

**THE REPUBLIC OF TURKEY
BAHÇEŞEHİR UNIVERSITY**

**AN EXAMINATION OF BRAND LOYALTY
COMPONENTS: A CASE STUDY OF
CONSTRUCTION EQUIPMENT SECTOR IN
TURKEY**

Master's Thesis

KEMAL KULAKOĞLU

İSTANBUL, 2018

**THE REPUBLIC OF TURKEY
BAHÇEŞEHİR UNIVERSITY**

**GRADUATE SCHOOL OF SOCIAL SCIENCES
MASTER OF BUSINESS ADMINISTRATION**

**AN EXAMINATION OF BRAND LOYALTY
COMPONENTS: A CASE STUDY OF
CONSTRUCTION EQUIPMENT SECTOR IN
TURKEY**

Master's Thesis

KEMAL KULAKOĞLU

Thesis Supervisor: Assoc. Prof. YUSUF CAN ERDEM

İSTANBUL, 2018

THE REPUBLIC OF TURKEY
BAHÇEŞEHİR UNIVERSITY

GRADUATE SCHOOL OF SOCIAL SCIENCES
MASTER OF BUSINESS ADMINISTRATION

Name of the thesis: An Examination of Brand Loyalty Components: A Case Study of
Construction Equipment Sector in Turkey

Name/Last Name of the Student: Kemal KULAKOĞLU

Date of the Defense of Thesis: 25.05.2018

The thesis has been approved by the Graduate School of Social Sciences.

Assoc. Prof. Burak KÜNTAY
Director of Graduate School of Social Sciences

I certify that this thesis meets all the requirements as a thesis for the degree of Master of Arts.

Assoc. Prof. Ela ÜNLÜER
Program Coordinator

This is to certify that we have read this thesis and we find it fully adequate in scope, quality and content, as a thesis for the degree of Master of Arts.

Examining Committee Members

Signature

Thesis Supervisor: Assoc. Prof. Yusuf Can ERDEM

Member: Assoc. Prof. Elif YOLBULAN OKAN

Member: Assist. Prof. Gülberk GÜLTEKİN SALMAN



*This study is dedicated to the colors of my life,
to my son and my wife.*

ACKNOWLEDGEMENTS

First of all, I want to state my sincere gratitude to my thesis supervisor Assoc. Prof. Yusuf Can Erdem for his encouragement, patience, guidance and intellectual support throughout my MBA program.

Moreover, I would like to thank to Assoc. Prof. Elif Yolbulan Okan and Assist. Prof. Gülberk Gültekin Salman for their precious contributions and supports during completing this study.

Besides these, I want to express my thanks to Republic of Turkey, Bahçeşehir University Graduate School of Social Sciences, Director of Graduate School of Social Sciences, Program Coordinator and Borusan Holding for providing the opportunity to attend and complete my MBA program.

Finally, my deep thankfulness is for my family. Without their support I could not able to complete this study. Also, I want to apologize to my son for wasting some our play time to accomplish this thesis.

ABSTRACT

AN EXAMINATION OF BRAND LOYALTY COMPONENTS: A CASE STUDY OF CONSTRUCTION EQUIPMENT SECTOR IN TURKEY

Kemal Kulakođlu

Master of Business Administration

Thesis Supervisor: Assoc. Prof. Yusuf Can Erdem

May 2018, 51 Pages

Construction equipment sector is a leading sector in the world and Turkey is one of the most attractive market for this sector with its high potential and geopolitical position. The importance of construction equipment sector of Turkey is supported by the figures that in 2017, Turkey was in the 5th rank in Europe and in the 8th rank in the world in terms of the market volume. Besides these, Turkey is the fastest growing market for construction equipment sector during last 8 years, after China and India. 660 companies, 200 manufacturer companies and 350 sub-industry companies are operating in construction equipment sector of Turkey. In this competitive environment retaining existing customers and creating loyal customer are big challenges for companies.

The aim of this study is to analyze the brand loyalty influences of Turkish construction equipment sector customers and provide a better insight for companies, operating in this sector, about brand loyalty behavior of the sample, in order to construct more efficient and effective marketing strategies. For this study, a research model was organized based on the previous literature about brand loyalty. A questionnaire was developed for data gathering and this questionnaire was distributed directly face to face and via internet to participants. Totally, 320 participants responded to the questionnaire and collected data was proceeded through validity, reliability and regression analysis respectively. Research results show that customer satisfaction, switching cost, brand trust, relationship proneness, perceived value, commitment, repeat purchase, brand relevance, brand performance and culture are important components for brand loyalty behavior of Turkish construction equipment customers.

Key words: Brand Loyalty, Brand Loyalty Influences, Construction Equipment Sector, Turkey

ÖZET

MARKA SADAKATI BİLEŞENLERİNİN İNCELENMESİ: TÜRKİYE İŞ MAKİNALARI SEKTÖRÜ VAKA ÇALIŞMASI

Kemal Kulakođlu

İşletme Yüksek Lisans Programı

Tez Danışmanı: Doç. Dr. Yusuf Can Erdem

Mayıs 2018, 51 Sayfa

İş makinaları sektörü dünyanın lokomotif bir sektörü olup, Türkiye ise gerek yüksek potansiyeli gerekse de jeopolitik konumu ile bu sektör için en ilgi çekici pazarlardan biridir. Türkiye'nin, iş makinaları sektörü için önemi rakamlar ile desteklenmektedir. 2017 yılında, Türkiye ticaret hacmi bakımından Avrupa'nın 5., dünyanın ise 8. büyük ülkesi olmuştur. Bunun yanında, son sekiz senedir, Çin ve Hindistan'ın ardından en hızlı büyüyen iş makinaları pazarı Türkiye'dir. Türkiye iş makinaları pazarında 660 firma, 200 üretici firma ve 350 yan sanayi faaliyet göstermektedir. Bu rekabetçi ortamda, mevcut müşterileri tutmak ve buna ek olarak sadık müşteriler yaratmak firmalar için zorlayıcı bir konudur. Bu çalışmanın amacı, Türkiye iş makinaları pazarı müşterilerinin marka sadakatini etkileyen faktörleri analiz ederek, bu sektörde faaliyet gösteren firmalara, müşterilerin marka sadakati davranışları ile ilgili daha iyi bir bakış açısı sağlamak ve daha etkin pazarlama stratejileri oluşturmalarına katkıda bulunmaktır.

Bu araştırma için, marka sadakati konusunda yapılan geçmiş çalışmalar ışığında bir araştırma modeli oluşturuldu. Veri toplanması amacıyla hazırlanan anket yüz yüze ve internet üzerinden katılımcılara sunuldu. Toplamda, 320 katılımcı anketi cevapladı ve toplanan veriler sırasıyla geçerlilik, güvenilirlik ve regresyon analizlerinden geçirildi. Araştırma sonuçları müşteri memnuniyeti, değiştirme maliyeti, marka güveni, ilişki eğilimi, algılanan değer, taahhüt, tekrar alım, marka tutarlılığı, marka performansı ve kültür faktörlerinin, Türkiye iş makinaları sektörü müşterileri için önemli marka sadakati kriterleri olduğunu ortaya koydu.

Anahtar Kelimeler: Marka Sadakati, Marka Sadakatini Etkileyen Faktörler, İş Makinaları Sektörü, Türkiye

TABLE OF CONTENTS

ABSTRACT	v
LIST OF TABLES	x
LIST OF FIGURES	xi
ABBREVIATIONS	xii
1. INTRODUCTION	1
1.1 PURPOSE AND IMPORTANCE OF THE STUDY	1
1.2 RESEARCH METHODOLOGY OF THE STUDY	2
1.3 LAYOUT OF THE STUDY	2
2. THEORITOCAL FRAMEWORK	4
2.1 BRAND LOYALTY	4
2.1.1 Definition of Brand Loyalty and Evolution of Brand Loyalty Studies	4
2.1.2 Benefits of Brand Loyalty	6
2.1.3 Brand Loyalty Influences	7
2.1.3.1 Customer satisfaction.....	7
2.1.3.2 Switching cost	8
2.1.3.3 Brand trust.....	9
2.1.3.4 Relationship proneness	9
2.1.3.5 Involvement	11
2.1.3.6 Perceived value	12
2.1.3.7 Commitment	13
2.1.3.8 Repeat purchase	14
2.1.3.9 Brand affect	15
2.13.10 Brand relevance.....	15
2.1.3.11 Brand performance.....	17
2.1.3.12 Culture	17

2.2	IMDER & CONSTRUCTION EQUIPMENT SECTOR IN TURKEY	19
3.	METHODOLOGY	21
3.1	RESEARCH MODEL.....	21
3.2	SAMPLING AND DATA COLLECTION	23
3.3	INSTRUMENTS OF MEASUREMENT	24
3.4	DATA ANALYSIS AND STATISTICAL TECHNIQUES	24
4.	EMPRICAL RESULTS	26
4.1	DEMOGRAPHIC RESULTS	26
4.1.1	Regional Distribution of Participants	26
4.1.2	Business Segments of Participants	27
4.1.3	Construction Equipment Fleet Size of Participants	28
4.1.4	Brands in The Construction Equipment Fleets of Participants	29
4.1.5	Brand Preferences of Participants	29
4.1.6	Product Categories Owned by Participants	30
4.1.7	Buying Frequency of Participants.....	31
4.1.8	Yearly Average Operating Hours	32
4.1.9	Construction Equipment Acquiring Preferences of Participants	33
4.1.10	Financing Preferences of Participants	33
4.2	QUANTITATIVE ANALYSIS	34
4.2.1	Validity Analysis	34
4.2.2	Reliability Analysis	35
4.2.3	Regression Analysis	36
4.2.3.1	Test of H1, H2 and H3	36
4.2.3.2	Test of H4 and H6	38
4.2.3.3	Test of H5, H7 and H8	39
4.2.3.4	Test of H9	41
4.2.3.5	Test of H10, H11, H12 and H13	42

4.2.3.6 Summary of hypothesis testing	43
4.2.4 Final Research Model	45
5. DISCUSSION.....	46
6. CONCLUSION	49
6.1 SUMMARY	49
6.2 IMPLICATIONS AND LIMITATIONS.....	50
6.3 AREAS FOR FUTURE RESEARCH	50
REFERENCES	52
APPENDIX	58
Appendix A: Questionnaire	59
Appendix B: Relation of Questionnaire Items with Brand Loyalty Influences...	66

LIST OF TABLES

Table 2.1: Total construction equipment sales of IMDER members.....	20
Table 2.2: Total sales of IMDER product categories.....	20
Table 4.1: KMO and Bartlett's Test.....	34
Table 4.2: Reliability of variables.....	35
Table 4.3: T-test of H1, H2 and H3.....	36
Table 4.4: T-test of H2 and H3.....	37
Table 4.5: ANOVA test of H2 and H3.....	37
Table 4.6: Model summary of H2 and H3.....	38
Table 4.7: T-test of H4 and H6.....	38
Table 4.8: ANOVA test of H4 and H6.....	39
Table 4.9: Model summary of H4 and H6.....	39
Table 4.10: T-test of H5, H7 and H8.....	40
Table 4.11: ANOVA test of H5, H7 and H8.....	40
Table 4.12: Model summary of H5, H7 and H8.....	40
Table 4.13: T-test of H9.....	41
Table 4.14: ANOVA test of H9.....	41
Table 4.15: Model summary of H9.....	42
Table 4.16: T-test of H10, H11, H12 and H13.....	42
Table 4.17: ANOVA test of H10, H11, H12 and H13.....	43
Table 4.18: Model summary of H10, H11, H12 and H13.....	43
Table 4.19: Summary of hypothesis testing.....	44

LIST OF FIGURES

Figure 2.1 Evolution of brand loyalty dimensions.....	6
Figure 3.1 Proposed research model.....	22
Figure 4.1 Regional distribution of participants.....	26
Figure 4.2 Business segments of participants.....	27
Figure 4.3 Construction equipment fleet size of participants.....	28
Figure 4.4 The construction equipment brands in the fleets of participants.....	29
Figure 4.5 CE brand preferences of participants within last 3 years.....	30
Figure 4.6 Product categories owned by participants.....	31
Figure 4.7 Buying frequency of participants.....	32
Figure 4.8 Yearly average operating hours.....	32
Figure 4.9 Construction equipment acquiring preferences of participants.....	33
Figure 4.10 Financing preferences of participants.....	34
Figure 4.11 Final research model.....	45

ABBREVIATIONS

BPER	: Brand Performance
BRAF	: Brand Affect
BREL	: Brand Relevance
BTST	: Brand Trust
CE	: Construction Equipment
COMT	: Commitment
CSAT	: Customer Satisfaction
CULT	: Culture
IMDER	: Turkey Construction Equipment Distributors and Manufacturers Association
PVAL	: Perceived Value
RPRO	: Relationship Proneness
RPUR	: Repeat Purchase
SCOS	: Switching Cost

1. INTRODUCTION

1.1 PURPOSE AND IMPORTANCE OF THE STUDY

Construction equipment (CE) sector is one of the most important sectors in the world with an estimated trading volume of \$ 200 billion. For this sector, Turkey is a key player due to its high potential and geopolitical position. Turkey has a trading volume of \$ 6,5 billion with 12.142 machines sold in 2017. The total amount of planned investments for Turkey is \$ 1,3 trillion until 2030 and the forecasted sales will be 30.000 units which will generate \$ 30 billion by 2030. In 2017, Turkey was in the 5th rank in Europe and in the 8th rank in the world in terms of the market volume. Turkey is the fastest growing market during the last 8 years, after China and India.

All of these positive indicators, indeed technological improvements and globalization make Turkish construction equipment sector very competitive. Gaining new customers is an important issue for the future of companies, but keeping old customers is more important. As Kotler and Armstrong (2014, p. 42) stated, keeping an old customer is five times cheaper rather than acquiring a new one. Brand loyal customers is a very valuable asset for the companies and achieving this is a big challenge. Brand loyalty scores are one of the performance indicators of companies. Marketing professionals of construction equipment sector of Turkey, should focus on brand loyalty for the continuity of their companies and build strong relationships with their customers. Brand loyal customers provide a competitive advantage to companies due to repeat purchase, emotional attachment, less sensitivity to price increases, word of mouth marketing and decreased operating costs.

The motivation for this study is to analyze the brand loyalty determinants of Turkish construction equipment sector customers and to provide a better insight for companies about their customers, while constructing their marketing strategies in this competitive environment.

The importance of the study is that, this is the first study focusing on the brand loyalty behavior of Turkish construction equipment sector customers. Findings of this study can guide marketing strategies of the companies those are participating in this sector and as well as influence further studies about this sector.

1.2 RESEARCH METHODOLOGY OF THE STUDY

A conceptual model was developed for this research, based on the previous literature about brand loyalty. In this model, eleven brand loyalty influences, consist of customer satisfaction, switching cost, brand trust, relationship proneness, involvement, perceived value, commitment, repeat purchase, brand affect, brand relevance, brand performance and culture were organized based on their relationship between each other and thirteen hypotheses were set to analyze the brand loyalty behavior of Turkish construction equipment sector customers.

A questionnaire was developed for data gathering. The research questionnaire of Moolla (2010) was source of inspiration for our questionnaire and the items in Moolla's study were slightly customized based on the industrial context of construction equipment sector and cultural context of Turkey. Some of the items and involvement related questions were omitted by face validity technique. Finally, 10 demographical questions and 43 brand loyalty related questions with five-point Likert scale constituted the framework of this research's questionnaire. The questionnaire was distributed to participants face to face and via internet. The data collection period took place from December 2017 to March 2018 and totally 320 participants were responded to the questionnaire.

Gathered data was proceeded through validity, reliability and regression analysis.

1.3 LAYOUT OF THE STUDY

This study consists of six parts:

The first part is "Introduction" and includes general information about this study, aim and importance of the study as well.

The second part is “Theoretical Framework” and presents the literature review of previous brand loyalty studies, the definition of brand loyalty, the evolution of brand loyalty concepts, benefits of brand loyalty, key brand loyalty influences and general information about construction equipment sector in Turkey.

The third part is “Methodology” and includes the research model, research questions, sampling, data collection, instruments of measurement, data analysis and statistical techniques employed for this study.

The fourth part is “Empirical Results” and presents the findings of this research, after the data analysis process.

The fifth part is “Discussion” and includes analysis of the empirical results and their impacts.

The sixth and final part is “Conclusion” which summarizes this study.

2. THEORITOCAL FRAMEWORK

This section of the study includes the review of literature about brand loyalty and information about the construction equipment sector in Turkey. Literature review about brand loyalty consists of three sub-sections. The first one is about the definition of brand loyalty and the evolution of brand loyalty studies, the second one is about the benefits of brand loyalty and the final part is about brand loyalty influences.

2.1 BRAND LOYALTY

2.1.1 Definition of Brand Loyalty and Evolution of Brand Loyalty Studies

Brand loyalty is a core topic of marketing science and it has been an attractive research topic since the first published work about that in 1923 by Copeland. Many researches were done to understand the concept of loyalty but it is still a very contemporary research issue and it is still relatively unexplored. Until the end of 1960s, loyalty was not mentioned as a complex model, it was simply connected to repeat purchase and measured by the frequency of consumer purchase. After, George S. Day presented the bi-dimensional concept in 1969, the underlying reasons of consumer acquisition became the new focus of researchers. Day (1969) stated that, loyalty should be evaluated with both behavioral and attitudinal dimensions. More recent studies analyze loyalty as a multi-dimensional concept.

The definition of loyalty has been evolved over time. In the early studies loyalty was defined as repeat purchase behavior. As, researchers focused deeply on the loyalty concept, rather than the simple definition of repeat purchase behavior, the definition of loyalty became more complex like the loyalty models. One of the oldest and widely used definition of loyalty was stated by Jacoby and Kyner (1973) as, “a biased behavioral response expressed over time by a decision-making unit with respect to one or more alternative brands out of a set of brands and being a function of psychological processes”. One step further Oliver (1999) defined loyalty as, a deeply held commitment to repurchase a preferred product or service consistently in the future, despite the situational

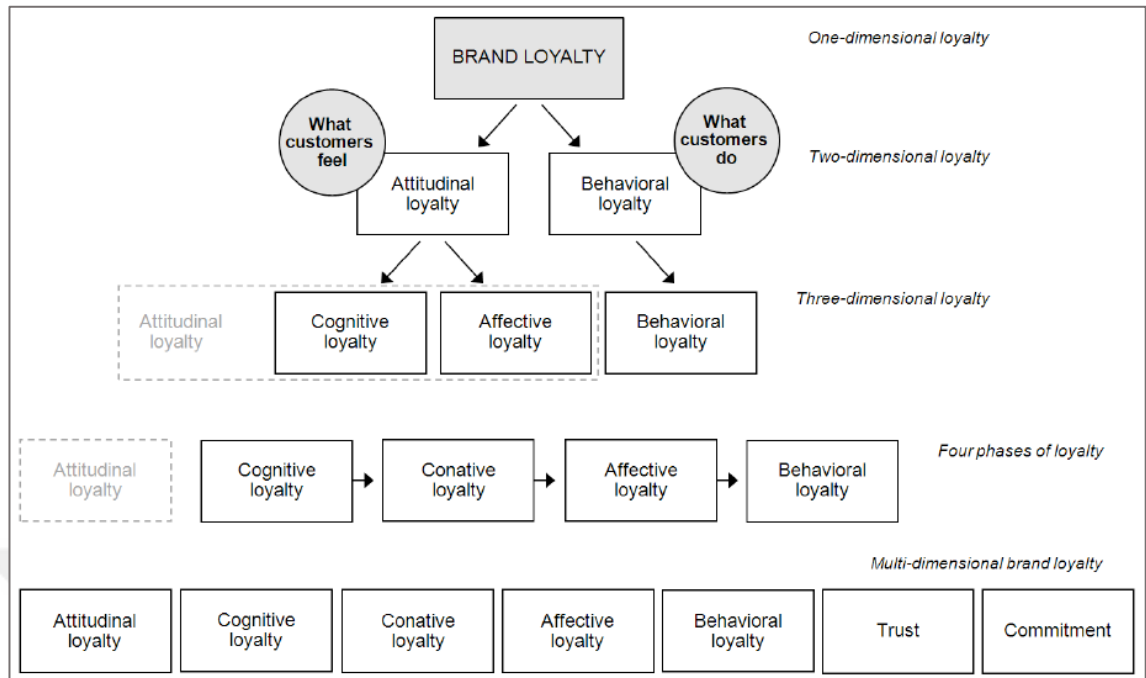
influences and marketing efforts which can cause switching behavior (Arnould et al. 2002, p. 640).

Two major approaches are dominant in the brand loyalty categorization. These approaches are behavioral loyalty and attitudinal loyalty. The behavioral approach focuses on behaviors of customers and only customers who purchase the same brand consistently over time is regarded as a loyal customer. Behavioral approach is based on repeat purchase behavior. Although only repeat purchase is not sufficient as an indicator of loyalty, the supporters of behavioral approach consider buying as a random behavior which is very complex and difficult to understand. The reason of the complexity is that, there are many explanatory variables which influence buying behavior of customers. This issue makes presenting a comprehensive explanation almost impossible (Suhartanto 2011, p. 12). Researchers of behavioral approach used proportion of purchase, purchase probability and average purchase for measuring loyalty. The advantage of the behavioral approach is its measurement model that it directly measures actual buying behavior which directly affects the performance of companies.

On the other hand, attitudinal approach conceptualizes loyalty as an attitude. Attitudinal loyalty focuses on beliefs, emotions, opinions and attitudes which affect buying behavior. But, as attitudes are abstract concepts, the conceptualization and measurement of attitudinal loyalty cause disagreement among researchers (Suhartanto 2011, p. 14).

Conceptualizing loyalty, based on only behavioral or attitudinal approach was insufficient to analyze loyalty according to Day (1969). Therefore, he introduced the two-dimensional model which combines behavior and attitude. The model of Day changed the direction of brand loyalty studies. Two-dimensional loyalty evolved to three, four and multidimensional loyalty studies over time. The evolution of brand loyalty dimensions is presented in Figure 2.1.

Figure 2.1: Evolution of brand loyalty dimensions



Source: Dahlgren (2011, p. 32)

2.1.2 Benefits of Brand Loyalty

Reichheld (2000) stated 5 benefits of brand loyalty for companies as:

- i) Customer acquisition costs will be lowered due to lowered customer exchange.
- ii) Loyal customers tend to buy more and they are less sensitive to price changes.
This situation provides the advantage of premium pricing for companies.
- iii) Loyal customers spread their positive experiences and feelings around them.
- iv) Loyal customers are less sensitive to competitive marketing efforts and they are willing to buy their favorite product.
- v) The serving, operating and marketing costs of the companies can be decreased as loyal customers are familiar with products and services. Also, by keeping customers, companies can reduce investment in customer replacement.

2.1.3 Brand Loyalty Influences

Moolla (2010) analyzed the previous literature about brand loyalty extensively and constructed a model, including 12 core influences of brand loyalty, to measure brand loyalty in FMGC sector. This model was including brand loyalty influences of customer satisfaction, switching cost, brand trust, relationship proneness, involvement, perceived value, commitment, repeat purchase, brand affect, brand relevance, brand performance and culture.

2.1.3.1 Customer satisfaction

Customer satisfaction is defined as “The extent to which a product’s performance matches a buyer’s expectations” by Kotler and Armstrong (2014, p. 35). According to Schiffman and Kanuk (2007, p. 9) “Customer satisfaction is the individual’s perception of the performance of the product or service in relation to his or her expectations”. Post-purchase behaviors such as repeat purchase of a brand, product usage and word of mouth can be influenced by customer satisfaction (Punniyamoorthy & Raj 2007, p. 225).

Customer satisfaction is a derivative of customer expectations and the perceived performance of a product or service determines the level of customer satisfaction. If the performance of a product or service cannot meet the expectations of a customer, then the customer becomes dissatisfied. In contrast, if the performance of a product or service meets the expectations of a customer the result is a satisfied customer. And there is one step more that which is very satisfied or delighted customers, whose expectations are exceeded. Customer satisfaction is very important for creating brand loyal customers. Most of the researches and studies show that, satisfied customers tend to be more loyal and this issue will contribute to a company’s performance positively.

Kotler and Armstrong (2014, pp. 35-36) stated that in order to create delighted customers, companies should promise only what they can deliver and then they should deliver more than they promise. As an outcome of this strategy, delighted customers do not only intent to repurchase, but also they will be willing to become marketing partners, who spread and share their good experiences to others. Although, delivering higher customer satisfaction

compared to competitors is the aim of customer-oriented companies, it should not be an attempt to maximize customer satisfaction. This can be resulted in lower profits. Therefore, the aim should be creating customer value profitably.

2.1.3.2 Switching cost

Switching cost can be defined as the monetary or non-monetary costs faced by a consumer as a result of changing brands, products or suppliers. Moolla (2010, p. 128) mentioned that there are at least three types of switching costs: transaction costs, learning costs, and artificial or contractual costs. Transaction cost is incurred when starting a relationship with a new brand, product of supplier. Transaction costs can also include the costs required to end an existing relationship (Moolla 2010, p. 128). Learning cost is the effort needed to become familiar with a new preference of a brand or a product and to reach the same comfort point as the previous preference (Moolla 2010, p. 128). Artificial or contractual dimension of switching costs occur due to the planned marketing activities of companies such as repurchase discounts and loyalty programs.

Although, most common switching costs are monetary, psychological, time and effort related costs to adapt a new brand are non-monetary but important dimensions of switching costs. Losing the benefits of loyalty programs is also a switching cost.

Switching costs can be divided into two other categories as high and low switching costs. If a product or service has limited substitutes and requires important level of effort to become familiar about the usage of it, then this product is in the high switching cost products category. Besides these, for the construction equipment sector, some other factors such as higher product uptime and usage life, lower operating costs, higher fuel efficiency, extensive after sales service network, high spare parts availability, high capability of employees of dealers and higher resale value of the product compared to competitors can create high switching costs for customers. As, high switching cost creates barriers for customers in terms of changing brands, products or suppliers it creates competitive advantage and pricing power for companies. On the other hand, if a product or service can be easily replicated and there are corresponding prices among competitors,

then the switching cost is low and customers can easily change their preferences about brand, product or supplier if their attitudinal loyalty is low.

2.1.3.3 Brand trust

According to Oxford Dictionary (2001, p. 1284) trust is the belief that somebody or something is good, sincere, honest, etc. and will not try to harm or deceive you. Trust is the base of every relationship even with a product, brand or supplier. During one of his speech in 2001, Niall Fitzgerald, the former chairman of Unilever, said that “you can have all the facts and figures, all the supporting evidence, all the endorsement that you want, but if at the end of the day you don’t command trust, you won’t get anywhere”.

Brand trust means the level of credibility and trustworthiness of that brand from customers’ view. Commitment to a brand is affected by trust, as a result trust is the one of the main influencer of loyalty. Schiffman and Kanuk (2010, p. 30) stated that, in order to build and maintain long term relationship with customers, trust is the key issue and brand trust enhances brand loyalty. Trust and brand loyalty are positively correlated that the higher level of trust to a brand the higher level of brand loyalty.

Brand trust is strongly related with brand performance in accordance to customer expectations. Customers feel confident about that, trusted brands of them will meet their expectations, be honest, care about welfare of them, fulfill the brand promise and will not lead to any negative outcome. Therefore, brands which of them constructed trust for customers, have the advantage of word of mouth marketing and they will be offered among customers. Besides these, customers are willing to pay more to these brands and prefer more frequently than other brands.

2.1.3.4 Relationship proneness

Relationship proneness is the level of a customer’s conscious tendency to build a relationship with a firm selling a certain good (De Wulf et al. 2001, p. 38). According to Odekerken et al. (2007, p. 180), consumer relationship proneness refers to the stable tendency of a consumer to engage in relationships with retailers and therefore it can be

considered as a personality trait. Against to loyalty based inertia or convenience, here it is emphasized that a conscious tendency to engage in relationships. The research result of Odekerken et al. (2007, p. 187) shows that if the involvement of consumers is high for certain product categories then they are more willing to enter relationships.

Customer retention orientation of the retailer is another important dimension to build strong relationship between customers and retailers. Odekerken et al. (2007, p. 178) define customer retention orientation of the retailer as, a consumer's overall perception of the extent to which a retailer actively makes efforts that are intended to retain regular customers. Therefore, deciding the strategy about how to set the relationship with customers is very important for companies. It can be either transactional or relational approach. In order to construct customer loyalty, companies need to emphasize relationship strategy and construct strong and long-term relationship with customers.

Relatively long-lasting and intentional leaning of customers to engage relationship with retailers is also related with brand trust and commitment. The level of trust and commitment is higher for relationship prone customers than those who are not relationship prone (Kim et al. 2012, p. 376). Also, relationship prone customers focus on positive things about the relationship and as Odekerken et al. (2007, p. 180) said, they may see the efforts of the retailer through more rose-colored glasses.

Bouguerra and Mzoughi (2011, p. 211) categorized the theoretical approaches to relationship proneness as contextual, psychological and psycho-contextual. Contextual approach concentrates on the factors influencing the relationship proneness by contextual nature such as product type, service complexity. Psychological approach focuses on the relational or transactional attitude of the customer according to his personality. While some customers prefer to build long term relationships, others prefer short term contact. Psycho-contextual approach combines both contextual and psychological aspects. Sociability, the need of social recognition, shopping pleasure and the devotion towards the product category are some individual factors influencing the relationship proneness. The content and the frequency of the exchanges, the requirement of a regular repair of the product, the transfer costs, the purchase frequency and the potentiality of personalizing the offer are some contextual variables.

2.1.3.5 Involvement

Solomon (2015, p. 61) defines involvement as, a person's perceived relevance of the object based on his/her values, inherent needs and interests. Here, the object can be a brand, a product, a purchase situation or an advertisement. According to Arnould et al. (2002, p. 401) involvement is a function of the goal object, the individual and the decision situation. In compliance with this explanation, they stated the definition of involvement as, the perceived degree of personal importance or interest aroused by a stimulus within a specific situation. Personal values and interest, perception of the stimulus affect involvement, therefore involvement level changes case by case and among consumers. A consumer's activation level at a specific moment of time is equivalent to involvement (Arnould et al. 2002, p. 401). If a stimulus stimulates personal needs, values or self-concept then the involvement changes into activated. Since, the perception of the consumers is different, the involvement level for the same product can be different among them.

Cognitive involvement and affective involvement are the two types of involvement. While, cognitive type of involvement includes data collection, more thinking and information analyzing activity about the goal object, affective involvement includes more emotional activity, heightened feelings and emotional energy (Arnould et al. 2002, p. 401).

Level of purchase involvement can vary as, low and high involvement and these levels affect attention, information collection, purchase, and consumption satisfaction in different ways. The buying process is much more complex for high involvement cases. Consumers are willing to show more shopping effort, they are more concerned with the buying. They search widely for appropriate information about the products or brands which are important for them. Before the final decision they evaluate alternatives, make analysis and comparisons (Arnould et al. 2002, p. 403). Contrary to high involvement for low involvement buying process, consumers care less about the buying process. They don't allocate high effort for the purchase, and don't intensively search information about product or brand as it is not necessary for them. Products and brands are similar for them and they make little comparisons among these products and brands. For low involvement

situations it is easy to switch between brands (Arnould et al. 2002, p. 404). There is a positive correlation between the involvement level and loyalty. Consumers who are highly involved in a purchase process tend to be loyal towards that brand.

Arnould et al. (2002, p. 405) segmented consumers into four groups according to their involvement level with a product category or with particular brands:

- i) Brand loyalists – the involvement level is high for both with the product category and with particular brand.
- ii) Information seekers – the involvement level with a product category is high but there is no preferred brand.
- iii) Routine brand buyers – the involvement level is not high with the product category but involvement with a particular brand in that category is high.
- iv) Brand switchers – the involvement level is low for both product category and particular brand.

2.1.3.6 Perceived value

The consumer's assessment of the difference between all the benefits provided by different competitors and all the costs regarding them, constructs the customer perceived value (Kotler & Armstrong 2014, p. 35). Punniyamoorthy and Raj (2007, p. 224) defines the two components of perceived value as get and give. Get component of perceived value is the benefits a consumer gains from a seller's offering. Give component of perceived value is the all monetary and nonmonetary costs of buyer to get the offering. Perception is subjective, therefore perceived value of a specific brand or product varies among customers.

There are four dimensions of perceived value according to Punniyamoorthy and Raj (2007, p. 225):

- i) Functional Value: Functional value is the derivation of product quality and expected performance. The utility, enduringness and reliability of the product affect functional value.

- ii) Emotional value: Emotional value is the senses and affective status excited by a product or service
- iii) Price worthiness factor: This factor expresses the benefit gained from the product after the reduction of the perceived cost.
- iv) Social value: This factor is the benefit of enhancing social self-concept by using a product or service.

Today's highly competitive market provide many options and opportunities for the customers. Technological innovations, globalization and convenience of collecting, comparing and analyzing information result in less brand loyal customers. Therefore, creating value for customers and communication of this value are important issues for companies in order to survive in this competitive market. Developing and sustaining brand loyalty is a big challenge. Research results show that perceived value and brand loyalty have a positive correlation that the higher perceived value for a brand, the higher brand loyalty towards that brand. The base of forming brand loyalty is creating strong perceived value in the minds of customer (Punniyamoorthy & Raj 2007, p. 230).

2.1.3.7 Commitment

The definition of commitment is an enduring desire to continue a precious relationship. Customer commitment is an attitudinal construct and it represents customer feeling about continuing a commercial relationship. As commitment is an important psychological force that connect the consumer to the seller, it is one of the main issues for developing and maintaining marketing relationships (Punniyamoorthy & Raj 2007, p. 226).

Loyalty programs can develop customer commitment but generally customers are not committed to a single brand. Therefore, increasing switching costs can reduce lack of commitment. Cost of leaving, perceived lack of options to change the relationship, relational and social norms that establish trust between buyers and sellers are the means to maintain commitment among buyers and sellers (Arnould et al. 2002, p. 504).

Fullerton (2003, p. 334) described two components of commitment as affective and continuance. Affective commitment identifies the affective or emotional attachment

between customers and organizations. Roots of affective commitment are identification, shared values, belongingness, dedication and similarity. The nature of affective commitment is that, customers aim to build an emotional bond to their business partner in a consumption relationship. Continuance commitment sets a link between customers and sellers as well, but not in emotional dimension. In continuance commitment, customers feel bound to the seller. There is a necessity and this is generally due to high switching costs, limited alternatives to replace the partner, contracts or service agreements (Fullerton 2003, pp. 334-335).

According to Fullerton (2003, p. 333), if customer commitment is built on shared values and identification then commitment has a uniformly positive impact on customer loyalty. If customer commitment is built on switching costs and dependence it has a mixed effect on customer loyalty.

2.1.3.8 Repeat purchase

Repeat purchase refers to the level of repurchasing the same brand by the customers in equal time intervals. Repurchase of a brand on regular basis is a loyalty prone behavior and it is the basis for brand loyalty (Punniyamoorthy & Raj 2007, p. 226).

Repeat purchase of a brand or service frequently supports formation of a habitual activity or biased response for customers and this situation leads to behavioral brand loyalty. The strength of behavioral brand loyalty is directly related to the repetitious happening of buying or consumption behavior. After the behavioral brand loyalty is revealed by customer, it is very difficult to change the habitual pattern about the brand. (Punniyamoorthy & Raj 2007, p. 226).

Although repeat purchase is an important component of brand loyalty, it is not sufficient to explain brand loyalty directly. High re-purchase can be as a result of situational constraints such as stock position of brands and availability. On the other hand, low re-purchase can reflect variety seeking, low brand preferences and usage situations (Dick & Basu 1994, p. 100).

Marketing strategies should support repeat purchase decisions of customers. As Kotler and Armstrong (2014, p. 42) stated, keeping an old customer is five times cheaper rather than acquiring a new one.

2.1.3.9 Brand affect

The term of affect involves emotions and feelings. Both emotions and feelings are responses to specific stimulus. But while, emotions are deep, strong and long standing, feelings are less intense and temporal than emotions (Matzler et al. 2006, p. 428).

Chaudhuri and Holbrook (2001, p. 81) defined brand affect as “a brand’s potential to elicit a positive emotional response in the average consumer, as a result of its use”. Brand affect is one of the main elements in brand management and brands which of them are successful about making the customer happy, and joyful or affectionate gain stronger attitudinal commitment and loyalty (Matzler et al. 2006, p. 427). Supporting this, Chaudhuri and Holbrook (2001, p. 81) also mentioned that, higher brand affect increases attitudinal and purchase loyalty of customers which will result in greater market share and pricing power for sellers.

Brand affect has two independent dimensions as positive and negative. Therefore, brand affect can be the sum of pleasing and displeasing experience of customers (Matzler et al. 2006, p. 428). Customers tend to improve positive experiences and avoid negative ones. Positive experience is positively correlated with repeat purchase willingness (Moolla 2010, p. 133).

2.1.3.10 Brand relevance

Hammerschmidt et al. (2008, p. 49) defined brand relevance as “the degree to which the brand plays a key role in consumers’ choice process for a product in a given product category”. Among other factors, brands can influence buying decisions. So that, brand relevance is a general decision weight of expected brand benefits in relation to other benefits of products in a category (Backhaus et al. 2011, p. 1083, Fischer et al. 2010, p. 824).

As brands are not equally important to buying decisions in every market, creating strong brands is not favorable strategy for all industries. Building relevant brands is important and the stronger role of the brand against other buying criteria, such as price, quality or service makes the brand more relevant (Hammerschmidt et al. 2008, p. 49).

According to Backhaus et al. (2011, p. 1083), there are three important reasons to assess brand relevance. The first reason is, the relevance of brands can be different across product categories in B2B markets and there are evidences about this situation in past researches. Secondly, brand building investments, for the brands in the categories with low brand relevance degrees are not feasible investments and generally these investments are unable to generate the expected returns. Investments should be prioritized by brand relevance measures. For high relevance categories, customers are more brand loyal and willing to pay to their preferred brand (Fischer et al. 2010, p. 826). Finally, brand relevance and brand equity are interrelated, therefore only brands which influence purchase decision making can be strong brands (Backhaus et al. 2011, p. 1083).

Successful brand relevance strategies make competitors irrelevant by developing new and innovative product or service offerings. New categories should be developed by adding benefits for customers which competitors lack (Aaker 2012, p. 44). Aaker (2012, p. 44) defined these benefits as “must have” benefits and these benefits can include personality, organizational value, social program, self-expressive benefits or community benefits. Backhaus et al. (2011, p. 1089) stated that lowered perceived risk of buying decision strongly influences the importance of the brand.

Relevant brand is one of the key elements of building brand loyalty (Moolla 2010, p. 133). A brand’s identity and strategy should be aligned to customers’ needs, wants, and desires and clearly address these elements.

For today’s business world, digitalization is a trend brand relevance topic for companies and many companies have started to reserve significant amount of their marketing budgets to digitalization topic to remain relevant in the marketplace and construct deeper connections with their customers.

2.1.3.11 Brand performance

Perceived brand performance is the assessment of the product or service performance within the expectation of customers, after the consumption experience (Musa 2005, p. 47). According to Musa (2005, p. 47) brand performance is a subjective evaluation of the core product including both intrinsic (effectiveness) and extrinsic (packaging) characteristics. As the success of companies depends on corporate brand performance, companies can be more successful by improving brand performance (De Chernatory et al. 2004, p. 16). Providing superior brand performance to customers will provide increased market share, a premium price relative to the leading competitor and brand loyalty (Chaudhuri & Holbrook 2001, p. 81).

2.1.3.12 Culture

Kotler and Armstrong (2014, p. 160) defined culture as the set of basic values, perceptions, wants, and behaviors learned by a member of society from family and other institutions. Unlike biological characteristics such as sex, skin, hair color or intelligence culture is learned from at an early age of life by interactions with our social environment. After that, culture acts as an invisible hand and affects behaviors subconsciously (Schiffman & Kanuk 2007, p. 394).

Hofstede (2001, p. 29) defined five dimensions of culture as power distance, uncertainty avoidance, individualism versus collectivism, masculinity versus femininity and long-term versus short-term orientation.

- i) Power distance: The extent to which members of a society accept that power, is not distributed equally in organizations.
- ii) Uncertainty avoidance: The level of stress in a society in ambiguous situations.
- iii) Individualism versus collectivism: Integration of individuals into primary groups. The degree to which individuals in a society are incorporated into groups.
- iv) Masculinity versus femininity: The emotional differences between men and women. While masculinity symbolizes assertiveness, achievement, material success, heroism, femininity symbolizes modesty, humility and relationships.

- v) Long-term versus short-term orientation: The tendency of people to focus on present or future.

Purchase decisions of customers are strongly affected by cultural factors and companies need to understand the role of these factors. Especially, while operating in global markets understanding and appreciating cultural norms are very important issues for corporate success. Nearly, all major corporations are marketing their products outside their homeland and marketing activities of companies should be aligned with values and culture of the country which they are operating in. This is the glocal strategy as being global and acting local (Schiffman & Kanuk 2007, p. 456).

Subculture and social class are other elements of cultural factors. Subculture refers to a group of people with shared values, beliefs and customs based on common life experiences and situations (Kotler & Armstrong 2014, p. 160, Schiffman & Kanuk 2007, p. 422). Gender, race, religion and geographic region are some examples of subculture. Social class can be defined as relatively permanent and ordered divisions in a society whose members share similar values, interests, and behaviors (Kotler & Armstrong 2014, p. 162). Members of same subcultures and social classes tend to show similar buying behaviors.

Schiffman and Kanuk (2007, p. 395) stated that culture can exist and sometimes reveal itself at different perceived or subjective levels and they categorized subjective culture into three levels as supranational, national, and group.

- i) Supranational level: Cultural differences that cross national boundaries or can be seen to be reveal in more than one country.
- ii) National level: Shared cultural identity that specifically defines the citizens in specific country.
- iii) Group level: Different cultural groups or divisions as subcultures.

Subjective culture affects us while determining our beliefs, practices, and values which in return impact our social norms, attitudes, behavioral intentions and finally our behavior (Schiffman and Kanuk 2007, p. 395).

2.2 IMDER & CONSTRUCTION EQUIPMENT SECTOR IN TURKEY

In 2002, Turkey Construction Equipment Distributors and Manufacturers Association (IMDER) was established by the major actors of Turkish construction equipment sector, such as Borusan, Çukurova, E-Mak, Enka, Erg, Gama, Hidromek, Stfa, Işıklar, Koç, Sabancı and Tekno. Today, IMDER represents 93 percent of the sector with its 40 members.

According to the data provided by IMDER (Turkey Construction Equipment Distributors and Manufacturers Association) the total estimated trading volume of world construction equipment sector is \$ 200 billion and Turkey is the one of the biggest markets for construction equipment sector with \$ 6,5 billion trading volume. In 2017, Turkey was in the 5th rank in Europe and in the 8th rank in the world in terms of the market volume. Turkey is the fastest growing market during last 8 years, after China and India. The total amount of planned investments for Turkey is \$ 1,3 trillion until 2030 and the forecasted sales will be 30.000 units which will generate \$ 30 billion by 2030.

The Turkish construction equipment sector has 70 years of history and in the sector, there are 660 companies, 200 manufacturer companies and 350 sub-industry companies. The sector employs nearly 600.000 people directly and indirectly.

In 2017, 12.142 machines were sold in Turkey and it is estimated that total sales will be 20.000 units in 2023. The 65 percent of the total demand is covered from imported products and the remaining 35 percent is met by domestic production. Turkey is in the 10th rank in Europe for the construction equipment production capability and the construction equipment production of Turkey is exported to 133 countries.

The sales performance of Turkish construction equipment sector for the last 5 years according to IMDER is presented in Table 2.1. Although, there is a slight decline in sales in 2017, the market is stable during last 3 years. The product category distribution of the total sales for the last 4 years is provided in Table 2.2.

Table 2.1: Total construction equipment sales of IMDER members

TOTAL CE SALES	
2013	13.200
2014	11.520
2015	12.600
2016	12.695
2017	12.142

Source: IMDER

Table 2.2: Total sales of IMDER product categories

TOTAL SALES OF IMDER PRODUCT CATEGORIES				
	2014	2015	2016	2017
Backhoe Loader	3.350	3.800	3.700	3.000
Wheel Excavator	240	210	165	190
Crawler Excavator	3.115	3.200	3.650	3.750
Wheel Loader	1.100	1.080	1.200	1.350
Compactor	500	685	650	700
Motor Grader	245	450	375	225
Compact Machines	1.800	1.925	1.900	1.800

Source: IMDER

3. METHODOLOGY

3.1 RESEARCH MODEL

This research focused on the factors which are influencing the brand loyalty behaviors of customers in Turkish construction equipment sector. Eleven factors, selected from previous research of Moolla (2010, p. 144), were organized as a research model. These factors are:

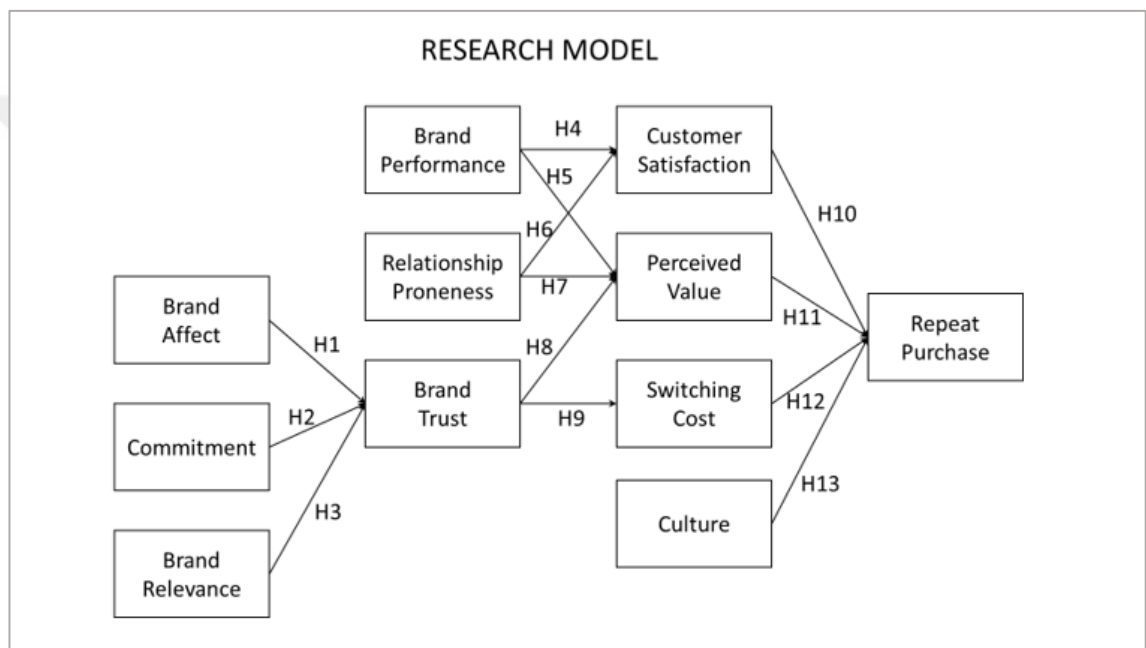
- i) Customer satisfaction (CSAT)
- ii) Switching cost (SCST)
- iii) Brand trust (BTST)
- iv) Relationship proneness (RPRO)
- v) Perceived value (PVAL)
- vi) Commitment (COMT)
- vii) Repeat purchase (RPUR)
- viii) Brand affect (BRAAF)
- ix) Brand relevance (BREL)
- x) Brand performance (BPER)
- xi) Culture (CULT)

Involvement is also one of the key influencer of brand loyalty according to studies of Punniyamorthy and Raj (2007, p. 226) and Moolla (2010, p. 144). There were two reasons why involvement was omitted from this research. Firstly, construction equipment sector is a B2B sector and construction equipment is specially designed for supporting construction tasks and industrial production. Construction equipment is very important to complete the contracts and as well as production. Its specifications and performance directly affects the job quality and fulfilment time. Right machine, right job task matchup is very crucial. Therefore, most of the time construction equipment buying process requires high involvement of customers. Secondly, involvement related research questions in Moolla's questionnaire could lead to misunderstandings due to language and dialectal differences.

Moolla (2010, p. 144) and Punniyamoorthy and Raj (2007, p. 226) linked the brand loyalty influences directly to the brand loyalty. According to the literature review, each influencer has effect on another one. Therefore, in this research, we structured our model, firstly based on the relation and interaction of the influencers between them, and then secondly their effects towards repeat purchase as behavioral loyalty.

Proposed research model is visualized as below:

Figure 3.1: Proposed research model



As mentioned before, eleven selected factors, affecting brand loyalty, were organized based on their relation and interaction in this model. Based on the model, thirteen hypotheses were developed to analyze the effect of these variables between them and towards brand loyalty in construction equipment sector. There hypotheses are:

H1: Brand Affect has effect on Brand Trust

H2: Commitment has effect on Brand Trust

H3: Brand Relevance has effect on Brand Trust

H4: Brand Performance has effect on Customer Satisfaction

H5: Brand Performance has effect on Perceived Value

H6: Relationship Proneness has effect on Customer Satisfaction

H7: Relationship Proneness has effect on Perceived Value

H8: Brand Trust has effect on Perceived Value

H9: Brand Trust has effect on Switching Cost

H10: Customer Satisfaction has effect on Repeat Purchase

H11: Perceived Value has effect on Repeat Purchase

H12: Switching Cost has effect on Repeat Purchase

H13: Culture has effect on Repeat Purchase

3.2 SAMPLING AND DATA COLLECTION

The participants of this study were randomly selected through the customers of construction equipment sector in Turkey. As construction equipment is involving many product categories and sub-categories the research portfolio was limited with the product groups buyers and users of excavation (all hydraulic excavators both tracked and wheeled), earthmoving (loaders both wheeled and tracked, track type tractors, bulldozers, articulated haulers), road construction and paving (soil and asphalt compactors, pavers, motor graders, cold planners and other road construction equipment), building and constructing group (backhoe loaders, tele handlers, micro loaders, compact excavators & loaders). Selection criterion of participants were being active users of construction equipment in their job sites or work processes and as well as actively involving in and affecting buying decision making process.

Questionnaire was distributed to participants directly face to face and via internet channels with a cover letter, providing the purpose of the study and how the questionnaire should be completed. The data collection period took place from December 2017 to March 2018. Totally 320 respondents attended to the questionnaire from different cities of Turkey and from different customer segments of construction equipment sector. 22 questionnaires were eliminated during analyzing process due to incompleteness and irrelevance responses. Moolla (2010, p. 149) stated the argument of Hair et al. (1998, p. 124) that the number of respondents should be a ratio of 14 observations to each variable in order to perform factor analysis. 11 variables multiplied by the suggested 14

observations, a sample of 154 was recommended for this study. Based on this, the sample size was adequate for data analysis with 298 validly responded questionnaires.

3.3 INSTRUMENTS OF MEASUREMENT

Moolla (2010, pp. 262-270) developed a questionnaire to indicate the importance of the influences in creating and maintaining brand loyalty towards FMCG products. This questionnaire was involving 50 questions for 12 brand loyalty influences which are brand affect, brand relevance, commitment, brand trust, brand performance, relationship proneness, perceived value, customer satisfaction, switching cost, culture, repeat purchase and involvement. Number of questions per influencer was varying between three to five and a seven-point Likert scale was used for measurement.

The study of Moolla has been adapted to many other sectors such as banking, agriculture, hospitality and pharmaceutical. The measurement instrument of Moolla was tested and retested, therefore the instrument is stabilized in terms of reliability. As, the brand loyalty research variables of our research were similar with the research of Moolla and due to the reliability of Moolla's work we adopted the questionnaire items of Moolla (2010, pp. 262-270).

The 50 items in Moolla's study were slightly customized based on the industrial context of construction equipment sector and cultural context of Turkey. Some of the items and involvement related questions were omitted by face validity technique. Finally, 10 demographical questions and 43 brand loyalty related questions with five-point Likert scale constituted the framework of this research's questionnaire. The questionnaire is presented in the Appendix A. The relation of questionnaire items with brand loyalty influences is demonstrated in Appendix B.

3.4 DATA ANALYSIS AND STATISTICAL TECHNIQUES

In order to examine the validity of the questionnaire, Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO) and Bartlett's test of sphericity were employed. The

generally recognized standard is to achieve $KMO > 0.70$ and the Bartlett's sphericity significance at $p < 0.05$.

Measurement instruments, like a questionnaire, have the potential to produce various outcomes, equal to the number of statements involving, every time they are used under the same conditions. Therefore, they potentially have low reliability. In order to measure the reliability and internal consistency of this research the Cronbach alpha coefficient was employed. Cronbach's alpha (α) is a coefficient of internal consistency of the statements of a measurement instrument and provides a measure of the reliability and internal consistency of a test or scale. Cronbach's alpha is expressed as a number between 0 and 1. The closer Cronbach's Alpha coefficient is to 1, the greater internal consistency of the items in the scale. Internal consistency represents the extent to which all the statements in a questionnaire measure the same concept. As a result, Cronbach's Alpha shows the interrelatedness of items in a measurement instrument. Generally, a minimum coefficient value of $\alpha > 0.70$ is allowed to indicate the data as reliable.

After the reliability analysis of research outcomes is completed, items were combined through averaging method. Finally, regression analysis was used to describe the relationship between the response variable and one or more predictor variables. Regression analysis helps to understand how the typical value of the dependent variable changes when any independent variable is varied, while other independent variables are kept fixed.

T-test and ANOVA F-test were employed to understand the relationship between variables to test the hypotheses. T-test is used to analyze means of two populations using statistical examination. T-test with two samples tests the difference between the samples when the variances of two normal distributions are not known. The t-statistic, the t-distribution and degrees of freedom are important while analyzing T-test to determine the probability of difference between populations. ANOVA (Analysis of variance) - F Test is a statistical technique which analyzes the differences, in a scale-level dependent variable by a nominal-level variable having 2 or more categories. Statistical Package for the Social Sciences (SPSS) is used for the analyze of gathered data from the sample.

4. EMPRICAL RESULTS

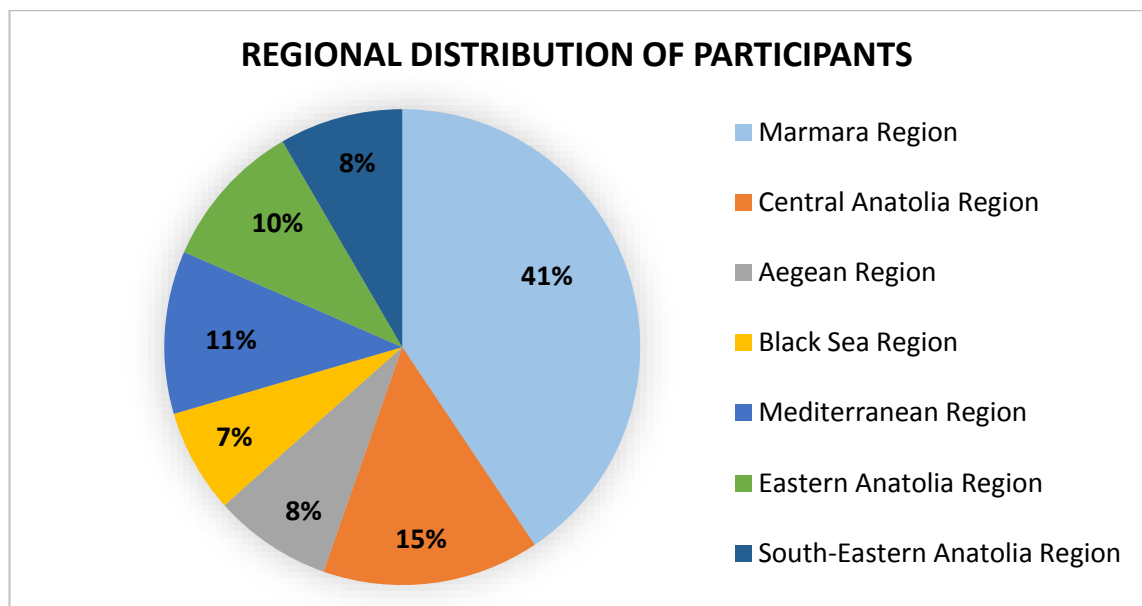
This section of the study consists of two main parts. The first part presents the demographical profile and preferences of the research sample. The second part includes the quantitative analysis of research data.

4.1 DEMOGRAPHIC RESULTS

4.1.1 Regional Distribution of Participants

Research questionnaire of this study was distributed to randomly selected sample in a direct approach and via online means. Face to face questionnaires were performed within a limited area of Marmara and Central Anatolia regions. Marmara and Central Anatolia are the regions where most of the construction equipment sales take place. Besides face to face, questionnaires were distributed to all over the Turkey by e-mails and survey internet sites. Totally, 320 construction equipment customers responded to the questionnaire from 42 cities of Turkey. 22 of the questionnaires were eliminated due to incompleteness. The regional distribution of remaining 298 questionnaires is shown below at figure 4.1.

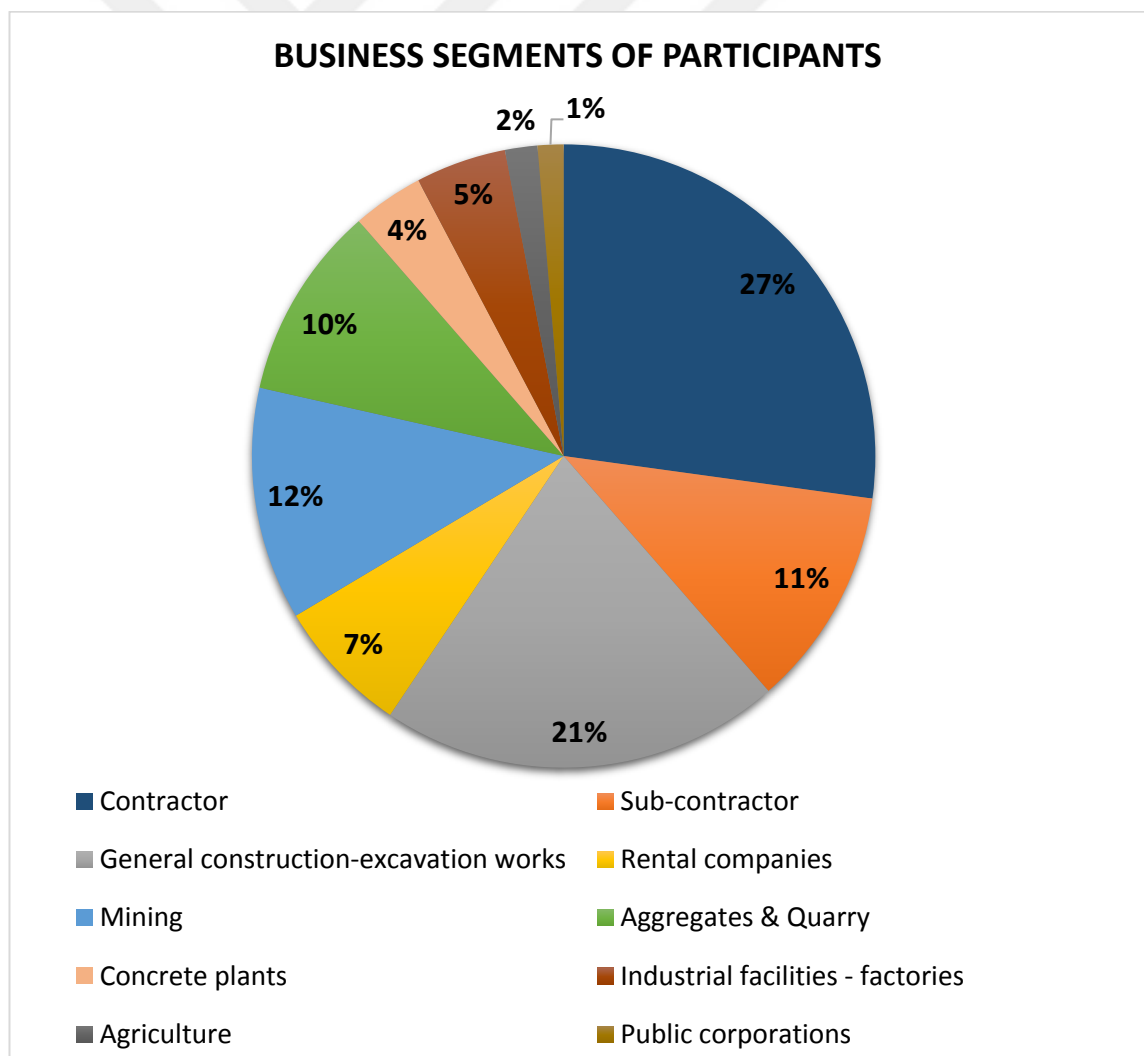
Figure 4.1: Regional distribution of participants



4.1.2 Business Segments of Participants

Construction equipment is used in various areas and the usage patterns, needs and buying behavior of each customer group is different. Based on the usage areas of construction equipment in Turkish market, totally 10 business segments were provided in the questionnaire to analyze the field of activity of participants. Contractor, general construction & excavation works excavation works (customers who performs short-term and small-scale construction) and mining segment customers were the majority of the participants with 60 percent. After them, sub-contractor, quarry & aggregates and rental segment customers came. The business segment distribution of research sample, presented in figure 4.2, resembled with the construction equipment market in Turkey.

Figure 4.2: Business segments of participants



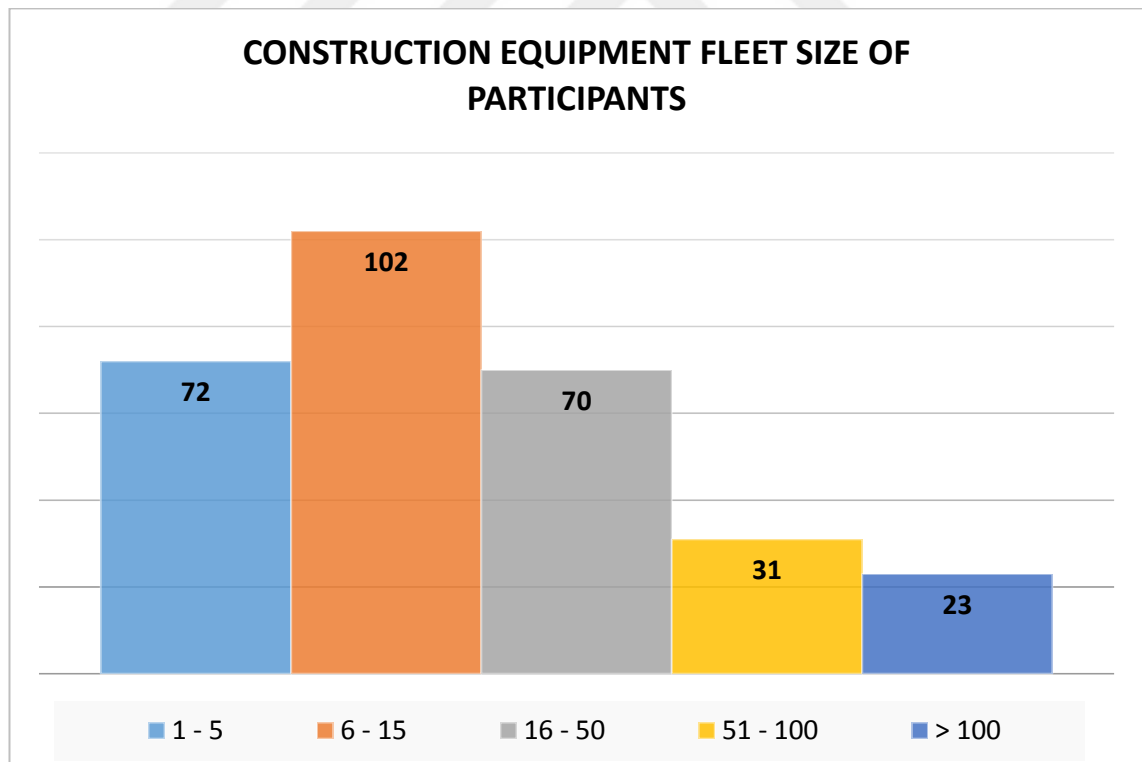
4.1.3 Construction Equipment Fleet Size of Participants

One of the questions in the questionnaire of this research was the construction equipment fleet size of participants. The fleet size of the participants was listed below:

- i) 34,2 percent of the participants is 6 to 15,
- ii) 24,2 percent of the participants is 1 to 5,
- iii) 23,5 percent of the participants is 16 to 50,
- iv) 10,4 percent of the participants is 51 to 100,
- v) 7,7 percent of the participants is more than 100 units.

The dispersion pattern of construction equipment fleet size of the sample, presented in Figure 4.3, showed similarity with the construction equipment market in Turkey.

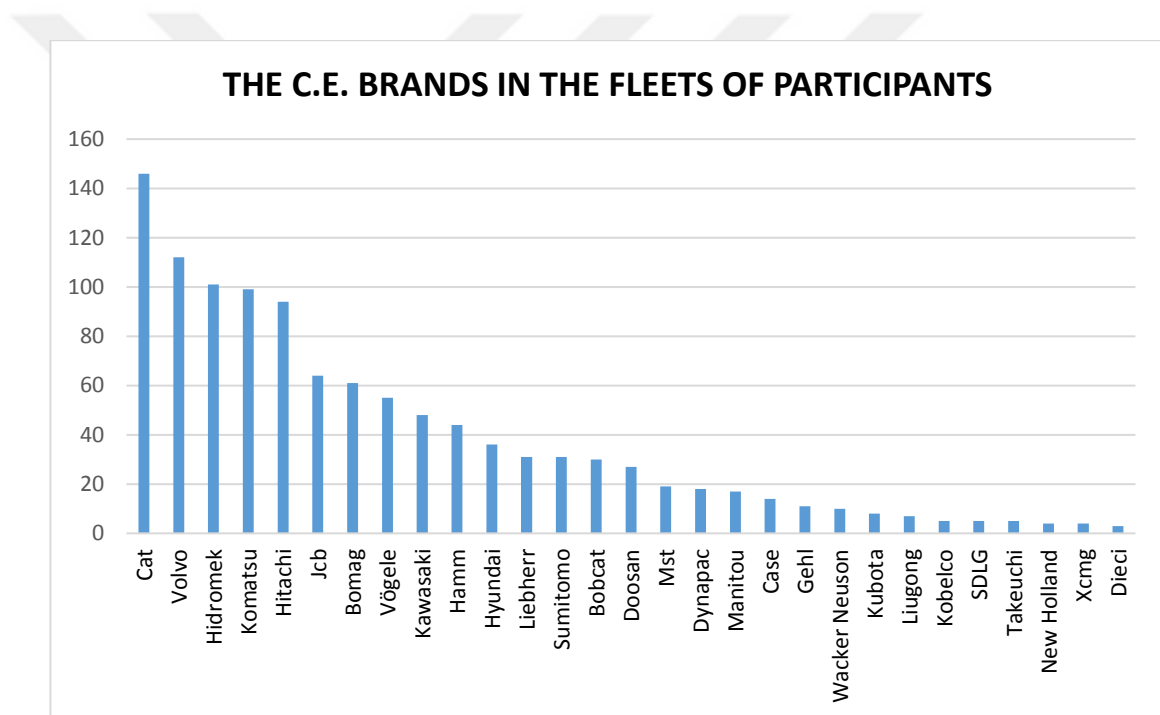
Figure 4.3: Construction equipment fleet size of participants



4.1.4 Brands in The Construction Equipment Fleets of Participants

Figure 4.4 illustrates the brands that participants of the questionnaire had in their construction equipment fleet when they responded to this research. It is important to point out that this figure does not present the quantity of each brand within the fleets of participants. Therefore, this figure cannot give any idea about the numeric shares of brands. This figure only shows us the variety of brands preferred by respondents, among the member brands of IMDER (Turkey Construction Equipment Distributors and Manufacturers Association).

Figure 4.4: The construction equipment brands in the fleets of participants

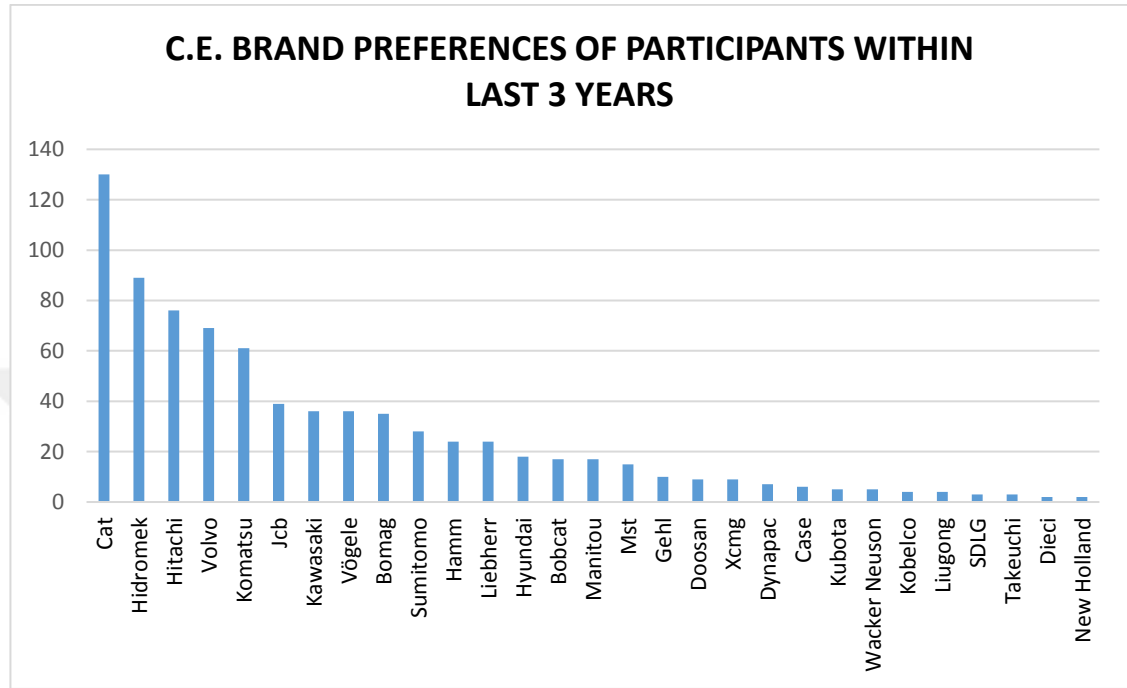


4.1.5 Brand Preferences of Participants

Figure 4.5 shows the construction equipment brand preferences of participants within last three years when the questionnaire was responded. As the previous part, this figure also does not present the quantity of each brand within the fleets of participants. Owning ten machines from one brand and owning one machine from another brand make the same

effect as an answer to this question in the questionnaire. Therefore, the market share of construction equipment brands cannot be interpreted from this figure.

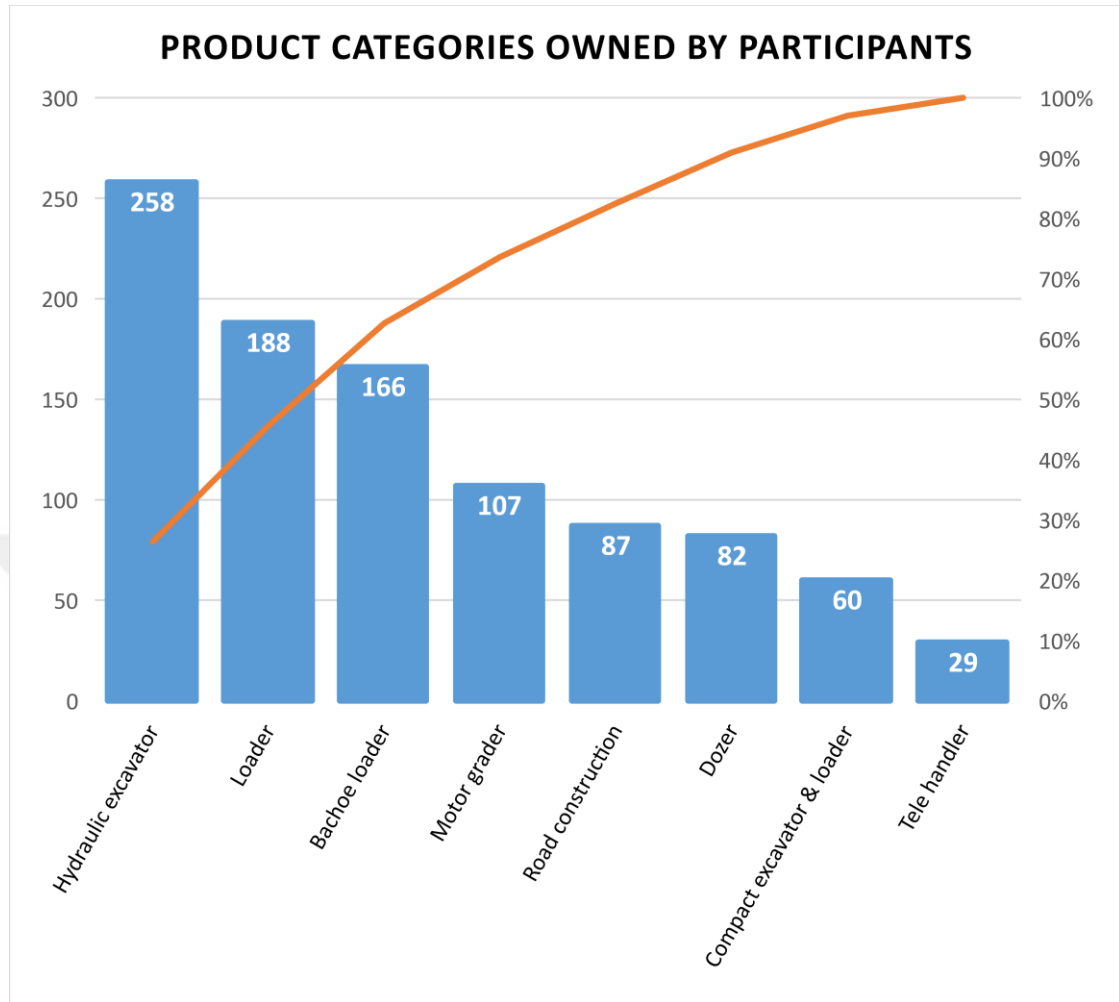
Figure 4.5: CE brand preferences of participants within last 3 years



4.1.6 Product Categories Owned by Participants

Figure 4.6 shows the weights of product groups, in the construction equipment fleets of the participants. Hydraulic excavators, loaders and backhoe loaders constituted 63 percent of the total product categories owned by the sample. According to the 2017 sales results data of IMDER, the sales quantity of these three product groups equals to 67 percent of total sales. Therefore, research results were parallel to market results.

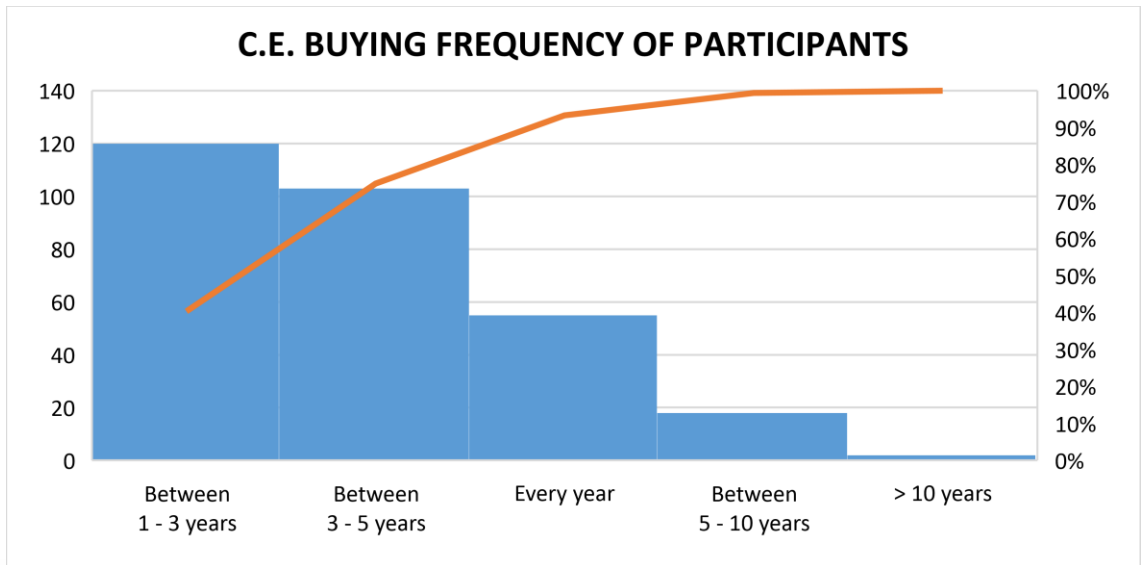
Figure 4.6: Product categories owned by participants



4.1.7 Buying Frequency of Participants

Another demographic question of our questionnaire was aiming to analyze the construction equipment buying frequency of the sample. Results are shown in figure 4.7. Based on the results, nearly all the buying decision of the sample occurs up to 5 years with 93 percent. Only 7 percent of the participants prefer buying construction equipment machines within intervals more than 5 years. When we consider the economic life and amortization of construction equipment, the result of the questionnaire related to purchasing frequency showed similarity with the tendency of the market. The preference of 40 percent of the respondents, in terms of buying frequency was between 1 to 3 years, then came between 3 to 5 years with 35 percent and every year with 18 percent.

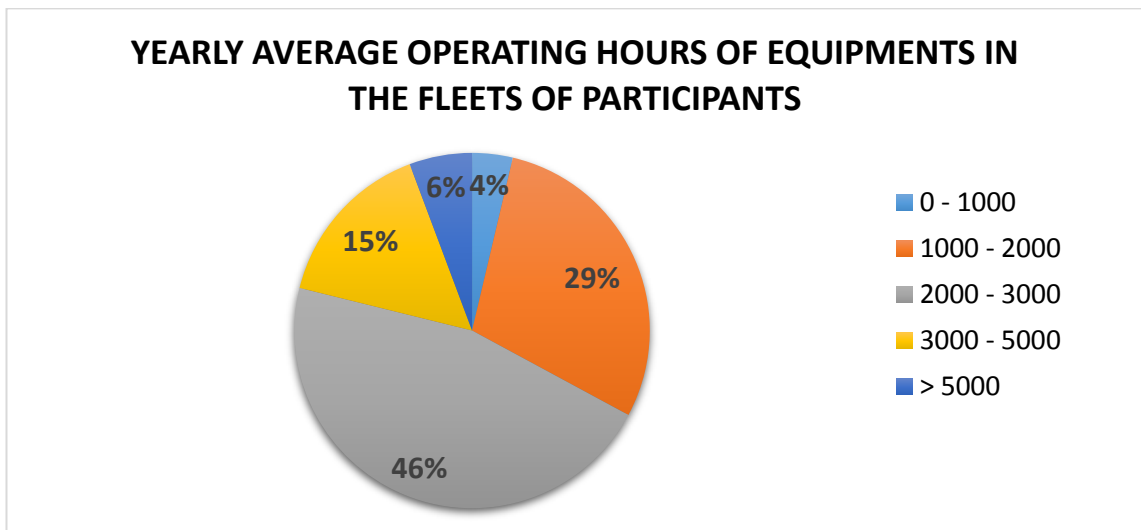
Figure 4.7: Buying frequency of participants



4.1.8 Yearly Average Operating Hours

Figure 4.1.8 indicates how participants responded to the question, related to yearly average operating hours of equipment in their fleets. Up to 1.000 and more than 5.000 operating hours at average are rare cases for Turkish construction equipment market. This can be also seen in the results of the questionnaire. The distribution of yearly average operating hours responses was parallel to the market practice.

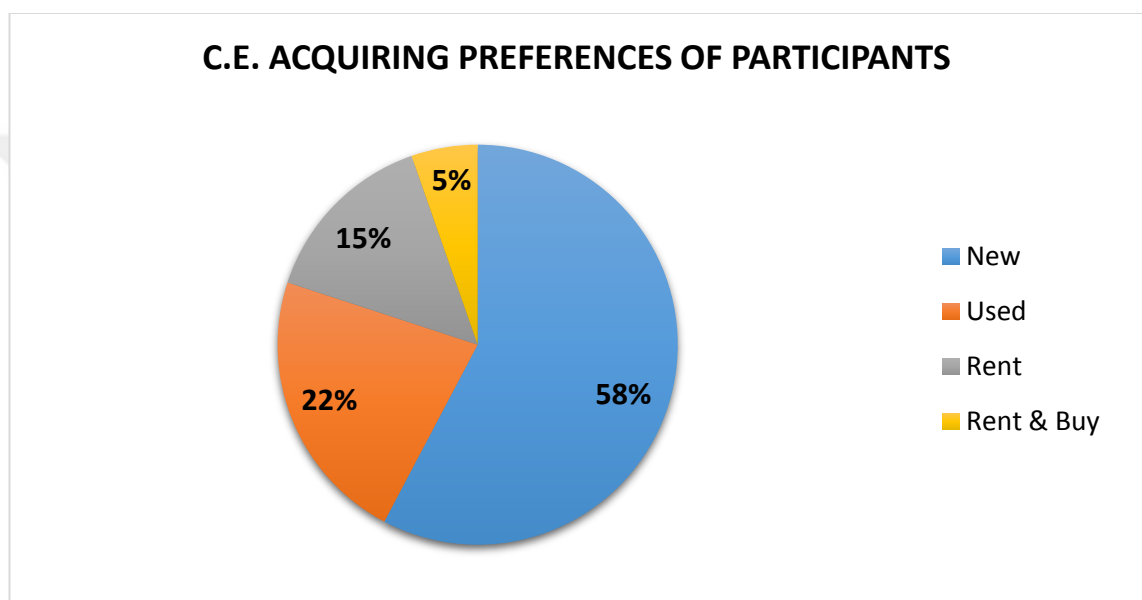
Figure 4.8: Yearly average operating hours



4.1.9 Construction Equipment Acquiring Preferences of Participants

Customers of construction equipment market can expand their fleet in different ways. While, buying new machines is the primary and mostly preferred option, used machines, rental and rent to buy options are other popular ways. As shown at the figure 4.9, 58 percent of the respondents prefer new, 22 percent prefer used, 15 percent prefer rental and 5 percent prefer to rent & buy.

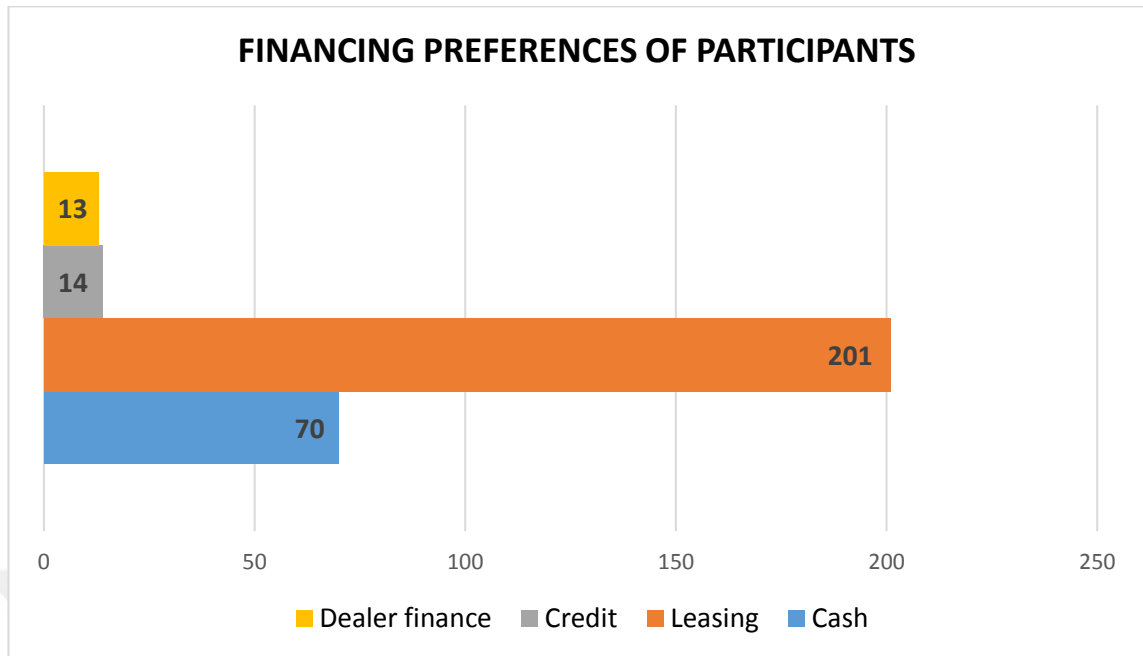
Figure 4.9: Construction equipment acquiring preferences of participants



4.1.10 Financing Preferences of Participants

For the Turkish construction equipment market, leasing is the most prevalent financing model while purchasing construction equipment and therefore construction equipment sector is very attractive for leasing companies. The tax incentive of the Turkish government, long maturity and better interest rates compared to other credit options are the reasons why leasing is more popular among the customers of construction equipment sector. As shown in the figure 4.10, 67,4 percent of the sample preferred buying via leasing, 23,5 percent preferred buying for cash, 4,7 percent preferred buying via bank credit and 4,4 percent preferred buying via dealer finance.

Figure 4.10: Financing preferences of participants



4.2 QUANTITATIVE ANALYSIS

4.2.1 Validity Analysis

Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO) and Bartlett’s test of sphericity were employed in order to analyze the suitability of the questionnaire for factor analysis. The generally recognized standard is to achieve $KMO > 0.70$ and the Bartlett’s sphericity significance at $p < 0.05$. Table 4.1 indicates the results of KMO and Bartlett’s sphericity significance.

Table 4.1: KMO and Bartlett’s Test

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		,909
Bartlett's Test of Sphericity	Approx. Chi-Square	5536,017
	df	741
	Sig.	,000

Based on the data presented in Table 4.1 KMO is 0.909 and larger than 0.700 limit. On the other hand, Bartlett's p-value is satisfactory at 0.000. As a result, the research questionnaire of this study is sufficient in terms of KMO and Bartlett's sphericity test.

4.2.2 Reliability Analysis

In order to ensure reliability and internal consistency of the variables Cronbach's alpha was measured and interpreted. According to George and Mallery (2003, p. 231), Cronbach's alpha coefficient larger than 0.9 is excellent, larger than 0.8 is good, larger than 0.7 is acceptable, larger than 0.6 is questionable, larger than 0.5 is poor and smaller than 0.5 is unacceptable. Some of the items presented inconsistency. Therefore, they were eliminated to ensure reliability. The reliability results of the remaining items based on each variable were presented in Table 4.2. Later the items were merged through averaging method.

Table 4.2: Reliability of variables

Description of Variable	Cronbach's Alpha	N of Items
Customer Satisfaction	0,717	5
Switching Cost	0,783	3
Brand Trust	0,693	3
Relationship Proneness	0,729	4
Perceived Value	0,694	4
Commitment	0,725	3
Repeat Purchase	0,692	2
Brand Affect	0,695	2
Brand Relevance	0,795	2
Brand Performance	0,724	4
Culture	0,746	4

According to the Table 4.2, it is clear that, most of the factors provided satisfactory reliability coefficients as they were above the 0.7 level of reliability. Reliability level of switching cost and brand relevance were the highest and they were close to 0.8. Cronbach’s alpha of repeat purchase, perceived value, brand trust and brand affect were slightly lower than the 0.7, but as they were very close to 0.7, it is acceptable.

4.2.3 Regression Analysis

Based on the research model presented in the “3.1 Research Model” section there were 13 hypotheses. To test and define the relationship of the variables in this model regression analysis was employed.

4.2.3.1 Test of H1, H2 and H3

H1: Brand Affect (BRAAF) has effect on Brand Trust (BTST).

H2: Commitment (COMT) has effect on Brand Trust (BTST).

H3: Brand Relevance (BREL) has effect on Brand Trust (BTST).

H1, H2 and H3 were tested by regression analysis to determine the relation between brand affect, commitment, brand relevance and brand trust. Table 4.3 shows the T-test pf H1, H2 and H3.

Table 4.3: T-test of H1, H2 and H3

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	,412	,097		4,271	,000
	BRAF	,039	,031	,063	1,269	,206
	COMT	,197	,032	,307	6,098	,000
	BREL	,384	,038	,473	10,176	,000

a. Dependent Variable: BTST

The test of H1, H2 and H3 yielded significant fitness for the model. However, t statistic of brand affect produced insignificance as shown in Table 4.3. So that by omitting brand affect the test was run again. Table 4.4 presents the new test.

Table 4.4: T-test of H2 and H3

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	,442	,094		4,712	,000
	COMT	,214	,029	,334	7,306	,000
	BREL	,393	,037	,484	10,588	,000

a. Dependent Variable: BTST

As all t statistics were significant, commitment and brand relevance explained the change on brand trust. After analyzing t statistics, ANOVA F-test was run for commitment and brand relevance as predictors while dependent variable was brand trust (Table 4.5).

Table 4.5: ANOVA test of H2 and H3

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	37,561	2	18,780	126,979	,000 ^b
	Residual	43,631	295	,148		
	Total	81,192	297			

a. Dependent Variable: BTST
b. Predictors: (Constant), BREL, COMT

The data was fit to the model as F-test was significant. Commitment and brand relevance together explained 46 percent of change on brand trust based on adjusted R square value. Thus, H1 was rejected, whereas H2 and H3 were not rejected. Model summary is presented in Table 4.6.

Table 4.6: Model summary of H2 and H3

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,680 ^a	,463	,459	,38458
a. Predictors: (Constant), BREL, COMT				

4.2.3.2 Test of H4 and H6

H4: Brand Performance (BPER) has effect on Customer Satisfaction (CSAT).

H6: Relationship Proneness (RPRO) has effect on Customer Satisfaction (CSAT).

H4 and H6 were tested by regression analysis to find out the connection between brand performance, relationship proneness and customer satisfaction. The test of H4 and H6 yielded significant goodness of fit and t-statistics for both brand performance and relationship proneness variables are shown in table 4.7 and table 4.8.

Table 4.7: T-test of H4 and H6

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	,370	,076		4,846	,000
	BPER	,287	,040	,354	7,151	,000
	RPRO	,429	,049	,436	8,797	,000
a. Dependent Variable: CSAT						

Table 4.8: ANOVA test of H4 and H6

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	30,845	2	15,423	135,483	,000 ^b
	Residual	33,581	295	,114		
	Total	64,426	297			
a. Dependent Variable: CSAT						
b. Predictors: (Constant), RPRO, BPER						

The adjusted R square value is 0,475 and therefore the model had an explanatory power of 48 percent, indicated in Table 4.9. Thus, H4 and H6 both were not rejected.

Table 4.9: Model summary of H4 and H6

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,692 ^a	,479	,475	,33739
a. Predictors: (Constant), RPRO, BPER				

4.2.3.3 Test of H5, H7 and H8

H5: Brand Performance (BPER) has effect on Perceived Value (PVAL).

H7: Relationship Proneness (RPRO) has effect on Perceived Value (PVAL).

H8: Brand Trust (BTST) has effect on Perceived Value (PVAL).

H5, H7 and H8 were analyzed by T-test and ANOVA F-test to understand the relation between brand performance, relationship proneness, brand trust and perceived value. The test of H5, H7 and H8 returned with valuable outcomes of fit and t-statistics for brand performance, relationship proneness and brand trust variables. The results are demonstrated in Table 4.10 and Table 4.11.

Table 4.10: T-test of H5, H7 and H8

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	,137	,082		1,668	,096
	BPER	,360	,042	,412	8,560	,000
	RPRO	,329	,058	,310	5,670	,000
	BTST	,139	,052	,145	2,694	,007

a. Dependent Variable: PVAL

Table 4.11: ANOVA test of H5, H7 and H8

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	40,443	3	13,481	115,303	,000 ^b
	Residual	34,374	294	,117		
	Total	74,817	297			

a. Dependent Variable: PVAL
b. Predictors: (Constant), BTST, BPER, RPRO

The model had an explanatory power of 54 percent as indicated in table 4.12, in adjusted R square value section. Thus; H5, H7 and H8 were not rejected.

Table 4.12: Model summary of H5, H7 and H8

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,735 ^a	,541	,536	,34193

a. Predictors: (Constant), BTST, BPER, RPRO

4.2.3.4 Test of H9

H9: Brand Trust (BTST) has effect on Switching Cost (SCOS).

H9 was tested by regression analysis to understand the effect of brand trust on switching cost. The test of H9 produced significant outcomes of t-statistics and fit for brand trust variable as presented in Table 4.13 and Table 4.14.

Table 4.13: T-test of H9

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	,945	,163		5,813	,000
	BTST	,831	,084	,498	9,868	,000

a. Dependent Variable: SCOS

Table 4.14: ANOVA test of H9

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	56,061	1	56,061	97,378	,000 ^b
	Residual	170,409	296	,576		
	Total	226,470	297			

a. Dependent Variable: SCOS
b. Predictors: (Constant), BTST

The model had an explanatory power of 25 percent based on adjusted R square value. Thus, H9 was not rejected. Model summary is shown in Table 4.15.

Table 4.15: Model summary of H9

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,498 ^a	,248	,245	,75875
a. Predictors: (Constant), BTST				

4.2.3.5 Test of H10, H11, H12 and H13

H10: Customer Satisfaction (CSAT) has effect on Repeat Purchase (RPUR).

H11: Perceived Value (PVAL) has effect on Repeat Purchase (RPUR).

H12: Switching Cost (SCOS) has effect on Repeat Purchase (RPUR).

H13: Culture (CULT) has effect on Repeat Purchase (RPUR).

H10, H11, H12 and H13 were analyzed by T-test and ANOVA F-test to determine the relation between customer satisfaction, perceived value, switching cost, culture and repeat purchase. The test of H10, H11, H12 and H13 generated significant goodness of fit and t-statistics for customer satisfaction, perceived value, switching cost and culture variables. Results are exhibited in Table 4.16 and Table 4.17. The significance value of customer satisfaction, perceived value, switching cost and culture were greater than 0, but as they were smaller than 0,05, they were within the significance level.

Table 4.16: T-test of H10, H11, H12 and H13

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4,245	,222		19,109	,000
	CSAT	-,276	,136	-,141	-2,037	,043
	PVAL	-,344	,125	-,189	-2,751	,006
	SCOS	-,213	,066	-,204	-3,243	,001
	CULT	,251	,073	,206	3,449	,001
a. Dependent Variable: RPUR						

Table 4.17: ANOVA test of H10, H11, H12 and H13

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	37,850	4	9,462	13,181	,000 ^b
	Residual	210,339	293	,718		
	Total	248,189	297			
a. Dependent Variable: RPUR						
b. Predictors: (Constant), CULT, CSAT, SCOS, PVAL						

Based on the adjusted R square value, the model had an explanatory power of 14 percent. Thus; H10, H11, H12 and H13 were not rejected. The model summary for H10, H11, H12 and H13 presented in Table 4.18.

Table 4.18: Model summary of H10, H11, H12 and H13

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,391 ^a	,153	,141	,84728
a. Predictors: (Constant), CULT, CSAT, SCOS, PVAL				

4.2.3.6 Summary of hypothesis testing

Hypothesis testing summary is presented in table 4.19.

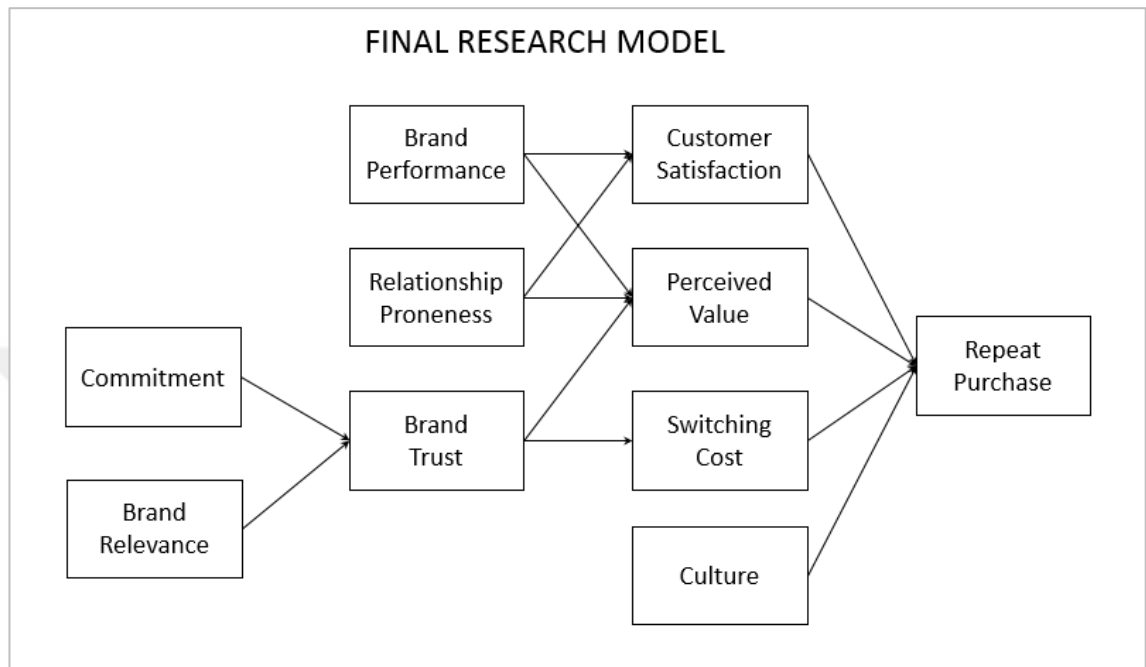
Table 4.19: Summary of hypothesis testing

Hypothesis	Result
H1: Brand Affect has effect on Brand Trust	Rejected
H2: Commitment has effect on Brand Trust	Not Rejected
H3: Brand Relevance has effect on Brand Trust	Not Rejected
H4: Brand Performance has effect on Customer Satisfaction	Not Rejected
H5: Brand Performance has effect on Perceived Value	Not Rejected
H6: Relationship Proneness has effect on Customer Satisfaction	Not Rejected
H7: Relationship Proneness has effect on Perceived Value	Not Rejected
H8: Brand Trust has effect on Perceived Value	Not Rejected
H9: Brand Trust has effect on Switching Cost	Not Rejected
H10: Customer Satisfaction has effect on Repeat Purchase	Not Rejected
H11: Perceived Value has effect on Repeat Purchase	Not Rejected
H12: Switching Cost has effect on Repeat Purchase	Not Rejected
H13: Culture has effect on Repeat Purchase	Not Rejected

4.2.4 Final Research Model

After hypothesis testing, the final research model of this study is formed as figure 4.11.

Figure 4.11 Final research model



5. DISCUSSION

According to IMDER (Turkey Construction Equipment Distributors and Manufacturers Association) report, for 2017, Turkey is on the 5th rank in Europe and on the 8th rank in the world in terms of the construction equipment market size. In 2017, 12.142 machines were sold in Turkey and it is estimated that total sales will be 20.000 units in 2023. In terms of market size growing rate of construction equipment sector, Turkey is the fastest growing market during last 8 years, after China and India. Players in the market and product offerings are increasing day by day. Tough competition makes focusing on loyalty more important. In this study, our focus was defining the relationship between the variables, defined by previous literature, affecting brand loyalty of Turkish construction equipment market customers.

Firstly, we analyzed the effect of brand affect, commitment and brand relevance on brand trust. Although, previous literature shows positive relationship of brand affect and brand trust, our research results did not identify a significant relationship of brand affect on brand trust. But on the other hand, commitment and brand relevance produced positive outcomes and both of them have effect on brand trust. The model, defining the relationship of commitment and brand relevance on brand trust had an explanatory power of 46 percent. This ratio shows an important relationship and dealers of construction equipment market of Turkey, should consider the positive effect of commitment and brand relevance on brand trust, in order to improve brand trust and brand loyalty. As, Turkish construction equipment sector is highly competitive, dealers should understand customer needs and behave like a partner of them. Offering proper products and services is important for dealers to stay relevant from customers' side. Although, the effect of brand affect on brand trust showed insignificance in this study, focusing on brand affect of construction equipment brands and enhancing positive experiences, positive emotions and feelings of customers can improve brand trust of customers in this industry.

The model (Table 4.9), summarizing the effect of brand performance and relationship proneness on customer satisfaction, explained 48 percent of the positive change customer satisfaction. Former theoretical studies, regarding the interaction of brand performance and customer satisfaction, defined strong positive correlation between brand performance

and customer satisfaction. The higher the brand performance is the higher customer satisfaction. The research result of this study was also in line with theory and brand performance is important for customers of construction equipment sector in Turkey. In order to improve customer satisfaction, dealers of construction equipment sector should strengthen perceived brand performance of their product offerings. Relationship proneness also produced significant outcome and it had a positive effect on customer satisfaction according to the regression analysis of research results of this study. On the customer side, relationship proneness is a personal trait and difficult to change. But as mentioned before, customer retention orientation of the retailer is another important dimension to build strong relationship with customers. Odekerken et al. (2007, p. 178) define customer retention orientation of the retailer as, a consumer's overall perception of the extent to which a retailer actively makes efforts that are intended to retain regular customers. Understanding the customers and building strong and long-lasting relations with them is important.

Another research finding of this study was the positive effect of brand performance, relationship proneness and brand trust on perceived value. Brand performance, relationship proneness and brand trust together explained 54 percent of favorable variation in perceived value. One of the components of perceived value is functional value according to Punniyamoorthy and Raj (2007, p. 225). The utility, enduringness and reliability of the product affect functional value and all of them determine the expected performance of customers. Most of the studies showed that, brand performance is a crucial determinant of repeat purchase. Based on our research model, dealers of Turkish construction equipment sector should meet or exceed the performance expectations of their customers to improve perceived value and then brand loyalty. Brand performance, relationship proneness and brand trust also positively contribute to perceived value based on the research results analysis. Companies should develop strategies to strengthen their credibility and trustworthiness from the customers' view. One of the common characteristic of Turkish community is doing business with whom they have good relations. Developing strong relationships with customers will contribute to higher perceived value and higher repeat purchase patterns of Turkish construction equipment sector customers.

One of the research hypothesis of this study was about the effect of brand trust on switching cost. The results indicated a positive correlation between brand trust and switching cost and the hypothesis explained 25 percent of change in switching cost stimulated by brand trust. Brand trust is a non-monetary dimension for switching cost and higher brand trust stimulates an increase for switching costs for the customers of Turkish construction equipment sector. Companies can generate brand trust oriented marketing strategies to build an invisible barrier for customers to not to prefer other brands and keep them loyal.

In this study, our final goal was to define the behavioral loyalty behavior as repeat purchase of customers in construction equipment sector of Turkey. Eleven brand loyalty influences, defined by previous literature, were placed in a research model based on their relations and finally four variables were connected to repeat purchase. According to the regression analysis of the collected data, customer satisfaction, perceived value, switching cost and culture had effect on repeat purchase and they were interrelated. These four variables defined the 14 percent of change in repeat purchase. Remaining six variables also affect repeat purchase behaviors of customers indirectly.

6. CONCLUSION

6.1 SUMMARY

The aim of this study was to determine the factors which are influencing the brand loyalty behaviors of customers in Turkish construction equipment sector. Analyzing the literature, eleven brand loyalty influencers were selected from previous research of Moolla (2010, p. 144) and these eleven variables were organized as a research model. Based on the model, 13 hypotheses were set in order to analyze the interaction of variables.

For the data gathering, a questionnaire was developed including 10 demographical questions and 43 brand loyalty related questions with five-point Likert scale. The items in the questionnaire were adopted from the study of Moolla (2010, pp. 262-270), but they were slightly customized based on the industrial context of construction equipment sector and cultural context of Turkey. Questionnaire was distributed to participants directly face to face and via internet channels. The data collection period took place from December 2017 to March 2018. In total, 320 respondents attended to the questionnaire from different cities of Turkey and from different customer segments of construction equipment sector. 22 questionnaires were eliminated during analyze process due to incompleteness and irrelevance responses.

Collected data was proceeded through validity, reliability and regression analysis. For the validity analysis Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO) and Bartlett's test of sphericity were employed. KMO of the research data was 0.909 and larger than 0.700 significance limit. Beside KMO, Bartlett's p-value was satisfactory at 0.000 within the significance level of $p < 0.05$. Therefore, the research questionnaire of this study was valid in terms of KMO and Bartlett's sphericity test. After validity analysis, Cronbach's alpha was measured and interpreted to ensure reliability and internal consistency of the variables. 7 of total 11 items were scored more than 0,700 which is the acceptable reliability limit of Cronbach's alpha. 4 items were scored more than 0,690 and they were very close to acceptable limit. Completing validity and reliability tests, research data was analyzed with regression techniques. T-test and ANOVA F-test are employed to

understand the relationship between variables to test the hypotheses. 12 of 13 hypotheses were yielded in significant outcomes. One of the hypotheses was rejected for insignificant outcomes.

6.2 IMPLICATIONS AND LIMITATIONS

For the year 2017, Turkey is on the 5th rank in Europe and on the 8th rank in the world in terms of the construction equipment market size. For the market growing ratio, Turkey is the fastest growing market during last 8 years, after China and India. These results make Turkey an attractive market for construction equipment sector and competition among construction equipment dealers is increasing day by day. Gaining new customers is a must in order to survive in this market but while achieving this companies need to keep old customers. Creating loyal customers is very valuable for companies. This research can provide an insight, about the brand loyalty variables of Turkish customers and how they appreciate these variables, to develop marketing strategies accordingly.

There were some limitations while completing this research. Although, the questionnaire was distributed to participants directly face to face and via internet channels to ensure variety, the majority of the participants were from İstanbul and Ankara. Because of financial, time and technical limitations the research area was limited and the results were insufficient to define all customer segments of Turkish construction equipment market. As the research model was complex and the sample was limited, analyzing the research data filtered by demographic results was infeasible.

6.3 AREAS FOR FUTURE RESEARCH

First of all, while this study intends to contribute brand loyalty research literature, it does not represent the brand loyalty behavior of the overall construction equipment sector customers of Turkey. Further research can be conducted to understand different customer groups of this sector. For more efficient and effective marketing strategies, loyalty behaviors of construction equipment sector customers can be segmented based on products, regions, field of activity, fleet size etc.

On the other hand, some questions in the questionnaire of this research were eliminated during reliability analysis and analysis was proceed based on the items which of them produced consistent outcomes. Questions, produced inconsistent outcomes, can be modified and a new questionnaire can be developed especially for Turkish market in order to understand respondents better.

Besides these, a simpler model can be used in the further research to analyze the interaction of the brand loyalty variables deeper. While some of the hypothesis test of this research resulted in 54 percent explanatory power, some of them resulted in 14 percent level. New research can concentrate on increasing the explanatory power of variables on each other.

Finally, a multidimensional model, which concentrates on attitudinal loyalty as well, can be developed to understand loyalty of construction equipment sector customers deeper. Achieving this can provide broader perspective about these customers.

REFERENCES

Books

- Aaker, D.A., 1991. *Managing brand equity: capitalizing on the value of a brand name*. New York, NY: The Free Press.
- Aaker, D.A., 2011. *Brand relevance: making competitors irrelevant*. San Francisco, CA: Wiley.
- Arnould, E., Price, L. & Zinkhan, G., 2002. *Consumers*. New York: McGraw-Hill.
- Futrell, C.M., 2008. *Fundamentals of selling: customers for life through service*. 10th ed. New York: McGraw-Hill/Irwin.
- George, D. & Mallery, P., 2003. *SPSS for Windows step by step: a simple guide and reference. 11.0 update*. 4th ed. Boston, MA: Allyn & Bacon.
- Hair, J.F., Anderson, R.E., Tatham, R.L. & Black, W.C., 1998. *Multivariate data analysis*. New Jersey, N.J.: Prentice-Hall.
- Hofstede, G., 2001. *Culture's consequences: comparing values, behaviors, institutions, and organizations across nations*. 2nd ed. Thousand Oaks, California: Sage Publications. p.29.
- Jansson-Boyd, C.V., 2010. *Consumer Psychology*. Berkshire: McGraw-Hill
- Jobber, D. & Lancaster, G., 2003. *Selling and sales management*. 6th ed. Harlow: Prentice Hall Financial Times.
- Keiningham, T.L., Vavra, T.G., Aksoy, L. & Wallard, H., 2006. *Sadakat söylenceleri: müşteri sadakati adına doğru bildiğimiz yanlışlar, iş dünyasından silinmenize neden olacak şişirilmiş stratejiler ve gerçekten işinize yarayacak kanıtlanmış taktikler*. G.Günay, S.Peker, Z.Küpeli (Translated by), İstanbul: Rota Yayın (original print date 2005).
- Kim, W.C. & Mauborgne, R., 2015. *Blue ocean strategy: how to create uncontested market space and make the competition irrelevant*. Boston, Massachusetts: Harvard Business Review Press.
- Kotler, P. & Armstrong, G., 2014. *Principles of marketing*. 15th ed. Harlow: Pearson Education Limited.

- Kotler, P. & Keller, K.L., 2012. *Marketing management*. 14th ed. Harlow: Pearson Education Limited.
- Lindstrom, M., 2014. *Buy.ology*. Ü.Şensoy (Translated by), İstanbul: Optimist Yayınları (original print date 2008).
- Manning, G.L. & Reece, B.L., 2004. *Selling today: creating customer value*. 9th ed. New Jersey: Pearson Prentice Hall.
- Oliver, R. L., 1997. *Satisfaction: a behavioral perspective on the consumer*. New York: McGraw-Hill.
- Peter, J.P. & Olson J.C., 2002. *Consumer behavior and marketing strategy*. 6th ed. New York: McGraw-Hill/Irwin.
- Peter, J.P. & Olson J.C., 1999. *Consumer behavior and marketing strategy*. 5th Edition. New York: McGraw-Hill/Irwin.
- Reichheld, F.F., 2001. *The loyalty effect: the hidden force behind growth, profits, and lasting value*. Boston, Massachusetts: Harward Business School Press.
- Schiffman, L.G. & Kanuk, L.L., 2010. *Consumer behavior*. 10th ed. New Jersey: Pearson Prentice Hall.
- Schiffman, L.G. & Kanuk, L.L., 2007. *Consumer behavior*. 9th ed. New Jersey: Pearson Prentice Hall.
- Solomon, M.R., 2015. *Consumer behavior: buying, having and being*. 11th ed. Harlow: Pearson Education.

Periodical Publications

- Aaker, D.A., 2012. Win the brand relevance battle and then build competitor barriers. *California Management Review*. **54**(2), pp. 43-57.
- Amine, A., 1998. Consumers' true brand loyalty: the central role of commitment. *Journal of Strategic Marketing*. **6**, pp. 305-319.
- Ashworth, G. & Kavaratzis, M., 2009. Beyond the logo: brand management for cities. *Journal of Brand Management*. **16**(8), pp. 520-531.
- Aydin, S. & Özer, G., 2005. Customer loyalty and the effect of switching costs as a moderator variable: a case in the Turkish mobile phone market. *Journal of Marketing Intelligence & Planning*. **23**(1), pp. 89-103.
- Backhaus, K., Steiner, M. & Lügger, K., 2011. To invest, or not to invest, in brands. Drivers of brand relevance in B2B markets. *Journal of Industrial Marketing Management*. **40**, pp. 1082-1092.
- Bouguerra, A. & Mzoughi, M.N., 2011. Relationship marketing: the forgotten consumer. *International Journal of Business and Social Science*. **2**(6), pp. 210-223.
- Burmann, C. & Zeplin, S., 2005. Building brand commitment: a behavioural approach to internal brand management. *Journal of Brand Management*. **12**(4), pp. 279-300.
- Chaudhuri, A. & Holbrook, M.B., 2001. The chain of effects from brand trust and brand affect to brand performance: the role of brand loyalty. *Journal of Marketing*. **65**(4), pp. 81-93.
- Day, G., 1969. A two-dimensional concept of brand loyalty. *Journal of Advertising Research*. **9**, pp. 29-35.
- De Chernatony, L., Harris, F. & Christodoulides, G., 2004. Developing a brand performance measure for financial services brands. *The Service Industries Journal*, **24**(2), pp. 15-33.
- De Wulf, K., Odekerken-Schröder, G. & Lacobucci, D., 2001. Investments in consumer relationships: a cross-country and cross-industry exploration. *Journal of Marketing*. **65**, pp. 33-50.

- Dick, A.S. & Basu, K., 1994. Customer loyalty: toward an integrated conceptual framework. *Journal of The Academy of Marketing Science*. **22**(2), pp. 99-113.
- Doney, P.M., Barry, J.M. & Abratt, R., 2007. Trust determinants and outcomes in global B2B services. *European Journal of Marketing*. **41**(9), pp.1096-1116.
- Eisingerich, A.B. & Rubera, G., 2010. Drivers of brand commitment: a cross-national investigation. *Journal of International Marketing*. **18**(2), pp. 64-79.
- Fischer, M., Völckner, F., & Sattler, H., 2010. How important are brands. A cross-category, cross-country study. *Journal of Marketing Research*. **47**(5), pp. 823-839.
- Fullerton, G., 2003. When does commitment lead to loyalty. *Journal of Service Research*. **5**(4), pp. 333-344.
- Gordon, F., 2003. When does commitment lead to loyalty. *Journal of Service Research*. **5**(4), pp. 333-344.
- Jacoby, J. & Kyner, D.B., 1973. Brand loyalty versus repeat purchasing behaviour. *Journal of Marketing Research*. **10**, pp. 1-9.
- Kim, H., Kang, J.M. & Johnson, K.K.P., 2012. Effect of consumer relationship proneness on perceived loyalty program attributes and resistance to change. *International Journal of Retail & Distribution Management*. **40**(5), pp. 376-387.
- Lam, D., 2007. Cultural influence on proneness to brand loyalty. *Journal of International Consumer Marketing*. **19**(3), pp. 7-21.
- Lin, S.Y., 2013. The influence of relational selling behavior on relationship quality: the moderating effect of perceived price and customers' relationship proneness. *Journal of Relationship Marketing*. **12**, pp. 204-222.
- Matzler, K., Bidmon, S. & Grabner-Kräuter, S., 2006. Individual determinants of brand affect: the role of the personality traits of extraversion and openness to experience. *Journal of Product and Brand Management*. **15**(7), pp. 427-434.
- McMullan, R., 2005. A multiple-item scale for measuring customer loyalty development. *Journal of Services Marketing*. **19**(7), pp. 470-481.
- Moolla, A.I. & Bisschoff, C.A., 2013. An empirical model that measures brand loyalty of fast-moving consumer goods. *Journal of Economics*. **4**(1), pp. 1-9.
- Mudambi, S., 2002. Branding importance in business-to-business markets. Three buyer clusters. *Industrial Marketing Management*. **31**, pp. 525-533.

- Odekerken-Schroder, G., De Wulf, K. & Schumacher, P., 2003. Strengthening outcomes of retailer-consumer relationships: the dual impact of relationship marketing tactics and consumer personality. *Journal of Business Research*. **56**, pp. 177-190.
- Oliver, R.L., 1999. Whence Customer Loyalty. *Journal of Marketing*. **63**(Special Issue), pp. 33-44.
- Parish, J.T. & Holloway, B.B., 2010. Customer relationship proneness: a re-examination and extension across service exchanges. *Journal of Services Marketing*. **24**(1), pp. 61-73.
- Punniyamoorthy, M. & Raj, P.M., 2007. An empirical model for brand loyalty measurement. *Journal of Targeting, Measurement and Analysis for Marketing*. **15**(4), pp. 222-233.
- Reichheld, F.F., 2003. The one number you need to grow. *Harvard Business Review*. **81**(12), pp. 46–55.
- Reichheld, F. F., Markey, R. G. & Hopton, C., 2000. The loyalty effect: the relationship between loyalty and profits. *European Business Journal*. **12**(3), pp. 134–139.

Other Publications

- Dahlgren, S., (2011). Brand loyalty and involvement in different customer levels of a service concept brand. *Master's thesis*. Aalto University School Of Economics.
- Du Plooy, H., (2012). Measuring brand loyalty in the pharmaceutical industry of South Africa. *Master's thesis*. Potchefstroom: North-West University.
- Hammerschmidt, M., Donnevert, T. & Bauer, H.H., 2008. Brand efficiency and brand relevance: introducing and linking both concepts. *American Marketing Association Winter Educators' Conference Proceedings*, Austin/Texas, S. pp. 48-57.
- IMDER. About us, 2018, <http://imder.org.tr/en/hakkimizda.html> [Accessed 28.03.2018]
- Moolla, A.I., (2010). A conceptual framework to measure brand loyalty. *Doctoral dissertation*. Potchefstroom: North-West University.
- Musa, R., 2005. Proposed conceptual model of satisfaction-attitudinal loyalty behavioural loyalty chain: exploring the moderating effect of trust. *ANZMAC 2005. Conference proceedings*.
- Oxford advanced learner's dictionary special price edition, 2001. 6th Edition. New York: Oxford University Press.
- Scholtz, L., (2014). Measuring brand loyalty in the hospitality industry in South Africa. *Master's thesis*. Potchefstroom: North-West University.
- Suhartanto, D., (2011). An examination of brand loyalty in the Indonesian hotel industry. *Doctoral dissertation*. Christchurch-New Zealand: Lincoln University
- Van Den Heever, Q., (2013). An assessment of a business-to-business brand loyalty environment in the South African paint industry. *Master's thesis*. Potchefstroom: North-West University.
- Wiese, C.M., (2014). Measuring brand loyalty in agribusinesses. *Master's thesis*. Potchefstroom: North-West University.

APPENDIX



Appendix A: Questionnaire

YÜKSEK LİSANS TEZİ ARAŞTIRMA SORULARI

Sayın katılımcı,

Size sunduğumuz bu anket, Bahçeşehir Üniversitesi Sosyal Bilimler Enstitüsü İşletme Anabilim Dalı çatısında yürütmekte olduğum “İş Makinası Sektörü’nde Müşteri Sadakatini Etkileyen Faktörler” konulu tez çalışmasının bir parçası olup, bu anket kapsamında sunacağınız veriler bilimsel amaçlı olarak kullanılacaktır. Bu anlamda, yapılan çalışmadan sağlıklı sonuçlar alınabilmesi, ankete vereceğiniz yanıtların gerçekliği ile bağlantılı olacaktır. Ankette kişisel bilgileriniz istenmemektedir ve vereceğiniz cevaplar gizli tutulacaktır. Anketi tamamlamak yaklaşık olarak 5 dakikanızı alacaktır.

Çalışmamıza katkı sağladığınız için teşekkür ederiz.

Saygılarımızla.
Kemal Kulakoğlu

1. BÖLGE: Lütfen firma merkezinizin bulunduğu ilin plaka kodunu seçiniz.

Listeden seçiniz ▼

2. SEGMENT: Lütfen faaliyet gösterdiğiniz alanı işaretleyiniz.

- | | |
|---|---|
| <input type="checkbox"/> Taahhüt işleri ana yüklenici | <input type="checkbox"/> Taş & kum ocakları |
| <input type="checkbox"/> Taahhüt işleri alt yüklenici | <input type="checkbox"/> Beton santralleri |
| <input type="checkbox"/> Genel inşaat- hafriyat | <input type="checkbox"/> Endüstriyel kuruluşlar- fabrikalar |
| <input type="checkbox"/> İş makinası kiralama firmaları | <input type="checkbox"/> Tarım |
| <input type="checkbox"/> Maden- mermer | <input type="checkbox"/> Kamu kuruluşları |
| <input type="checkbox"/> Diğer | |

3. MAKİNA PARKI (ADET): Lütfen makina parkınızda bulunan kamyon haricindeki iş makinası sayısını işaretleyiniz.

- 1-5 6-15 16-50 51-100 101 ve üstü

4. MAKİNA PARKI (MARKA): Lütfen halihazırda kullanmakta olduğunuz markaları işaretleyiniz. Birden fazla tercih yapabilirsiniz.

- | | | | |
|----------------------------------|-----------------------------------|--------------------------------------|--|
| <input type="checkbox"/> Bobcat | <input type="checkbox"/> Hamm | <input type="checkbox"/> Kubota | <input type="checkbox"/> Takeuchi |
| <input type="checkbox"/> Bomag | <input type="checkbox"/> Hidromek | <input type="checkbox"/> Liebherr | <input type="checkbox"/> Volvo |
| <input type="checkbox"/> Case | <input type="checkbox"/> Hitachi | <input type="checkbox"/> Liugong | <input type="checkbox"/> Vögele |
| <input type="checkbox"/> Cat | <input type="checkbox"/> Hyundai | <input type="checkbox"/> Manitou | <input type="checkbox"/> Wacker Neuson |
| <input type="checkbox"/> Dieci | <input type="checkbox"/> Jcb | <input type="checkbox"/> Mst | <input type="checkbox"/> XCMG |
| <input type="checkbox"/> Doosan | <input type="checkbox"/> Kawasaki | <input type="checkbox"/> New Holland | <input type="checkbox"/> Diğer..... |
| <input type="checkbox"/> Dynapac | <input type="checkbox"/> Kobelco | <input type="checkbox"/> SDLG | |
| <input type="checkbox"/> Gehl | <input type="checkbox"/> Komatsu | <input type="checkbox"/> Sumitomo | |

5. MARKA TERCİHİ: Lütfen son 3 (üç) sene içerisinde tercih etmiş olduğunuz markaları işaretleyiniz. Birden fazla tercih yapabilirsiniz.

- | | | | |
|----------------------------------|-----------------------------------|--------------------------------------|--|
| <input type="checkbox"/> Bobcat | <input type="checkbox"/> Hamm | <input type="checkbox"/> Kubota | <input type="checkbox"/> Takeuchi |
| <input type="checkbox"/> Bomag | <input type="checkbox"/> Hidromek | <input type="checkbox"/> Liebherr | <input type="checkbox"/> Volvo |
| <input type="checkbox"/> Case | <input type="checkbox"/> Hitachi | <input type="checkbox"/> Liugong | <input type="checkbox"/> Vögele |
| <input type="checkbox"/> Cat | <input type="checkbox"/> Hyundai | <input type="checkbox"/> Manitou | <input type="checkbox"/> Wacker Neuson |
| <input type="checkbox"/> Dieci | <input type="checkbox"/> Jcb | <input type="checkbox"/> Mst | <input type="checkbox"/> XCMG |
| <input type="checkbox"/> Doosan | <input type="checkbox"/> Kawasaki | <input type="checkbox"/> New Holland | <input type="checkbox"/> Diğer..... |
| <input type="checkbox"/> Dynapac | <input type="checkbox"/> Kobelco | <input type="checkbox"/> SDLG | |
| <input type="checkbox"/> Gehl | <input type="checkbox"/> Komatsu | <input type="checkbox"/> Sumitomo | |

6. ÜRÜN GRUBU: Lütfen kullanmakta olduğunuz ürün kategorilerini işaretleyiniz. Birden fazla tercih yapabilirsiniz.

- | | | |
|-------------------------------------|---|---|
| <input type="checkbox"/> Ekskavatör | <input type="checkbox"/> Kazıcı yükleyici | <input type="checkbox"/> Teleskopik yükleyici |
| <input type="checkbox"/> Yükleyici | <input type="checkbox"/> Dozer | <input type="checkbox"/> Yol grubu (finişer, silindir, vb.) |
| <input type="checkbox"/> Greyder | <input type="checkbox"/> Mini ekskavatör – mini yükleyici | <input type="checkbox"/> Diğer |

7. MAKİNA ALIM SIKLIĞI (YIL): Ortalama olarak ne aralıklarda makina alımı yapıyorsunuz?

- Her yıl 1 – 3 yıl arası 3 – 5 yıl arası 5 – 10 yıl arası 10 yıl ve üstü

8. MAKİNA ORTALAMA ÇALIŞMA SÜRESİ (SAAT/YIL): Kullanmakta olduğunuz makinalar, senelik ortalama kaç saat çalışıyor?

- 0 – 1000 1000 – 2000 2000 – 3000 3000 – 5000 5000 saat ve üstü

9. MAKİNA EDİNME YÖNTEMİ: Makine parkınızı nasıl genişletiyorsunuz? Birden fazla seçeneği işaretleyebilirsiniz.

- Yeni Kullanılmış Kiralama Kirala – Satın al

10. MAKİNA EDİNMEDE FİNANSAL TERCİH: Makine parkınızı genişletirken en çok hangi finansman şeklini tercih ediyorsunuz?

- Peşin Leasing Kredi Firma bünyesinde vade

11. Lütfen, en çok tercih ettiğiniz iş makinası markası ile ilgili aşağıda yer alan ifadeleri size uygunluk derecesine göre 1 ile 5 arasında puanlayınız. (1: Tamamen katılmıyorum, 5: Tamamen katılıyorum).

	Tamamen Katılıyorum (5)	Katılıyorum (4)	Ne katılıyorum ne katılmıyorum (3)	Katılmıyorum (2)	Tamamen katılmıyorum (1)
1					
	Tercih ettiğim markadan çok memnunum.				
2					
	Satın almış olduğum markanın fark yaratan özellikleri marka sadakatimi artırır.				
3					
	Eğer bir markadan memnunsam bu durum o markaya karşı sadakatimi artırır.				
4					
	Eğer bir markadan memnun değilsem o markayı tekrar tercih etmem.				
5					
	Sadık olduğum markayı kullanmak bana memnuniyet verir.				
6					
	Yüksek değişim maliyetinden dolayı marka tercihim değişti.				
7					
	Yeni bir markaya geçiş riskinden dolayı (performans, servis, yedek parça, zaman vs.) iş makinası markaları arasında geçiş yapmam.				
8					
	Mevcut ekonomik koşullardan ötürü iş makinası marka tercihim değişti.				
9					
	Uzun yıllara dayanan ilişkilerden kaynaklanan avantajlarımı kaybetmemek için iş makinası tercihim değişti.				
10					
	Bakım ve onarım maliyetleri marka tercihim etkiler.				

11	Tercih ettiğim iş makinası markasına güveniyorum.						
12	Satın almış olduğum iş makinası her zaman yüksek kalitelidir.						
13	Marka itibarı o markaya olan sadakatimde çok önemlidir.						
14	Tercih ettiğim marka ile ticari ilişkiyi uzun vadede sürdürmek isterim.						
15	Değerlerime uygun bir marka ile ticari ilişki sürdürürüm.						
16	Bana değer veren ve benimle iyi iletişim kuran bir marka ile ticari ilişkilerimi sürdürürüm.						
17	Çalışanlarının kalitesi (yetkin, bilgili, donanımlı, iletişim becerisi yüksek vb.) bir markaya olan sadakatimi etkiler.						
18	Marka sadakatim o markanın kalitesine ve performansına bağlıdır.						
19	Sadık olduğum iş makinası markasına karşı duygusal bağım vardır.						
20	Ödediğim paraya değer olması bir iş makinası markasına karşı sadakatimde önemli bir etkidir.						
21	Güçlü ve dayanıklı olması o markaya karşı sadakatimi artırır.						
22	2.el değerinin yüksek olması ve kolay satılabilirliği o markaya karşı sadakatimi artırır.						

23	Teslimat sorunu marka tercihim etkilemez.					
24	Fiyat artışlarına rağmen sadık olduğum markayı almaya devam ederim.					
25	Piyasadaki varlığı (pazar payı) azalsa dahi sadık olduğum markayı almaya devam ederim.					
26	Bir iş makinası markasına olan sadakatim tamamen alışkanlıklarım ile ilgilidir.					
27	Sürekli olarak aynı iş makinası markasını tercih etmem.					
28	Piyasaya yeni çıkan iş makinaları markalarını denerim.					
29	Sadık müşterilere sağlanan ilave avantajlar bir markayı tercih etmem için kriterdir.					
30	İstedğim markayı kullandığımda duygusal açıdan iyi hissediyorum.					
31	Sadık olduğum iş makinasının teknolojik özellikleri iş verimimi artırır.					
32	Almak istediğim iş makinası markasını alamadığımda kötü hissedirim.					
33	Sadık olduğum iş makinası işimle ilgili önemli konularda çözüm sunuyor.					
34	Sadık olduğum iş makinası markası, müşteri sadakatini sürdürebilmek için sürekli olarak kendini yeniliyor ve geliştiriyor.					

35	Yaygın servis ağı, kalifiye servis personeli ve yüksek parça bulunabilirliği o markaya karşı sadakatimi arttırır.						
36	Bir markayı değerlendirenken aldığım performans belirleyicidir.						
37	Daha iyi performans gösteren bir iş makinası markası olması halinde marka sadakatim değişir.						
38	Yalnızca, en iyi performans gösteren iş makinası markasına karşı sadık kalırım.						
39	Kullandığım makinanın işte kalma süresinin yüksek olması o markaya karşı sadakatimi arttırır.						
40	İş makinası marka tercihim, iş çevrem tercihimi ile benzerdir.						
41	Bir markaya olan sadakatim o markanın iş çevrem tarafından tercih edilmesine dayanır.						
42	İş makinası marka tercihimde ve sadakatimde o markanın menşei rol oynamaktadır.						
43	Bir markanın iş çevrem tarafından tercih edilmesi dolaylı olarak o markaya karşı güven duymama sağlar.						

Appendix B: Relation of Questionnaire Items with Brand Loyalty Influences

#	ABBREVIATION	BRAND LOYALTY INFLUENCE	QUESTION
1	CSAT1	Customer Satisfaction (CSAT)	I am very satisfied with the CE brand I purchase.
2	CSAT2	Customer Satisfaction (CSAT)	Distinctive product attributes of the CE I purchase keep me brand loyal.
3	CSAT3	Customer Satisfaction (CSAT)	My loyalty towards a particular CE brand increases when I am satisfied with that brand.
4	CSAT4	Customer Satisfaction (CSAT)	I do not repeat a purchase if I am dissatisfied with a particular CE brand.
5	CSAT5	Customer Satisfaction (CSAT)	I attain pleasure from the CE brand I am loyal towards.
6	SCST1	Switching Costs (SCST)	I do not switch CE brands because of the high cost implications.
7	SCST2	Switching Costs (SCST)	I avoid switching CE brands due to the risks involved.
8	SCST3	Switching Costs (SCST)	I switch CE brands according to the prevailing economic conditions.
9	SCST4	Switching Costs (SCST)	I prefer not to switch CE brand as I stand to lose out on the benefits from loyalty programs.
10	SCST5	Switching Costs (SCST)	Maintenance and repair costs of a CE brand affect my brand preference.
11	BTST1	Brand Trust (BTST)	I trust the CE brand I am loyal towards.
12	BTST2	Brand Trust (BTST)	The CE brand I purchase has consistently high quality.
13	BTST3	Brand Trust (BTST)	The reputation of a CE brand is a key factor in me maintaining brand loyalty.
14	RPRO1	Relationship Proneness (RPRO)	I prefer to maintain a long-term relationship with a CE brand.
15	RPRO2	Relationship Proneness (RPRO)	I maintain a relationship with a CE brand in keeping with my personality.
16	RPRO3	Relationship Proneness (RPRO)	I maintain a relationship with a CE brand that focuses and communicates with me.
17	RPRO4	Relationship Proneness (RPRO)	Qualification and skill level of the employees of a CE brand affect my loyalty towards that brand.
18	PVAL1	Perceived Value (PVAL)	My CE brand loyalty is based on product quality and expected performance.
19	PVAL2	Perceived Value (PVAL)	I have an emotional attachment with the CE brands I am loyal towards.
20	PVAL3	Perceived Value (PVAL)	Price worthiness is a key influence in my loyalty towards a CE brand.
21	PVAL4	Perceived Value (PVAL)	Strength and durability are important factors, increasing my loyalty towards that CE brand.
22	PVAL5	Perceived Value (PVAL)	High resale value and salability of a CE brand increase my loyalty towards that brand.

Appendix B (cont.)

#	ABBREVIATION	BRAND LOYALTY INFLUENCE	QUESTION
23	COMT1	Commitment (COMT)	I do not purchase another CE brand if my CE brand is unavailable.
24	COMT2	Commitment (COMT)	I remain committed to a CE brand even through price increases.
25	COMT3	Commitment (COMT)	I remain committed to a CE brand even through declining popularity.
26	RPUR1	Repeat Purchase (RPUR)	My loyalty towards a CE brand is purely habitual.
27	RPUR2	Repeat Purchase (RPUR)	I do not necessarily purchase the same CE brand all the time.
28	RPUR3	Repeat Purchase (RPUR)	I always sample new CE brands as soon as they are available.
29	RPUR4	Repeat Purchase (RPUR)	Loyalty programs are the reason I repeat to purchase a certain CE brand.
30	BRAF1	Brand Affect (BRAF)	I attain a positive emotional response through the usage of a certain CE brand.
31	BRAF2	Brand Affect (BRAF)	The CE brand that I am loyal towards, makes a difference in my life.
32	BRAF3	Brand Affect (BRAF)	I am distressed when I am unable to purchase a particular CE brand.
33	BREL1	Brand Relevance (BREL)	The CE brand that I am loyal towards stands for issues that actually matters.
34	BREL2	Brand Relevance (BREL)	The CE brand that I am loyal towards is constantly updating and improving so as to stay relevant.
35	BREL3	Brand Relevance (BREL)	The widespread service network, qualified service personnel and high parts availability increase the loyalty towards that CE brand.
36	BPER1	Brand Performance (BPER)	I evaluate a CE brand based on perceived performance.
37	BPER2	Brand Performance (BPER)	I will switch CE brand loyalty should a better performing CE brand be available.
38	BPER3	Brand Performance (BPER)	I am loyal only towards the top performing CE brand.
39	BPER4	Brand Performance (BPER)	The higher the uptime of a CE brand the higher brand loyalty of me for that brand.
40	CULT1	Culture (CULT)	My choice of CE brand is in keeping with the choice made by other members in my race group.
41	CULT2	Culture (CULT)	My loyalty towards a CE brand is based on the choice of CE brand used by my family.
42	CULT3	Culture (CULT)	Religion plays a role in my choice and loyalty of CE brand.
43	CULT4	Culture (CULT)	Family used CE brands indirectly assure brand security and trust.