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Tüketicileri Mağazalarda Çıpalama Manipülasyonları Kullanarak Daha Fazla Ödemeye İkna Etmek: Merchandising ve Çıpalama Teorisi Üzerine İnterdisipliner Deneysel Bir Araştırma

Persuading Consumers to Pay More by Using Anchoring Manipulations in Stores: An Interdisciplinary Experiment on Merchandising and Anchoring Theory

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Öz

Bu çalışma bir manipülasyon aracı olarak çıpalama etkisinin mağazalarda kullanımını ve tüketicilerin irrasyonalitesini anlamayı amaçlamaktadır. Yöntemsel olarak ise Postmodern bilimin Realist Yaklaşım'ı çerçevesinde tasarlanan çalışmada merchandising alanına sadece teorik değil, pratik bir katkı yapmak da amaçlanmıştır.

Deneysel bir yöntem kullanan araştırmada katılımcılardan ürünlere fiyat biçmesi istenmiştir. Fiyatlanan ürünler beş kıyafetten oluşmaktadır. Bunlardan ilk sırada yer alan ürün yüksek fiyat ve kaliteye sahipken sonraki ürünler düşük fiyat ve kaliteli ürünlerden oluşmaktadır. Deney grubunda ilk ürünün fiyat etiketi varken diğerlerinde fiyat etiketi bulunmamaktadır. Kontrol grubunda ise hiçbir üründe fiyat etiketi bulunmamaktadır.

Çıpalamaya maruz kalan deney grubu aynı ürünlere deney grubuna gore %390,31 daha yüksek bir ödemeye hazır oldukları fiyatı biçmişlerdir. Buna ek olarak piyasa fiyatı 10-20 TL arasında değişen düşük kaliteli ürünlere de ortalama 192,13 TL fiyat biçmişlerdir. Bu bulgular bir çıpalama aracı olarak kullanılan fiyat etiketinin tüketicileri daha irrasyonel olmaya yönelttiği tespit edilirken katılımcıların ürünlere fiyat biçmek için kullandıkları süreler de ölçülmüş ve buna bağlı olarak tali bulgular üzerinden tartışma yapılmıştır. Bu bağlamda ürünlere biçilen fiyat ile düşünme süreleri arasında negatif korelasyon tespit edilirken çıpanın bir manipülasyon aracı olarak kullanılması düşünme sürelerini düşürmektedir. Bu bulgular çıpalamanın bir manipülasyon aracı olarak kullanılabildiğini göstermektedir.

Bu çalışma, merchandising alanında Çıpalama Teorisini yoğun bir şekilde kullanan öncü çalışmalardan biri iken, çıpaların manipülasyon aracı olarak kullanımının ölçülmesi açısından da özel bir çalışmadır. Öte yandan deneysel bir yöntem uygulanan araştırma teori-pratik uyumunu taşımakla birlikte süre değişkenini de dikkate almasıyla merchandising alanında özgünlük ve önem taşımaktadır.

Anahtar Kelimeler: Merchandising, Çıpalama Teorisi, Çıpalama, Tüketici Davranışları, Manipülasyon, Tüketici Manipülasyonu, Fiyatlandırma, Mağaza Tasarımı

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Persuading Consumers to Pay More by Using Anchoring Manipulations in Stores: An Interdisciplinary Experiment on Merchandising and Anchoring Theory

Abstract

This study aims to understand the use of the anchoring effect as a manipulation tool and irrationality of consumers in stores. In terms of methodological purpose, this study, designed with the perspective of the realist approach of postmodern science, aims to make not only theoretical but also practical contribution to merchandising.

In this study using an experimental method, participants were asked to charge the same products. The products for which the participants are priced consist of 5 clothes, the first of them is higher priced and quality; following four products are low-priced and poor quality clothing. While only the first product had a price tag in the experimental group, all products in the control group were presented without a price tag.

The experimental group exposed to anchoring charged 390.31% higher – ready to pay- prices for the same products compared to the control group. Moreover, they charged an average of 192.13 TL for products with a market price of 10-20 TL. While these findings show that consumers who are exposed to manipulative anchoring can be more irrational, at the same time, the thinking time of the participants while determining prices was measured and secondary inferences were made accordingly. In this context, while finding a negative correlation between the price cchahrged to the products and the thinking time, using an anchor as a manipulation tool reduces the thinking times. These findings show that anchoring can be used as a manipulation tool.

While this study is one of the pioneering studies that uses anchoring theory intensively in the field of merchandising, it is a special study in terms of measuring the use of anchors as a manipulation tool.

On the other hand, the research, which is applied by an experimental method, carries the harmony of theory-practice and takes into account the time variable, and carries originality and importance in the field of merchandising.

Keywords: Merchandising, Anchoring Theory, Anchors, Consumer Behaviours, Manipulating Consumers, Manipulations, Pricing, Store Design.

Introduction

Concepts with the "-post" prefix have increased rapidly and post-modern period is currently called as the "age of posts" (Odabaşı, 2004:11). Marketing science has harmonised itself and the scope of marketing has begun to rapidly expand, deepen and redefine (Morgan, 1996: 19). Because, products have now become one of the individuals of society and consumers purchase not only functional features of products, bu also brand value and social status of brands (Mlodinow, 2013: 38). As a result of these changes, consumers' psychology becomes important for marketing. So, Physical and online environments where the sale is made become a specific research subject as a result of this importance (Karabıyık, 2020: 5). Although, research in merchandising as a specialty that research stores is insufficient (Lea-Greenwood, 1998: 325), merchandising continues to deepen with interdisciplinary studies. For example, detailed interdisciplinary research between merchandising and creative space design (Kent, 2007), lighting and colour choice (Baker et al., 1994), Smart phone application designs (Magrath and McCormick, 2013) and store design display (Varley, 2001) are done.

When developments on merchandising on merchandising are examined, it is seen that studies paving the way for this development have a realist ontology that has non-linear analysis and mutual interaction (Bauman, 1988: 790; Hayles, 1991:7). In addition to this, it is also seen that interdisciplinary methods dominate this process. In this context, "realist ontology" statement has a great importance. Because irrational human model expand via interdisciplinary studies such as between economy and psychology and neuroscience (Loewenstein and Elster, 1992: 3). Moreover, the relationship between these sciences is so intense that marketing of today is positioned between economics and psychology sciences by some studies due to the relationship between marketing and psychology (Walters and Paul, 1970: 6). So, methods and approaches of postmodern science framed by Bauman (Fleetwood, 2005; Hackley and Kitchen, 1999: 20) are important to understand the irrationality of consumers in stores. Thaler and Sunstein's (2008) and Kahneman's (2018) Nobel-winning studies also show the importance of psycho-economics.

The purpose of this study is to make theoretical and practical contribution to merchandising field by integrating it with Anchoring Theory that is Kahneman and Tversky's Nobel-winning study. How consumers make anchors in stores issue examined by an ecperimental research in this study. Then, findings of the research were examined in theoric and pratic perspectives. In this context, phiolosophical purposu of this study is to contribute the scientific deepening of merchandising as mentioned in Kuhn's paradigm (Kuhn, 1970). Thaler's "research should be conducted on human cognition theory in the field of economics" recommendation (Thaler, 2000: 137) was taken into account in this study.

Theoretical Background and Hypothesis Development

Literature review of merchandising and Anchoring Theory should be made before the hypothesis development to make the study clear.

Merchandising

The competition of post-modern markets requires a detailed examination of each components of marketing. In this context, stores scientifically known to have significant effects on consumer decisions even in a short time (Aspley and Riso, 1969: 492; Kacen et al., 2012) require to be examined, too. Because of this importance, merchandising faces performance pressure depending on the operational activities of businesses (Carter, 1995: 327). Because merchandising plays an important role in sales and profit optimization of businesses (Banarjee and Yadav, 2012: 210). In fact, studies examining the effects of merchandising on ROI are emerging for this reason (Perrey and Spillecke, 2013: 77). As a result of these pressures, merchandising specialized on specific fields such as presentation methods of products (Jeong et al., 2009), shelf management (Bianchi-Aquiar et al., 2018), store display design (Somoon and Sahachaisaree, 2018) and online store design (Ha et al., 2007; Khakimdjanova and Park, 2005). Moreover, salespeople are seen as indirect components of merchandising, as well (Howells, 1968: 20). On the other hand, interdisciplinary studies between merchandising and architecture (Workman and Coldwell, 2007), art (Zheng and Lee, 2018) and psychology (Ha and Lennon, 2010) show the postmodern deepening in merchandising science field. So, these developments show that merchandising is one of the broadest research fields of marketing (Phillips and Duncan, 1962: 519) and also explain the background of this study.

When the structure of scientific deepening of merchandising is examined, it is seen that merchandising divided into two as general framework and visual merchandising. In this context, it is defined as a theory and practice that makes the consumers' sensations align with the all components of online and physical stores –provided that it interactively complies with the monolith marketing strategies- to fulfil their purchasing behaviour (Karabıyık, 2020: 56). In other words merchandising is speaking with the consumer in "shop design language" (Sumeisey, 2014: 1414). A different study has a comprehensive approach defines the merchandising as all forms of stores that influence consumer behaviours except for personal sale (Buttle, 1984: 105). Visual merchandising as a more specifical research field is defined as optimization of visual components of stores by harmonisation of colour, decoration and other visual components of stores (Pegler, 2012: xiii). A different study also defines the visual merchandising as the practice of enhancing the consumer traffic in stores (Bhalla and Anurag, 2010: 19). The compartment problem of merchandising caused by ruling out the other sensations of consumers is ruled out in this study. These arguments aside, it should not be ruled out that the ultimate purpose of merchandising is to persuade consumers purchasing without compromising the targeted profit

margin (Imber, 2000: 23). The main structure of this study comprise of shelf management that is commonly examined in the base of visual merchandising.

An early period study of shelf management expresses that strategic self spaces has a great importance for the retail sales in 1968 (Wofe, 1968). It was found out that allocation of shelves can influence the sales in supermarkets and consumers can be manipulated by shelf allocation strategies in Kotzan and Evanson's (1969: 468) study. A research made in 1994 also found out that egg sale performances in supermarkets are influenced by three factors: shelf allocation of products, packaging and price (Stadelman and Cotteril, 1994: 203). Today, the payments of manufacturers for supermarket shelf spaces are seen as obligation for promotion of products (Renhoff, 2004: 1). Moreover, manufacturers compete at the self spaces of big retailers in this day and time (Martinez-de-Albeniz and Roels, 2011; Gomez and Rubio, 2008). These studies show the importance and historical development of shelf management.

As a result of mentioned scientific deepening way, shelf management divided into two scales as micro and macro self management. Macro scale match up to allocation of shelf blocks in stores, while micro scale match up to allocation of products into shelves (Bianchi-Aquiar et al., 2018: 52). Bu, payments of shelf spaces are examined in the base of cost until today and studies usually focus on to develop mathematical models about these costs (Hwang et al., 2009; Bultez and Neart, 1988; Anderson and Amato, 1974). Even it seen as a cost from the viewpoint of manufacturers, its impacts on consumer decision and behaviours are as important as the cost perspectives. Because the ultimate purpose of positioning products at shelves is to sell. So, this study directly focuses on the impacts of micro scale shelf management implications on consumers' psychology to bridge this gap in merchandising literature.

Once for all, the literature review of Anchoring Theory that is the psychological context of this study should be made to make the study clear before the hypothesis development.

Anchoring Theory in the Base of Consumer Behaviours

Marketing research that can be examined as behavioural economics which is the practice oriented field of the economics (Erdoğan, 2018: x) are developed in a consumer ontology that uses reflectively mental shortcuts (Belsky and Gilovich, 2000: 14). Therefore postmodern marketing and psychological approach have an intense relationship to develop realistic consumer ontology.

Human learn by comparisons as for Anchoring Theory. This approach is accepted by many philosophical approaches, as well. For instance, according to Sartre (2018: 66), existence can only be understood through its opposite: absence. According to Hume (2018: 53), without the comparative and

transitive thinking form, the information the human brain can generate will be so limited. So, Anchoring Theory has been frequently used by social sciences because of its practical background that is proper to realist ontology. Historical development, definition and approaches of Anchoring Theory should be mentioned before the findings of this study.

The systematical origin of Anchoring Theory is based on Tversky and Kahneman's study in 1974 (Starck et al., 2016: 67). But, its unsystematical foundations go back to Brown's study in 1953. In Brown's study, anchors were defined as a stimulus serving as a standard reference point (Brown, 1953: 199-200). In another study, Mussweiler and Starck's study considers just anchoring part not but what adjustment process is pointed out as unsystematical, but practical foundation of Anchoring (Forgas and Williams, 2002: 46). Finally, Tversky and Kahneman systematically defined anchoring as an insufficient adjustment from a reference point (Bahnik et al., 2017: 229).

In fact, the essence of Anchoring Theory is based on the irrational human model. Hence, anchoring is examined as a fundamentally irrational phenomenon that affects the decision makers as imparity (Furnham and Boo, 2011; Mussweiler and Starck, 1995). The inability of even experts in their field to avoid the irrationalizing effect of anchoring support these arguments (Hoyer, 1984: 822). When the anchoring phenomenon is viewed from this point, it is seen that the theory does not aim to explain to value, but also the irrationality in an intellectual process. That is to say, anchoring is an ex ante irrational process according to Anchoring Theory. Because different reference points cause different results (Tversky and Kahneman, 1974: 1129). In other words, high reference points cause high estimates and decisions for the same situation (Starck and Mussweiler, 1997: 437). In this context, in an experimental research related to this study, participants were asked about the last two digits of their social security number and then were asked to give a price to the products in the experiment. Although it is clearly known that there is no relationship between these two values, participants with the last two digits of their social security number higher give higher prices for the same products (Ariely et al, 2003). In another study, it was found that price lists can be used as an anchoring tool and both amateurs and professionals cannot avoid the irrationalizing effects of anchoring (Northcraft and Neale, 1987). There are also studies between amount of product purchased and anchoring (Wansink et al., 1998) and anchoring of product bundles (Yadav, 1994). These studies form the background of this study. However, in this study anchoring was experimented in a more practical form in economical conditions.

According the theory, anchoring process consist of three stages: accessing and selecting information, combining information and creating an answer (Chapman and Johnson, 2003: 126). There are also studies that divide this process into two stages as obtaining information (Bettman and Park, 1980; Jacoby, 1977; Russo and Rosen, 1975) and associating information (Ryan and

Banfield, 1975; Wilkie and Pesseimer, 1973; Wright, 1975). But in this study, these processes accepted as anchoring and adjustment stages as mentioned Tversky and Kahneman's approach. In this context, there are two approaches to explain the irrationality relevant to these processes:

- Insufficient Adjustment: According to the insufficient adjustment approach which explain anchoring as a self-made mechanism (Epley, 2004: 243), people make rational anchoring but irrational adjustments. The irrationality during adjustment process cause the irrationality. This approached appeared by interpretations of Tversky and Kahneman's findings (Epley and Gilovich, 2004: 447). All in all, although there is not any direct emphasis on irrationality in insufficient adjustment approach, insufficient adjustment assumption itself indicated the irrationality (Joyce and Biddle, 1981: 130).

- Anchoring as Activation: According to anchoring as activation approach, people are irrational in both anchoring and adjustment processes. The importance of this approach is to propose that people can manipulate. So, DeCoster and Claypool (2004:2-3) explain this situation as a safe way to control people's ideas. Thus, this approach paved the way for experimental research on usage of manipulative anchoring tools. For example, studies on anchoring of brand classes and competition strategies relevant to this anchoring (Auken and Adams, 2005; Lindstrom, 2009: 202) and manipulations through anchoring (Auken and Adams, 1999) confirm that anchoring is open to manipulations. According to pioneers of anchoring as activation approach Chapman and Johnson (1999: 115-116), anchoring process should be perceived as a perceptual process as a whole.

As a result, today its known that people can take irrational decisions in both anchoring and adjustment processes. In addition to this, irrationality can also arise from manipulations. In this context, this study has a great importance as it researches an applicable anchoring manipulation in economic life and is one of the pioneering studies in this field.

Hypothesis and Their Justifications

Hypothesis and their justifications are as follows:

H.1. Consumers anchor at the price of the first product they examined and charge the following products according to this reference point.

When hypothesis 1 is examined, it is seen that it assumes that the anchoring phenomenon is effective examining, evaluating and pricing a product. According to this approach, consumers estimate for a product by anchoring the other one rather than estimating each product independently and individually. In other words, consumers charge products in a specific framework and context by associating them as a group (Sagi, 2006: 284). Results of the studies in this field also support this approach. In addition to this, this study assumes that consumers anchor to first product's price.

H.2. Consumers use System 1 thinking method as an easy way and so, they behave open to irrational anchors and manipulations.

Hypothesis 2 assumes that thinking by anchors is open to guidance and manipulations. In other words, this hypothesis claims that there is openness to manipulations, beyond to irrationality on the contrary to studying typically in the literature before. In this context, there are studies in psychology literature that support this idea. For example, priming effect caused by System 1 thinking that is related to fast, automatic and effortless think type (Evans and Stanovich, 2013: 223; Evans, 2003: 458) seen as an important reason of irrationality (Newel and Shanks, 2014: 90). In addition to this, people have a natural tendency to think in System 1 (Stanovich and West, 2000: 658-659) and as a result of this, people use System 1 thinking for most of the time (Bazerman and Moore, 2002: 3). There are more than 1600 studies on the delusion of linguistic anchoring and more than 2000 studies on delusion of consecutive thinking in the journals indexed by Web ob Science (Newell and Shanks, 2014: 89). Akerlof and Yellen (1987: 140) interpreted this theory as an approach that explains the irrationality rationally. Finally, these processes seen as irrational anchoring and irrational adjustment processes (Lieder et al., 2017: 323). So, it is important to specifically adapt these approaches to merchandising for the scientific development of merchandising.

This hypothesis specifically mean that the high-priced product, which takes the first place on the shelves, causes a higher price perception than the market conditions on consumers for the following products, even if they are poor of quality.

H.3. While the control group participants think longer and charge lower prices for the products, the participants in the experimental group will set higher prices for the products by thinking shorter due to anchoring.

In hypothesis 3, more specific and correlative assumptions are formed. In the first part of this assumption, it is stated that the control group will think longer and charge lower prices. Except for the first of the products used in experiment, the following four are low quality and priced products. So, consumers are predicted to charge lower prices for these products, meaning that the participants in the control group should make more rational decisions. Because the participants in the control group were not presented with an easy-to-anchor onbejcts. In other words, there is no object that control group participants can easily anchor within the System 1 thinking scope. Consequently, thinking with the System 2, which is slower and requires cognitive effort makes the consumer more rational.

It should be taken into consideration that there may be consumers who individually resist the "shortening thinking period in the experimental group" mentioned in hypothesis 3. However, studies in this field show that people who are exposed to anchoring think for longer periods of time and even if they are experts in the relevant field, that cannot completely avoid

the irrational effect of anchoring (Plous, 1989: 74). Therefore, it should be taken into account that such effects, even if they reduce irrationality, do not completely eliminate them. In concrete terms, according to hypothesis 3, there is an inverse proportion between the time spent by the participants while charging prices and the price they are ready to pay for that product.

To make a general examination on the hypotheses, the first arguments focused on the general functionality of the Anchoring Theory predictions in stores. These hypotheses involve general to specific assumptions. While testing the existence of anchoring effect in product presentations in general framework; presenting anchors as a priming tool, anchoring to the price variable within the framework of System 1 thinking principles and the relationship between time-price-anchoring were examined.

Method

In this section, firstly the application process of the experiment is explained in order to understand the research better, and then the purpose, importance data collection and results of the research are examined. Finally, the findings were discussed in the discussion and conclusions sections. The research ethics committee approval was obtained from Necmettin Erbakan University (2019/13).

Experiment Implementation Process

Before the experiment, participants first filled out a survey containing demographic information. Afterwards, the participants were verbally informed about the experiment, their consent was taken to be recorded on camera during the experiment, and then they were taken to the room where the experiment was conducted. In the experiment, an empty room with five women clothes hanging on hangers used for presentation in stores were used. While the market price of the first of these five clothes was 350 Turkish Liras (TL), the following four clothes consisted of cheap and poor quality products sold in the market between 15-20 TL. While the more expensive and high quality product was placed on the top throughout the experiment, the alignment of the other products was regularly changed in each participant's turn in order to minimize the price deviations caused by model differences and to obtain more stale data.

After the participants entered the room, they gave the "ready to pay" prices to the products. Control group participants priced products that were unlabeled and did not contain any information about brand and price. The participants of the experimental group priced the products that were not branded, but only the tag showing the market sale price of the first product, and the others did not. Participants in both groups charged the prices as they were ready to pay for all products including the first product with a price tag in the experimental group.

After the experiment, the camera records were examined and how many second participants thought to charge prices was independently measured by two people. The reliability of the findings was increased by confirming that there was no difference between these two time data.

The application process of the experiment is shown in figure 1 for an accurate and clear understanding of the research.

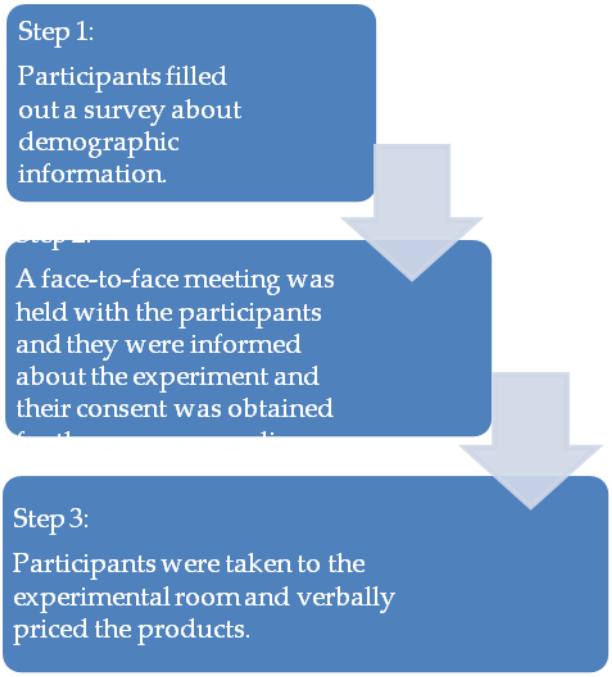


Figure 1. Experiment flow chart

As a result of this experimental process, the demographic information, the prices they charged and the thinking time data of part use were obtained.

The Purpose and Importance of This Study

Anchoring Theory is seen as a phenomenon whose validity has been proven by experimental research in many fields. These studies have penetrated into many fields such as decision-making with visual analysis (Cho et al., 2017), insufficient adjustment results of healthcare professionals regarding to pain (Riva et al., 2011), relationships between the judicial system and crimes (Amand and Zamble, 2001) and social anchoring, identity and security (Grzymala-Kazlowska, 2015). In another study, a specific research was conducted on the sensitivity of individuals to the anchoring effect (McElroy and Dowd, 2007). These developments show that it is very important to integrate the Anchoring Theory, which also received Nobel Prize, into different disciplines. However, in the literature review of this study, a specifically integrated Anchoring Theory approach to the merchandising has not been seen. In fact, the Anchoring Theory, which has been designed in close relation with economics from the beginning, needs to be adapted to

different fields of the economics in theoretically and practically. In this study, it was aimed to eliminate this deficiency in the literature and to intensify the integration process of Anchoring Theory in the field of merchandising.

One of the important features of the study is that it has a theoretical background that has a strong relationship with practice. In studies focusing on the unconscious of consumers, analyzing data obtained from a cognitive effort such as a survey is not appropriate for the structure of the research object. As a matter of fact, studies conclude that real products should be used in merchandising research (Holbrook, 1983) support this approach. The findings of this study, which obtained by an experimental method with real products, reveal the theory that has a strong practical equivalent in accordance with Postmodern science and realist ontology.

This research, by its structure, is not only intended to make determinations, but also to interfere with the facts in practice. Reference points determine consumers' perception of loss and gain in economic behaviours (Kahneman, 1992: 296) and the concept of loss is today interpreted as a perception formed by the transition between reference points defined on different curves (Kahneman et al., 1991). In other words, there are different curves through which it is possible to switch between anchoring objects (DeShazo, 2002; Bokhari and Geltner, 2011; Ku et al., 2006). In this case, brands with this knowledge will have an opportunity to manipulate consumers, while consumers with the same knowledge will be less affected by the manipulation. In other words, epistemological awareness of a knowledge gains importance instead of the Classical Economy assumption that "a knowledge cannot has a negative effect on its owner" (Sharot and Sunstein, 2020: 15). For this reason, this study is important in a practical context as it is designed with the understanding of "a good theory is practice (Lewin, 1952: 110)" of the postmodern science in terms of creating the mentioned awareness.

Merchandising can also seen as a branch of science that examines the places where consumer decisions and behaviours take place and where the ultimate purpose of marketing is realized. When it is examined in the context of practice, the anchoring effect, also called as framing effect (Luchini and Watson, 2013: 205; Stillwater and Kurani, 2013), is interpreted as an attack on the heart of presentation skills and results, and causes significant effects on consumer behaviour (Prelec and Loewenstein, 1991: 774). Therefore, it has a great importance for marketing to examine the effects of anchoring in a practical way in the context of merchandising.

The last point to be stated regarding the importance of this study is that merchandising is a newly developing field and requires interdisciplinary studies and this study aims to make up for this deficiency.

Data Collection

Research was conducted with 443 female in the 18-29 age range of participants in Turkey. First of all, information was obtained from the managers, from which clothes were procured, about the age group that made the most frequent purchases and store visits. In line with this information, the age group of the research is limited to the age range of 18-29. In addition, a 10% discount voucher, which can be used in a jewellery store, was given to participants to encourage participation. The participants selected by simple unbiased sampling. In determining the sample size, Cohen's approach (Can, 2017) was accepted and 95% reliability was achieved with 443 participants.

The information containing the descriptive characteristics of the participants is shown in table 1.

		Experiment		Control	
		N	%	n	%
Age	18-25	115	52,8	136	59,9
	26-29	103	47,2	91	40,1
Marital Status	Married	59	27,1	56	24,7
	Single	159	72,9	171	75,3
Monthly Income	500 TL -	7	3,2	6	2,6
	500-1000 TL	15	6,9	39	17,2
	1001-2000 TL	76	34,9	79	34,8
	2001-3000 TL	94	43,1	71	31,3
	3001-4000 TL	26	11,9	32	14,1
Educational Status	Associate	32	14,7	32	14,1
	Bachelor's	161	73,9	153	67,4
	Master	21	9,6	41	18,1
	Doctoral	4	1,8	1	0,4

Table 1. Descriptive characteristics table of participants

When table 1 containing descriptive characteristics data is examined, it is seen that the age group distribution of the participants is homogenous. It is also seen that single participants are predominant in the marital status

variable, 1001-2000 TL and 2001-3000 TL monthly income groups in the income level variable, and bachelor's degree graduated participants are predominant in educational status variable. So, it should not be ruled out that study findings may yield more valid results for these predominant groups.

Results

Price and Duration Variables Findings

Price Variable Findings

The centre of the research is the price tag used in the experimental group as priming. In particular, the prices that consumers charge for the products constitute the main research subject of this research. Therefore, the price variable findings should be examined first.

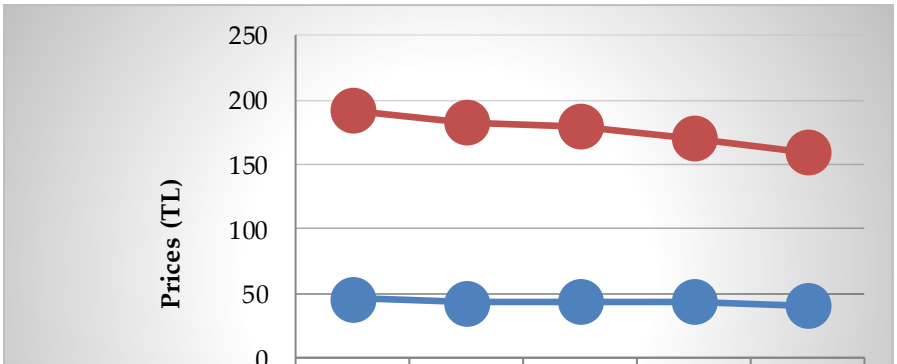
The findings regarding the prices charged by the participants for the products as control and experimental groups are shown in Table 2.

Groups	Experimental (n=218)		Control (n=227)		t	sd	p
	Mean	Sd	Mean	Sd			
Price 1	192,130	93,197	46,430	24,765	22,735	443	**0,000**
Price 2	182,590	91,452	43,420	21,063	22,321	443	**0,000**
Price 3	179,290	98,482	44,040	19,995	20,262	443	**0,000**
Price 4	170,280	91,622	43,810	21,169	20,242	443	**0,000**
Price 5	159,950	91,688	40,980	21,830	18,998	443	**0,000**

Table 2. Prices charged by control and experimental groups (Independent Groups t-test)

When the findings are examined, it is determined that there is a significant difference between the prices charged by control and experimental groups in all price values. However, a more in-depth assessment is required to fully understand the anchoring effect.

Control group participants (n= 227) charged a lower price for each product than group (n=218) participants as seen in the Table 2. But, the participants in the control group charged similar and linear prices for each product. In spite of that, participants of the experimental group charged gradually decreasing prices for the products, respectively. This situation can be seen more clearly in the Figure 2.



	Price 1	Price 2	Price 3	Price 4	Price 5
Control Group	46,43	43,42	44,04	43,81	40,98
Experimental Group	192,13	182,59	179,29	170,28	159,95

Figure 2. Price graphics of the experimental and control groups

When the graphical course of the experimental group is examined, a decreasing price level is seen from the first product to the final product. This decrease is (-) 4.98% for 9.54 TL, respectively, according to the previous product price in each product transition; (-) 1.81% for 3.30 TL; (-) 5.03% for 9.01 TL and (-) 6.07% for 10.33 TL. The price difference between the first and the final product prices (in other words, the difference in the height of the ratios) is seen as 16.75% (-) corresponding to 32.18 TL. So, it is possible to say that the anchoring effect in the first product reduces the effect towards the final product. This shows that the participants get closer to rationality as they progress from the first product to the final product. This rationalization process has been examined in more detail under the title of duration variable.

In order to understand the difference between control and experimental groups, the same values in the control group should be examined and compared. In the control group, (-) 6.48% for 3.01 TL, respectively, according to the previous product price at each product transition; the difference was (+) 2.37% for 0.62 TL, (-) 0.52% for 0.23 TL and (-) 6.46% for 2.83 TL. The difference in height, which shows the difference in the price of the first and the final product, was observed as (-) 11.74% corresponding to 5.45 TL.

In order to make a more accurate comparative evaluation, the comparative price findings of the control and experimental groups are shown in Table 3.

Product	Control Group		Experimental Group		Product
	Price Difference	Percentage	Percentage	Price Difference	

	(TL)			(TL)	
1-2	-3,01	-6,48	-4,98	-9,54	**1-2**
2-3	+0,62	+2,37	-1,81	-3,30	**2-3**
3-4	-0,23	-0,52	-5,03	-9,01	**3-4**
4-5	-2,83	-6,46	-6,07	-10,33	**4-5**
1-5 (Total)	-5,45	-11,74	-16,75	-32,18	**1-5 (Total)**

Table 3. Control and experimental group price changes.

When the prices charged by the participants for the products are examined in a comparative order, it is seen that the participants in the control group move towards the final product by decreasing at a lower rate and amount compared to the experimental group. The reason for this is that since an experiment focused on the anchoring effect was designed, the participants in the control group were not provided with any tools they could anchor. However, when the participants in the experimental group are examined, it is seen that there is a significant change in the price ready to pay decisions. The experimental group participants who saw the price tag of the first product anchored in it and charged a high price to the following products. As a result of the comparisons in the passes, it is possible to say that the anchoring effect decreases gradually in each product as predicted in the assumptions. In this context, the anchoring effect is at the maximum level in the product immediately after the anchoring object, but loses its effect in the following products. However, when comparing the prices of the final product by the control and experimental groups, it can be said that the anchoring effect continues in the fifth product. The control group charges an average price of 40.98 TL to the fifth product, while the experimental group still charges 159.95 TL. This difference of 390.31% shows that even if the anchoring effect decreases, the anchoring object continues its effect intensely in the fifth product.

Another finding that draws attention in the comparative tables is the finding that shows a lower rate of price decrease in the experimental group than the other transitions in the experimental group and an increase in the price of the control group when switching from the second product to the third product. In the aforementioned finding, while the participants in the control group set a 2.37% (0.62 TL) higher price for the third product compared to the second product, the participants in the experimental group charged

1.81% (3.30 TL) lower price. These findings show the only product pricing in which the price differences from the second product to the third product increase in the control group compared to the previous product, while the lowest rate of decrease in the experimental group. In other words, these findings show that the participants show the maximum effect of anchoring in the first two products after the anchoring object.

When the height difference of the prices charged by the participants for the first and the final product is examined, there is a decrease of 11.74% (5.45 TL) between the first and the fifth products in the prices of the control group, while a decrease of 16.75% (32.18 TL) in the experimental group has been observed. This finding shows that there is a more stable price decision at prices quoted without an anchoring object. Participants in the experimental group with anchoring object, on the other hand, showed a deviation from the decision to charge the same products by 5.01% compared to the control group. This situation was interpreted as the diminishing effect of the anchoring object. When this situation is interpreted from the opposite perspective, it seems logical that the control group participants who do not have an anchoring object set a more stable price.

The last point that should be emphasized regarding this part of the research is that although the first product in the experimental group has a price tag, the price charged by the consumers for this product is taken into account in the analyzes. Because the purpose of the research is to understand how much the consumer charges the same product rather than the price that the seller charges for the product and offers it for sale. In this context, when considered in reverse, the first high-priced product offered to consumers for priming purposes should be expected to be expected to sell at a lower amount. Because the price that consumers are ready to pay for the product, which is offered with a price tag of 350 TL, is 192.13 TL on average. However, it has been strategically targeted to serve this purpose rather than the sales volume of the first product used to make anchoring and to ensure that consumers charge higher prices for the following products. Therefore, according to the merchandising strategy designed in the research, the sales amounts of the first product should not be important for businesses implementing this strategy.

In the first part of the research, the findings and comments regarding the price variable show that the price tag is accepted by the consumer as an anchoring tool offered to the consumer, and a higher prices are charged to the subsequent products, even if it is an irrational decision. When examined in general, it is seen that the participants are grouped quite clearly in terms of price charging and the hypotheses regarding the price variable are confirmed.

Following the confirmed hypotheses about the price variable, in order to make a more detailed and effective evaluation, the amount of time used by

the participants in charging prices should be examined in a comparative way in the control and experimental groups.

Duration Variable Findings

While Hypothesis 1 focuses directly on the price variable, Hypothesis 2 focuses directly on duration and Hypothesis 3 is based on the integration of price and duration variables. Hypothesis 2 predicts that control group participants will prefer the System 1 way of thinking and think for a shorter period of time as they are exposed to the price tag as a priming tool. Hypothesis 3 predicts that experimental group participants who think shorter time to charge prices will charge higher.

In this context, the findings regarding the duration variable are shown in Table 4:

Groups	Experimental (n=218)		Control (n=227)		t	sd	p
	Mean (Seconds)	Sd	Mean (Seconds)	Sd			
t 1	2,528	1,155	6,204	3,772	-13,779	443	**0,000**
t 2	2,875	1,249	6,549	2,724	-18,166	443	**0,000**
t 3	3,048	1,211	6,151	2,759	-15,250	443	**0,000**
t 4	3,267	1,292	6,353	3,198	-13,245	443	**0,000**
t 5	3,881	1,620	6,729	3,470	-11,016	443	**0,000**

Table 4. Differentiation status of the periods according to groups and products (Independent Groups t-Test) table

As can be seen in Table 4, the control group participants thought for a longer time to charge product prices than the experimental group participants. This finding transversely confirms the existence of the anchoring effect, together with the charged price findings. As foreseen in the hypotheses, the experimental group participants who were offered priming tool, thought for a shorter time as a result of people's general tendency to System 1 thinking style. When these findings are compared with the relative average, it is seen that the control group thought for an average of 6,397 seconds, while the experimental group thought for 3,120 seconds. Again, according to the relative data, the participants in the control group thought 204.97% longer than the experimental group in terms of average duration.

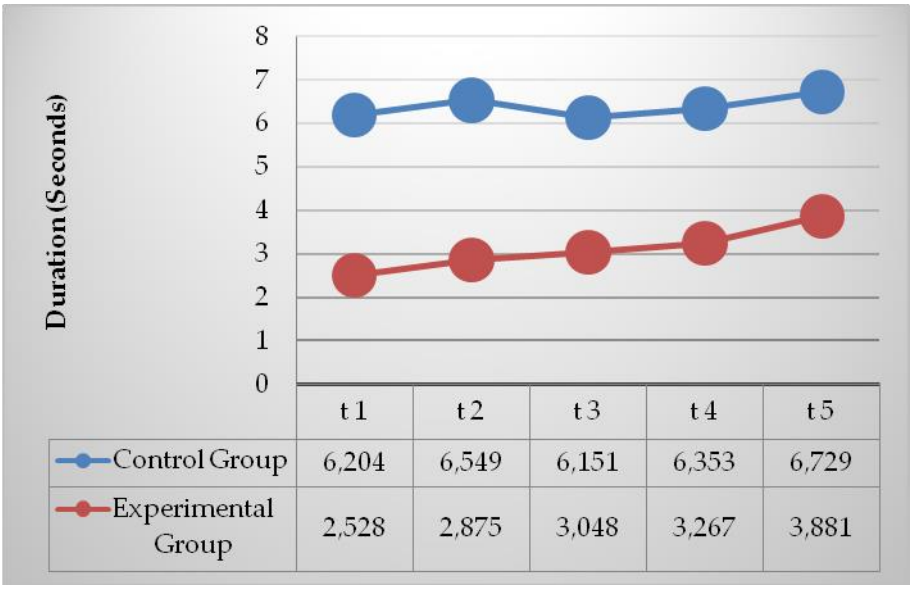


Figure 3. Duration graphics of the control and experimental groups.

When Figure 3 is analyzed, it is seen that the control group follows a more linear course in the time variable as well as in the price variable. On the contrary, a prolonged thinking time is observed in each product in the experimental group. This situation was interpreted as the anchoring effect decreases as it moves away from the first product, which is an anchoring tool. Because while the prices for the final product are falling in the price variable, the thinking times are longer in the time variable compared to the first product.

It would be appropriate to examine the thinking times used by the participants to set prices on the difference between each product transition and the first and last product, as in the analysis of the price variable. In this context, related comparative time data are shown in Table 5.

Product	Control Group		Experimental Group		Product
	Duration Difference (Sec)	Percentage	Percentage	Duration Difference (Sec)	
1-2	+0,345	+5,561	+13,73	+0,347	**1-2**
2-3	-0,398	-6,077	+6,88	+0,173	**2-3**

3-4	+0,202	+3,180	+7,19	+0,219	**3-4**
4-5	+0,376	+5,910	+18,79	+0,614	**4-5**
1-5 (Total)	+0,525	+8,462	+53,52	+1,353	**1-5 (Total)**

Table 5. Control and experimental group time change table.

When the change in the time used to charge prices for each product in the control and experimental groups is examined, it is seen that both groups are used longer towards the final product. However, as can be seen in Table 5, the control group has a height difference of %+8.462 compared to the experimental group with a rate of %+53.52.

In addition, when the times used to charge prices for the second product and the third product are compared, it is seen that there is a parallelism with the price change table in both groups. The only situation in which thinking time was shorter than the previous product in the control group was observed in the second and third products, while these products in the experimental group had the least increase in thinking time.

These changes seen in the duration variable also show an intense similarity with the price variable. In order to understand these similarities, an examination should be made on the basis of control and experimental groups where price and time variables are evaluated together.

Control and Experimental Groups Findings

Control Group Price and Time Findings

In order for the price and time findings of the control group to be evaluated properly, the tables showing both data together should be examined with priority. These findings are summarized in table 6 and table 7.

Price	**Control Group – Price**		**Control Group – Duration**		**Duration**
	Mean	**sd**	**sd**	**Mean**	
Price 1	46,430	24,765	3,772	6,204	**t 1**
Price 2	43,420	21,063	2,724	6,549	**t 2**

Price 3	44,040	19,995	2,759	6,151	**t 3**
Price 4	43,810	21,169	3,198	6,353	**t 4**
Price 5	40,980	21,830	3,470	6,729	**t 5**

Table 6. Control group price and duration data table.

Products	**Control Group – Price Changes**		**Control Group – Duration Changes**		**Products**
	Price Change (TL)	**Percentage**	**Percentage**	**Duration Chenge (Sec)**	
1-2	-3,01	-6,48	+5,561	+0,345	**1-2**
2-3	+0,62	+2,37	-6,077	-0,398	**2-3**
3-4	-0,23	-0,52	+3,180	+0,202	**3-4**
4-5	-2,83	-6,46	+5,910	+0,376	**4-5**
1-5	-5,45	-11,74	+8,462	+0,525	**1-5**

Table 7. Control group price and time changes table.

When the price and time findings of the control group are analyzed comparatively, it is seen that there is a relationship between the thinking time and the prices charged. The general framework of this relationship is the existence of an inverse ratio between the price and the time. However, this situation needs to be evaluated in more detail.

The control group uses a longer thinking duration than the previous duration to charge a lower price than the previous one. In other words, the longer the time consumers spend to charge a price on a product, the lower the price they charge for that product. Another finding is that in order for the price that consumers charge on a product to be higher than the product before it, they have to think for a shorter period of time than the previous product.

It is seen that the time variable in the control group has a relatively linear and stable structure. In contrast, the price chart follows a decreasing trend. These data show that in the absence of an anchoring object, consumers tend to charge a lower price for each product than the previous one, while resisting the change in thinking time when pricing.

Experimental Group Price and Time Findings

In this part of the study, as in the "Control Group Price and Time Findings" section, the price and time findings of the experimental group are presented in a comparative manner. These findings are shown at the Table 8 and Table 9.

Price	Experimental Group – Price		Experimental Group – Duration		Duration
	Mean	sd	sd	Mean	
Price 1	192,130	93,197	1,155	2,528	**t 1**
Price 2	182,590	91,452	1,249	2,875	**t 2**
Price 3	179,290	98,482	1,211	3,048	**t 3**
Price 4	170,280	91,622	1,292	3,267	**t 4**
Price 5	159,950	91,688	1,620	3,881	**t 5**

Table 8. Experimental group price and time findings table.

Products	Experimental Group – Price		Experimental Group – Duration		Products
	Price Change (TL)	Percentage	Percentage	Duration Change (Sec)	
1-2	-9,54	-4,98	+13,73	+0,347	**1-2**
2-3	-3,30	-1,81	+6,88	+0,173	**2-3**

3-4	-9,01	-5,03	+7,19	+0,219	**3-4**
4-5	-10,33	-6,07	+18,79	+0,614	**4-5**
1-5	-32,18	-16,75	+53,52	+1,353	**1-5**

Table 9. Experimental group price and duration change table.

In the experimental group, similar to the control group, there is an inverse proportion between the thinking time and the price. In other words, the participants who thought for a longer time charge lower prices for the products than those who thought for a short time.

It was found that the participants had the lowest price compared to the previous product for the product they thought of for the longest time. The participants charge a 6.07% lower price for the fifth product, thinking 18.79% longer than the fourth product. This draws attention as the point where the highest price decrease is observed in the product where the longest thinking time is used. If it needs to confirm this finding from an adverse perspective, the time and prices in the transition from the second product to the third product should be examined. At the relevant transition point, the least price decrease is seen at this point as a result of the least increase in thinking time.

To make a general evaluation, businesses that use the price tag offered in the first product for priming purposes in practice should consider that consumers will move away from the effect of this anchor in the following products. The price charged to the final product by the experimental group participants was 16.75% lower than the first product. In other words, the anchoring effect resulting from priming decreased 16.75% in the fifth product. Therefore, if businesses place the products they want to sell at higher prices closer to the priming product, consumers will charge a higher price for the same product. When this situation is analyzed in terms of the consumer, attention should be paid to the difference in quality between the high priced product intended for priming and the following products. Because the findings in the experiment show that the products that come after the high quality and priced product are valued at a high price by the consumers even if they are of low quality.

Discussion and Conclusion

Discussion

The findings obtained in the study show that the consumers tend to anchor by being affected by the product order in the stores. In this section, it is aimed to make inferences after confirming the findings with the relevant hypotheses.

As mentioned in Hypothesis 1, the judgment that consumers will anchor according to the order of product presentation and that this anchor will be made over the price has been confirmed. According to the findings, the participants anchored the first high-priced product and charge high prices for the following products. In fact, there are two values that participants can anchor at the background of this determination: quality and price. If participants were to anchor on the quality of the first product, they would have to set a lower price on other products after the higher price on the first product. Because, as mentioned, the first product is a high quality product, while the others are low quality products. Also, if anchoring was made to quality, there should be no differentiation between the control and experimental groups. Because the quality as an anchoring tool was presented in both the control and experimental groups. However, no such price differentiation was observed in both the experimental and control groups, with a quality focus. Instead, there was a significant differentiation between the two groups and when the price tag of the first product was presented, a significant increase was observed in the prices. These findings also show that hypothesis 1 has been confirmed.

Hypothesis 2 includes the judgment about which thinking system the consumer, who is the subject of the anchoring phenomenon, acts to while performing this feature. In this context, Hypothesis 2 predicts that System 1 thinking is the basis of the anchoring phenomenon. Thinking durations need to be evaluated in order to verify this assumption. The fact that the time used by the experimental group is significantly less and the price charged increases as the time of thinking decreases shows that they tend to System 1 thinking. Since the studies in the literature suggesting that people have a natural tendency towards System 1 thinking style support these findings and interpretations, hypothesis 2 was also confirmed.

Hypothesis 3 expresses the judgment regarding the total findings of the first two hypotheses. For this reason, confirming the first two hypotheses at the same time means that the hypothesis 3 is confirmed. Thanks to the confirmation of the research hypotheses, it became possible to interpret the relevant findings in terms of marketing theory and practice. These comments can be evaluated in two parts as theoretical and practical.

Theoretical Discussions

When analyzed from a theoretical point of view, it is seen that the equivalent of the findings in marketing theory is psychological pricing. Psychological pricing according to pricing literature, there are four categories: fractional pricing, fixed price pricing, prestige pricing, and pricing through quantity discounts. Each of these classes approaches the phenomenon of psychological pricing only in terms of the price variable. This monolithic structure of the price component should be expected to undergo a dissolution and subsequent transformation as a result of inter-disciplinary studies in postmodern science. Because, as seen in the research, the price

presented as an anchoring object is actually a psychological pricing phenomenon, although it cannot be located exactly in this classification. In this context, new psychological pricing types should be introduced to the literature in line with the findings from inter-disciplinary studies.

The findings obtained in this study suggest that "priming price" should be added to psychological pricing types. The main feature of priming price is that using products as an anchoring object rather than for the purpose of selling, thus creating the desired effect on following products. For example, in the experimental research in this study, when the high price of the first product and the price charged by the consumers are compared, it should not be expected that the number of sales with the price tag on this product is enough. Because while the price tag of the first product was 350 TL, the average price of the consumers was 192.13 TL. However, despite this unfavourable situation, consumers charged a higher price of 390.31% for the products that came after the first product. This means persuading consumers to pay a higher price for products that come after the first product.

Again, one of the psychological pricing types, prestige pricing should be evaluated theoretically within the framework of these findings. Prestige pricing corresponds to the effort to create a prestigious brand with high price tags. Therefore, it is possible to mention that prestige pricing is essentially an anchor. However, the anchor here corresponds to an adjustment to brand value or prestige after price anchoring. Therefore, prestige pricing should also be considered in the subclass of priming price. Because what is in question here is that all products in a store are offered for sale at a high price and the prices are made anchoring as a whole - which again corresponds to priming price.

As mentioned, psychological pricing's sub-factors should be expected to change with the theorization of the facts determined in practice. This change, as in the findings and results of this research, should be carried out within the framework of an ordinary scientific process with minor changes through inter-disciplinary studies. Thus, each contribution to the psychological pricing field will make important contributions to the theory-practice harmony.

Practical Discussions

When the findings are evaluated in terms of businesses, it is seen that no components related to stores should be evaluated independently from each other. In other words, the stores have an extremely complex structure. In addition, the consumers in the stores make decisions with the reference points they create by associating these components according to their own perspective. In this context, the findings show that consumers are also open to manipulation during this anchoring process. In today's market conditions where competition is increasingly intense, it has become a necessity for the

sustainability of brands to pay attention to each detail of marketing and the total result to be created by each component. For this reason, businesses should closely follow the inter-disciplinary developments in the field of merchandising and adapt them to their marketing strategies in order to achieve an effective marketing and promotion performance in particular.

If it is necessary to make an inference about the future of consumers from the same findings, consumers will be exposed to an increasing systematic manipulation to be persuaded. It is also known that there is System 1 thinking in the background of these manipulations. Consumers who want to avoid the irrationality caused by such manipulative marketing practices should take care to avoid decisions and behaviours caused by System 1 thinking. However, as mentioned in this study, even if people are experts in the relevant field, they cannot completely avoid the irrationality caused by anchoring, but they can reduce it. Therefore, in addition to thinking in the System 2 way, consumers should closely follow this and other similar irrationality and manipulation-oriented studies like businesses to be more conscious. Thanks to this awareness process, consumers will be able to maximize their rationality.

Conclusions

Anchoring Theory has made a worldwide impact and has been the subject of experimental research in relation to different disciplines and mediated inter-disciplinary findings. During this scientific process, the Anchoring Theory has come up with a scientific deepening, strengthening its theoretical existence especially with practical tests. Especially in the last period of this process, researches between cognitive skills and economic rationality have gained importance. For example, according to the experimental research conducted by Bergman, Ellingsen, Johannesson and Svensson in the context of cognitive skills and anchoring and within the framework of economic rationality, it has been determined that cognitively more competent (intelligent) people are closer to the characteristics of homoeconomicus concept. However, it is also stated that full rationality is not possible, and the anchoring effect has been shown as one of the reasons for this situation (Bergson et al., 2010: 67-68). The findings of the aforementioned research, which was carried out with the contribution of Drazen Prelec, support the findings of this study. In a different study, the Anchoring Theory was tested again with an experimental research. In this study, the effect of anchoring has been examined specifically for open and closed-ended offers. According to this research, the reason for the differentiation detected in the answers given to open and closed-ended questions are the anchoring effect (Frykblom and Shorgen, 2000: 331-333). In addition, the study, which also takes into account the thinking periods, is similar to this study in terms of methodology.

This study aims to open the Anchoring Theory assumptions to a new field, to obtain new findings based on these assumptions and to enrich the field of

merchandising in a similar process with the aforementioned studies. In this context, the aforementioned studies support the first part that constitutes the main dynamics of this research. As a matter of fact, the experimental findings of this study have paved the way for similar studies by transferring the findings of the other studies mentioned to the field of merchandising. In this context, the aim of integrating the Anchoring Theory assumptions with the applications in the field of merchandising has been achieved. Research findings should be mentioned in general to understand them better.

The findings of the study show that when consumers are not offered an anchoring object when they price a product, they tend to charge low prices for products, largely ignoring the quality element. However, consumers, who are offered a price tag as an anchoring object, ignore the quality factor again and charge high prices for products. In the study, the participants were shown products with a market price of 15-20 TL after a high quality and priced product worth 350 TL, and the participants were asked to charge the prices they were ready to pay for these products. In the case where the first product is on the price tag (in the experimental group), the participants charged an average price of 192.13 TL for the following products (market price of 15-20 TL) and these prices are 390.31% higher than the control group, which is quite striking in terms of questioning the rationality. The emphasis of the experimental design especially on the measurement of the anchoring effect shows that the Anchoring Theory has an important effect on the point of deviation from rationality. Undoubtedly, it is inevitable that these findings will cause a theoretical effect in the fields of marketing and merchandising in particular. The theoretical arguments of the research findings in these areas can be summarized as follows:

- Anchoring objects, which are used as a manipulation tool in sales environments beyond just naturally occurring anchoring objects and presented to the consumer in a planned way, have significant effects on consumer decisions and behaviours. In other words, the anchoring effect is not only a spontaneous phenomenon, but it is also suitable to use as a tool to manipulate consumers by being designed in a planned way.

- Experimental findings show that psychological pricing components are insufficient in marketing literature. In line with this determination and prediction, the psychological pricing theory was discussed and questioned in the relevant section.

Although the arguments related to the research are in this way in the general framework, more detailed data, findings and comments are presented in the relevant sections. These presentations were carried out with an ethical understanding of marketing philosophy for both consumers and businesses, as seen in the study.

Finally, the limitations and recommendations of the research should be mentioned. The experimental structure was applied with female participants who are 18-29 years old and with clothing products. Therefore, different

studies for different age groups and product types are supported by the findings of this study. The model of this study needs to be differentiated, especially in researches for products such as homes that consumers can only buy in limited numbers in their life.

An important finding related to the study is that the consumers are starting to avoid from the anchoring effect after the first two products. Although this research was not designed to make this determination, it achieved this finding. Therefore, conducting specific research on this topic is also supported by the findings of this study.

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