

ISTANBUL BILGI UNIVERSITY
INSTITUTE OF SOCIAL SCIENCES
ORGANISATION STUDIES PHD PROGRAM

REVISITING ENDOWMENT EFFECT
IN DIGITAL AGE

Selim Baciođlu
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Prof. Dr. Yonca Aslanbay

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Dijital Çağda Sahiplik Etkisi

Selim Bacıoğlu

113811008

Tez Danışmanı : Prof. Dr. Yonca Aslanbay
İstanbul Bilgi Üniversitesi

Jüri Üyeleri : Prof. Dr. Selime Sezgin
İstanbul Bilgi Üniversitesi

Prof. Dr. Beril Durmuş
Marmara Üniversitesi

Prof. Dr. Murat Çinko
Marmara Üniversitesi

Dr. Öğr. Üyesi Barış Ursavaş
İstanbul Bilgi Üniversitesi

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LIST OF ABBREVIATIONS

B2B:	Business to business
P2P	Peer-to-peer
PWC	PriceWaterhouseCoopers
e-WOM	Electronic word of mouth
WOM	Word of mouth
WTA	Willingness to accept price
WTP	Willingness to purchase price



ABSTRACT

In recent years, behavioural economics has been a very popular field of study and the endowment effect is one of the most well researched subjects within this field. Various different aspects of the endowment effect have already been explored. This research focuses on a hitherto unexplored area: the effects of electronic word-of-mouth (e-WOM) and sharing on endowment effect. Both e-WOM and sharing are getting popular among consumers and they challenge traditional marketing tools and business models. Online reviews became a vital part of our daily consumption habits and the size of sharing economy is getting bigger every year. The target of this research is to enlighten the effects of e-WOM and sharing on endowment effect and in total three hypotheses are constructed:

H^0_1 : Positive e-WOM will increase the power of endowment effect

H^0_2 : Negative e-WOM will decrease the power of endowment effect

H^0_3 : Sharing experience will lead to disappearance of endowment effect

Two sets of experiments with 160 students are conducted in order to test the hypotheses. The first set investigates the effect of positive and negative Amazon.com reviews on endowment effect. Classical endowment effect experiment setup is used: students are divided into two groups as buyers and sellers and Pilot Pens are distributed to the sellers. Both groups are asked for their minimum selling and maximum buying prices and the ratio of average selling/buying prices are calculated. The results reveal that where positive comments increase the loss aversion coefficient significantly, the negative comments lead to the disappearance of endowment effect. The second set of the experiments focuses on sharing. The fictional setup is based on a car sharing experience and the same methodology as in the first group of experiments is used. The results of two experiments reveal a loss aversion coefficient of 1, meaning

complete elimination of endowment effect, but the results were statistically not significantly different over the base experiment.

The findings show that e-WOM affect our approach to ownership. Positive and negative e-WOM content do not only increase or decrease average buying and selling prices, but also the ratio between them.

Obtained results have theoretical and practical implications. Apart of revealing another new condition, under which the endowment effect disappears, the findings regarding e-WOM content have several managerial implications.



ÖZET

Son yıllarda çok popüler hale gelen davranışsal ekonomi ve sahiplik etkisi konuları literatürde çok çeşitli perspektiflerden derinlemesine işlenmiştir. Bu çalışma ise bugüne kadar incelenmemiş bir alan olan elektronik ağızdan ağıza pazarlama (e-WOM) ve paylaşım ekonomisinin sahiplik etkisi ile ilişkisine odaklanmış bulunmaktadır. Dijital çağın yol açtığı değişimler sayesinde hem e-WOM, hem de paylaşım ekonomisinin popülerliği tüm dünyada artıyor. Web sitelerindeki tüketici yorumlarını okumak günlük alışkanlıklarımız arasına girmişken, paylaşım ekonomisinin yarattığı toplam değer de her gün artıyor. Bu tezde geleneksel pazarlama yöntemlerini ve iş modellerini tehdit eden bu gelişmelerin sahiplik etkisi üzerindeki etkisini ölçmek adına aşağıdaki üç hipotez tasarlanmış bulunuyor:

H^0_1 : Pozitif e-WOM içeriği sahiplik etkisini artırır.

H^0_2 : Negatif e-WOM içeriği sahiplik etkisini azaltır.

H^0_3 : Paylaşım deneyimi sahiplik etkisini azaltır.

Bu üç hipotezi test etmek amacıyla iki ayrı grup halinde toplam beş deney, 160 öğrencinin katılımı ile gerçekleştirildi. Birinci gruptaki üç deney e-WOM etkisini ölçmek için baz deneyi takiben hem pozitif, hem de negatif Amazon.com tüketici yorumları kullanılarak yapıldı. Deneylerde klasik sahiplik etkisi deneylerinin formatı kullanılırken, sınıflar alıcılar ve satıcılar olarak ikiye bölündü ve satıcılara Pilot Pen marka kalemler dağıtıldı. Satıcılara kalemler için talep ettikleri en düşük satış bedeli sorulurken, alıcılardan da verebilecekleri en yüksek teklif bedeli istendi. Ortalama alış ve satış bedellerinin birbirlerine oranları sahiplik etkisi katsayısını ortaya koydu. Sonuçlar pozitif e-WOM içeriğinin sahiplik etkisini arttırdığını gösterirken, negatif e-WOM içeriği ise sahiplik etkisinin yok olmasına sebep oldu. İkinci grup deneylerinde ise bir otomobil paylaşma senaryosu kullanıldı. Çıkan sonuçlar paylaşma deneyiminin sahiplik etkisi katsayısını 1'e düşürdüğünü ve etkinin kaybolduğunu gösterdi, fakat bu sonuçlar istatistikî olarak anlamlı değildi.

Ortaya çıkan sonuçlar e-WOM ve paylaşım ekonomisinin sahiplik algımız üzerinde etkisi olduğuna işaret ediyor. Pozitif ve negatif e-WOM içerikleri sadece ortalama alıcı ve satıcı fiyatlarını değil, aynı zamanda aralarındaki oranı da etkiledi.

Elde edilen bulguların hem teorik, hem de pratik etkileri bulunuyor. Teorik olarak sahiplik etkisinin kaybolduğu bir durum daha bulunmuşken, pazarlama açısından da özellikle e-WOM'un dikkatli yönetilmesi gereken bir konu olduğu görülmüştür.



INTRODUCTION

“There is no known cure for the ills of ownership.”

Dan Ariely (2009)

Great sportsmen are known with their desire to win, but most of them hate losing more than they like winning. It is a feeling, which has its roots deep in the human nature.

Daniel Kahneman and Amos Tversky were able to recognize and theorize this fact in late 1970's with their most cited “Prospect Theory” (1979). The central argument of the prospect theory is that people tend to be loss-averse, meaning that they dislike losing more than they like winning.

One of the implications of the prospect theory is that people tend to overvalue the goods in their possession, which is known as “endowment effect” (Thaler, 1980). The idea behind the endowment effect is the following: By selling a good, you lose it. According to the prospect theory, losing is a more intense and powerful feeling than winning, so people demand higher prices for the goods they own, as a compensation of their loss. Several experiments are conducted in order to test this hypothesis and in most cases, loss-aversion coefficients are found around the level of two, which means that people value the goods in their possession two times more (Ho, Lim & Camerer, 2006). Endowment effect, which is in fact an asymmetry of value perception, has been seen as an anomaly of classical economics theory (Thaler, 1994) and studied in detail in the last two decades.

A recent McKinsey Quarterly article (Welch, 2010) indicates that since years marketers have been applying behavioural economics tools unknowingly,

but a more systematic approach might be more beneficial. An example given by Welch is based on the default options. If you offer a deal as the default part of the main offer, people tend to feel that they already own it and do not like to lose it. An Italian telecom company increased the acceptance rate of a default option dramatically by applying this method, which is actually based on endowment effect (Welch, 2010).

Although economics and psychology are two of the most influential sciences, which are affecting marketing, for a long time marketing models were based on classical economics theories (Ho, Lim & Camerer, 2006). Behavioural economics can help to create more realistic models by exploring the irrationality of consumers or at least the limitations of their rationality.

The main objective of this study is to investigate the endowment effect in light of the new digital era and to understand the power of it in this new age of marketing. Two main transformations of digital era that have reflections on consumption and marketing are electronic word-of-mouth (e-WOM) and sharing. By studying the effects of these two on endowment effect, this research aims to help creating a more systematic approach for the use of endowment effect as a powerful marketing tool.

In the last decade, social media, online comments and tweets about products became very influential in the decision making process of consumers (Erkan & Evans, 2016). In this modern era of consumption, consumers care a lot about online comments of other users, whom actually they do not know and as a result of this phenomenon e-WOM became one of the most powerful marketing tools around (Mauri & Minazzi, 2013).

As Belk has stated in 1988, “knowingly or unknowingly, intentionally or unintentionally, we regard our possessions as parts of ourselves” (Belk, 2013), but modern era challenges our view towards our possessions, too. Sharing gets popular among consumers and a wide range of products are shared between each other. This new trend in consumption leads to a new approach towards ownership.

This thesis, which is one of the first studies about the effects of e-WOM and sharing on endowment effect, revealed interesting results. The first part of it

reviews related literature regarding the endowment effect, behavioural economics, e-WOM and sharing economy. The second part explains the research methodology, followed by the results of experiments. Discussions about the results and marketing implications will finalize the thesis.

1. THE IRRATIONAL POWER OF OWNERSHIP

Dan Airely funnily puts forward that there is no known cure for the ills of ownership (2009). Is it really so? Will the increasing popularity of sharing economy change our approach to the ownership? A recent PWC report (2015) reveals that 43% of Americans thinks that “owning today feels like a burden”, but on the other hand 72% of the same population feel that “sharing economy is not consistent”. As we will discuss in the next part of this thesis, the dynamics of ownership is complicated and new concepts like e-WOM and sharing are effective tools, which might influence our approach towards ownership.

1.1. THE BACKGROUND OF BEHAVIORAL ECONOMICS AND ENDOWMENT EFFECT

“The problem seems to be that while economists have gotten increasingly sophisticated and clever, consumers remained decidedly human.”

Richard Thaler (1990)

In late 1970’s Richard Thaler has started to cooperate with Kahneman and Tversky and to study the anomalies in the economic behaviour of people. One of the topics he was very interested in was the one, which he later named as endowment effect. A colleague of him from the economics department, Richard Rosett was a wine collector and had some bottles, which increased their value from \$10 to \$100 in years. Although Rosett was not selling the bottles to wine

merchants for \$100, he was also not keen to buy new ones for \$100 (Thaler, 2016, p.17). This story was one of the sparks, which has lead Thaler to the concept of endowment effect. One year later, in 1980, he wrote his first paper on endowment effect and explained that people tend to see the goods in their endowment more worthy than the goods in market place (Thaler, 1980). The endowment effect became one of the most popular concepts inside of behavioural economics, but the roots of behavioural economics lies in the years much earlier than 1970's.

Although Adam Smith is known as the founding father of classical economics theory, he is also one of the first scholars who admitted in his book "*The Theory of Moral Sentiments*" that people are not only motivated by self-interest, but they also care about their feelings towards other people (Smith, 1759). It is interesting that there is around 200 years between Smith's ideas and the rise of behavioural economics.

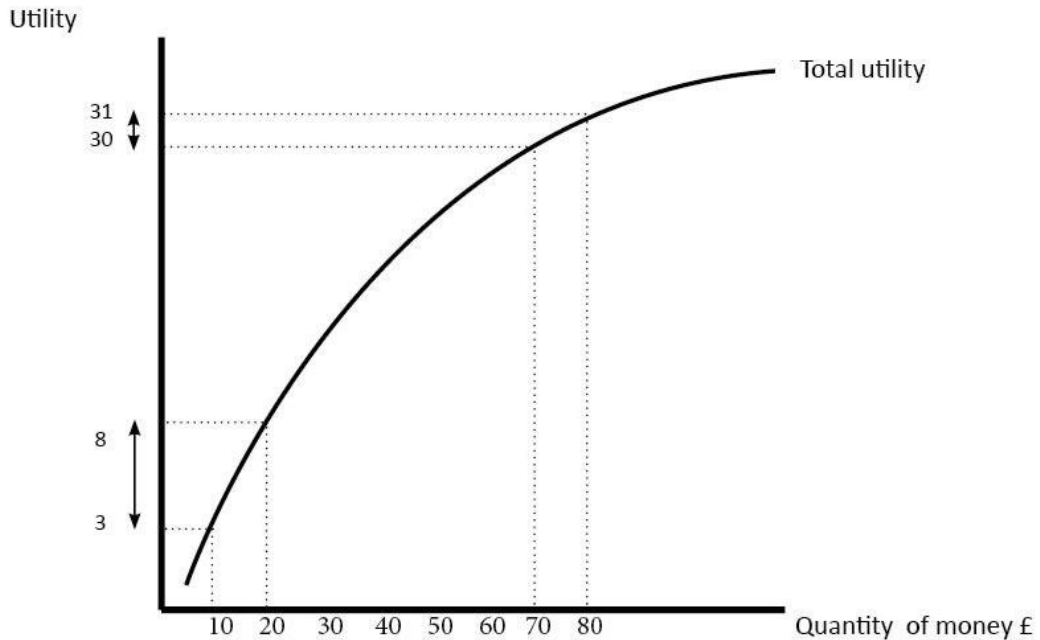
Edward Cartwright (2014) defines behavioural economics in his textbook in three steps. The first and most important function of behavioural economics is a similar one to classical economics: Understanding the economic decision making process of humans under various conditions. The second important task of a behavioural economist is to test classical economic models by conducting experiments on humans. As a last step, the insights gained from laboratory experiments and from other social sciences should be applied to economics theory.

Behavioural economics has been a popular field in the last three decades and has questioned the perfect rationality assumption of classical economics theory among other assumptions. One of the early scholars, who have contributed vastly to rationality discussions, is Herbert Simon, 1978 Nobel Prize winner in Economics. During mid-20th century, he has argued that although people are quite rational in their decision making process, they have limited computational capacity in order to solve complex problems and make pure rational choices, thus he proposed the concept of "bounded rationality". According to Herbert Simon, the choices people make are not only based on the goal and the environment, but also on information, time and computational level of people, who are making

these choices. Another important factor, which affects the decision making process is the “inner environment” of human beings, including memories and the state of their emotional status (Simon, 2000). All of these factors add up and lead to deviations from the utility maximizing states. Classical economists have reacted to bounded rationality with a simple explanation. They agreed that people’s decision might deviate from the utility maximising states, but on aggregate the errors will delete each other and the average would be as the expectation of the classical economics theory. Although Herbert Simon was one of the leaders in the field, he did not make any studies to explain how the decisions differ from pure rational ones (Thaler, 2016, p.29). Years later Kahneman and Tversky showed that the errors are not random, but they have predictable patterns, which lead Dan Airely to name his great book as “Predictably Irrational” (2009).

Pure rationality assumption is one of the central themes of behavioural economics, but it was another famous theory of classical economics literature that has led the rise of behavioural economics. Adam Smith was not the only thinker in 18th century, who understood that the cooperation of economics and psychology could have fruitful results. Other scholars such as Daniel Bernoulli, a Swiss mathematician who has lived in 1700’s, showed that economics and psychology could be used together to get meaningful explanations about the behaviour of homo economicus (Cartwright, 2014, p. 5). Bernoulli, known as one of the theoretical founders of utility theory, invented a very important concept in utility theory development: Diminishing marginal utility (Kahneman, 2005, p.272). The main idea behind this concept is the following: If you offer 100\$ to a very poor man, he will be very happy, but a very rich man would be indifferent in terms of his happiness, which indicates a concave (and logarithmic) utility function (Bernoulli, 1954) (Figure 1.1). What Bernoulli conceptualized was that people care about their utility level rather than their wealth in monetary terms. Although this concept is still lying in the heart of economics theory, it is flawed (Kahneman, 2005, p. 274).

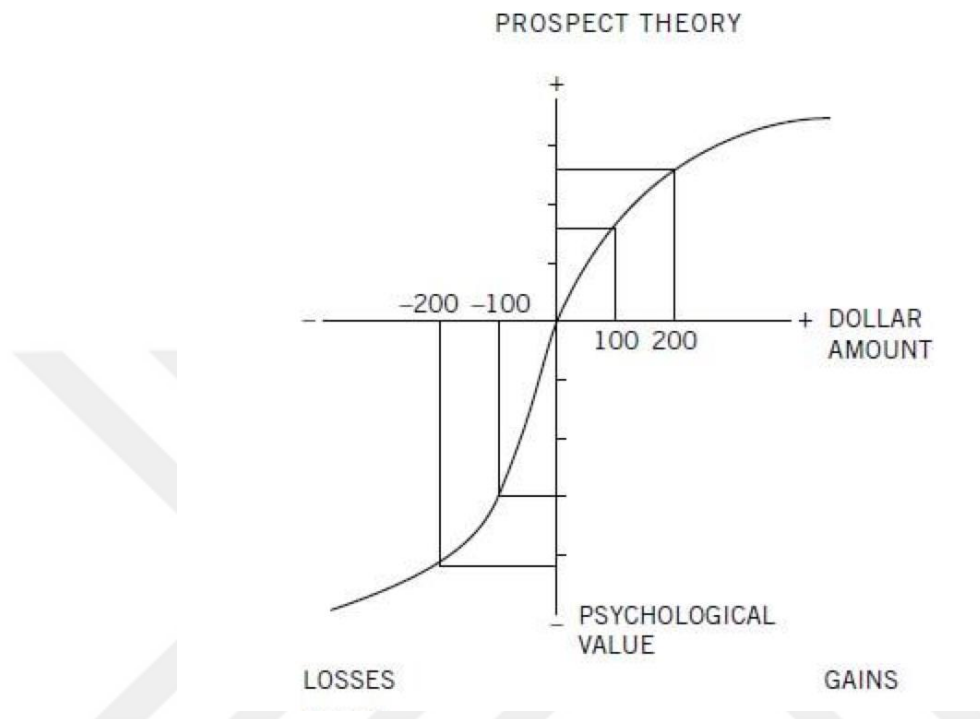
Figure 1.1: Diminishing marginal returns



As a result of Bernoulli's theory, it was widely accepted around academic economics cycles that utility is final-wealth dependent, until Daniel Kahneman and Amos Tversky made a great contribution to this theory by creating a new concept, namely the prospect theory (1979). They argued that utility is reference-dependent rather than final-wealth dependent. They wanted to prove that it is important where you end up with your final wealth in respect of your initial wealth. If you earn \$50,000 and reach a final wealth of \$100,000, you would be happy; but if lose \$50,000 and fall to a final wealth of \$100,000, you won't be happy at all – even though both final wealth levels are the same. The reference point you have at the initial stage is important. The logic behind this argumentation is a simple fact: People like to win, but they hate to lose, i.e. people are loss averse. It is a simple and intuitive fact, which was overseen by mainstream economics theory for more than 100 years.

The prospect theory can be visualised with a simple graph (Figure 1.2). Putting the dollar amount on x-axis and utility on y-axis, one can show that a loss creates more disutility than the utility resulting from the same amount of win.

Figure 1.2: A hypothetical value function



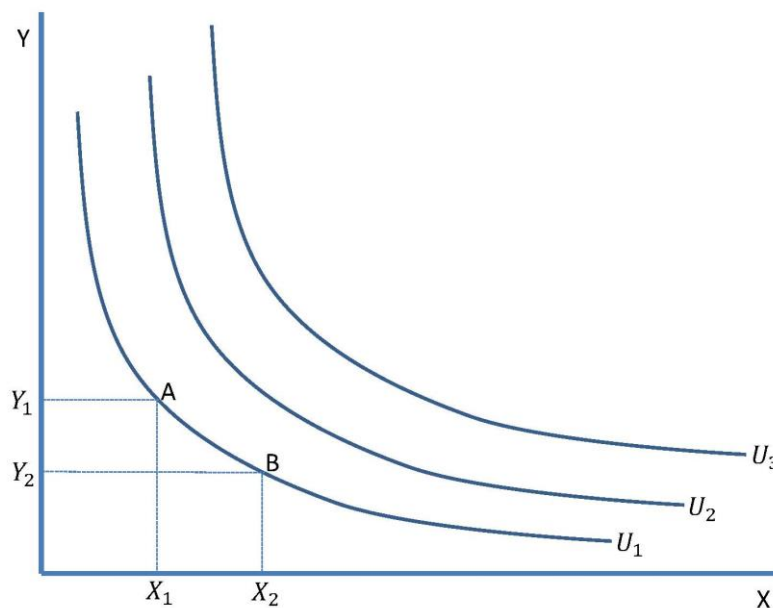
Reference: Kahneman & Tversky, 1979

Publishing “The Prospect Theory” in *Econometrica* journal (1979) is considered as the start of behavioural economics and the authors of the article, Daniel Kahneman and Amos Tversky are accepted as founding fathers of it. Although numerous scholars have contributed to the development of behavioural economics, Richard Thaler is the third most important name in the field after Kahneman and Tversky. Although Amos Tversky could not get a Nobel Prize in Economics due to his early death, Kahneman and Thaler have earned the prize in years 2002 and 2017, respectively. As mentioned earlier, in one of his early articles (1980) Thaler conceptualized endowment effect. It was not only an interesting concept, but it also had contradicted with one of known theorems of classical economics, which predicts that allocation of resources, subject to income effect, will be independent of the assignment of property rights. This statement is

known as Coase Theorem (Kahneman, Knetsch & Thaler, 1990). The theorem, which was found by Ronald Coase in 1960, let Coase to win the Nobel Prize in Economics in 1991. The main implication of this theory is that assuming that transaction costs are low enough, owning a good should not affect how the resources are allocated.

Endowment effect, which contradicts with Coase Theorem, violates one of the main concepts of economics theory: Indifference curves. These curves are one of the basic concepts of microeconomics and they represent a consumer, who has the same utility with different bundles of goods X and Y on a given indifference curve such as U_1 (Figure 1.3).

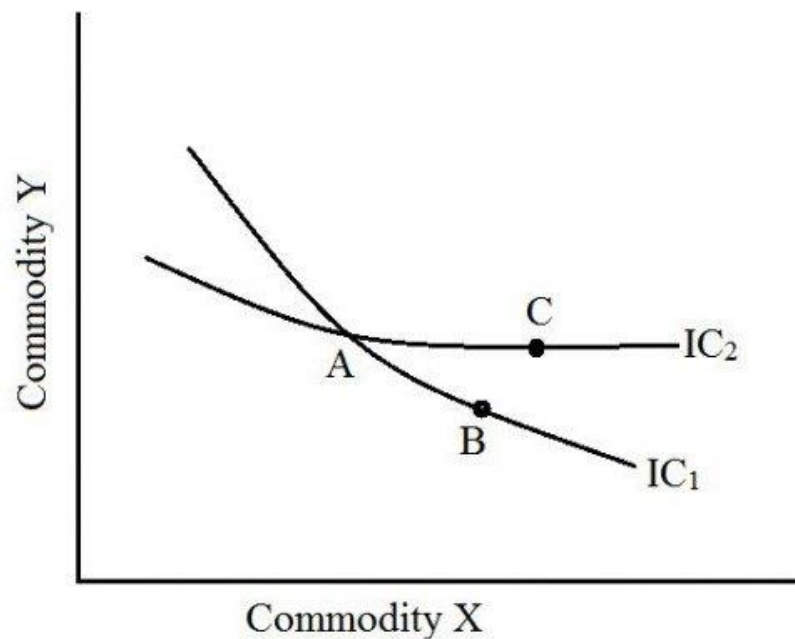
Figure 1.3: Indifference curves



A consumer can choose the amounts of the goods X and Y, based on his/her budget set. Points A and B are on the same indifference curve, meaning that the utility of the consumer is exactly same on points A and B (Figure 1.3). If the income of the consumer increases, he/she can reach higher indifference curves such as U_2 and U_3 . One of the main properties of indifference curves is that they

cannot cross each other (Varian, 2006, p.38). If they cross each other, then A, B and C should have the same utility and three points should have lied on the same curve (Figure 1.4).

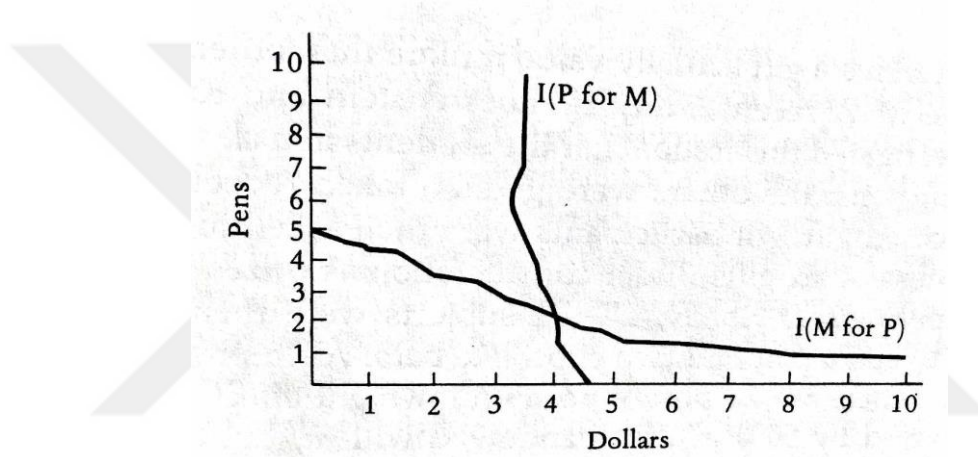
Figure 1.4: Crossing indifference curve



According to the classical microeconomics approach, the indifference curves are reversible, which means that one can trade good X and Y in exchange for each other, by being indifferent as long as they are both positioned on the same curve (Varian, 2006, p.37). When loss aversion is present, then reversibility of indifference curves will not hold, because people would be reluctant to give away the goods in their endowment (Thaler, 1994). The crossing of indifference curves would indicate that the indifference curves are non-reversible. The work of Knetsch (1989) proved that the indifference curves could be non-reversible due to loss aversion. In that study half of the students in the experiment were given coffee mugs and the other half was given chocolate bars. When asked to trade the goods they own, 89% of mug owners wanted to keep their mug, but interestingly only 10% of chocolate bar owners wanted to get mugs (1989). In following

experiments Knetsch (1989) changed the owners of mugs and chocolates randomly in different classes and the ownership played a crucial role in the decision of keeping the mugs or not. The result of this experiment is a clear violation of basic microeconomics, because the indifference curves in this experiment are crossing each other. A similar study by Thaler (1994) revealed again crossing indifference curves (Figure 1.5).

Figure 1.5: Crossing indifference curves



Reference: Thaler, 1994

Crossing indifference curves imply irrationality. If you are indifferent between A and B in Figure 1.4, then you should also be indifferent between A and C, since they are on the same indifference curve, but in this case you should prefer C over B, because at point C you have more of both goods (Figure 1.4).

As stated by Welch (2010), behavioural economics can make irrationality more predictable. Studying dynamics of irrationality and finding predictable results gave behavioural economics a respectful position inside of economics theory. The prospect theory created a base for further studies and after 30 years of its publication, behavioural economics is acknowledged as a complete theory rather than a collection of psychology experiments.

Table 1.1: Milestones of behavioural economics

Year	Author	Importance
1738	Daniel Bernoulli	Diminishing marginal returns
1759	Adam Smith	Discussing effects of emotions on economic decisions
1960s	Herbert Simon	Bounded rationality
1979	Kahneman & Tversky	The prospect theory
1980	Richard Thaler	Endowment effect
1989	Jack Knetsch	Non-reversible indifference curves
1990	Knetsch, Thaler & Kahneman	Mug experiment

1.2. THE RISE OF ENDOWMENT EFFECT

“If you don't win, it's not a great tragedy, the worst that happens is that you lose a game.”

Bobby Fischer
Chess World Champion, 1972-75

A widely referred paper to test endowment effect has been written in 1990 by three authors, Daniel Kahneman, Richard H. Thaler and Jack L. Knetsch. The famous coffee mug experiment has been conducted in this paper. The authors have put coffee mugs on the tables of students and randomly half of these students have been told that they own the mugs and should decide for a price to trade the mugs, i.e. to decide their willingness to accept price (WTA). The other half has been told that they should make an offer for the mugs, i.e. their willingness to pay price (WTP). According to the classical economics theory, the expected outcome is the following: A market-clearing price will imply that half of mugs will be traded at the end of the experiment, since the mugs were distributed randomly. But in reality, the students, who have been told that the mugs are in their endowment, asked two times higher WTA on average than the average WTP – indicating a loss-aversion coefficient of two. So, the trade volume was the half of the theoretically expected one (Kahneman, Thaler & Knetsch, 1990).

It is important to note that there are different studies, which showed different loss-aversion coefficients. In 2002, 2005 and 2014 three meta-analysis papers have been written on WTP/WTA disparity. The first and pioneering one of these papers was written by Horowitz and McConnell (2002) and showed that although different types of experiments lead to different levels of loss-aversion coefficients, the WTA is usually substantially higher than WTP in most of the experiments. The second paper written by Sayman and Önçüler (2005) finds that incentive based designs decrease the disparity. The third paper (Tunçel & Hammitt, 2014) is an extension of Horowitz and McConnell study and reveals some interesting findings. They have used 76 studies in total and found following variables affect WTA/WTP disparity: Type of good, incentive compatibility,

subject characteristics and experience. Results showed that ordinary goods lead to smaller disparity than non-market goods. Also experiments conducted with students had smaller disparity. In a similar fashion, experience has a negative effect on disparity. A more detailed study about experience and endowment effect can be found below (List, 2003). Tunçel and Hammitt could not find any significant difference between hypothetical vs. real experiments, which is an important result for this thesis, since the second part of experiments were based on a hypothetical scenario. Some of these different studies, listed by Ho, Lim and Camerer, can be found below (Table 1.2).

Table 1.2: Past tests of loss aversion coefficient

Domain	Study	Estimated Loss-Aversion Coefficient
Instant endowment effect for goods	Kahneman, Knetsch & Thaler (1990)	2,29
Choices over money gambles	Kahneman & Tversky (1992)	2,25
Loss aversion for goods relative to money	Bateman et al. (2005)	1,30
Asymmetric price elasticity	Putler (1992)	2,40
Loss aversion coeff relative to initial seller offer	Chen et al. (2005)	2,70
Aversion to losses from international trade	Tovar (2004)	1,95 – 2,39
Reference dependence in distribution channel pricing	Ho & Zhang (2004)	2,71

Reference: Ho, Lim & Camerer, 2006

Ziv Carmon and Dan Ariely (2000) have conducted another interesting experiment. In Duke University, students are passionate fans of their basketball team and in order to buy final tickets they wait in line for a week with camps. On top of that, only randomly chosen half of these students, who waited for one week, gets the right to buy a ticket. Carmon and Ariely called all of these students, who were in the ticket lottery at the end of one week and asked the ones who bought tickets for how much money they would sell the ticket, and the ones who could not buy tickets for how much money they would buy the ticket. The very interesting point of this experiment is that all of these students have put the effort for the ticket, so one could expect that WTA and WTP should be in a close range, but the results indicated a loss-aversion coefficient around ten.

Another evidence was found in Boston housing market (Genesove & Mayer, 2001). The authors showed that buying prices play an important role as references in the decision of selling prices of consumers. In other words, people, who bought their houses for higher prices, demanded higher selling prices than average, which is not expected by classical economics theory.

Several papers have followed these strong evidences in order to test the limits of the endowment effect and loss-aversion. John List, an experimental economist, proved that market experience could eliminate the endowment effect (2003). He made experiments with experienced traders and found out that loss aversion coefficient in their case was close to one. He has also replicated Knetsch experiment from 1989 by distributing chocolate bars and mugs to each half of the traders. 48% of mugs were traded instead of 10%, as seen in non-reversible indifference curves experiment of Jack Knetsch.

One of the recent examples of articles, which studies the limits of endowment effect, is “Boundaries of Loss Aversion” paper, written by Daniel Kahneman and Nathan Novemsky in 2005. Authors claimed that under certain conditions the degree of the endowment effect might decrease. For example, goods, which are exchanged as intended, are not perceived as a loss. Cultural differences are also a crucial factor on loss aversion coefficient. Studies

comparing US and UK students have found out that UK students are more prone to endowment effect (Kahneman, 2011, p.299).

Several articles have studied the relationship between loss-aversion and marketing. In one of finest examples, Camerer, Ho and Lim have presented a very detailed and applied study (2005). The article summarizes the endowment effect experiments, which have marketing application connections and then they show that distribution channel behaviour can be modelled with a behavioural economics framework.

In addition, psychology journals have also investigated the endowment effect. A more specific and relevant example is the relationship between mere-exposure effect and loss aversion. Mere-exposure effect can be described as people's tendency towards a familiar object, which is mainly developed by Robert Zajonc (Tom, Nelson, Srzentic & King, 2007). The authors of "Mere Exposure and the Endowment Effect on Consumer Decision Making" replicated the classical endowment effect experiment as in 1990 Kahneman, Knetsch and Thaler paper, but as an addition to the original experimental design, they showed students a video about the university. During the video the photos of the figure, which they have given to the students, have been shown for milliseconds and by doing that the authors tried to create mere exposure effect. The aim was to find a relationship between the endowment effect and mere exposure effect. The results showed that mere exposure effect has increased the object preference and the endowment effect has increased the object valuation of consumers, but no interaction between two effects has been observed.

Another interesting psychology article has been written in 2004 by three authors (Lerner, Small and Loewenstein). They tested carry-over effect of emotions on economic decisions. The researchers presented three different kinds of video clips to a group of students: Neutral, disgusting and sad. The short clips were out of context, in other words the clips were not related to the product. They checked the affect of these emotions on the degree or direction of the endowment effect. The disgusting video has down shifted the demand curve, as expected. An

interesting but unexpected result of the experiment is that the sad atmosphere has increased the demand.

Although only a part of the whole research made about endowment effect has been mentioned above, it is obvious that the topic has been studied in detail from different perspectives, but the effects of e-WOM and sharing on it did not seek any attention until now. The dramatic rise of e-WOM and sharing makes this research more relevant in this new digital era.

2. THE TRANSFORMATIVE POWER OF DIGITAL AGE

Digital era has transformed how we socialize with people, how we work and how we consume. As a result of all these changes, value creation shifted from a firm centric approach to a consumer centric one (Prahalad & Ramaswamy, 2004). The authors argue that the market is changing and consumers are sharing their opinions through several networks and by doing so they became an integral part of value creation (2004). This phenomenon is named as co-creation and consumers have several tools, such as social media, online retail sites and blogs, to affect companies during the development of their products.

The changes caused by digitalisation have a broad spectrum. On the one end of the spectrum we have co-creation, which indicates an intense relationship with ownership, where the owner is the part of the development process, on the other end of it we see the sharing economy, where consumers prefer access to ownership. This research aims to study the relationship of endowment effect and two different ends of this spectrum.

2.1. REVISITING ENDOWMENT EFFECT – MARKETING COMMUNICATION IN DIGITAL AGE

Word-of-mouth (WOM) is defined as an “oral, person-to-person communication between a receiver and a communicator and it is widely accepted as a powerful marketing tool (Mauri & Minazzi, 2013). Several studies have showed that WOM has significant impact on customer’s decision-making process

and proved to be more effective than traditional marketing tools and different types of advertisement (Gruen et al. 2006). Since WOM is a not a paid action (at least in most of the cases), it has higher credibility in the mind of customers (Mauri & Minazzi, 2013). Although the positive effect of WOM was known for decades, before the digital era it was not an easy job to determine the exact effect of WOM due to measurement difficulties, where the comments were disappearing into thin air (Dellarocas et al., 2007).

With increasing popularity of online world, marketing has observed a more specific form of WOM: e-WOM. Over the past decade, e-commerce has changed the way of shopping entirely. Amazon's sales has reached 100 billion \$ and everyday more focused web sites are entering in the market (Yan et al., 2016). One of the implications of the rise of e-commerce has been the influence of consumers on other consumers through e-WOM. Online comments and social media posts are considered as influential marketing tools (Kumar & Benbasat, 2006) and according to several studies e-WOM has a direct effect on the purchasing behaviour of consumers (Dellarocas et al., 2007; Duan et al. 2008). An early study has showed that e-WOM may have higher credibility than WOM (Gruen et al. 2006).

E-WOM has significant differences compared to WOM: comments can be seen by millions, they stay for a long time on websites and most importantly they can be used by consumers at the exact time of purchasing decision (Mauri & Minazzi, 2013). Another closely connected trend is the rise of social media in the last decade. Social media adds an interesting dimension to e-WOM: people we know. It is far more effective than WOM, since we are a part of a much greater network compared to limited face-to-face communication. Through Facebook, Twitter and blogs we have the opportunity to exchange our opinions about products and services with people we know (Kozinets et al., 2010). A recent research showed that e-WOM information considered as more reliable and trustworthy compared to anonymous comments (Chu & Choi, 2011).

In one of first empirical studies on the effect of e-WOM on sales, Chevalier and Mayzlin (2006) have investigated the relationship between online

reviews and sales in two web sites: Amazon.com and Barnesandnoble.com. The study revealed that reviews tend to be positive in both websites and the evidence showed that e-WOM has a significant effect on book sales. In a similar study, Senecal and Nantel (2004) found out that consumers, who consult online product recommendations, buy the products twice as more likely than who do not consult on online recommendations.

Dellarocas et al. (2007) have investigated the effectiveness of online comments about Hollywood movies and they have found out that online reviews have forecasting power on box office revenues of movies. The authors have showed that the first week success of a movie depends on factors such as pre-release marketing budget, theatre availability and professional critics, but e-WOM, which starts to build up after day one, affects the total box office success. Other studies about e-WOM and box office performance revealed that apart of volume, the quality of online user reviews matter (Chintagunta et al., 2010).

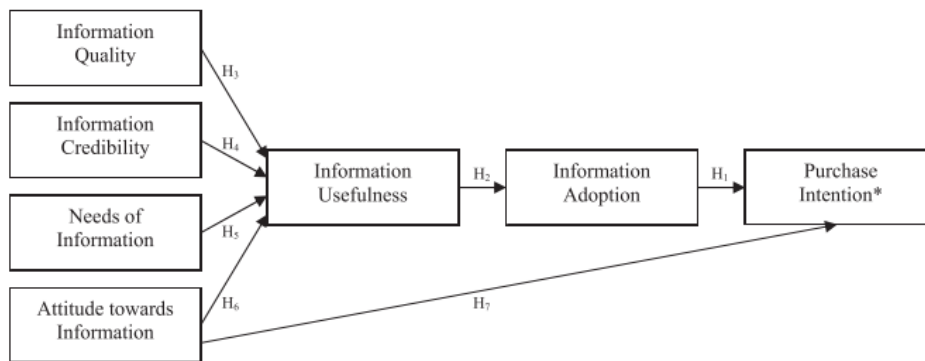
Different models such as elaboration likelihood model (ELM), the theory of reasoned action (TRA), technology acceptance model (TAM) and cognitive cost model have been used in numerous articles in order to evaluate the effects of e-WOM on purchasing behaviour of consumers (Yan et al., 2006).

In a more specific study, two authors have investigated the helpfulness of Amazon.com user comments and found out that review extremity, review depth and product type affect the usefulness of a comment (Mudamdi & Schuff, 2010). Extreme comments and ratings have been viewed less helpful than moderate comments, but the product type changes the magnitude of help. For instance, in experience goods category extreme comments are less welcome compared to search goods. In one of the most relevant studies, Gruen et al. (2006) have revealed that customer-to-customer online know-how exchange affects perceived value of products used in the study.

Chu and Kim (2010) found out that social media factors such as tie strength and trust are significant determinants of product-focused e-WOM. Although it is widely accepted that e-WOM is influential on purchasing behaviour, the dimensions such as information quality, credibility and usefulness

of e-WOM have also critical importance (Erkan & Evans, 2016). This study has focused on the determinants of e-WOM's effect on purchase intention of consumers. They have created a model named Information Acceptance Model (IACM), which is an extension of Information Adaption Model (IAM) with related parts from Theory of Reasoned Action (TRA). The results proved all hypotheses below, except H₂ (Information usefulness – Information adoption) (Figure 1.6).

Figure 2.1: IACM model



Reference: Erkan & Evans, 2016

IACM model reveals that different properties of a given e-WOM content affect purchase intention. A customer reading Amazon.com comments shows that he/she needs information and has a positive attitude towards such information by spending time and energy to read these comments. The quality and credibility of these comments play an important role to affect purchase intention. Significant results of IACM model were used during the choice of Amazon.com comments used in the experiments of this research.

Another important and relevant topic of marketing communication studies is message framing and attracted lots of attention from a wide range of people, including academicians, marketers and advertisers. Interestingly, this line of research became much more popular following the prospect theory article (1979), because lots of researchers were interested in the differences between negative and positive framed messages in the light of prospect theory (Maheswaran &

Meyers-Levy, 1990). The studies in 1980s showed conflicting results. In some studies negative framing was more effective and in others positive one. The dynamics of framing has been studied in detail and a theoretical background has been established.

In one of early studies about framing, Maheswaran and Meyers-Levy (1990) showed that people with high involvement condition were more persuaded by negatively framed messages. In a more recent study, Aaker and Lee (2001) proved that self-image has an effect on how you perceive the message. Independent self-image leads to be more persuaded by positively framed messages, but contrary interdependent self-image is more likely to be affected by negatively framed messages. The example given in the paper is as following: A single lady buys a convertible car to enjoy her life, on the other hand a single mom buys a Volvo, in order to protect her children against crashes. Another popular study about early detection of some diseases showed that negatively framed messages are more effective than positively framed ones, but involvement level is crucial in any case. The article written by Shiv et al. (2004) reveals that elaboration is another important factor, which affects our approach towards framing. Specifically, they have found that when the processing opportunity is low, negative framing is more effective and vice versa.

As a summary of the decades long research on message framing, it can be said that underlying conditions are very crucial by determining whether the positive or negative framing has more persuasion power. In this research both positive and negative framing have been used in e-WOM experiments. There is not much research made on framing and e-WOM relationship, that's why traditional framing literature should guide here.

The following two hypotheses will be checked during the first group experiments:

H⁰₁: Positive e-WOM will increase the power of endowment effect

H⁰₂: Negative e-WOM will decrease the power of endowment effect

2.2. REVISITING ENDOWMENT EFFECT – TRANSFORMATION OF OWNERSHIP IN DIGITAL AGE

“Sharing is a phenomenon as old as humankind while collaborative consumption and the ‘sharing economy’ are phenomena born of the Internet age.”

Belk (2013)

Apart of e-WOM, digital age created another popular trend among consumers: sharing. Although sharing itself is not a novelty as stated by Belk (2013), the concept of sharing economy is. The main pillars of sharing economy are digital platforms and preference of access over ownership. From car sharing to Airbnb there are a wide range of products and services, which are shared through digital tools. Investors and media regard sharing economy as the new “mega-trend” (Hamari, Sjöklint & Ukkonen, 2016). Although sharing economy is an umbrella term, there are very different types of business models and platforms based on collaborative consumption and access. According to PricewaterhouseCoopers (PWC), the global revenue of sharing economy was 15 billion \$ in 2014 and is expected to reach 335 billion \$ in 2025 (Cusumano, 2017). Although the sharing market is not even close to its potential revenue, it started to affect traditional business models. A study about the impact of Airbnb on local Texas hotels shows that it has significant negative impact on financial performance of studied hotels (Zervas et al., 2013). It is important to note that Airbnb has 50.000 renters per night, so its effect on hotels all over the world should not be underestimated. On the other hand, sharing economy has the potential of increasing the social welfare, because a large amount of consumers benefit from Airbnb and similar services by getting cheap and comfortable accommodation in the cities they visit (Zervas et al., 2013). A PWC study (2015) made with 1000 participants reveals that 86% of US adults think that sharing economy can make the life more affordable and convenient and 76% of the same population believes that sharing economy is important for sustainability and environment.

The start of this digital sharing trend can be traced back to peer-to-peer (P2P) music and file sharing platforms like Napster in the beginning of 2000's (Sinclair, 2015). Wikipedia and Airbnb are two other very popular examples of sharing platforms, which are legal opposite to P2P music and video sharing. Legal aspects of sharing platforms created lots of academic discussions and these legal concerns created an opportunity for companies, which offered access based consumption platforms (Sinclair, 2015).

Access based consumption was first defined by Bardhi and Eckhardt (2012) as “transactions that can be market mediated, but where no transfer of ownership takes place”. There are lots different models, which fits into this definition. Recent years have witnessed the rise of several legal access based electronic media content platforms such as Netflix, Spotify or Amazon Prime Video and it seems that they are going to replace cable TV soon. Another study made by Schaefer et al. (2015) showed that access based consumption reduces the risk perception of consumers in three different dimensions: financial, performance and social. Since the customer does not buy the product, the financial risk is significantly lower in case of access based consumption. In a similar fashion, the performance risk is also lower since the user does not care about the maintenance or repair of the accessed goods. Social risk refers to being judged based on a given purchase decision. Authors argue that people, who prefer access to ownership, tend to worry less about social judgements of others (Schaefer et al., 2015).

Five years after their access based consumption article (2012), Bardhi and Eckhardt (2017) introduced another dimension of consumption: liquid vs. solid. The authors define liquid consumption as access based and dematerialized. Where a DVD collector shows an example of a solid consumption, Netflix members are the rising representatives of liquid consumers. Although solid consumption still covers a large percentage of total transactions, liquid consumption is on rise. Being flexible and mobile makes it more suitable for new generation media content market. Defining liquid consumption as one end of a spectrum leads to ask different questions. For example, solid consumption perspective would ask

how we extend the self in the digital platforms based on the research of Belk (2013), whereas liquid perspective would focus on the flexibility and ease of access rather than ownership itself (Bardhi & Eckhardt, 2017). A comparison table can be found below (Table 2.1).

Table 2.1: Liquid consumption

	Solid	Liquid
Definition	Enduring, ownership based and material	Access based, dematerialized
Consumer value	Value in size, weight, commitment	Value in being flexible, mobile, detached and fast
Centrality	Ownership and possession	Access, sharing and borrowing
Downsides	Burdensome	Instability

Reference: Bardhi & Eckhardt, 2017

Apart of media content sharing, another highly demanded business model in access based consumption is car sharing. The main idea behind car sharing is that people started to choose mobility over owning a car (PWC, 2015). There are different types of car sharing companies. The first group of them are working in a similar way like Zipcar. They keep their cars in central locations of cities in order to share them with their members. The members can use the cars on demand and does not face costs and troubles of car ownership (Bardhi & Eckhardt, 2012). This model is a modified version of traditional car rental, with a digital background and membership model. The second group of companies have a completely different approach to car sharing. Two popular companies in this group are Getaround and Turo, which are working as platforms to bring people together, who want to share their own car with other people, who need a specific car for a given day. In this business model, companies like Getaround do not own any cars, but serve only as platforms. These platforms are great examples of access

based liquid consumption. A consumer, who wants to spend a day in a powerful sport car can access it through these web platform and enjoy it without taking the burdens of owning such a car.

Anti-consumption is getting popular among consumers and sharing economy might offer an alternative market structure for these consumers (Ozanne & Ballantine, 2010). All of these changes need a new perspective towards ownership and this research aimed to enlighten some of these new dynamics in the specific case of endowment effect. In the second group of experiments, a fictional scenario was used with a business model similar to Getaround to check the following hypothesis:

H⁰₃: Sharing experience will lead to disappearance of endowment effect

3. RESEARCH METHODOLOGY, EXPERIMENTS AND RESULTS

The main target of this research was to reveal unexplored dynamics of the endowment effect in the light of digital era. In total, five experiments have been conducted in two groups. The first group of experiments have focused on the transformation of marketing communications, i.e. e-WOM and its relationship with endowment effect. The second group of the experiments have investigated the transformation of ownership, i.e. sharing and its relationship with endowment effect.

In all experiments, classes were divided into two groups: sellers and buyers. Sellers owned the pens or the fictional cars and they were asked for the minimum price they would ask for the good in their endowment. In a similar fashion buyers were asked for the maximum price they would offer. Several parameters were calculated, such as average values of WTA and WTP, market clearing price and most importantly loss aversion coefficient. No repeating of betting rounds were foreseen, because previous research showed that repeating of rounds does not bring any significant difference in terms of loss aversion coefficient (Horrowitz & McConnell, 2002). In all experiments, students were told to choose round numbers, due to this reason market clearing prices are round numbers and stated market clearing prices are slightly larger or smaller than the crossing points of supply and demand curves in the market graph of each experiment.

The results of experiments in each group were compared on the base of loss aversion coefficient differences. Loss aversion coefficients are numbers without any unit, which shows the disparity between WTA and WTP by dividing mean (or median) values of both parameters to each other (WTA/WTP). A higher loss aversion coefficient indicates stronger endowment effect and vice versa. If the results reveal a loss aversion coefficient equal or close to one, than it means there is not any endowment effect present in that specific case. To interpret the results and obtain confidence intervals for loss aversion coefficients of separate experiments, bootstrapping method is used. Details of the statistical analysis can be seen under the Appendix 1. In both groups of experiments, the results of

manipulation experiments are compared with the bootstrap results of the base experiments. Since bootstrapping is using the same data for resampling, the standard deviations of the resampled data is compared with the meta analysis of Horowitz and McConnell (2002) and obtained standard deviations were in line with this research. According to the work of Horowitz and McConnell (2002), experiments conducted with ordinary private goods like pens or cars have a standard deviation of 0.30 (59 experiments were grouped under this category of meta analysis).

In total 160 students from Bilgi University attended to experiments. The details of sampling can be found under each experiment.

3.1. ENDOWMENT EFFECT AND E-WOM

For the first part of the thesis, three experiments have been conducted. This first group of experiments focused on the relationship between e-WOM and endowment effect. A 3x2 between-subjects design is used. The results have been compared by checking the differences between the loss aversion coefficients of experiments. Following the base experiment, one positive and one negative e-WOM content have been showed to Bilgi University students, in order to investigate the effects of e-WOM on the endowment effect.

- 1) Base experiment
- 2) Positively framed e-WOM content experiment
- 3) Negatively framed e-WOM content experiment

In the experiments the design of Kahneman, Knetsch and Thaler (1990) paper have been followed and the manipulations controlled through the original setting, i.e. through baseline experiment. Pilot pen has been chosen as the trading object in the experiments due to following reasons:

- 1) Most of the students are using pens in their daily life. They are more likely expected to trade pens than a marginal item.

- 2) The market price of Pilot pens is not high, so the price level should not affect the trade volume. A luxury pen like Mont Blanc might limit the trade volume due to financial constraints.
- 3) Pilot pen is a widely known brand.

Students have been informed about the experiment format with a presentation beforehand. The classes have been divided into two groups: sellers and buyers. Pilot V-Ball pens have been distributed to randomly chosen sellers (half of the class) and they were informed that they own the pens. In the standard experiment forms they were asked for the minimum price they would accept to sell their pens (Willingness to accept = WTA). The buyers (remaining half of the class) did not get any pens and they were asked for the maximum price they would pay for the pens (Willingness to pay = WTP).

Based on the meta-analysis of Tunçel and Hammitt (2014) the loss aversion coefficients in the following three experiments should have been as low as possible due to the following reasons:

- 1) Pilot pen is an ordinary good, the study suggests that ordinary goods lead to lower coefficients than non-market goods (see pg. 13)
- 2) Experiments conducted with students tend to reveal lower WTA/WTP disparity (see pg. 13)
- 3) Market experience about a certain good affects the valuation. Students are expected to have at least some experience with buying pens (see pg. 13)

Experiment 1: Base experiment

Subjects and methodology

The first experiment was conducted to create a benchmark result for the next two further experiments with different e-WOM stimuli. The classical mug experiment setup based on Kahneman, Knetsch & Thaler (1990) article was used for the first group. There are two main purposes for doing this control experiment: The first one is to have a reference point for manipulation experiments and the second one is to control the influence of culture on the endowment effect by comparing the observed loss-aversion coefficient with results of previous researches executed in different countries.

30 undergraduate students (12 females and 18 males) from Bilgi University have participated to the experiment. Sellers and buyers have been randomly chosen and forms were numbered, the students were not asked for their names, only for their genders. The forms used in the experiment can be found as Appendix 2.

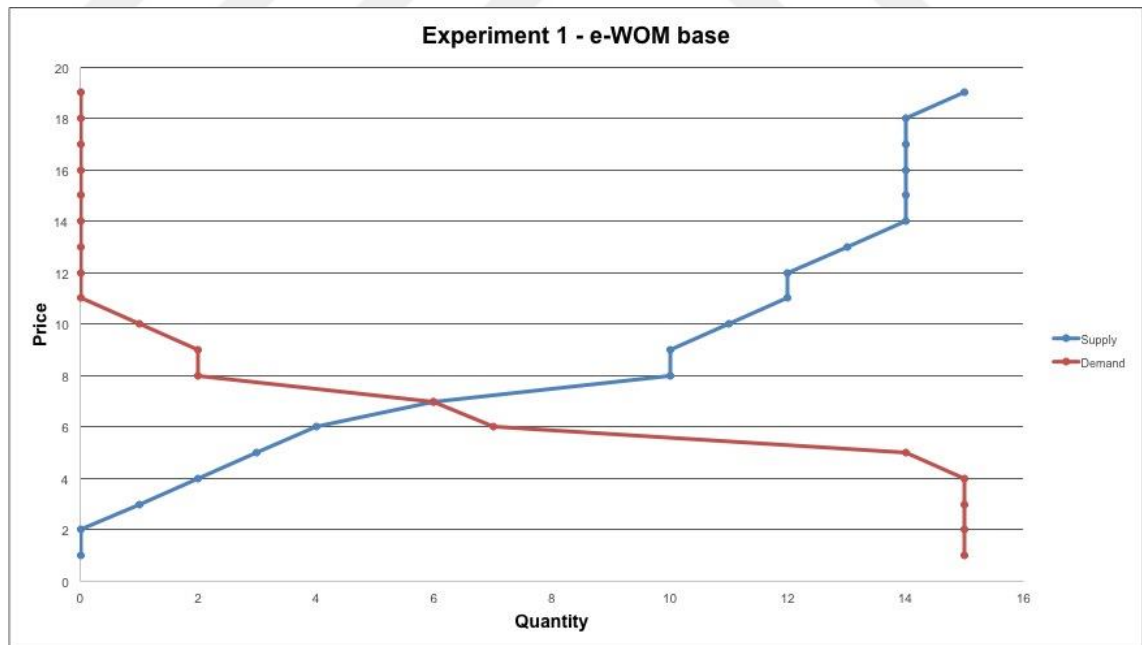
Results

After collecting all of the forms, results have been calculated on site. Summary of the results can be seen below (Table 3.1). Since the pens are distributed randomly, the theory suggests half of the sellers would sell their pens to the half of the buyers, which means half of the total population will either sell or buy pens. Instead of the expected 7,5 trades, only 4 trades occurred. The market-clearing price was 6,13 TL. Both mean and median WTP and WTA are calculated. Loss aversion coefficient of the experiment was 1,4 based on mean WTA and mean WTP and 1,6 based on median WTA and median WTP. The market graph of Experiment 1 can be seen in Figure 3.1.

Table 3.1: The results of Experiment 1

Total number of students	30
Expected number of trades	7,5
Number of actual trades	4
Market clearing price	6 TL
Mean WTA	8,6 TL
Median WTA	8 TL
Mean WTP	6,13 TL
Median WTP	5 TL
Loss aversion coeff (mean)	1,40
Loss aversion coeff (median)	1,60

Figure 3.1: Market graph of Experiment 1



These benchmark results are in line with the previous research based on article of Tunçel and Hammitt (2014) and have been used in order to check the hypotheses H_1^0 and H_2^0 .

Experiment 2: Effect of Positively Framed e-WOM content

Subjects and methodology

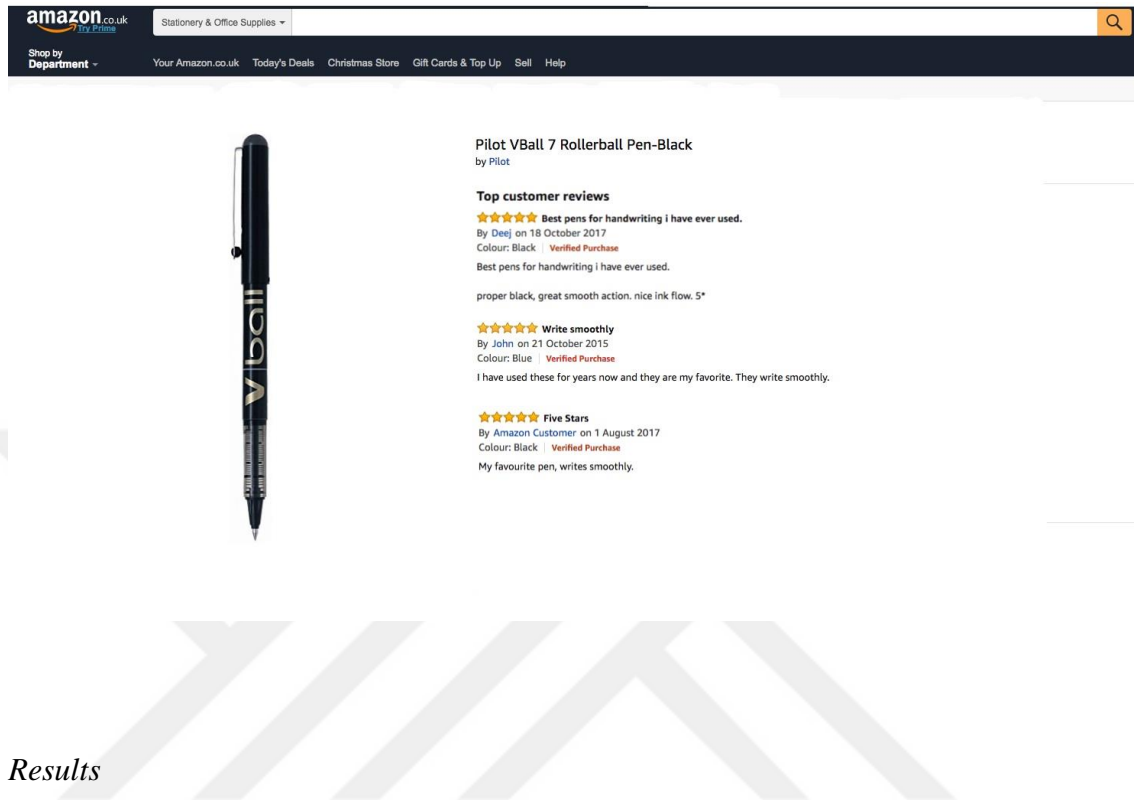
Second experiment was conducted to study the effect of positive e-WOM content on the ownership. Positively framed Amazon.co.uk user comments (Figure 3.2) have been showed to 26 undergraduate Bilgi University students (16 females and 10 males). The original versions of Amazon comments and the form used in the experiment can be seen under Appendix 2.

The comments were chosen based on the e-WOM research of Erkan & Evans (2016). Following criteria were considered by deciding for the comments to use in Experiment 2 and 3:

1. All of the comments were chosen to be easy to process.
2. The users, who made the comments, are verified buyers in order to increase the credibility of them.
3. All of the information transmitted through the comments was useful.

According to the previous literature about message framing, which is summarised under the literature review part of this thesis, either positive or negative framing might be more effective depending on the underlying conditions. The case here involves a low involvement condition with high processing opportunity. It is a low involvement case, because the good at stake is a fairly cheap product and buying or selling a pen is not a very crucial decision. On the other hand, students have enough time to read and process the messages and they are in a silent class environment. So, assuming a high processing condition should be realistic. Under these both conditions the literature predicts that positive framed messages will be more effective compared to negative framed ones.

Figure 3.2: Positive Amazon.co.uk user comments



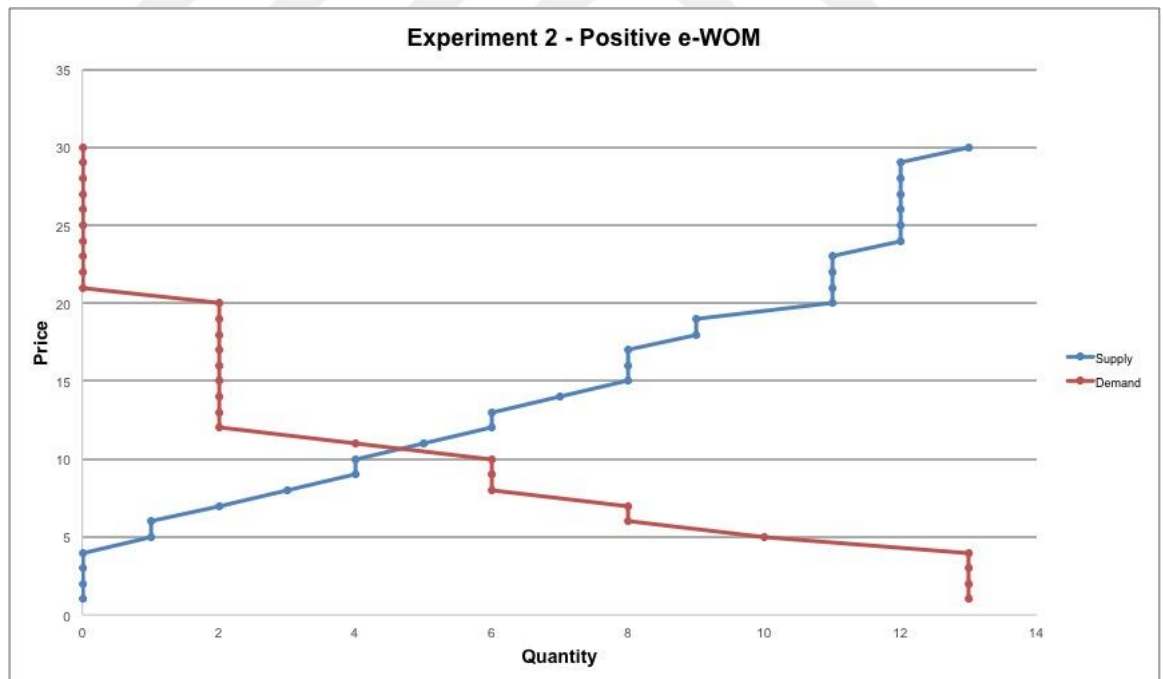
Results

On site calculated results showed a significant change over Experiment 1. Positive comments have pushed the market-clearing price up to 11 TL. Median and mean WTA/WTP values, which were jumped to 14,85 TL and 9,07 respectively, can be seen in Table 3.2. More interestingly the loss aversion coefficient showed an increase of 25% based on median prices and 17% based on mean prices. Although 7,5 trades were expected according to the economic theory, only 4 trades occurred as it was the case in Experiment 1. The market graph of Experiment 2 can be seen in Figure 3.3.

Table 3.2: The results of Experiment 2

Total number of students	26
Expected number of trades	6,5
Number of actual trades	4
Market clearing price	11 TL
Mean WTA	14,85 TL
Median WTA	14 TL
Mean WTP	9,07 TL
Median WTP	7 TL
Loss aversion coeff (mean)	1,64
Loss aversion coeff (median)	2

Figure 3.3: Market graph of Experiment 2



Mean loss aversion coefficient of Experiment 2 (1,64) is significantly different than the coefficient obtained in Experiment 1 (1,40). **H^0_1 has been accepted, because 97,5th percentile of bootstrap distribution of Experiment 1 is 1,62.** Details regarding the statistical analysis can be seen under Appendix 1.

Experiment 3: Effect of Negatively Framed e-WOM content

Subjects and methodology

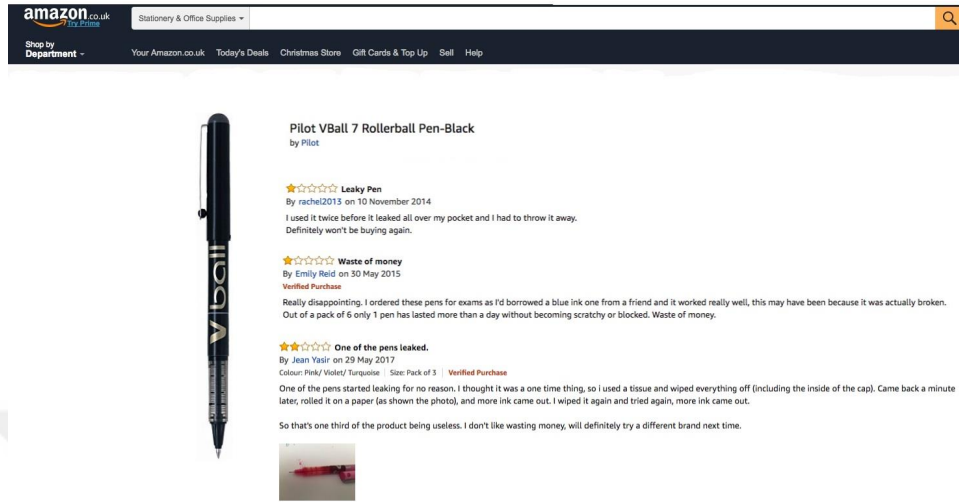
The third experiment was conducted to check the effect of a negative e-WOM content on ownership. As a contrast to the second experiment negative Amazon.co.uk (Figure 3.4) comments were used. 28 undergraduate students (11 females and 17 males) from Bilgi University have participated to the experiment. The original version of comments and forms used in the experiment can be seen under Appendix 2.

Since the framing of this experiment is a negative one, the predictions based on the previous message framing literature will be in the opposite direction. In a similar fashion to the Experiment 2, we are expecting a low involvement case with high processing opportunity, which indicates that negatively framed messages will be less effective compared to positively framed ones.

Comments were chosen in a similar way to Experiment 2 following IACM model (2014):

1. All of the comments were chosen to be easy to process.
2. The users, who made the comments, are verified buyers in order to increase the credibility of them.
3. All of the information transmitted through the comments was useful.

Figure 3.4: Negative Amazon.co.uk user comments



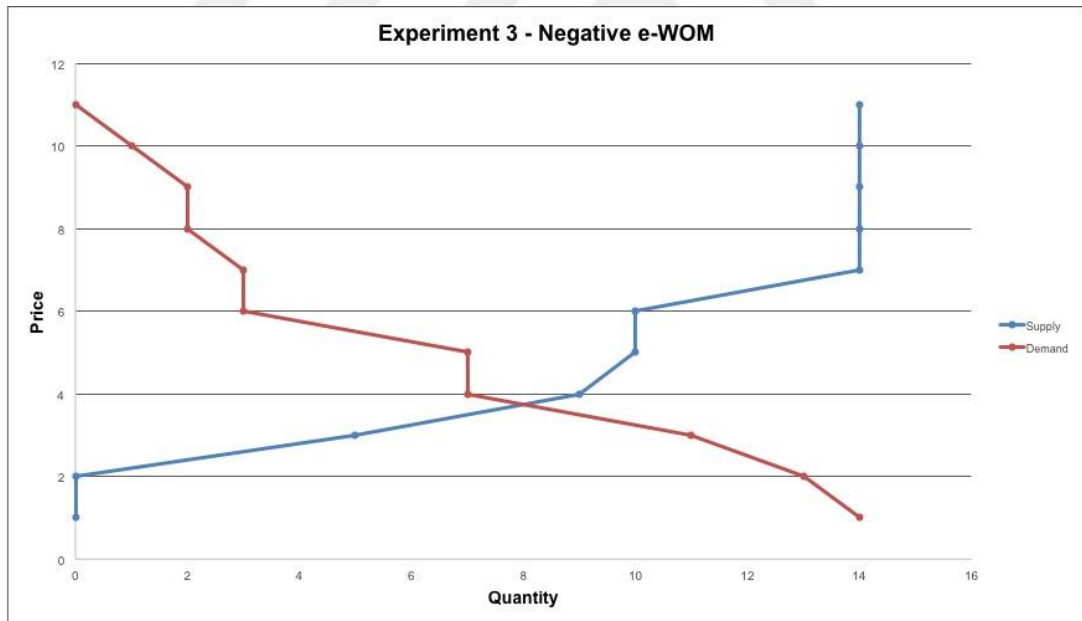
Results

Negative comments had a serious impact on the prices. Market-clearing price was down to 4 TL compared to 11 TL in the positive comments experiment and 6 TL in the base experiment. Mean and median values of WTA/WTP can be seen in Table 3.3. Mean WTA and WTP are almost same and the number of theoretically expected trades was equal to the actual trades. These both results indicate that the endowment effect has disappeared during the negative e-WOM experiment. The decrease in the loss aversion coefficient was 30% with mean and 17% with median prices compared to baseline experiment. The decrease was even more dramatic when we compared it to positive e-WOM experiment: %40 with mean and %35 with median prices. The market graph of Experiment 3 can be seen in Figure 3.5.

Table 3.3: The results of Experiment 3

Total number of students	28
Expected number of trades	7
Number of actual trades	7
Market clearing price	4 TL
Mean WTA	4,5 TL
Median WTA	4 TL
Mean WTP	4,57 TL
Median WTP	3 TL
Loss aversion coeff (mean)	0,98
Loss aversion coeff (median)	1,33

Figure 3.5: Market graph of Experiment 4



Apart of 17 to 30% change (depending on mean and median prices) over the base experiment, it was also observed a change of 35% to 40% over the Experiment 2. The loss aversion coefficient of Experiment 3 (0,98) is significantly different than the base (1,40) and positive e-WOM (1,64) experiments. **H⁰ has**

been accepted based on bootstrap analysis in Appendix 1, because the 2,5th percentile of bootstrap distribution of Experiment 1 is 1,17.

3.2. ENDOWMENT EFFECT AND SHARING

The second group of experiments were conducted to study the effect of the idea of sharing economy on endowment effect. The first experiment was designed to create a baseline and the second one to study the effect of the idea of sharing on endowment effect. A 2x1 between-subjects design is used.

In both experiments a hypothetical scenario was used and students were informed about the details with a presentation beforehand. According to the meta-analysis of Tunçel and Hammitt (2014) hypothetical scenarios do not lead to significantly different results in terms of loss aversion coefficients.

In the designed scenario students were asked to value a used prototype electric car without any brand on it. The choice of the product for the scenario has been evaluated in depth. Following conditions were important to consider:

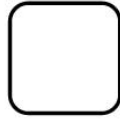
- 1) The product should be suitable for sharing economy. For example, a pen can be shared, but it is difficult to use it as a part of business model.
- 2) No brands should be involved in order to avoid any positive or negative attitude towards a given brand.
- 3) The category of the product should be familiar enough to the students, so that they have a price level idea about the product.

Experiment 4: Baseline Experiment

Subjects and methodology

The baseline experiment scenario has been constructed in the following way: “The electric car you see in the photo has been bought 2 years ago for 100.000 TL. The car is in a good condition without any problems or previous crashes. Please state the price you will pay (accept) to buy (sell) this car.” The form in Figure 3.6 has been used in the experiment. The original versions of the forms can be seen under Appendix 2. In total 38 MBA students (17 males and 21 females) from Bilgi University have participated to the experiment.

Figure 3.6: Form used in Experiment 4



ALICI

Yukarıda gördüğünüz elektrikli araç 2 yıl önce 100.000 TL'ye satın alınmıştır.

Herhangi bir problemi veya kazası bulunmayan bu elektrikli otomobili satın almak için en fazla kaç TL teklif edersiniz?

Teklif edeceğiniz maksimum alış fiyatı:

Cinsiyet:

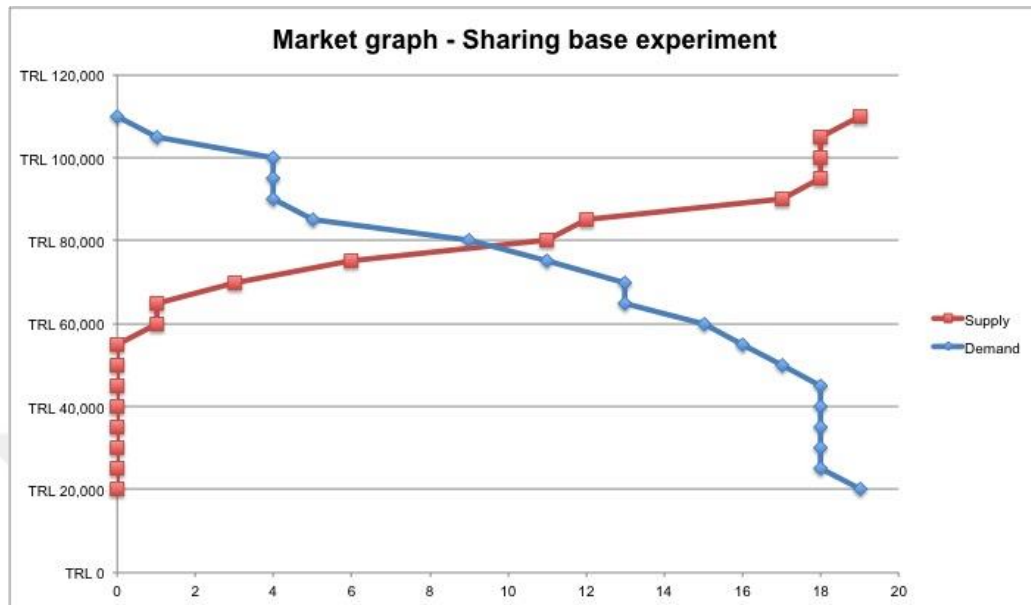
Results

The market clearing price was 80.000 TL, mean and median WTA/WTP prices can be seen in the Table 3.4. Actual and theoretically expected trade numbers were very close, 9 and 9,5 respectively. The loss aversion coefficient (with mean WTA/WTP) was 1,12. The market graph of Experiment 4 can be seen in Figure 3.7. H^0_3 is checked against these results.

Table 3.4: The results of Experiment 4

Total number of students	38
Expected number of trades	9,5
Number of actual trades	9
Market clearing price	80.000 TL
Mean WTA	82.210 TL
Median WTA	80.000 TL
Mean WTP	73.315 TL
Median WTP	75.000 TL
Loss aversion coeff (mean)	1,12
Loss aversion coeff (median)	1,06

Figure 3.7: Market graph of Experiment 4

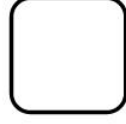


Experiment 5: Sharing Experiment

Subjects and methodology

In the second experiment the scenario was modified. Participating undergraduate Bilgi University students (38 in total, 19 males and 19 females) have read the following scenario. “The electric car you see in the photo has been bought 2 years ago for 100.000 TL. The car has been shared through Getaround. The car is in a good condition without any problems or previous crashes. Please state the price you will pay (accept) to buy (sell) this car.” The form in Figure 3.8 has been used in the experiment. The original versions of the forms can be seen under Appendix 2.

Figure 3.8: Form used in Experiment 5



ALICI

Yukarıda gördüğünüz elektrikli araç 2 yıl önce 100.000 TL'ye satın alınmıştır.

Sahibi aracı Getaround vasıtasıyla başkalarıyla paylaşmıştır.

Herhangi bir problemi veya kazası bulunmayan bu elektrikli otomobili satın almak için en fazla kaç TL teklif edersiniz?

Teklif edeceğiniz maksimum alış fiyatı:

Cinsiyet:

Results

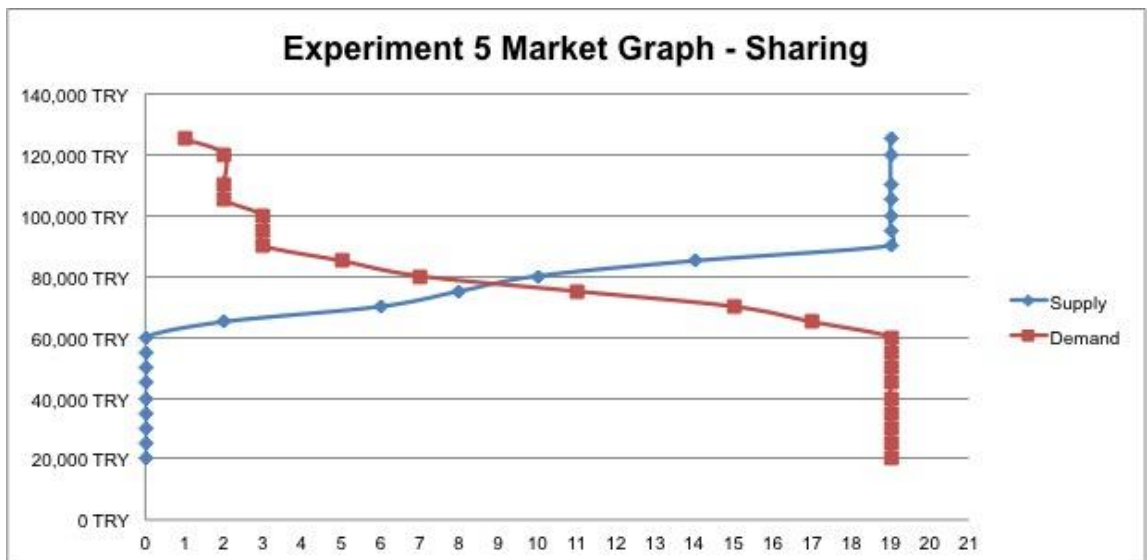
The market-clearing price of the second experiment was exactly the same as the first experiment, 80.000 TL, but the loss aversion coefficient was down to 1 (both mean and median coefficients were the same). All of the relevant values can be seen in the Table 8 below. The market graph of Experiment 5 can be seen in Figure 3.9. Although there was a decrease of 11% in the loss aversion coefficient compared to the base experiment, **H⁰₃ is not accepted based on the statistical analysis in Appendix 1**. A loss aversion coefficient of 1 (1,01 with mean prices) indicates that endowment effect is not present in this experiment, but

the difference was not significant over the base experiment. 2,5th percentile of bootstrap distribution of Experiment 4 is 0,98, which is smaller than 1,01.

Table 3.5: The results of Experiment 5

Total number of students	38
Expected number of trades	9,5
Number of actual trades	7
Market clearing price	80.000 TL
Mean WTA	79.500 TL
Median WTA	80.000 TL
Mean WTP	78.500 TL
Median WTP	80.000 TL
Loss aversion coeff (mean)	1,01
Loss aversion coeff (median)	1

Figure 3.9: Market graph of Experiment 5



3.3. OVERALL RESULTS OF EXPERIMENTS

A summary of the results of all five experiments can be seen in the Table 3.6 below:

Table 3.6: The results of all five experiments

Experiment	Mean WTA	Mean WTP	Market Clearing Price	Loss Aversion Coefficient	Change over base experiment	Hypotheses
e-WOM base	8,6 TL	6,13 TL	6 TL	1,40	Base	-
e-WOM positive	14,85 TL	9,07 TL	11 TL	1,64	+ %17	H ⁰ ₁ accepted
e-WOM negative	4,5 TL	4,57 TL	4 TL	0,98	- %30	H ⁰ ₂ accepted
Sharing base	82K TL	73K TL	80K TL	1,12	Base	-
Getaround	80K TL	80K TL	80K TL	1	- %11	H ⁰ ₃ rejected

3.4. ENDOWMENT EFFECT AMONG MILLENIUM CONSUMERS

Two additional parameters were checked during the experiments in order to understand the differences between different profiles in terms of endowment effect: gender and materialism as personality trait. Gender information of participants (160 in total) was collected during all of the experiments. 79 out of 160 students were females and 81 were males. The existing literature has ambiguous results in terms of loss aversion difference between genders. Schmidt and Traub (2002) in their experimental loss aversion research have found that female subjects have showed a higher degree of loss aversion. In a more recent study, Rau (2014) has investigated the relationship between gender, loss aversion and disposition effect. Disposition effect is a financial anomaly, which covers the

phenomena that stock exchange investors tend to keep losing stocks at hand and sell winning ones. Disposition effect is caused as a result of loss aversion and in that manner it has a similar mechanism like endowment effect. The results of Rau article (2014) showed also that women tend to be more affected from loss aversion. On the other hand, List (2003) and Lerner et al. (2004) could not find any significant difference between genders in terms of endowment effect. This research had also obtained ambiguous results. The first part of the research (Three Pilot Pen experiments) revealed the results in Table 3.7. The mean price of female students was 9,15 TL compared to 7,11 of males. The difference was not significant (**P-value of 0,093**). The second group of experiments (sharing group) had also an insignificant difference of 3.000 TL (**P-value of 0,391**) (Table 3.8). As a summary, these results are in line with List (2003) and Lerner et al. (2004) studies; gender did not play a significant role on the pricing behaviour of students.

Table 3.7: Gender difference in e-WOM experiments

Gender	N	Mean Price	Std. Dev
Male	44	7,11 TL	5,743
Female	40	9,15 TL	5,182

Table 3.8: Gender difference in sharing experiments

Gender	N	Mean Price	Std. Dev
Male	36	79.958 TL	11.969
Female	40	76.962 TL	17.481

In order to study the dynamics of the ownership in more detailed way, Richins & Dawson (1992) materialism scale was used in all experiments conducted during the research. The original scale has three dimensions, which measure participants' relationship with materialism: success, centrality and happiness. The scale was used in Turkish format, based on the article of Aslay et al. (2013). The scale used in the experiment can be found under Appendix 2. The mean materialism score was 3 (out of 1 to 5 Likert scale). The total materialism

score for each participant was calculated based on Richins & Dawson (1992) article. There was no relationship between total materialism scores and prices, which were chosen by students. R^2 values of the regressions, which were constructed to measure any relationship between materialism score and prices, were close to zero in both groups of experiments, which reject any relationship between the materialism score and pricing behaviour of participants.



DISCUSSION AND BUSINESS IMPLICATIONS

The target of this research was to enlighten the dynamics of endowment effect in the light of digital age. Obtained results are both impressive and interesting.

The first group of experiments was focused on e-WOM. The loss aversion coefficient of the baseline e-WOM experiment (Experiment 1) (1,40 with mean WTA/WTP and 1,60 with median WTA/WTP) is in line with the recent research. The average of 116 endowment effect experiments conducted with ordinary goods is 1.63 (Tunçel & Hammitt, 2014). The next two experiments showed significant diversions compared to Experiment 1. As explained in detail under the results part of this thesis, **all of three prices (market-clearing price, average WTA and average WTP) are significantly higher in Experiment 2 (positive e-WOM) and significantly lower in Experiment 3 (negative –WOM) compared to baseline experiment.** These diversions of market-clearing price, average WTA and average WTP were expected. Theoretically, positive e-WOM content should move both demand and supply curves upwards, because people should demand a good-reviewed product more for the same price (demand curve) and ask for more price at a given supply level (supply curve). Upwards movement of both curves indicate that all of the prices (market-clearing price, average WTA and average WTP) should be higher in the case of positive e-WOM content. Exactly opposite is valid for the negative e-WOM case. The prices should be lower due to downward shift of demand and supply curves. Gruen et al. article (2006) showed that customer-to-customer positive know-how exchange has a positive effect on the perceived value of the products. So, having an upward shift in demand curve is also in consistency with this study. Apart of being in line with theory, all of these diversions are not impressive, because they could be guessed even with common sense.

The very interesting change is observed in the loss aversion coefficients. In the second experiment (positive e-WOM) the coefficient showed an increase of 17 to 25% (depending on mean and median prices), on the other hand the

coefficient of third experiment (negative e-WOM) showed a decrease of 17 to 30% (depending on mean and median prices), both compared to baseline experiment. When we compare the results of Experiment 2 and 3, the result is much more impressive: The loss aversion coefficient showed a decrease of %35 to %40 (depending on mean and median prices). **These results indicate that positive and negative e-WOM content has significant effects on our attitude towards ownership.**

From the perspective of message framing, positive framed messages were expected to be more effective than negative ones (due to reasons explained under results part of this thesis), but no such effect has been observed.

The results indicate that e-WOM affects not only our valuation and perceived value, but also our irrationality. By seeing a positive comment, we get a third party confirmation about our possessions, which increase our weakness towards ownership. On contrary, a negative comment gives us an opportunity to have an objective perspective towards the goods in our endowment. **Obviously, the price we ask or pay for a given good might change depending on the framing of e-WOM, but the valuation asymmetry between buyers and sellers increase in case of the positive comment and disappears in case of negative one, which is one of the main and most interesting findings of this research.**

The sharing group of experiments has also revealed interesting results. The results of both experiments (baseline and Getaround version) are very close to each other with one difference: Loss aversion coefficient. Interestingly, the market clearing price of both experiments are exactly the same, but the difference in the loss aversion coefficients is statistically not significant over the base experiment. It is important to note that the loss aversion coefficients in both experiments (1,12 in baseline and 1 in Getaround experiment, both with mean WTA/WTP) are lower than the average coefficient (1,63) of previous endowment effect experiments (Tunçel & Hammitt, 2014). The low level of coefficients can be traced back to several reasons. According to the meta-analysis of Tunçel and Hammitt, students with some specific market experience lead to lower coefficients. In this case, we can assume that most of the participated students have an experience or at least an

idea about the car market, so market experience played a role here. On the other hand, the most important factor, which affected the results, was the experiment design. Due to unbranded electric car concept, a benchmark price (3 years ago purchase price) was given in the forms. Students were affected from this benchmark price and they limited their diversion over the benchmark price. Bootstrapping results in Appendix 1 revealed very low standard deviations compared to the first group of experiments. One of the main reasons for this observation is the benchmark price used in the forms. **As a result of the second set of experiments, endowment effect was eliminated in the sharing case, but the difference over the base experiment was statistically not significant. Nevertheless, it is still important to make further research in this field in order to understand the relationship of endowment effect and sharing experience in more detail. Business models like car sharing are novelties for most of the society and coming years might bring significant differences in our lives. Besides trends such as anti-consumption may weaken the power of ownership in the future, if access based consumption gets popular in the following years.**

Endowment effect and its relationship with e-WOM have several real life and business implications. Ownership is an integral part of our lives and the whole economic system is based on it. Targets such as buying a larger TV, a better car or a new house stand in the centre of many families' daily life. Since the ownership brings a new perspective to valuation of these goods, stepping down to a smaller house is a painful action (Ariely, 2009) and this pain affects the decision making process of many families. The digital era has brought new set of marketing tools such as e-WOM, which influences the dynamics of ownership. This study has tried to enlighten these dynamics.

One of the potential business implications of the findings above is to provide a better understanding of endowment effect in the context of e-WOM, which might lead to a wide pallet of promotion decisions. For instance, since the results indicate that good user reviews have a positive effect on endowment coefficient, it would be a wise idea to promote test-drives with cars, which have

good reviews and at the same time to underline good reviews together with test-drive. The endowment effect should kick-in during the test drive and customers would be more inclined to make the purchase decision.

Another potential business application of these findings would be the “buy-back-guarantees”. Endowment effect is one of the main reasons why “30-days buy back guarantee” is an effective tool, since customers tend to value the goods in their endowment more than their market price, so returning goods back to shop became a marginal move. Combining the “buy-back-guarantees” with positive e-WOM content should increase the effectiveness of this tool.

An important result of this research was that negative e-WOM leads to disappearance of endowment effect. Although it is obvious that companies should try not to get any negative reviews about their products, the results show that they should try even harder, since the effects have serious implications. Fast reaction times against negative comments and trying to solve the problems of the customers in an effective way should be one of the sincere concerns of companies. These two examples are showing how important managing e-WOM content in the digital era became. The results obtained in this research provides theoretical insights regarding e-WOM and it should help to manage and utilise e-WOM in marketing activities of companies.

The price differences observed between positively and negatively framed experiments indicate that online reviews have a significant effect on our perceived value. Companies selling premium level goods should use consumer comments in a more effective way, in order to justify the price differences.

From the perspective of behavioural economics theory, this research revealed a new condition, under which the endowment effect disappears. In the case of negative e-WOM content, it was observed that loss aversion coefficient was equal or very close to 1. From the perspective of theoretical behavioural economics, the result of negative e-WOM experiment makes sense. Since the idea behind endowment effect is based on being loss averse, students, who have read negative comments about the product, were obviously not afraid of losing the pens and not affected by loss aversion, when deciding for the prices.

Further research on this topic can investigate the differences between e-WOM marketing tools such social media vs. online retail websites. Since the comments used in the experiments were Amazon.co.uk comments, the authors of these comments were anonymous for the students. Social media will add another dimension to this already complex relationship: the people who we know. Also branded car sharing experiments can be constructed to observe any difference between the brands' effect on endowment effect.

As a summary, the results presented in this research revealed that one of the most important products of digital era, e-WOM, has serious effects on our view of ownership. On one hand our approach towards ownership is changing by using access based services like Netflix or Getaround, on the other hand we are getting more involved (maybe even without noticing it) in the product development of companies by writing detailed reviews in Amazon and giving very valuable feedbacks to the development teams. These two ends of spectrum have different implications. In access based world, consumers care on mobility and flexibility instead of owning things, but at the same time they are spending serious time on writing detailed reviews about things they own. Although the research here focused mainly on a specific part of behavioural economics, the results imply that the dynamics of ownership will get more complicated in the near future.

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doi:10.1509/jmr.15.0204



APPENDIX 1

To analyse the changes between loss aversion coefficients of different experiments, confidence intervals were needed. Bootstrapping method allowed us to resample the data for 10.000 times (for each of five experiments), in order to find confidence intervals of each experiment.

In case of small sample sizes, the difficulty of obtaining confidence intervals makes bootstrapping an effective tool. In this research there were 160 data entries in 5 different experiments. Since the main target of this research is to compare the differences between loss aversion coefficients of separate experiments, bootstrapping method is used to estimate confidence intervals for loss aversion coefficients of experiments. For each experiment random 10.000 buyer and seller prices are computed and for each of these 10.000 randomly resampled experiments a loss aversion coefficient is calculated. After obtaining bootstrap distributions for each experiment, 95% confidence intervals are calculated. Detailed results and graphs can be seen below.

e-WOM and Endowment Effect:

Descriptive statistics and 95% confidence intervals of all three experiments based on bootstrapping can be seen below (Table A1.1, A1.2 and A1.3). The loss aversion coefficients obtained in Experiments 2 and 3 (1,64 and 0,98) are significantly different than the loss aversion coefficient of Experiment 1 (1,40). **Based on bootstrapping distribution of Experiment 1, 1,62 and 1,17 are the critical values. Comparing 1,64 and 0,98 with these critical values, H^0_1 and H^0_2 are accepted.**

Table A1.1: Experiment 1 – Bootstrapping results

N	10.000
Mean	1,25
Std Dev	0,11
CI 97,5%	1,62
CI 2,5%	1,17

Table A1.2: Experiment 2 – Bootstrapping results

N	10.000
Mean	1,75
Std Dev	0,36
CI 97,5%	2,57
CI 2,5%	1,15

Table A1.3: Experiment 3 – Bootstrapping results

N	10.000
Mean	1,01
Std Dev	0,21
CI 97,5%	1,47
CI 2,5%	0,67

Figure A1.1: Experiment 1 – Bootstrapping distribution

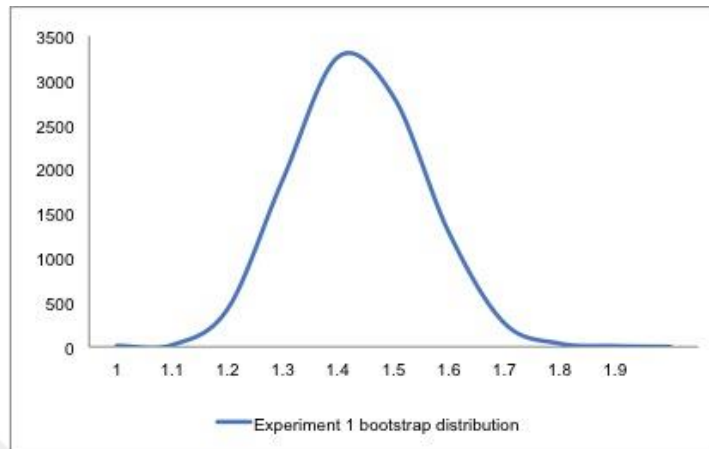


Figure A1.2: Experiment 2 – Bootstrapping distribution

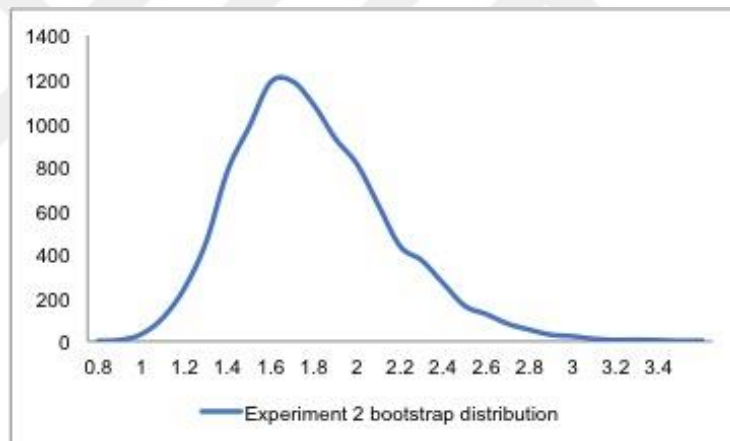
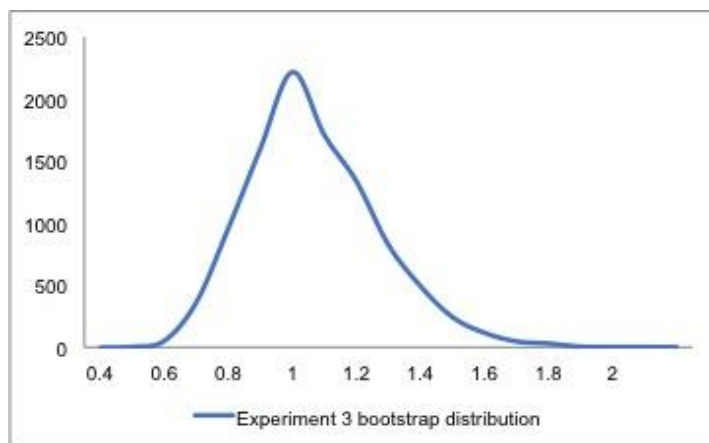


Figure A1.3: Experiment 3 – Bootstrapping distribution



Sharing and Endowment Effect:

Descriptive statistics and 95% confidence intervals of all two experiments based on bootstrapping can be seen below. The loss aversion coefficients obtained in Experiment 5 (1,01) is not significantly different than the loss aversion coefficient of Experiment 4 (1,12) since the 2,5th percentile critical value obtained from bootstrap distribution is 0,98. **Based on these results H_3 is rejected.**

Table A1.4: Experiment 4 – Bootstrapping results

N	10.000
Mean	1,12
Std Dev	0,08
CI 97,5%	1,31
CI 2,5%	0,98

Table A1.5: Experiment 5 – Bootstrapping results

N	10.000
Mean	1,04
Std Dev	0,20
CI 97,5%	1,41
CI 2,5%	0,63

Figure A1.4: Experiment 4 – Bootstrapping distribution

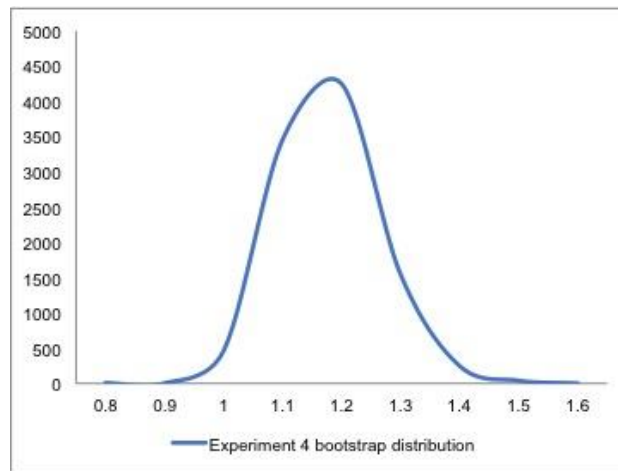
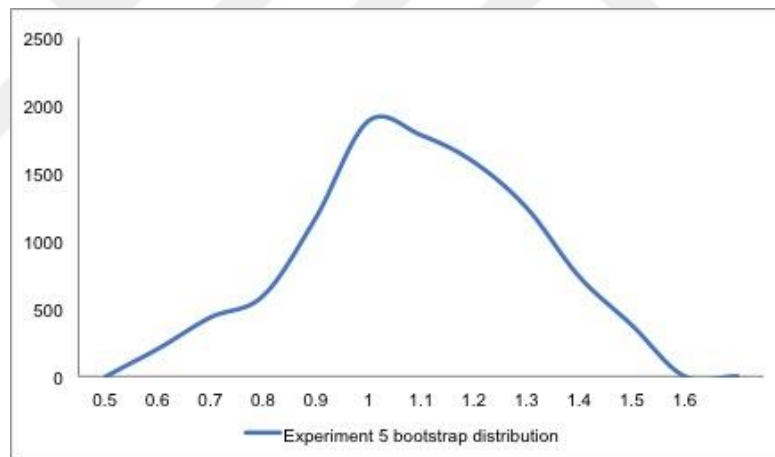


Figure A1.5: Experiment 5 – Bootstrapping distribution



APPENDIX 2

ALICI

Yanınızdaki arkadaşınıza ait olan kullanılmamış Pilot VBall model kalemi, eğer isterseniz, birazdan ortaya çıkacak piyasa fiyatı üzerinden bir arkadaşınızdaki satın alabilirsiniz.

Bu kalemi satın almak için ödemek istediğiniz maksimum fiyatı aşağıya yazınız.

Eğer ortaya çıkacak piyasa fiyatı sizin talep ettiğiniz fiyattan daha düşük olursa kalem piyasa fiyatı üzerinden sizin olacak.

Ödemek istediğiniz maksimum alış fiyat:

Cinsiyet:

SATICI

Önünüzde bulunan kullanılmamış Pilot VBall model kalem size ait.

Bu kalemi, eğer isterseniz, birazdan ortaya çıkacak piyasa fiyatından bir arkadaşınıza satabilirsiniz.

Bu kalemi satmak için kabul edeceğiniz minimum fiyatı aşağıya yazın. Eğer ortaya çıkacak piyasa fiyatı sizin talep ettiğiniz fiyattan daha düşük olursa kalem sizde kalacak.

Kabul edeceğiniz minimum satış fiyat:

Cinsiyet:

ALICI

Yanınızdaki arkadaşınıza ait olan kullanılmamış Pilot VBall model kalemi, eğer isterseniz, birazdan ortaya çıkacak piyasa fiyatı üzerinden bir arkadaşınızdan satın alabilirsiniz.

Elinizde bulunan kullanıcı yorumlarını okuduktan sonra bu kalemi satın almak için ödemek istediğiniz maksimum fiyatı aşağıya yazınız.

Eğer ortaya çıkacak piyasa fiyatı sizin talep ettiğiniz fiyattan daha düşük olursa kalem piyasa fiyatı üzerinden sizin olacak.

Ödemek istediğiniz maksimum alış fiyat:

Cinsiyet:

SATICI

Önünüzde bulunan kullanılmamış Pilot VBall model kalem artık size ait.

Bu kalemi, eğer isterseniz, birazdan ortaya çıkacak piyasa fiyatından bir arkadaşınıza satabilirsiniz.

Elinizde bulunan kullanıcı yorumlarını okuduktan sonra bu kalemi satmak için kabul edeceğiniz minimum fiyatı aşağıya yazınız.

Eğer ortaya çıkacak piyasa fiyatı sizin talep ettiğiniz fiyattan daha düşük olursa kalem sizde kalacak.

Kabul edeceğiniz minimum satış fiyat:

Cinsiyet:



Pilot VBall 7 Rollerball Pen-Black
by Pilot

Top customer reviews

★★★★★ **Best pens for handwriting I have ever used.**

By Deej on 18 October 2017

Colour: Black | [Verified Purchase](#)

Best pens for handwriting I have ever used.

proper black, great smooth action, nice ink flow. 5*

★★★★★ **Write smoothly**

By John on 21 October 2015

Colour: Blue | [Verified Purchase](#)

I have used these for years now and they are my favorite. They write smoothly.

★★★★★ **Five Stars**

By Amazon Customer on 1 August 2017

Colour: Black | [Verified Purchase](#)

My favourite pen, writes smoothly.



Pilot VBall 7 Rollerball Pen-Black by Pilot

☆☆☆☆☆ **Leaky Pen**

By rachel2013 on 10 November 2014

I used it twice before it leaked all over my pocket and I had to throw it away. Definitely won't be buying again.

☆☆☆☆☆ **Waste of money**

By Emily Reid on 30 May 2015

Verified Purchase

Really disappointing. I ordered these pens for exams as I'd borrowed a blue ink one from a friend and it worked really well, this may have been because it was actually broken. Out of a pack of 6 only 1 pen has lasted more than a day without becoming scratchy or blocked. Waste of money.

☆☆☆☆☆ **One of the pens leaked.**

By Jean Yasir on 29 May 2017

Colour: Pink/Violet/Turquoise | Size: Pack of 3 | **Verified Purchase**

One of the pens started leaking for no reason, I thought it was a one time thing, so I used a tissue and wiped everything off (including the inside of the cap). Came back a minute later, rolled it on a paper (as shown the photo), and more ink came out. I wiped it again and tried again, more ink came out.

So that's one third of the product being useless. I don't like wasting money, will definitely try a different brand next time.





ALICI

Yukarıda gördüğünüz elektrikli araç 2 yıl önce 100.000 TL'ye satın alınmıştır.

Herhangi bir problemi veya kazası bulunmayan bu elektrikli otomobili satın almak için en fazla kaç TL teklif edersiniz?

Teklif edeceğiniz maksimum alış fiyatı:

Cinsiyet:



SATICI

Yukarıda gördüğünüz elektrikli otomobili uzun bir araştırma yaptıktan sonra 2 yıl önce 100.000 TL'ye satın almıştınız.

Severek kullandığınız ve herhangi bir problemi/kazası bulunmayan bu elektrikli otomobili satmaya karar verdiniz. Kabul edeceğiniz minimum satış fiyatını aşağıya yazınız.

Kabul edeceğiniz minimum satış fiyatı:

Cinsiyet:



ALICI

Yukarıda gördüğünüz elektrikli araç 2 yıl önce 100.000 TL'ye satın alınmıştır.

Sahibi aracı Getaround vasıtasıyla başkalarıyla paylaşmıştır.

Herhangi bir problemi veya kazası bulunmayan bu elektrikli otomobili satın almak için en fazla kaç TL teklif edersiniz?

Teklif edeceğiniz maksimum alış fiyatı:

Cinsiyet:

1. Pahalı ev, araba, giysi satın alan insanlara hayranlık duyarım.

Kesinlikle katılıyorum.	Katılıyorum.	Kararsızım.	Katılmıyorum.	Kesinlikle katılmıyorum.

2. Hayattaki en önemli başarılarından biri de maddi varlıkların kazanımıdır.

Kesinlikle katılıyorum.	Katılıyorum.	Kararsızım.	Katılmıyorum.	Kesinlikle katılmıyorum.

3. İnsanların sahip oldukları şeylerin miktarını başarının bir göstergesi olarak görmem.

Kesinlikle katılıyorum.	Katılıyorum.	Kararsızım.	Katılmıyorum.	Kesinlikle katılmıyorum.

4. Sahip olduğum maddi varlıklar hayatta ne kadar iyi şeyler yaptığımı anlatır.

Kesinlikle katılıyorum.	Katılıyorum.	Kararsızım.	Katılmıyorum.	Kesinlikle katılmıyorum.

5. İnsanları etkileyen şeylere sahip olmak hoşuma gider.

Kesinlikle katılıyorum.	Katılıyorum.	Kararsızım.	Katılmıyorum.	Kesinlikle katılmıyorum.

6. Diğer insanların sahip olduğu maddi varlıklara çok dikkat etmem.

Kesinlikle katılıyorum.	Katılıyorum.	Kararsızım.	Katılmıyorum.	Kesinlikle katılmıyorum.

7. Genellikle sadece ihtiyaç duyduğum şeyleri satın alırım.

Kesinlikle katılıyorum.	Katılıyorum.	Kararsızım.	Katılmıyorum.	Kesinlikle katılmıyorum.

8. Mümkün olduğunca mal mülk kaygısından uzak olacak kadar basit yaşamaya çalışıyorum.

Kesinlikle katılıyorum.	Katılıyorum.	Kararsızım.	Katılmıyorum.	Kesinlikle katılmıyorum.

9. Sahip olduğum maddi varlıklar benim için önemli değildir.

Kesinlikle katılıyorum.	Katılıyorum.	Kararsızım.	Katılmıyorum.	Kesinlikle katılmıyorum.

10. Fonksiyonel olmayan şeyler için de para harcamak hoşuma gider.

Kesinlikle katılıyorum.	Katılıyorum.	Kararsızım.	Katılmıyorum.	Kesinlikle katılmıyorum.

11. Satın aldığım şeyler beni mutlu eder.

Kesinlikle katılıyorum.	Katılıyorum.	Kararsızım.	Katılmıyorum.	Kesinlikle katılmıyorum.

12. Hayatımda lüksü severim.

Kesinlikle katılıyorum.	Katılıyorum.	Kararsızım.	Katılmıyorum.	Kesinlikle katılmıyorum.

13. Hayattan zevk almak için gerekli her şeye sahibim.

Kesinlikle	Katılıyorum.	Kararsızım.	Katılmıyorum.	Kesinlikle

katılıyorum.				katılmıyorum.

14. Sahip olduğum her şey iyi bir hayat geçirmek için ihtiyaç duyduğlarımdır.

Kesinlikle katılıyorum.	Katılıyorum.	Kararsızım.	Katılmıyorum.	Kesinlikle katılmıyorum.

15. Sahip olmadığım şeylere sahip olsaydım daha iyi bir hayatım olabilirdi.

Kesinlikle katılıyorum.	Katılıyorum.	Kararsızım.	Katılmıyorum.	Kesinlikle katılmıyorum.

16. Daha iyi maddi varlığa sahip olmak beni daha fazla mutlu etmezdi.

Kesinlikle katılıyorum.	Katılıyorum.	Kararsızım.	Katılmıyorum.	Kesinlikle katılmıyorum.

17. Daha fazla maddi varlığı satın almaya mali gücüm yetseydi daha mutlu olabilirdim.

Kesinlikle katılıyorum.	Katılıyorum.	Kararsızım.	Katılmıyorum.	Kesinlikle katılmıyorum.

18. Hoşlandığım şeyleri satın almaya gücüm yetmediği bazı zamanlar canım çok sıkılabiliyor.

Kesinlikle katılıyorum.	Katılıyorum.	Kararsızım.	Katılmıyorum.	Kesinlikle katılmıyorum.

**ETİK KURUL DEĞERLENDİRME SONUCU/RESULT OF EVALUATION BY
THE ETHICS COMMITTEE**

(Bu bölüm İstanbul Bilgi Üniversitesi İnsan Araştırmaları Etik Kurul tarafından
doldurulacaktır /This section to be completed by the Committee on Ethics in research
on Humans)

Başvuru Sahibi / Applicant: Selim Bacıoğlu

Proje Başlığı / Project Title: Revisiting Endowment Effect in Digital Age

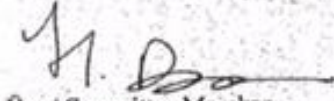
Proje No. / Project Number: 2017-20604-58

1.	Herhangi bir değişikliğe gerek yoktur / There is no need for revision	XX
2.	Ret/ Application Rejected Reddin gerekçesi / Reason for Rejection	

Değerlendirme Tarihi / Date of Evaluation: 12 Mayıs 2017

Kurul Başkanı / Committee Chair

Doç Dr. İtir Erhart (izinli)



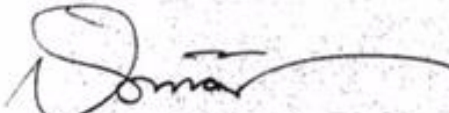
Üye / Committee Member

Prof. Dr. Hale Bolak



Üye / Committee Member

Doç. Dr. Koray Akay



Üye / Committee Member

Doç Dr. Ayhan Özgür Toy



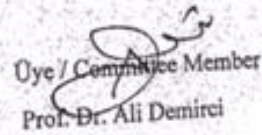
Üye / Committee Member

Prof. Dr. Aslı Tunç



Üye / Committee Member

Prof. Dr. Turgut Tarhanlı



Üye / Committee Member

Prof. Dr. Ali Demirci