nor online auction stores have a significant influence on customers' choice of e-commerce type, through which they intend to purchase. Contrary to the previous literature, an online shopper's belief that purchasing through a particular online store will increase his or her performance, does not affect his or her decision making on which e-commerce type to purchase through.

These non-supported hypotheses are one of the particularly unexpected findings of this study, which can be explained in two ways. Firstly, although consumers believe that shopping through online stores increase their performance in comparison to physical stores, they may not realise any differences between e-commerce types. Secondly, defragmenting the dimensions of perceived usefulness might have suppressed the impact of important individual dimensions, resulting in the rejection of the hypotheses that were formulated for the overall impact.

9.2. Discussion of Perceived Ease-Of-Use

Regarding perceived ease-of-use, two hypotheses were posed, one for online retail stores and one for online auction stores. Each hypothesis was tested by six questions representing different elements of perceived ease-of-use, which is user's belief that using a specific system will be free of effort. These elements were information about the products and the company, decision making aids, shopping instructions, mental effort, navigation, and visual presentation. With the purpose of assessing the total impact, these elements were later transferred into one single variable. Accordingly, in the regression analysis one variable represented the perceived ease-of-use of online retail stores and one represented the perceived ease-of-use of online auction stores.

The findings of the multinomial regression analysis suggested that the hypotheses related to perceived ease-of-use were not substantiated. In the literature, perceived ease-of-use is stated to have an impact on the behavioural intention (Crespo and Rodriguez, 2008; Limayem, Khalifa and Frini, 2000; Rhee, Riggins and Kim, 2009). However, the findings of this research do not point out to a significant relationship between perceived ease-of-use of neither online retail stores nor online auction stores, and e-commerce type choice. In other words, an online shopper does not make his or her decision on which e-commerce type to purchase through, as a result of the fact that purchasing through that specific e-commerce type is free of effort. Unlike previous literature, online shoppers do not recognize a particular difference between e-commerce types in terms of effort that their purchasing processes require.

As C2C e-commerce is usually in the form of online auctions, where consumers bid to purchase an item posted for sale, it appears to require a different amount of effort from the buyer than B2B e-commerce. However, surprisingly, the results reveal insignificance between perceived ease-of-use and e-commerce type choice. This may imply that both online retail store and online auction store administrators pay adequate attention to web site content and design in order to make their customers feel free of effort, when shopping through their web sites.

9.3. Discussion of Normative Beliefs

Recalling from the theoretical framework section, normative beliefs stand for the influence of social environment on the individuals. Two hypotheses were formulated regarding normative beliefs, one for online retail stores and one for online auction stores. For each hypothesis, three questions were asked to assess the influence of the social environment. Each question referred to one of the three groups: family, media and friends. Before the analysis, responses to three questions were transferred into a single response, for online retail stores and online auction stores separately, in order to measure the total impact of social environment.

In accordance with the statistical test results, both of the hypotheses concerning normative beliefs were supported. Parallel to the previous findings, normative beliefs appear to have an influence on behaviour intention (Chih-Chung and Chung, 2005; Limayem, Khalifa and Frini, 2000; Yu and Wu 2007). In other words, an online shopper is affected by his or her

social environment, when making a decision on which e-commerce type to purchase through.

Findings further reveal that both normative beliefs for online retail stores and normative beliefs for online auction stores are significant in distinguishing respondents that prefer to purchase through online auction stores from respondents that prefer to purchase through online retail stores, and also respondents that are indifferent between e-commerce types in purchasing from respondents that prefer to purchase through online retail stores. This implies that if individuals and institutions from the social environment of the respondent suggest him or her to purchase through a specific e-commerce type, then respondents are more likely to prefer that particular e-commerce type. More specifically, when the respondent's social environment suggests online auction stores, he or she is more likely to purchase through online auction stores or otherwise stay indifferent and consider online auction stores as an alternative. Furthermore, when the respondent's social environment suggest online retail stores, then he or she is more likely to purchase through online retail stores.

9.4. Discussion of Control Beliefs

Regarding control beliefs, which are about the presence of facilitators or obstacles in performing certain behaviour, two hypotheses were posed, one for online retail stores and one for online auction stores. Control beliefs were measured by seven questions that include different dimensions: need for assistance, transaction process efficiency, transaction process complexity, security, privacy, product uncertainty, and seller credibility. Responses to these questions were later transferred into a single response, for online retail stores and online auction stores separately, in order to measure the total impact of control beliefs.

With regard to the research data, the hypothesis, which claimed that control beliefs for online retail stores have an influence on choice of e-commerce type, through which online shoppers intend to purchase, was supported. However, the hypothesis regarding control beliefs for online auction stores was not supported.

In previous literature, it is stated that control beliefs affect the behaviour intention positively, when the facilitators are more than obstacles and negatively otherwise (Chih-Chung and Chung, 2005; Crespo and Rodriguez, 2008; Liang and Huang, 1998; Ranganathan and Jha, 2007). These findings hold true for the impact of control beliefs for online retail stores on e-commerce type choice, yet interestingly not for the control beliefs for online auction stores. This means that respondents become affected more by self efficacy and confidence issues in online retail stores than online auction stores.

Looking at these two variables, multinomial logistic regression results demonstrate that control beliefs for online retail stores are significant in differentiating respondents that are indifferent between e-commerce types in purchasing from respondents that prefer to purchase through online retail stores. This implies that an increase in the control beliefs for online retail stores can direct the respondents that are indifferent between e-commerce types to online retail stores for purchasing. In other words, when there is an increase in the self efficacy or confidence of the respondent in purchasing through online retail stores, he or she is more likely to choose online retail stores for purchasing despite they did not have any specific e-commerce type preference before. Therefore, it is reasonable to conclude that

lower control beliefs for online retail stores result in online shoppers to stay indifferent between e-commerce types when purchasing.

9.5. Discussion of Past Purchase Experience

Past purchase experience on online retail stores and online auction stores were claimed to have an influence on the choice of e-commerce type to purchase through. According to the results of this research, both hypotheses were substantiated.

Previous literature draws attention to the importance of the prior experience in predicting future behaviour (Chih-Chung and Chung, 2005; Liang and Huang, 1998; Ranganathan and Jha, 2007; Shim, Eastlick, Lotz and Warrington, 2001). In line with these previous findings, both past purchasing experience on online retail stores and online auction stores were found to be significant in distinguishing respondents that prefer to purchase through online auction stores and also respondents that are indifferent between e-commerce types in purchasing from respondents that prefer to purchase through online retail stores.

Respondents with the higher past purchasing experience on online retail stores are more likely to prefer online retail stores for purchasing, when compared to respondents with no past purchasing experience on online retail stores. Complementarily, respondents with higher past purchasing experience on online auction stores, are more likely to consider online auction stores for purchasing, when compared to respondents with no past purchasing experience on online auction stores. On the whole, consistent with the previous literature, it can be stated that respondents having a past purchasing experience on a specific e-commerce type, are more likely to favour that e-commerce type for future purchases.

9.6. Discussion of Product Type

The hypothesis regarding product type asserted that product category has an impact on consumers' choice of e-commerce type, through which they intend to purchase. In order to assess its influence, three product categories were identified according to the level of cost of the product, frequency of purchase of the product and effort put in to obtain the product (Li and Gery, 2000; Liang and Huang, 1998; Rhee, Riggins and Kim, 2009).

Examining the descriptive statistics, there appears to be no relationship between product categories and choice of e-commerce type to purchase through. Corresponding figures reveal that respondents are more likely to purchase through online retail stores regardless of the product type. Thus, this hypothesis was not supported.

However, comparing product types within dependent variable categories, several conclusions could be drawn. Of the products purchased through online auction stores, majority of them are high cost products that are infrequently purchased and require a lot of effort to be obtained. Peripherals of computer, telecommunication and electronic devices, and domestic appliances are examples of this category. On the contrary, of the products purchased through online retail stores, majority of them are low cost products that are

frequently purchased and does not require much effort to be obtained. Books, CDs/DVDs, and tickets exemplify this product category. Moreover, the remaining product category, which has medium cost, moderate frequency of purchase, requiring effort of an average level to be obtained, is found to be a category that respondents would not consider purchasing online relative to other product categories. Cosmetics, clothes, and accessories, for instance, belong to this product category.

9.7. Discussion of Demographical Variables – Age, Gender, Education Level

As mentioned formerly, the reports of Turkish Statistical Institute (2009) show that Information and Computer Technologies (ICT) usage differ for different age groups, gender and education levels. Although the questionnaires in this research aimed at respondents that are online shoppers, who can be assumed to have relatively high levels of ICT usage, the impact of demographical variables could still be observed on the choice of e-commerce type to purchase through. Looking at these variables tested in this research, it is evident that while age and education level have an influence on the choice of e-commerce type to purchase through, gender appears to have no significant impact.

According to the findings of this research, respondents from younger age groups prefer to purchase through online retail stores rather than online auction stores. Regarding education level, respondents having an education level of high school or lower are found to be more likely to purchase through online retail stores when compared to respondents with a post-graduate degree or higher. Combining two variables, it can be stated that respondents with relatively younger age and respondents with a lower level of education level seem to give preference to online retail stores, when they intend to purchase.

It is worth mentioning here that although age explains the choice of e-commerce type to purchase through; considering the direction of the correlation, findings appear to be contradictory to the previous expectations. Literature suggests that the older the consumer, the less tolerant he or she is to new and unusual ideas (Stafford, Turan and Raisinghari, 2004). However, findings point out at an opposite relationship with regard to e-commerce types, in which C2C e-commerce can be argued to be a more unusual idea when compared to B2C e-commerce, as it requires more consumer involvement. This may be explained by the fact that older online shoppers can be considered to already have a certain knowledge regarding computer and internet knowledge; therefore, they may not find C2C e-commerce as unusual as expected. Nonetheless, there exists no explanation why older online shoppers should choose purchasing through online auction stores and younger ones through online retail stores. This question appears to remain open for further research.

Regarding gender, previous literature discusses its important role in explaining differences in online purchasing behaviours (Ergin and Akbay, 2008; Stafford, Turan and Raisinghari, 2004). Even though online purchasing is observed more in males than females mainly due to higher percentage of computer and internet usage, findings of this study finds no significant impact of gender on e-commerce type choice. Nevertheless, one should not forget that deciding on the web site is the following step of deciding on whether to purchase online or not. In view of that, further research is required to find a reasonable answer for not having any difference between males and females regarding e-commerce type choices, when they intend to purchase online.

10. CONCLUSION

The overall purpose of this research has been to provide a better understanding of Turkish consumers' choice of e-commerce type, when purchasing online. Accordingly the following research question was posed:

What are the factors affecting the choice of e-commerce type – B2C and/or C2C – through which consumers intend to purchase?

This section aims to present a summary of the research. Thus, the following subsections will introduce academic and practical implications, where a comprehensive overview of the findings will be provided, in order to answer the research question formulated in the beginning of the paper. Finally, recommendations for further research will be given.

10.1. Academic Contribution

This research intended to contribute to e-commerce knowledge through a comprehensive analysis of electronic consumers' online shopping behaviour and choice of online stores. A thorough research on previous literature showed that each available study delve into only one type of e-commerce, either B2C or C2C. Therefore, identifying consumers' motivations behind their choice of a specific web site for purchasing is thought to have provided a gainful insight into marketspace literature, while enhancing future research that is detailed later in this section.

This study mainly benefited from Decomposed Theory of Planned Behaviour, which has been modelled with the use of several theories, namely Theory of Reasoned Action, Theory of Planned Behaviour and Technology Acceptance Model. Essential factors that were thought to influence the choice of e-commerce type, through which consumers intend to purchase, were identified through studying these theories. Based on previous literature on consumers' online shopping behaviours, detailed questionnaires, which have ascertained this set of critical factors that were deemed to influence e-commerce type choice, was prepared. In order to provide an answer to the posed research question, the findings were carefully analysed.

The results pointed out to a significant influence of five factors on the choice of e-commerce type to purchase through. These factors can be listed as normative beliefs, control beliefs, past purchasing experience, age and education level. When it comes to decision making on which website to purchase through; positive normative beliefs and control beliefs and higher past purchasing experience concerning online retail stores direct the online shoppers to purchase through online retail stores. However; only positive normative beliefs and higher past purchasing experience relating to online auction stores give rise to purchasing through online auction stores. Of the demographical factors, as the discussion section highlights, age and education level have an impact on the choice of e-commerce type to purchase through. Accordingly, younger online shoppers and the ones with a lower level of education seem to choose online retail stores, when they intend to purchase.

Hence, major contribution of this research was providing better understanding of consumers' choice of e-commerce types, when purchasing online by identifying factors triggering Turkish consumers to favour a specific e-commerce type, B2C or C2C.

10.2. Practical Implications

In addition to the academic contributions, this study has also important practical considerations to contribute. The findings of the study provide the internet sellers, being an individual or an entity, with a greater understanding as to what influences electronic consumers' choice of a certain e-commerce type, when purchasing.

Individual sellers, who put their products on the C2C market for Turkish online shoppers, need to be aware of the fact that normative beliefs and past purchasing experience play an important role for the online shoppers to favour C2C e-commerce type, when they intend to purchase. In other words, an online shopper tends to purchase through online auction stores on two conditions. First condition is when his or her social environment suggests online auction stores for purchases. The second is when he or she has a positive experience with an auction web site, consequently chooses the same e-commerce type for future purchases. Combining these two conditions highlights the importance of the word of mouth in the selection of online auction stores for purchasing purposes. Therefore, online auction store administrators should receive customer feedbacks and accordingly take some cautious actions in order to increase their customers' satisfaction in using their web sites. It can be recommended each online auction store to have an online communication section, which allows customers to leave some testimonials and share their experiences.

For sellers, who market their products through B2C stores to Turkish online shoppers, apart from normative beliefs and past purchasing experience, control beliefs also turn out to be a factor influencing e-commerce type choice, when purchasing. This draws attention to the importance of issues such as transaction process efficiency, transaction process complexity, security, privacy, product uncertainty, and seller credibility in the selection of online retail stores for purchasing. Hence, online retail store administrators, need to find ways to generate positive word of mouth, while focusing on the improvement of the aforementioned control beliefs' components.

It is also vital for the sellers to know about their customers' profile so that they can market the right product to the right customer. With reference to the demographical findings regarding Turkish online market, online retail stores should target young customers, having relatively lower education levels. On the contrary, online auction stores should focus more on older and highly educated customers.

10.3. Contribution and Further Research

Combining academic data with empirical data have produced results helping both scholars and internet sellers to better understand the online consumer behaviour in Turkey. From an academic standpoint, this research has contributed to marketspace literature by identifying

consumers' motivations behind their choice of e-commerce type for purchasing. From a practical perspective, this research has provided the internet sellers of both B2C and C2C stores with a greater understanding as to what influences electronic consumers' choice of a certain e-commerce type, when purchasing; accordingly with a foundation that they can base their marketing strategies on.

Having summarised the contributions, various avenues for future research are also available.

Firstly, in this research, the focus was on an emerging country, which was chosen as Turkey. Thus, a cross-cultural study could be built upon this study for future research. In this way, emerging markets could be compared to developed markets to see whether any differences exist between the e-commerce type choices of online shoppers from different countries.

Secondly, this research has compared two e-commerce types without specifying any web site names. However, it would be interesting to examine two specific web sites and evaluate the findings in comparison to this study's findings.

Thirdly, in order to provide an overall picture, summated scale was used in this study; which, however, has limited this research in examining the impact of individual dimensions of each variable. Thus, further research can be carried out to shed light on each individual dimension.

Finally, revealing results in contradiction with previous expectations, age and gender can be taken into consideration separately for further research to find answers for why there is no difference between males and females regarding e-commerce type choices, when they intend to purchase online and why older online shoppers should choose purchasing through online auction stores and younger ones through online retail stores.

11. REFERENCES

Articles:

Ajzen, I. (1991), "The theory of planned behaviour", *Organizational Behaviour and Human Decision Processes*, Vol. 50, pp.179-211

Aljifri, Hassan A., A. Pons, D. Collins (2003), "Global e-commerce: a framework for understanding and overcoming the trust barrier", *Information Management & Computer Security*, Vol. 11 (3), pp. 130-138

Balfagih, Zain, N. Mohamed, M. Mahmud (2008),"In Search of a Model for Evaluating the Quality of E-Commerce Web sites", *2008 International Symposium on Information Technology*, Vol. 1, pp. 1-6

Boyer, K. K., G. T. M. Hult (2006), "Customer behavioural intentions for online purchases: An examination of fulfilment method and customer experience level", *Journal of Operations Management*, Vol. 24, pp. 124-147

Chih-Chung, Chen, S. Chung (2005), "Discussion on the Behaviour Intention Model of Consumer Online Shopping", *Journal of Business and Management*, Vol. 11, pp. 41-57

Crespo, Angel H., I. A. Rodriguez (2008), "Explaining B2C e-commerce acceptance: An integrative model based on the framework by Gatignon and Robertson", *Interacting with Computers*, Vol. 20, pp. 212-224

Davis, Fred D. (1989), "Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology", *MIS Quarterly*, Vol. 13 (3), pp. 319-340

Ergin, Elif A., H. O. Akbay (2008), "An Empirical Investigation of Turkish Consumers' Online Shopping Patterns", *Journal of Global Business and Technology*, Vol. 4 (2), pp. 54-59

Goldsmith, Ronald E., E. B. Goldsmith (2000), "Buying apparel over the Internet", *Journal of Product & Brand Management*, Vol. 11, pp. 89-102

Goldsmith, Ronald E., L. R. Flynn (2005), "Psychological and behavioural drivers of online clothing purchase", *Journal of Fashion Marketing and Management*, Vol. 8, pp. 84-95

Jones, Kiku, L. N. K. Leonard (2007), "Consumer-to-consumer electronic commerce: A distinct research stream", *Journal of Electronic Commerce in Organizations*, Vol. 5 (4), pp. 39-54

Kim, Jihyun, J. Park (2005), "A consumer shopping channel extension model: attitude shift toward the online store", *Journal of Fashion Marketing and Management*, Vol. 9 (1), pp. 106-121

- Lee, Gwo-Guang, H. Lin (2005), "Customer perceptions of e-service quality in online shopping", *International Journal of Retail & Distribution Management*, Vol. 33, pp. 161-176
- Li, Shibo, K. Srinivasan, B. Sun (2009), "Internet Auction Features as Quality Signals", *Journal of Marketing*, Vol. 73, pp. 75-92
- Li, Zahn L., N. Gery (2000), "E-tailing – for all products? ", *Business Horizons*, Vol. 43, pp. 49–54
- Liang, Ting-Peng, J. Huang (1998), "An empirical study on consumer acceptance of products in electronic markets: a transaction cost model", *Decision Support Systems*, Vol. 24, pp. 29–43
- Limayem, Moez, M. Khalifa, A. Frini (2000), "What Makes Consumers Buy from Internet? A Longitudinal Study of Online Shopping", *IEEE Transactions on Systems, Man and Cybernetics – Part A: Systems and Humans*, Vol. 30, pp. 421-432
- Lin, Chwen-Yea, C. Tu, K. Fang (2007), "Extrinsic versus Intrinsic Motivations on Electronic Auction", *2008 10th International Conference on Advanced Communication Technology*, Vol. 3, pp. 2000-2004
- Ranganathan, C., S. Jha (2007), "Examining Online Purchase Intentions in B2C E-Commerce: Testing an Integrated Model", *Information Resources Management Journal*, Vol. 20, pp. 48-64
- Rhee, Hyeun-Suk, F. J. Riggins, C. Kim (2009), "The Impact of Product Type and Perceived Characteristics of the Web on Multifaceted Online Shopping Behaviour", *Journal of Organizational Computing and Electronic Commerce*, Vol. 19, pp. 1-19
- Schonfeld, Erick (2000), "How much are your eyeballs worth?", *Fortune*, Vol. 141 (4), pp. 197-204
- Shim, Soyeon, M. A. Eastlick, S. L. Lotz, P. Warrington (2001), "An online prepurchase intentions model: The role of intention to search", *Journal of Retailing*, Vol. 77, pp. 397-416
- Stafford, Thomas F., A. H. Turan, A. M. Khasawneh (2006), "Midle-East.com: Diffusion of the Internet and online shopping in Jordan and Turkey", *Journal of Global Information Technology Management*, Vol. 9 (3), pp. 43-61
- Stern, Barbara B., M. B. Royne, T. F. Stafford, C. C. Bienstock (2008), "Consumer Acceptance of Online Auctions: An Extension and Revision of the TAM", *Psychology & Marketing*, Vol. 25 (7), pp. 619-636
- Taylor, Shirley, P. A. Todd (1995), "Understanding Information Technology Usage: A Test of Competing Models", *Information Systems Research*, Vol. 6 (2), pp. 144-176
- Wareham, Jonathan, J. G. Zheng, D. Straub (2005), "Critical themes in electronic commerce research: a meta-analysis", *Journal of Information Technology*, Vol. 20, pp. 1-19

Yu, Tai-Kuei, G. Wu (2007), "Determinants of Internet Shopping Behaviour: An Application of Reasoned Behaviour Theory", *International Journal of Management*, Vol. 24, pp.744-823

Books:

Bryman, A., E. Bell (2007), "Business Research Methods", Oxford: Oxford University Press

Gumesson, Evert (2002), "Total Relationship Marketing", Elsevier Ltd.

Hakim, Catherine (2000), "Research Design: Successful Designs for Social and Economic Research", Routledge

Hosmer, David W., S. Lemeshow (2000), "Applied Logistic Regression", John Wiley & Sons, Inc.

Malhotra, Naresh K., D. F. Birks (2003), "Marketing Research: An Applied Approach", Pearson Education Limited

McGoldric, Peter (2002), "Retail Marketing", England: McGraw-Hill Education

E-Books:

Goel, Ritendra (2007), E-Commerce, New Age International. Retrieved on 2009-03-21 from <http://books.google.com.tr/books?id=Ap27K-6v1xUC>

Gravelly, Archer R. (1998), Your Guide to Survey Research Using the SAS System, SAS Publishing. Retrieved on 2009-05-10 from <http://books.google.com/books?id=tf00z2ZAkzsC&hl=tr>

Bidgoli, Hossein (2004), The Internet Encyclopedia, John Wiley and Sons. Retrieved on 2009-03-22 from http://books.google.com.tr/books?id=bW2_KaeKuVkc

Meyers, Lawrence S., G. Gamst, A. J. Guarino (2006), Applied multivariate research: design and interpretation, SAGE. Retrieved on 2009-05-02 from <http://books.google.com.tr/books?id=7e4npyN3BasC>

Kahn, Kenneth B. (2006), New Product Forecasting: An Applied Approach, M. E. Sharpe. Retrieved on 2009-05-07 from <http://books.google.com/books?id=rPHpnHatjzgC&hl=tr>

Other Electronic Sources:

Alexa (2009), Top Sites in Turkey, Retrieved on 2009-03-30 from <http://www.alexa.com/topsites/countries/TR>

eBay Inc. (2009), "eBay Acquires Stake in Turkey's GittiGidiyor.com", Retrieved on 2009-03-30 from <http://investor.ebay.com/releasedetail.cfm?ReleaseID=240496>

Hepsiburada.com (2009), Information on the company, Retrieved on 2009-03-31 from <http://www.hepsiburada.com/default.aspx>

Internet Usage World Stats (2009), Retrieved on 2009-03-26 from <http://www.internetworldstats.com/stats4.htm>

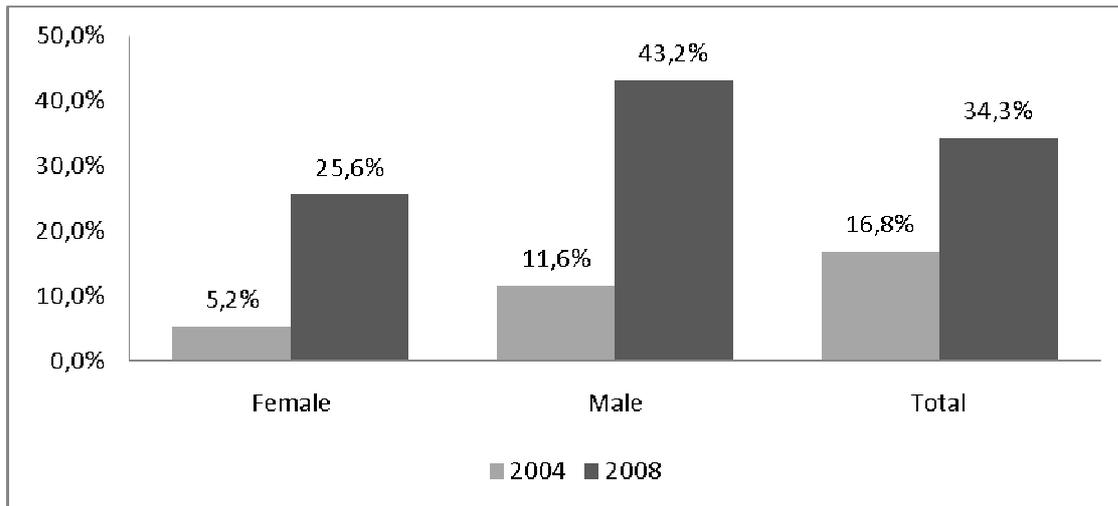
Schwab, J. (2006), Lecture notes for Data Analysis II, The University of Texas, Retrieved on 2009-05-08 from <http://www.utexas.edu/courses/schwab>

Turkish Statistical Institute (2009), Retrieved on 2009-03-26 from http://www.tuik.gov.tr/AltKategori.do?ust_id=2

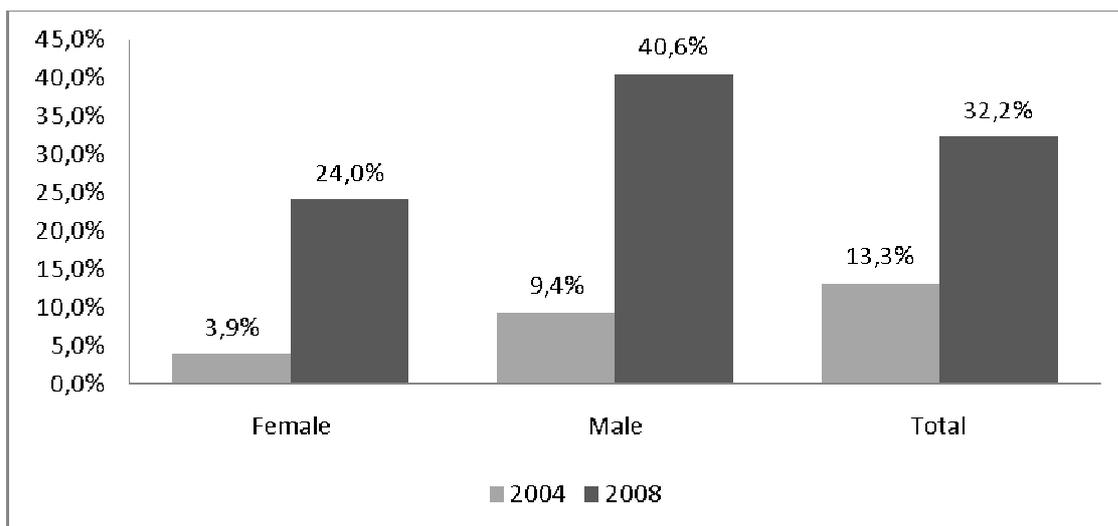
12. APPENDICES

12.1. Appendix 1 – ICT Usage in Turkey (%)

Individuals* using the computer – Comparison of 3 months periods in 2004** and 2008***



Individuals* accessing the Internet – Comparison of 3 months periods in 2004** and 2008***



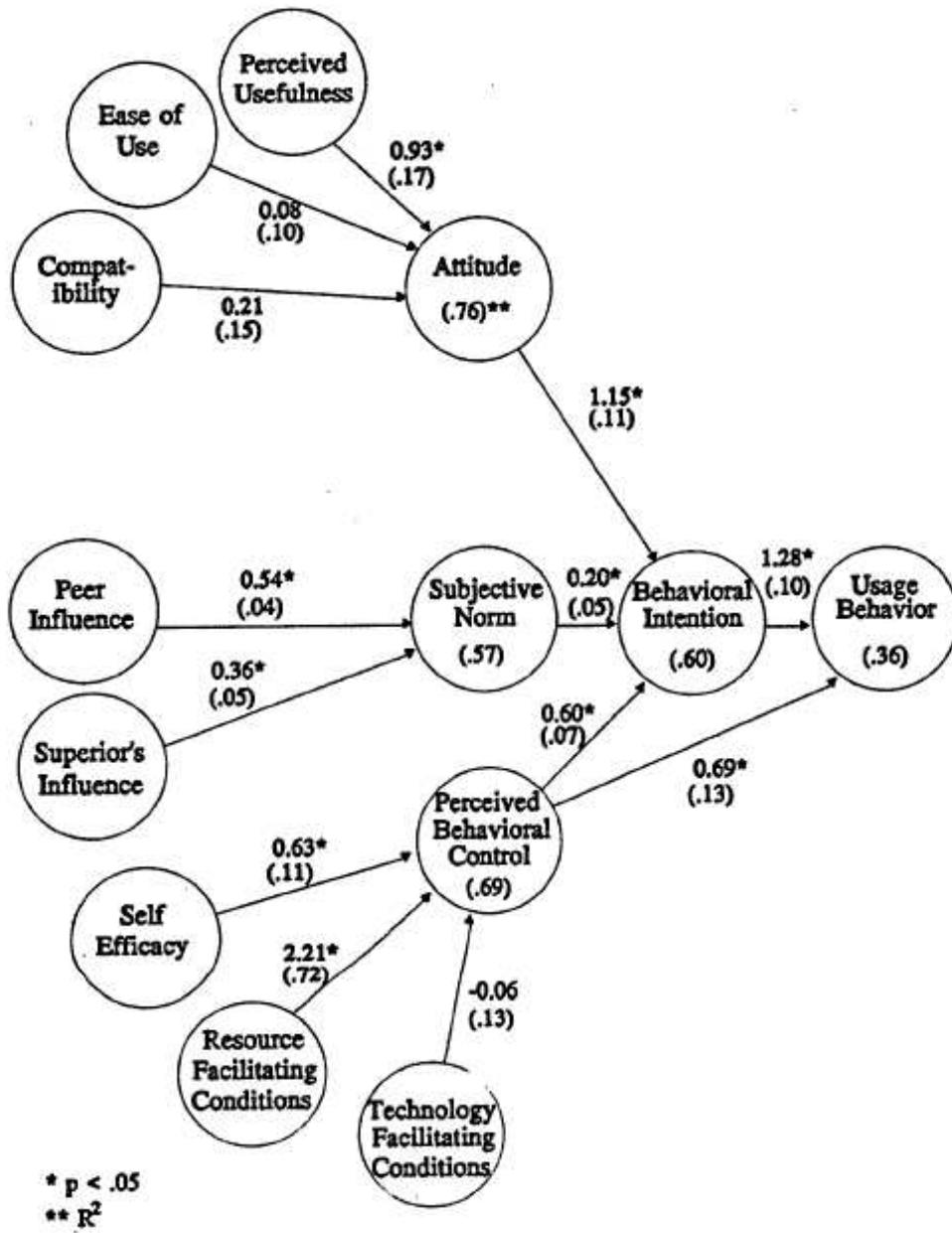
* 16-74 age group

** April-June 2004

*** January- March 2008

Source: Turkish Statistical Institute (2009)

12.2. Appendix 2 – Decomposed Theory of Planned Behaviour



Source: Taylor and Todd (1995)

12.3. Appendix 3 – Results of the ICT Usage in Households and by individuals

Individuals* using the computer and accessing the Internet in the last 3 months** by age and education level in the survey implementation period *** (%)

	Computer			Internet		
	Total	Female	Male	Total	Female	Male
	34,3	25,6	43,2	32,2	24,0	40,6
Age group						
16 – 24	58,3	49,2	68,4	55,0	45,4	65,6
25 – 34	43,4	31,7	54,8	41,1	30,1	51,8
35 – 44	30,4	20,9	39,8	27,9	20,1	35,6
45 – 54	20,0	12,3	27,5	18,9	11,5	26,1
55 – 64	6,9	2,1	11,8	6,5	1,9	11,2
65 – 74	1,6	0,7	2,6	1,4	0,7	2,2
Education level						
Literate without a diploma	2,7	1,4	6,9	2,2	1,1	6,2
Primary school	11,6	7,0	16,4	9,6	5,9	13,6
Secondary and vocational secondary school	44,2	39,0	48,0	40,8	35,9	44,3
High and vocational high school	67,2	61,6	71,3	64,0	58,2	68,3
Higher education	87,9	86,9	88,5	87,2	86,2	87,9

* January-March 2008

**16-74 age group

*** Survey implementation period: April 17- 30, 2008

Source: Turkish Statistical Institute (2009)

12.4. Appendix 4 – Questionnaire in English

This questionnaire aims to understand the purchasing behaviour of electronic consumers and their web site preferences. In this questionnaire web sites are classified into two: online retail stores (e.g. Amazon.com, Hepsiburada.com) and online auction stores (e.g. eBay, GittiGidiyor.com). Differing from online retail stores, in online auction stores second hand products are also available and the buyer needs to be involved in a bidding process to purchase an item.

It will take you approximately 10 minutes to complete this questionnaire. Please answer all the questions, as each of your answers provides us with valuable information.

1. Did you personally make or participate in any purchases on the Internet during the past 6 months?

a. Yes

If yes, please state the approximate number of purchases:

Online Retail Stores:

Online Auction Stores:

b. No

If no, would you consider purchasing online in the next 6 months?

a. Yes (Please proceed to the next question)

b. No (Please proceed to question 8)

2. If I intend to purchase in the next 6 months, ..

I would prefer online auction stores.

I would be indifferent between online auction stores and online retail stores.

I would prefer online retail stores.

3. Below are some statements regarding attitudes toward online purchasing. For each statement, please state your degree of agreement .

	1	2	3	4	5
1: Strongly Disagree, 2: Disagree, 3: Neither Agree nor Disagree, 4: Agree, 5: Strongly Agree					
Prices are cheap.					
Online retail stores					
Online auction stores					
I can get good service (pre-sale, sale and post-sale).					
Online retail stores					
Online auction stores					
It allows for comparative shopping (comparing alternative products according to several attributes).					
Online retail stores					
Online auction stores					
It is time-saving.					
Online retail stores					
Online auction stores					
I can find products that I cannot find elsewhere.					
Online retail stores					
Online auction stores					
It makes me feel satisfied and a sense of achievement.					
Online retail stores					
Online auction stores					
It is entertaining.					
Online retail stores					
Online auction stores					

4. Below are some attributes regarding web site content and design. For each statement, please state your degree of agreement .

1: Strongly Disagree, 2: Disagree, 3: Neither Agree nor Disagree, 4: Agree, 5: Strongly Agree	1	2	3	4	5
I find the information about the firms, products and services complete and correct.					
Online retail stores					
Online auction stores					
I find the decision making aids (like calculator, charts, calendar, etc.) provided on the web site useful.					
Online retail stores					
Online auction stores					
I find the shopping process easy/detailed instructions are provided.					
Online retail stores					
Online auction stores					
It does not require a lot of mental effort.					
Online retail stores					
Online auction stores					
It is easy to navigate on the web site.					
Online retail stores					
Online auction stores					
Visual presentations enhance the information provided.					
Online retail stores					
Online auction stores					

5. For each statement, please state your degree of agreement.

1: Strongly Disagree, 2: Disagree, 3: Neither Agree nor Disagree, 4: Agree, 5: Strongly Agree	1	2	3	4	5
The members of my family think that I should make the purchases through ...					
Online retail stores					
Online auction stores					
The media frequently suggests us to make purchases through ...					
Online retail stores					
Online auction stores					
My friends think that I should make the purchases through ...					
Online retail stores					
Online auction stores					

6. Below are some statements regarding online purchasing. For each statement, please state your degree of agreement.

	1	2	3	4	5
1: Strongly Disagree, 2: Disagree, 3: Neither Agree nor Disagree, 4: Agree, 5: Strongly Agree					
I feel comfortable as I am able to navigate without any help.					
Online retail stores					
Online auction stores					
I find transaction processing efficient (e.g. fast retrieval of information and payment processing and delivery).					
Online retail stores					
Online auction stores					
I find the transaction procedure simple/not complicated.					
Online retail stores					
Online auction stores					
I feel secure when revealing my personal information.					
Online retail stores					
Online auction stores					
I find making a transaction safe in terms of payment.					
Online retail stores					
Online auction stores					
I find the delivery of the goods/services on time.					
Online retail stores					
Online auction stores					
I feel confident that goods/services will be delivered as promised.					
Online retail stores					
Online auction stores					

7. Please indicate, for each following products, your choice of online store through which you would purchase:

	Online Retail Stores	Online Auction Stores	Both/ Indifferent	I would not purchase this product
Books				
CDs				
Peripherals of computer				
Telecommunication and Electronic products (mobile phone, MP3 player, etc.)				
Domestic Appliances (personal care, kitchen appliances, etc.)				
Tickets (Air flight, train, bus, concert, etc.)				
Cosmetics				
Clothes				
Accessories (bags, belts, glasses, jewellery, etc.)				
Please indicate other products or services, if not listed above, that you would specifically buy via ...				
Online auction store				
Online retail store				

8. Please specify your gender:

Male

Female

9. How old are you?

10. What is your highest level of education?

High school and lower

University

Post-graduate and higher

12.5. Appendix 5 – Questionnaire in Turkish

Bu anket tüketicilerin sanal mağaza seçimlerini etkileyen faktörleri anlama amaçlı düzenlenmiştir. Ankette iki çeşit sanal mağaza tanımlanmıştır. Online perakende satış mağazaları çok çeşitli ürünleri müşterilerine tek bir çatı altında sunan Amazon.com ve Hepsiburada.com gibi sitelerdir. Online açık arttırma mağazaları ise ikinci el ürünlerinin de satışa sunulduğu, ürün fiyatının alıcının fiyat teklifleriyle belirlendiği eBay ve GittiGidiyor.com gibi sitelerdir.

Anket yaklaşık olarak 10 dakika sürecektir. Vereceğiniz her cevap değerli bilgiler sağlayacağından, lütfen tüm soruları cevaplayınız.

1. Son 6 ayda internet üzerinden alışveriş yaptınız mı?

a. Evet

Lütfen ortalama alışveriş sayınızı belirtiniz.

Perakende satış sitesi

Açık arttırma sitesi

b. Hayır

Önümüzdeki 6 ay içerisinde internet üzerinden alışveriş yapmayı düşünüyor musunuz?

a. Evet (Lütfen bir sonraki soruya geçiniz.)

b. Hayır (Lütfen 8. soruya geçiniz.)

2. Önümüzdeki 6 ay içerisinde internet üzerinden alışveriş yapmaya karar versem, ...

... açık arttırma sitelerini tercih ederdim.										
... herhangi bir site tercihim olmazdı.										
... perakende satış sitelerini tercih ederdim.										

3. Aşağıda internet üzerinden alışveriş davranışlarıyla ilgili ifadeler sıralanmıştır. Lütfen her ifade için fikrinizi aşağıdaki ölçeğe göre belirtiniz.

1: Kesinlikle katılmıyorum, 2: Katılmıyorum, 3: Kararsızım, 4: Katılıyorum, 5: Kesinlikle katılıyorum

	1	2	3	4	5
Fiyatları uygundur.					
Perakende satış siteleri					
Açık arttırma siteleri					
Satış öncesinde, sırasında ve sonrasında iyi ve kaliteli hizmet alabilirim.					
Perakende satış siteleri					
Açık arttırma siteleri					
Ürünleri kolay karşılaştırma imkanı verir.					
Perakende satış siteleri					
Açık arttırma siteleri					
Çok vaktimi almaz.					
Perakende satış siteleri					
Açık arttırma siteleri					
Başka yerde satılmayan ürünleri bulabilirim.					
Perakende satış siteleri					
Açık arttırma siteleri					
Kazançlı çıktığım hissini verir.					
Perakende satış siteleri					
Açık arttırma siteleri					
Eğlenceli olduğunu düşünürüm.					
Perakende satış siteleri					
Açık arttırma siteleri					

4. Aşağıda sitelerin içerikleri ve tasarımlarıyla ilgili ifadeler sıralanmıştır. Lütfen her ifade için fikrinizi aşağıdaki ölçeğe göre belirtiniz.

1: Kesinlikle katılmıyorum, 2: Katılmıyorum, 3: Kararsızım, 4: Katılıyorum, 5: Kesinlikle katılıyorum

	1	2	3	4	5
Ürünler ve firmalar hakkında tam ve doğru bilgi sağlar.					
Perakende satış siteleri					
Açık arttırma siteleri					
Sitenin karar vermeme yardımcı olan özellikleri (hesap makinesi, takvim, vs.) kullanışlıdır.					
Perakende satış siteleri					
Açık arttırma siteleri					
Nasıl alışveriş yapılacağıyla ilgili detaylı bilgi sağlar.					
Perakende satış siteleri					
Açık arttırma siteleri					
Fazla zihinsel çaba gerektirmez.					
Perakende satış siteleri					
Açık arttırma siteleri					
Sayfada gezinmesi kolaydır.					
Perakende satış siteleri					
Açık arttırma siteleri					
Ürünle ilgili kullanılan görsel sunuşlar başarılıdır.					
Perakende satış siteleri					
Açık arttırma siteleri					

5. Lütfen her ifade için fikrinizi aşağıdaki ölçeğe göre belirtiniz.

1: Kesinlikle katılmıyorum, 2: Katılmıyorum, 3: Kararsızım, 4: Katılıyorum, 5: Kesinlikle katılıyorum

	1	2	3	4	5
Ailemdeki bireyler üzerinden alışveriş yapmamı önerirler.					
Perakende satış siteleri					
Açık arttırma siteleri					
Medya sık sık üzerinden alışveriş yapmamızı öneriyor.					
Perakende satış siteleri					
Açık arttırma siteleri					
Arkadaşlarım üzerinden alışveriş yapmamı önerirler.					
Perakende satış siteleri					
Açık arttırma siteleri					

6. Aşağıda internet üzerinden alışveriş davranışlarıyla ilgili ifadeler sıralanmıştır. Lütfen her ifade için fikrinizi aşağıdaki ölçeğe göre belirtiniz.

1: Kesinlikle katılmıyorum, 2: Katılmıyorum, 3: Kararsızım, 4: Katılıyorum, 5: Kesinlikle katılıyorum

	1	2	3	4	5
Yardıma ihtiyaç olmadan sayfada rahat gezinebilirim.					
Perakende satış siteleri					
Açık arttırma siteleri					
İşlem süreci (bilgi elde etme, ödeme işlemi, teslimat) hızlıdır.					
Perakende satış siteleri					
Açık arttırma siteleri					
Satınalma prosedürü karmaşık değildir.					
Perakende satış siteleri					
Açık arttırma siteleri					
Kişisel bilgilerimi paylaşırken güvende hissederim.					
Perakende satış siteleri					
Açık arttırma siteleri					
Ödeme işlemi yapmanın güvenli olduğunu düşünürüm.					
Perakende satış siteleri					
Açık arttırma siteleri					
Ürün teslimatı gecikmez.					
Perakende satış siteleri					
Açık arttırma siteleri					
Ürünler vadedildiği gibi teslim edilir.					
Perakende satış siteleri					
Açık arttırma siteleri					

7. Lütfen her ürün çeşidi için varsa sanal mağaza türü tercihinizi belirtiniz.

	Perakende Satış Siteleri	Açık arttırma siteleri	İkisi de	Bu ürünü satın almam
Kitap				
CD				
Bilgisayar parçaları				
Elektronik ürünler (cep telefonu, MP3 çalar, vb.)				
Küçük ev aletleri (kişisel bakım, mutfak aletleri, vb.)				
Biletler (uçak, tren, konser, vb.)				
Kozmetik ürünleri				
Kıyafet				
Aksesuar (çanta, kemer, gözlük, takı, vs.)				

Yukarıda listelenmeyen ürünler dışında belirtmek istediğiniz ürünler:

Açık arttırma siteleri:

Perakende satış siteleri:

8. Cinsiyetiniz:

<input type="checkbox"/>	Erkek
<input type="checkbox"/>	Kadın

9. Yaşınız:

10. Eğitim durumunuz:

<input type="checkbox"/>	Lise ve altı
<input type="checkbox"/>	Üniversite
<input type="checkbox"/>	Yüksek lisans ve üstü

12.6. Appendix 6 – Cronbach’s Alpha for questions on 'Online Retail Stores'

Questions for measurement	Alpha	Alpha If Item Deleted
Perceived Usefulness	0,8223	
Prices		0,7984
Customer Service		0,8325
Comparative Shopping		0,7730
Time Consumed		0,8047
Product Rarity		0,7956
Sense of achievement		0,7777
Perceived Enjoyment		0,8009
Perceived Ease of Use	0,8755	
Information provided		0,8545
Decision making aids		0,8765
Shopping instructions		0,8514
Mental effort		0,8498
Navigation		0,8396
Visual Presentation		0,8507
Normative Beliefs	0,7626	
Family		0,7286
Media		0,7432
Friends		0,6812
Control Belief	0,8063	
Need for assistance		0,8001
Transaction process efficiency		0,7721
Transaction procedure complexity		0,7882
Privacy		0,8003
Security		0,7819
Product Uncertainty		0,7555
Seller Credibility		0,7666

12.7. Appendix 7 – Cronbach’s Alpha for questions on 'Online Auction Stores'

Questions for measurement	Alpha	Alpha If Item Deleted
Perceived Usefulness	0,8372	
Prices		0,8270
Customer Service		0,8417
Comparative Shopping		0,7816
Time Consumed		0,8109
Product Rarity		0,8126
Sense of achievement		0,8065
Perceived Enjoyment		0,8175
Perceived Ease of Use	0,8970	
Information provided		0,8842
Decision making aids		0,8912
Shopping instructions		0,8749
Mental effort		0,8763
Navigation		0,8632
Visual Presentation		0,8819
Normative Beliefs	0,7705	
Family		0,7375
Media		0,6867
Friends		0,6318
Control Belief	0,9207	
Need for assistance		0,9113
Transaction process efficiency		0,9010
Transaction procedure complexity		0,9098
Privacy		0,9148
Security		0,9088
Product Uncertainty		0,9076
Seller Credibility		0,9072

12.8. Appendix 8 – SPSS tables

Case Processing Summary

		N	Marginal Percentage
auction, indifferent, retail	Auction	25	11,0%
	Indifferent	54	23,7%
	Retail	149	65,4%
What is your gender?	Female	118	51,8%
	Male	110	48,2%
age grouped 25-35-45	1	71	31,1%
	2	91	39,9%
	3	41	18,0%
	4	25	11,0%
what is your highest level of education?	high school & lower	25	11,0%
	University	119	52,2%
	post-graduate & higher	84	36,8%
retail experience	1	69	30,3%
	2	72	31,6%
	3	87	38,2%
auction experience, none, 1-3, 4+	1	4	1,8%
	2	47	20,6%
	3	177	77,6%
Valid		228	100,0%
Missing		0	
Total		228	
Subpopulation		193(a)	

a The dependent variable has only one value observed in 193 (100,0%) subpopulations.

Model Fitting Information

Model	-2 Log Likelihood	Chi-Square	df	Sig.
Intercept Only	392,852			
Final	303,781	89,070	36	,000

Likelihood Ratio Tests

Effect	-2 Log Likelihood of Reduced Model	Chi-Square	df	Sig.
Intercept	303,781(a)	,000	0	.
PURETAIL	304,046	,264	2	,876
PUAUCTIO	303,836	,055	2	,973
PEOAUCTN	304,531	,749	2	,687
PEORETAI	304,816	1,034	2	,596
NBRETAIL	317,898	14,116	2	,001
NBAUCTIO	314,735	10,954	2	,004
CBRETAIL	310,475	6,693	2	,035
CBAUCTIN	304,285	,504	2	,777
GENDER	304,714	,932	2	,627
AGE3	322,843	19,062	6	,004
EDUCATIO	316,486	12,705	4	,013
RETEXP	322,428	18,647	4	,001
AUCEXP	315,154	11,372	4	,023

The chi-square statistic is the difference in -2 log-likelihoods between the final model and a reduced model. The reduced model is formed by omitting an effect from the final model. The null hypothesis is that all parameters of that effect are 0.

a This reduced model is equivalent to the final model because omitting the effect does not increase the degrees of freedom

Parameter Estimates

	B	Std. Error	Wald	df	Sig.	Exp(B)	95% Confidence Interval for Exp(B)	
							Lower Bound	Upper Bound
auction, indifferent, retail ^a								
auction	Intercept	6,083	3,335	3,326	1	,068		
	PURETAIL	-,195	,424	,211	1	,646	,358	1,890
	PUAUCTIO	-,108	,486	,049	1	,824	,346	2,328
	PEOAUCTN	-,351	,571	,377	1	,539	,704	2,158
	PEORETAL	,026	,520	,003	1	,959	1,027	2,843
	NBRETAL	-1,077	,332	10,505	1	,001	,341	,178
	NBAUCTIO	,737	,250	8,689	1	,003	2,089	3,409
	CBRETAL	-,864	,477	3,280	1	,070	,422	1,074
	CBAUCTIN	,252	,464	,294	1	,588	1,286	3,195
	[GENDER=1]	-,445	,570	,610	1	,435	,641	1,958
	[GENDER=2]	0 ^b	.	.	0	.	.	.
	[AGE3=1]	-3,133	1,165	7,233	1	,007	,044	,427
	[AGE3=2]	-2,081	,909	5,242	1	,022	,125	,741
	[AGE3=3]	,131	,850	,024	1	,878	1,140	6,029
	[AGE3=4]	0 ^b	.	.	0	.	.	.
	[EDUCATIO=1]	-2,685	1,334	4,053	1	,044	,068	,932
	[EDUCATIO=2]	-,340	,612	,309	1	,579	,712	2,363
	[EDUCATIO=3]	0 ^b	.	.	0	.	.	.
	[RETEXP=1]	-1,351	,752	3,224	1	,073	,259	1,132
	[RETEXP=2]	-2,233	,831	7,218	1	,007	,107	,547
	[RETEXP=3]	0 ^b	.	.	0	.	.	.
	[AUCEXP=1]	-16,381	,000	.	1	.	7,692E-08	7,692E-08
	[AUCEXP=2]	1,880	,755	6,200	1	,013	6,554	28,787
	[AUCEXP=3]	0 ^b	.	.	0	.	.	.
indifferent	Intercept	,553	1,865	,088	1	,767		
	PURETAIL	,024	,275	,008	1	,930	1,025	1,755
	PUAUCTIO	,004	,299	,000	1	,988	1,004	1,806
	PEOAUCTN	,157	,362	,188	1	,665	1,170	2,375
	PEORETAL	,317	,320	,982	1	,322	1,373	2,569
	NBRETAL	-,394	,191	4,261	1	,039	,674	,980
	NBAUCTIO	,376	,182	4,240	1	,039	1,456	2,082
	CBRETAL	-,616	,300	4,229	1	,040	,540	,971
	CBAUCTIN	,175	,296	,351	1	,553	1,192	2,129
	[GENDER=1]	-,284	,376	,570	1	,450	,753	1,574
	[GENDER=2]	0 ^b	.	.	0	.	.	.
	[AGE3=1]	-,168	,680	,061	1	,805	,845	3,207
	[AGE3=2]	-,379	,644	,346	1	,556	,685	2,420
	[AGE3=3]	,595	,697	,728	1	,394	1,812	7,102
	[AGE3=4]	0 ^b	.	.	0	.	.	.
	[EDUCATIO=1]	,062	,599	,011	1	,918	1,064	3,439
	[EDUCATIO=2]	-,909	,426	4,564	1	,033	,403	,928
	[EDUCATIO=3]	0 ^b	.	.	0	.	.	.
	[RETEXP=1]	-1,874	,582	10,379	1	,001	,154	,480
	[RETEXP=2]	-1,245	,478	6,786	1	,009	,288	,735
	[RETEXP=3]	0 ^b	.	.	0	.	.	.
	[AUCEXP=1]	1,439	1,383	1,083	1	,298	4,216	63,344
	[AUCEXP=2]	1,292	,525	6,042	1	,014	3,639	10,191
	[AUCEXP=3]	0 ^b	.	.	0	.	.	.

a. The reference category is: retail.

b. This parameter is set to zero because it is redundant.