KADİR HAS UNIVERSITY
GRADUATE SCHOOL OF SOCIAL SCIENCES
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AN ANALYSIS OF THE VALUE CREATION AND VALUE CAPTURE PROCESS OF A COMPANY OPERATING IN THE SHARING ECONOMY: THE CASE OF UBER

AYHAM AL WANNI

SUPERVISOR: ASST. PROF. DR. NUR AYVAZ ÇAVDAROĞLU

MASTER'S THESIS

ISTANBUL, JUNE, 2018

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Submitted to the Graduate School of Social Sciences of Kadir Has University in partial fulfillment of the requirements for the degree of Master in the Discipline Area of Business Administration under the Program of Business Administration

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I, AYHAM AL WANNI;

Hereby declare that this Master's Thesis is my own original work and that due references have been appropriately provided on all supporting literature and resources.

AYHAM AL WANNI

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DATE AND SIGNATURE

8 / June / 2018

ACCEPTANCE AND APPROVAL

This work entitled **AN ANALYSIS OF THE VALUE CREATION AND VALUE CAPTURE PROCESS OF A COMPANY OPERATING IN THE SHARING ECONOMY: THE CASE OF UBER** prepared by **AYHAM AL WANNI** has been judged to be successful at the defense exam held on 0**8 / 06 / 2018** and accepted by our jury as **MASTER'S THESIS**.

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ABSTRACT

ALWANNI, AYHAM. *AN ANALYSIS OF THE VALUE CREATION AND VALUE CAPTURE PROCESS OF A COMPANY OPERATING IN THE SHARING ECONOMY: THE CASE OF UBER*, MASTER'S THESIS, ISTANBUL, 2018.

This thesis examines customer satisfaction over services and features as a practical and functional expression of value creation for companies within the sharing economy and how those companies can capture that value. This thesis first discusses previous research and related articles in order to build an appropriate structure. The second part is a case study on Uber, a ride-hailing company. The area of the study is Istanbul, Turkey's largest city. For the sake of this study, a survey was used to collect data on customer satisfaction over Uber's services and features. The data was collected from both riders and drivers of Uber using a Likert scale questionnaire. Analysis of the data was performed using Statistical tools (SPSS) for data input and analysis. By this analysis, the satisfaction level over Uber's services and features was measured. Finally, this thesis highlights the pricing strategies in which Uber and similar companies operating within the sharing economy can capture value in a global context.

Keywords: Sharing Economy, Value Creation, Customer Satisfaction, Value Capture, Pricing Strategies.

ÖZET

AL WANNI, AYHAM. *PAYLASIM EKONOMİSİ İÇERİSİNDE FAALİYET GÖSTEREN BİR FİRMANIN DEĞER YARATMA VE DEĞER YAKALAMA SURECİNE DAİR BİR ANALİZ: UBER VAKASI,* YÜKSEK LİSANS TEZİ, ISTANBUL, 2018.

Bu tez, paylaşım ekonomisi kapsamında faaliyet gösteren şirketlerin değer yakalama pratiklerini anlamlandırmak adına sundukları hizmet ve özellikleri, müşteri memnuniyeti kapsamında incelemektedir. Tezde ilk olarak uygun bir temel inşa etmek adına ilgili literatür taraması yapılarak benzer çalışmalar incelenmiştir. Ardından bir taksicilik hizmeti olan Über üzerine bir vaka analizi geliştirilmiştir. Çalışmanın alanı Türkiye'nin en büyük şehri olan İstanbul'dur. Bu çalışmayı yapabilmek için Über'in hizmet ve özellikleri konusundaki müşteri memnuniyetini belirlemek adına veri toplamak için bir anket hazırlanmıştır. Bu anket, Likert-ölçeği tabanlı olup, hem Über kullanıcılarına hem de Über sürücülerine uygulanmıştır. Verilerin analizi SPSS programı kullanılarak gerçekleştirilmiştir. Bu analiz sonucunda İstanbul'daki kullanıcı ve sürücülerin Über'in sunduğu hizmetler ve özellikleri konusundaki memnuniyetleri ölçülmüştür. Bu çalışma sonuçlarının Über'in ve benzer paylaşım ekonomisi tabanlı şirketlerin küresel bağlamda değer yakalaması için uygulaması gereken stratejiler konusunda ışık tutması umulmaktadır.

Anahtar Kelimeler: Paylaşım Ekonomisi, Değer Yaratma, Müşteri Memnuniyeti, Değer Yakalama, Fiyatlandırma Stratejileri.

CHAPTER 1
INTRODUCTION

In this chapter, we will briefly define the terminology and the background of this research, namely the sharing economy, the network effect, and the issues related to these concepts.

1.1. Basic Terminology for the Sharing Economy

Sharing economy or collaborative economy is defined as a peer-to-peer model of distributing underutilized resources via a fee-based agreement that relies on online participation through digital platforms (Frenken, et al., 2015).

The sharing economy encourages sharing over ownership in order to maximize the use of underutilized assets. Thus, it is associated with making the best use of the available resources. The term "sharing economy" is based on the idea that people can sometimes have an underutilized asset (e.g. car seat, extra room) and sometimes they can be in the temporal need for that asset. Companies like Uber, Airbnb, etc. create the appropriate platform for people to communicate in order to exchange rides and overnight stays.

With all the ongoing developments in the technology, the digital platforms make it possible for individuals to do business with other individuals, and not having to go for the common business-to-consumer model. This model of not needing the middle hand is called "peer-to-peer" and it lets people do business with each other directly, for instance like taking a ride with some other individual instead of the traditional business-to-consumer, which is in this case calling a taxi office (Investopedia, n.d.).

Sharing economy allows people to rent others' assets regardless of whether it is goods or services when the asset is expensive and there is no permanent need for it.

While it is true that people use the sharing concept from the early ages on, the digital platforms made it so much easier for customers to find the asset they need and for owners to make money from renting that underused asset. There are 3.2 billion Internet users in 2015 along with 7 billion mobile subscriptions worldwide comparing to 738 million in 2000 (International Telecommunication Union, 2015). The digital platforms have a 3.2

billion potential easy-to-reach users, 2 billion of whom live in the developed countries (Figure 1.1). From what is shown in (Figure 1.2), 44.8 million American adults engaged in a sharing economy activity in 2016 and the number is expected to double in 5 years (Statista, 2018).

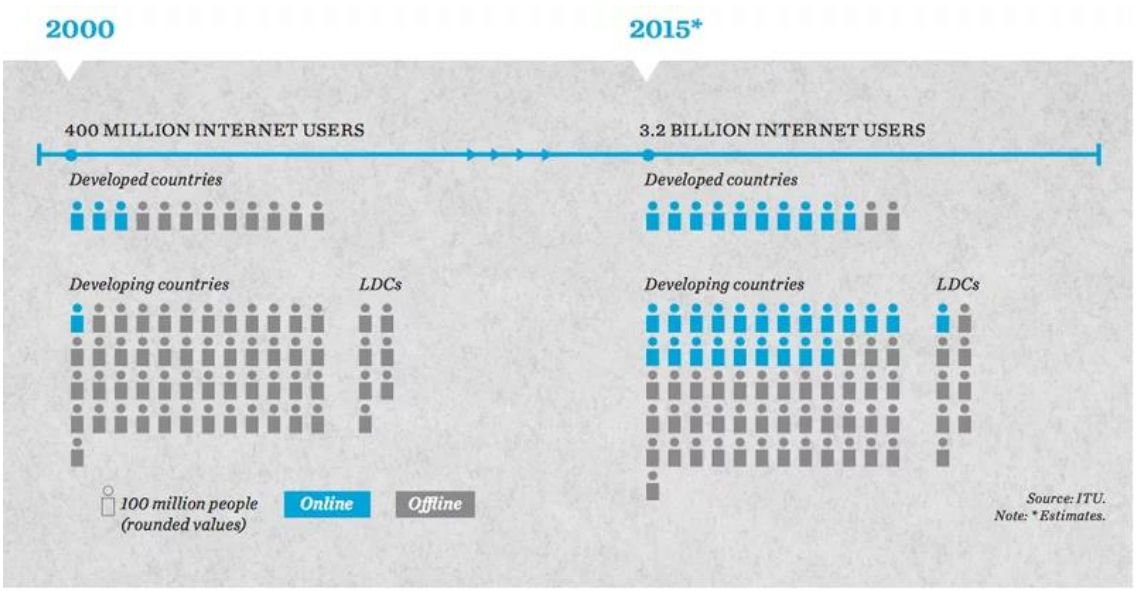

Figure 0.1 ITU estimations for worldwide (International Telecommunication Union, 2015).

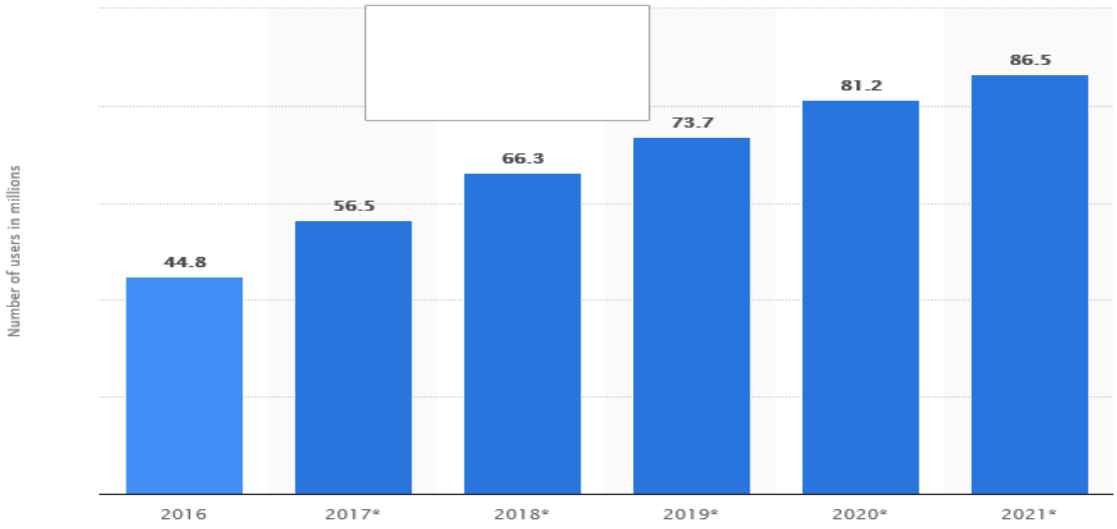

Figure 0.2 Number of sharing economy use (Statista, 2018).

1.2. Network Effect

For every company, expanding its network is an important strategy to increase its potential customers, and this process would be through developing relationships with people and companies and building trust within the customer community. The network effect refers to the case where an increased number of participants improve the value of a good or service (Investopedia, n.d.). The mobile phone is a good example of this phenomenon. Initially, there were few users of the mobile phone, and it was of relatively little value to anyone to have a mobile phone. But the increased numbers of mobile phone owners led to direct increases in value for everyone.

The network effect is very important for the companies operating in the sharing economy as well. The value of the digital platform to its users increases as the total number of users increases (Business Dictionary, n.d.). Hence, looking for a ride with only a hundred drivers in a big city would leave you with very low chances of finding a driver who is working at the moment, willing to take you where you want, close to your location, and agreeing on the ride fee. But with more drivers in the city, you would easily find a driver who is close by and who is willing to take you where you want.

1.3. The issues that will determine the fate of the sharing economy

Although sharing economy is facilitated with the growing technology, there are still some issues that need to be resolved to make it grow. They are listed below.

1. Transaction costs: From the technical development comes the reduction in the transaction costs which have a deep impact on the success of the sharing economy and that impact can be illustrated in:

- Searching effort and time costs
- Bargaining effort and time costs
- Agreement enforcing costs

It will be a lost deal to search for a ride on the street and go through the trouble of bargaining with the driver and then stay worried about the paying process and other

concerning issues, while you may open Uber app and find a ride in a few minutes with a given price for every minute and mile and guarantee for paying.

2. The requirement for a rating system: For strangers to work on digital platforms, they need a rating system that they can rely on. When people constantly rate each other on the basis of a customer/service provider, they make a system that can be used to decide whether to do business with someone or not.

Only 19% of Millennials believe that most people can be trusted, and just 31% of GenX'ers do. If the peer-to-peer model will continue to grow, knowing that peer-to peer model is more complicated than business-to-consumer model, it will require a rating system to increase the reliability. Companies did pay attention to this fact and they are coming up with innovation ideas such as the start of Airbnb adding identity verification to its platform in 2013. The act of sharing is not new to the world, but digital technology like location-based GPS is making the difference, digital technology allowed people to connect quickly and respond to each other's requests of renting, hailing, etc. (Pew Research Center, 2014).

1.4. The rise of the sharing economy

Sharing is an old behavior of the human kind; through time people shared their resources to increase their chances of surviving. The concept '' sharing economy '' was born in the 2000s after a few businesses used the internet to share resources. Harvard law professor Yochai Benkler published a paper "Sharing Nicely: On Shareable Goods and the Emergence of Sharing as a Modality of Economic Production" suggesting that people share goods as part of the economy (Benkler, 2004).

In 2010, Rachel Botsman and Roo Rogers published a book which described the collaborative consumption (Rogers & Botsman, 2010). This book was the first to describe the concept of sharing economy.

In 2011, Time magazine considered collaborative consumption one of the "10 ideas that will change the world" (Time magazine , 2011). In 2015, Oxford Dictionary added the sharing economy to its online database (Steinmetz, 2015).

Hence, the concept of the sharing economy continues to grow and attract attention since 2010's and seems to be one of the most influential trends in the coming years.

1.5. Uber

Uber is one of the most prominent companies operating according to the rules of the sharing economy. The first chapter of Uber story started when two friends, Travis Kalanick and Garrett Camp were having trouble finding a cap after attending a conference in Paris 2008. In the year before that Camp sold his share in StumbleUpon, a startup he co-founded to eBay for $75 million, and in the same year Kalanick also sold Red Swoosh a startup he co-founded to Akamai Technologies for $19 million. In 2009, Camp was working on UberCab as a side project, he tested the idea in New York with just three cars and then made the official launch in San Francesco in May. Uber received its first major fund from First Round Capital with the worth of 1.25 million dollars. In June 2016, Uber raised $3.5 billion from the investment arm of Saudi Arabia. Although Uber is not public yet and it is planning to be so in 2019, in April 2017, it reported to Bloomberg a loss of 3.8 billion dollars in 2016. All this loss is for the sake of the explosive growth Uber is experiencing but that growth does not ease off the opposition Uber is facing from the taxi industry and government regulators (Blystone, 2018).

Uber offers many kinds of services; UberX, Uber Black, Uber SUV and others. Uber requires its drivers to have their own insured car and pass a DMV and background check to start working as an Uber driver. Uber operates in 45 countries around the world and still, there are some places where Uber is not allowed. Uber presents itself more as a platform that connect people together and less as an employer. Through its catchy name, great app, excellent marketing, Uber is becoming more and more popular. Uber generally costs less; UberX on average cost 26% less than a normal taxi, the company charges a base fare and then adds a per-minute and per-mile charge different for every city. Uber puts the principles of supply and demand in its consideration and from this point Uber uses surge pricing. However, since this approach is criticized by many; Uber abandoned the surge pricing in case of natural emergencies like storms and blizzards, but they still employ it in situations like after a Halloween party (Pullen, 2014).

1.6. Research Questions:

In this environment, we defined our research questions as follows:

I. How Uber, a leader company in the sharing economy, would create value for its customers?
I. What is the customer satisfaction level over services and features provided by Uber, and which ones are more influential to their overall satisfaction with Uber?
II. Which services and features have the highest correlation with the overall customer satisfaction with Uber?
III. Are there any differences between demographic groups in terms of their satisfaction level over services and features provided by Uber?
IV. How can Uber capture the value it had created?

1.7. Research Objectives

The general objective of this study is to determine the effect of service quality of a company operating in the sharing economy on the customer satisfaction. The specific objectives are to:

II. Examine the customer satisfaction level over the services and features provided by Uber to its riders and its drivers
III. Investigate which services and features have the most influence on the customers' overall satisfaction with Uber
IV. Investigate correlations among the satisfaction levels of the riders/drivers regarding Uber's features and the customers' overall satisfaction with Uber
V. Investigate differences between demographic groups in terms of their satisfaction level over services and features provided by Uber
VI. Highlight the pricing strategies in which Uber capture its value in a global context.
VII. Come up with suggestions for value capturing strategies of the firms who operate in the sharing economy.

CHAPTER 2
LITERATURE REVIEW

In this chapter, relevant literature is reviewed. This section introduces significant studies and applicable research that support this study, which aim to put the light on substantive findings in the field of sharing economy, Uber, value creation, value capture, customer satisfaction and examining researches of measuring customer satisfaction through surveys.

Frenken et al. (2015) defined the sharing economy as: "consumers granting each other temporary access to under-utilized physical assets, possibly for money". Based on this definition, the sharing economy can be distinguished by the three defining characteristics: consumer-to-consumer interaction, temporary access and physical goods.

People selling or granting goods to each other is called the second-hand economy. Renting goods directly from a company rather than from another individual is called the product-service economy. Doing a peer-to-peer service rather than peer-to-peer good sharing is called on-demand economy. (Figure 2.1)

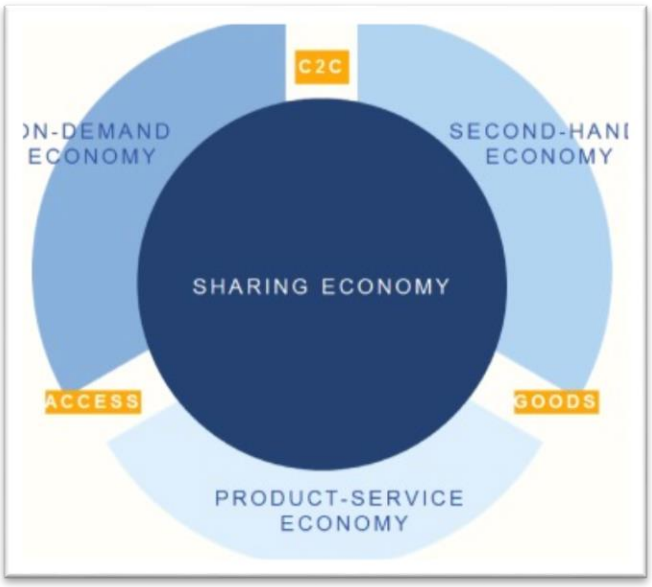

Figure 0.1 Sharing economy and related forms of platform economy (Frenken et al., 2015)

Sharing economy brought along some sustainability impacts. Consumers would get cheap access to goods by renting from others and based on that the total number of new goods

produced was hypothesized to decline. Social benefits would count as strangers are meeting face-to-face and making meaningful contacts. Due to lower transaction costs, the economic effects of the sharing economy are beneficial to both parties and would cause a rise in the income or consumer welfare. The danger of dealing with strangers can be an example of the negative externalities of the sharing economy as well as the tendency toward monopoly from the provider side which will allow high margins to be cut (Frenken & Schor, 2017).

Traditional companies have a new kind of competitors in the market to worry about. Internet startups in the sharing economy can grow exponentially through the power of digital platform dynamics and network effects but there is nothing to stop traditional companies from becoming more like their sharing-economy counterparts. They just have to compete relying on their own unique advantages, otherwise they will suffer to stand still while their sharing-economy counterparts are growing more and more (Cusumano, 2014).

Although sharing economy is a new concept, it has major effects on the economy's other sectors. For instance, sharing economy caused the demand to increase, people are watching the availability and the popularity of Uber, and then they are interested in becoming Uber-divers. The growing of the sharing economy with its two most famous examples Uber & Airbnb raises the voices calling for more public safety. The sharing economy platforms encourage the act of rating in order for every user to keep a good reputation (Duverge, 2016).

Companies working within the sharing economy business model are affecting traditional industries all over the world. Hotels and taxi companies are obvious examples of that case. Sharing economy companies brought significant economic, environmental, and entrepreneurial benefits such as the increase in employment and a reduction in carbon dioxide emissions. Nevertheless, regulators are still new to knowing this business model and they will probably regulate the sharing economy firms as if they are traditional ones which will lead to higher taxes and requirements. To avoid that, sharing economy companies should stand responsible to the regulators' legitimate concerns and ease the work of regulators by trying to approach them through forming industry associations instead of acting independently, making their data public and sharing it with the government. Cannon and Summers (2014) argue that this kind of precautions will reduce

the concerns of the regulators. Moreover, making research on how the company is adding value to the country will lead to a positive effect regarding how the regulators will deal with the company. Finally, making the first move of going to the government and proposing the best set of regulations based on their experience in other countries could be a good idea for companies like Uber, instead of waiting and hoping that the government will do nothing (Cannon & Summers, 2014).

Coming to the concept of value creation, we first state its definition. Value creation is defined as "the performance of actions that increase the worth of goods, services or even a business" (Business Dictionary, n.d.). Many business operators now focus on value creation both in the context of creating better value for the customers purchasing their products and services and for the shareholders in the business who want to see their stake appreciate in value (Business Dictionary, n.d.). Value creation relates to the perceived value that the firm can bring to consumers (or other beneficiaries) (Rachel , et al., 2018).

Boston Consulting Group (BCG) published an article asking the question, "Is value-creation strategy transformation necessary?", and to answer that question BCG suggested comparing the company with its appropriate peers in the market within two scales. The first one is comparing the company's recent Total Shareholder Return "TSR" to its peers to see how the company was doing in the last few years, and the second one is to look into how investors think of the company's future. When a company fails to keep up with its peers in the two scales, then it needs the transformation. BOG suggested six steps toward TSR transformation as defining the company goals, using value-based performance metrics, choosing a clear portfolio strategy with an active portfolio management, aligning the company's financial strategy with its long-term objectives, looking for the company's type of investors and finally refocusing management processes as the company's value-creation strategy success is dependent on the value-management capability (Farag, et al., 2015).

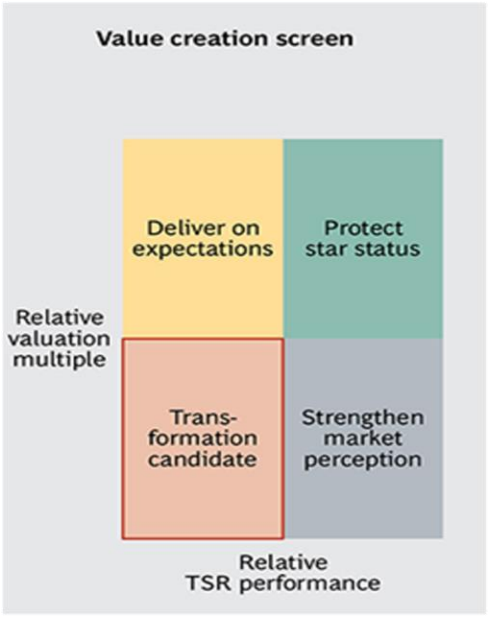

Figure 0.2 screen to help determine company's need to transform its value-creation strategy (Hughes, 2013).

Tasks like data entry, purchasing, billing, payroll and many others are becoming more customized and automated. Creating value for a product or service is depending increasingly on creativity. In the past, value creation was a role of the economies of industrial scale while in the future it will be a role of economies of creativity. Productivity means taking cost out, which is important, but this is a time where we have to work creatively in which we should learn how to put value in. As supply chain management is about making a process efficient, value chain management is about putting together innovations of creative ideas to make the work process more efficient. It is simply about how to create value (Hughes, 2013).

Willing consumers are the ones that validate the value of products and services. The "consumer benefit experience" (CBE) approach (or consumer perspective) can be counted as a substantial approach of addressing strategic management for the following reasons.

- As consumers are the ones experimenting the benefits offered by the company, offering benefits that consumers are willing to pay for are essential for capturing value later on.
- The transaction-cost-economics mostly disregards the mechanisms related to demand, since this perspective views the transactions as a zero-sum game in which

the value is distributed across different aspects in a value system. Hence, the traditional perspective views any increase in the customer payments caused by one aspect of the value system would be at the expense of some other aspect.

- In modern management, one should not be restricted to the results and hypothesizes of a single discipline. For example, one should benefit from other fields like marketing for the sake of integrative discipline of strategic management, so at the end, a much effective strategy of value creation from the consumer perspective can be attained.

Value capture is what the firm seizes from the consumers' payments in exchange of future value from consumption. However, value creation contains the innovation that creates the consumer's valuation of the benefits of consumption. Typically, strategic management view value from the supply side as if only the producers create it, which is known in the term "value added". Thus, it is clear that a company with a low-cost superior resource that produces on-going revenue streams have a competitive advantage over others.

The most important thing for a firm is to maximize the use-value experienced by the customer during his various customer activities which will reflect on his future consumption and his willingness to pay. Although firms control most of the transactions, they are still intermediaries to the end users and in that perspective, they will ultimately contribute to produce value during consumption. Under this CBE approach, value aided will replace value added, firms will try to increase the value in aiding and thus end users will increase their payments (Priem, 2007).

In 2007, the year that iPhone entered the phones market, those five manufacturers—Nokia, Samsung, Motorola, Sony Ericsson, and LG—were the Beneficiaries of 90% of the phones industry's global profits. In 2015, iPhone dominated its industry and controlled 92% of the industry's global profits. Apple took the full advantage of the power of platforms, which businesses gather consumers and producers in order to exchange high-value, information and interactions. These platforms are Apple's most important assets, the backbone of their value creation process and their competitive advantage. Apple placed a platform in the hands of participants in two-sided markets where app developers and app users created value for each other, and when the participants of both sides increased. Moreover, the value increased as well, due to the platforms' most critical feature "network effects".

Hence, all this resulted a 1.4 million apps in App Store (by January 2015), in which they generated $25 billion for developers.

Ride sharing constitutes another example for value creation. By facilitating a desirable interaction, Uber is creating value for both rider and driver. As the number of those participants increases due to the "network effects", it will be easier for both sides to find each other, which means bigger value. Within Uber, the "Spillovers effects" makes another positive mark in helping platforms to grow faster. This is when riders and drivers rate each other, a progress would be done to the platform and that will return as more value to the users and more interactions within the platform.

As Apple did, all firms are trying to add platforms to their business model because virtually when platforms start operating in the same marketplace, the platforms always win. Van Alstyne et al. (2016) argue that to move a business from a conventional model to a platform-based one, the following steps should be followed:

- From resource control to resource orchestration.
  Firms working with a conventional business model gain advantage by controlling the scarce resources (such as real estate) which would be their assets; but in a platform-based model, the main asset becomes the participants and what those participants create by their interaction. Hence, the firms must learn how to manage this new type of assets if they want to shift from a traditional model to a platform-based one.
- From internal optimization to external interaction.
  To create value for customers, conventional firms go through every stage of product creation from collecting materials and labor to the sales stage. However, all what Platforms do is make sure that consumers and external producers are interacting and creating value for each other. Hence, the firms must create interactions between producers and consumers if they want to shift from a traditional model to a platform-based one.
- From a focus on customer value to a focus on ecosystem value.
  Conventional firms seek for a lifetime valuation over its products while Platforms seek to make the most value out of a growing ecosystem which would cause an iterative process. Hence, the firms must focus on growing their ecosystem if they

want to shift from a traditional model to a platform-based one (Van Alstyne, et al., 2016).

Industrial Age companies are making strategic moves to enter the sharing economy space and join companies like Uber, Amazon and Expedia. These companies come from different business models but have one thing in common: they can sense the huge value creation potential within the sharing economy. Gray (2016) calls this principle "UBER-nomics", which namely refers to the economics of abundance as it allows companies to defy traditional economic principles of scarcity. Hence, UBER-nomics breaks down the traditional scarcity principle in terms of:

- Supply—in which it has access of long tail of utilized assets, goods and expertise.
- Demand—as it can attract non-customers and access new markets.

UBER-nomics of value creation enhances companies to create, extract and capture value by coming up with innovative ways within their ecosystem to make the maximum benefit of the under-utilized assets. UBER-nomics will empower the stakeholders and turn the lack to plenty (Gray, 2016).

To our knowledge, there exist a limited number of papers that study value creation process in the sharing economy, so, this area has not been explored in much detail yet.

Next, the studies on value capture must be mentioned. The term "value capturing" refers to the monetary value extracted from what firms offer to customers (Rachel , et al., 2018).

Although innovation in value creation and value capture are both important, companies make the mistake of focusing on the first one which can lead a business to fail. For instance, Facebook with 1.3 billion active monthly users has an unquestionable ability to create value but the company does not seem to be capturing value as it is supposed to (Michel, 2014). Companies should start thinking more creatively about value capturing in ways such as the following:

- Hit the blind spot. It seems like innovators and managers think of the work as done as they create the value discarding capturing it. They assume that the rewards will follow the created value automatically. Hence, the simple thing to be done is

making innovators and managers conscious of situation and open their eyes to all the possible approaches of value-capture.

- Ditch the old production costs or calibrate against competitors' pricing strategies for the value-based and demand-driven pricing strategies.
- Seek the people who would pay for the value you are providing. For instance, advertisers may pay for a film making that cinema houses may not.
- Change the price carrier. McDonald creates value with children's Play Place and WIFI connection services but the price tag is on the food. Telecommunication companies provide several kinds of services that each user value differently but yet the price tag is for the package and not for each service separately.
- Timing innovation. Futures contracting and installed base pricing (which is known for razor-and-blades model) are good examples of timing innovation.
- Segment your customer base and charge each segment for the price they are really willing to pay.
- Managers should focus on value capture. A special team who is integrated with every department in the company should be assigned to challenge the status quo and innovate strategies for the company to capture value more efficiently (Michel, 2014).

While value creation and value capture are both important, each should be dealt in different ways. Value creation contains many aspects like the customers, the supply chain and many other that jointly contribute to the economic value created by the company. Those aspects make the "value network", in which the managers should start by evaluating the contribution of each aspect to the economic value (Ryall, 2013).

In this environment, the value capture cannot be possible without customer satisfaction. Several studies in the literature focused on customer satisfaction to measure the value creation and value capture from the customer perspective. For instance, the work of Manuela et al. (2013) emphasizes the connection between value capture and the customer satisfaction. In order to analyze and measure the outcomes of value co-creation behavior from the perspective of the customers, the authors interviewed the customers of a beauty firm. To this end, 547 adult regular users of beauty firms were personally interviewed and their completed questionnaires were analyzed with SPSS 20 and AMOS 20 statistical data

analyzing programs. The findings proposed a positive relation between value co-creation and customer satisfaction. Therefore, this study encourages personal care service firms to enhance the active participation of its customers in the value creation process to improve customer satisfaction. This can be possible by creating communication channels that enhance the customer involvement. However, it should not reach a situation where customers will blame themselves for trouble in the service providing process (Vega-Vazquez, et al., 2013).

Among the other research papers in the literature that use the method of surveys and questionnaires towards measuring the value capture, the work of Imam (2014) can be counted, in which the author identified, described, and measured satisfaction of public transportation system users. For that purpose, the author conducted a survey among public transport users in Amman/Jordan, which was comprised of two parts. The first part contains general questions about gender, age, occupation, and the most regularly transit mode used. The second part contained a list of 18 travel attributes like (Waiting Time, Cost of Travel, Ease of Payment, Personal Security) each was to be rated regarding the travel attribute importance and satisfaction level. At the end of the research, the results had clear implications that would help the public transportation system in Jordan and were recommended to be beneficial to other countries who have similar cultural and economic characteristics (Imam, 2014).

In another research, a survey was designed to review public attitudes and quality metrics toward taxi services in Houston (Cooper, 2014), the results were collected through on-line survey and intercept survey. The responses from the on-line survey reported high income, nightclubs as a primary trip origin, less frequent use of taxi services compared to the intercept survey respondents and were biased toward single culture, while the responses from the intercept survey reported a mixed set of income groups, mixed trip origins with 40% residential, more frequent users of taxis and a wide users demographics. Regarding the waiting times, satisfaction level was high among intercept respondents unlike on-line respondents who were more critical regarding the reasonable waiting time expectations. In the end, the survey shows that on-line respondents do not use taxis mostly because they prefer their own private car, they are afraid that the taxi will not show up and because of the high prices, while the intercept respondents don’t use taxis mostly because they don’t

need to, because of safety issues, the high prices and that the taxis not showing up (Cooper, 2014).

Finally, Roulston (2014) reports about Leger, the research intelligence group, conducting a telephone survey for the city of Calgary/Canada which included 500 adults in the city and was intended to measure the satisfaction with taxi services. The telephone survey core objectives included:

- Identifying the usage and frequency of taxi service among the city residents
- Identifying the ways people obtain a taxi service
- Taxi Pick-Up and Drop-Off locations
- Evaluate satisfaction toward the driver
- Evaluate the passengers' experiences during the ride
- Evaluate payment options
- Measure overall satisfaction

A summary of the results can be summarized in the following few points:

- Taxi Usage: During the last year, 60% of the city population had used taxi services, 5% had used Car-sharing program. People don't use the taxi services mainly because they have their own cars (64%), they don't have the need to (30%), they share car with someone else (9%) and because they use the public transportation (5%).
- Obtaining Taxi Services: among taxi users, calling Taxi dispatchers and pre-booking (62%) with a satisfaction of (88%), while (57%) calling for immediate service with a satisfaction of just (70%), (20%) have used a hotel taxi office and those are the most satisfied (97%), 12% used online taxi services with (82%) satisfaction, (13%) have called the driver directly and they are (92%) satisfied, (32%) have hailed a taxi and (76%) of them are satisfied.
- Drivers: the majority of taxi users (93%) are satisfied with the taxi drivers.
- Experiences during the Ride: there is a huge satisfaction regarding taxi users experience during their rides.
- Overall satisfaction: They had a (100%) satisfaction with the limousine customers, (86%) satisfaction with taxi users, the main causes affecting the overall satisfaction

are: satisfaction with the drivers, reaching the dispatchers shortly, the politeness of the dispatchers, satisfaction with experiences during the ride and the value for money (Leger - The Research Intelligence Group, 2014).

Hence, using the survey method to measure customer satisfaction and its relationship with value creation and capturing process is mainly common in the literature. Since Uber does not share its data with the researchers, we will use the same method, i.e. data collection through surveys, in our research procedure. Moreover, to our knowledge, there does not exist papers that study value capture process in the sharing economy, so, our work will be among the first research that focuses on this particular area.

CHAPTER 3
RESEARCH METHODOLOGY

3.1. Introduction

This chapter gives the methodology that was used to reach our research objectives. This section entails the introduction, research design, target population and sampling procedure, data collection methods used, reliability and validity of the research instruments and data analysis.

3.2. Research Design

For the sake of measuring the satisfaction with the features and services provided by Uber, this study employs a descriptive survey research design. Descriptive survey research designs are used in introductory and exploratory studies to collect information about peoples' perspective, tendency and habits and allow researchers to collect information using questionnaires and summarize, present and interpret the collected data for the purpose of clarification and produce statistical information that interests decision makers and educators (Orodho, 2003). This research is exploratory in the sense that there has been no past research about value creation and value capturing process in a company like Uber. This research paper will provide a comparative review of the dependent variable vs the independent variables chosen for the study.

3.3. Target Population and Sampling Procedure

The target population for this study are riders of Uber, and the drivers of Uber, both in the city of Istanbul/Turkey. The aim is to collect information from two sources that are, from Uber riders on rider's satisfaction over Uber's features and services and from Uber drivers on driver's satisfaction over Uber's features and services.

Volunteer Sampling method was used, which is one of the non-probability sampling methods in which the voluntary sample contain people who self-selected their selves to

participate in the survey. Those people normally have a huge interest in the subject of the survey. (more explanation is provided in p.19)

Reaching the participants were through a questionnaire using an online survey for two reasons:

- Uber users have to be internet-active people.
- It is hard to determine the users of Uber from the public or to determine the drivers of Uber from all car drivers out on the roads of Istanbul.

3.4. Reliability and Validity of the Research Instruments

Two important factors of measuring the quality of an instrument are the reliability and validity of the measures. The aim of those two is to reduce the error in the measurement process. Reliability evaluate the stability of the measurement instruments and it does evaluate whether the research instrument provide an accurate and consistent measure of the results. While validity is the warranty of the results of a test, validity reflect the accuracy of the research instrument used and results obtained from it in terms of representing the variables of the study (Kimberlin & Winterstein, 2008).

In this research the reliability of the questionnaire was assured by asking the question two times, mostly in different context and with different wording. The survey responses which do not show consistency in this manner were eliminated from the analysis so the results would be stable, accurate and will not be affected in case of redo the test. The research instrument was assured to be validated in terms of building the questions based on previous surveys, Uber website claims, articles by expert opinions on credible newspapers and websites and the literature review (Imam, 2014) (Cooper, 2014).

3.5. Data Collection Methods

The data collection tools for this study were two questionnaires, one is designed to measure the riders' satisfaction over Uber's features and services and the second is designed to measure the drivers' satisfaction over Uber's features and services. Questionnaires were used to collect primary quantitative data. The reason for using questionnaires over

interviewing method was mainly due to two reasons: First, questionnaires will give the respondents enough time to complete the questions asked and second, they will be anonymous to encourage honest responses. Both questionnaires were designed and created on "monkeysurvey" website, distributed through social media networks and into 7 Facebook' groups (Table 3.1), in which 5 are about Uber riders and 2 are about Uber drivers both in Istanbul. There for the results represented all types of Uber users in the city.

Table 0.1 names of the Facebook groups that the surveys were distributed in

The Facebook group name	It's link
UBER İSTANBUL	https://www.facebook.com/groups/182469072499327/
UBER İSTANBUL	https://www.facebook.com/groups/140269286660673/
Uber İstanbul	https://www.facebook.com/groups/152436098820639/
Uber istanbul	https://www.facebook.com/groups/411790015908016/
Uber Türkiye	https://www.facebook.com/groups/204283853395427/
UBER SÜRÜCÜLERİ	https://www.facebook.com/groups/708435922696055/
UBER SÜRÜCÜLERİ DESTEK	https://www.facebook.com/groups/kingiddaa/

Uber rider's survey:

The survey contained three parts: The first part contains general questions about gender, age, marital status, education level, monthly income, since when the participant has been using Uber and how often, and normal safety precautions. The second part asks the participant to indicate his level of agreement using a Likert Scale on five levels from 1 "Strongly disagree" to 5 "Strongly agree" regarding Uber features and services like Uber's social experience, fee cut, app, navigation system, time estimation accuracy and help, customer service representatives and his relationship with Uber in general. The third part askes the participant to indicates his satisfaction level on a scale from 1 to 5 (1 being the least satisfied and 5 being the most satisfied you can be), regarding the previously mentioned features and services within a normal taxi and then again with Uber and lastly a comment box is provided for any additional information. A sample questionnaire is provided in Appendix A.

Uber driver's survey:

This survey similarly contained three parts: The first part contains general questions about gender, age, marital status, education level, monthly income, since when the participant is working for Uber, working hours weekly and weather driving his own car or not. The second part asks the participant to indicate his level of agreement using a Likert Scale on five levels from 1 “Strongly disagree” to 5 “Strongly agree” regarding Uber features and services like Uber’s financial benefit, working days and hours, social experience, app, navigation system, complementary features, time estimation accuracy and help, customer service representatives and his relationship with Uber in general. The third and the final part askes the participant to indicate his satisfaction level on a scale from 1 to 5 (1 being the least satisfied and 5 being the most satisfied you can be), regarding the previously mentioned features and services. A sample questionnaire is provided in Appendix B.

3.6. Data analysis

Analysis of the data was done using Statistical tools (SPSS, version 25) for data input and analysis, which included descriptive statistics, means, standard deviations, frequencies, percentages, Pearson’s Coefficient Correlation, independent-samples t-test and Mann-Whitney test. The data analysis was done in three steps, the first one is to measure the customer satisfaction with each service and feature provided by Uber and the overall customer satisfaction level based on the general relationship with Uber. The second step is to run a correlation analysis to measure linear correlation among the users’ satisfaction levels with Uber’s features and their overall satisfaction with Uber, the third one is to compare the mean satisfaction level of participants from different demographics groups.

CHAPTER 4
DATA ANALYSIS, RESULTS AND DISCUSSION

4.1. Introduction

The findings and discussions in this chapter are based on the statistical analyses of the questionnaire results. The first section covers the basic and demographic information analyzed from the participants' characteristics through quantitative descriptive statistics. The second section presents the findings of analyzing the participant responses to find out the Uber's customer satisfaction toward the value created by Uber. This chapter will contain the results of the survey's second and third sections and its subsequent discussions. The third part will provide a general clarification of how Uber captures the value it had created in a global context.

4.2. Response Rate

For the purpose of this research, 145 Uber customers and 38 Uber drivers represented the survey's respondents. The surveys were distributed online across the social media and into Facebook groups for Uber's Istanbul users.

4.3. Demographic Information for Uber Riders

4.3.1. Gender of Uber riders

Table 0.1 Gender of Uber riders

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Female	49	33.8	33.8	33.8
	Male	96	66.2	66.2	100.0
	Total	145	100.0	100.0	

From the response in table 4.1, 33.8% of Uber riders are women and 66.2% are men.

4.3.2. Age of Uber riders

Table 0.2 Age of Uber riders

N	Valid	144
	Missing	1
Mean		30.2708
Std. Deviation		7.33057
Range		38.00
Minimum		17.00
Maximum		55.00

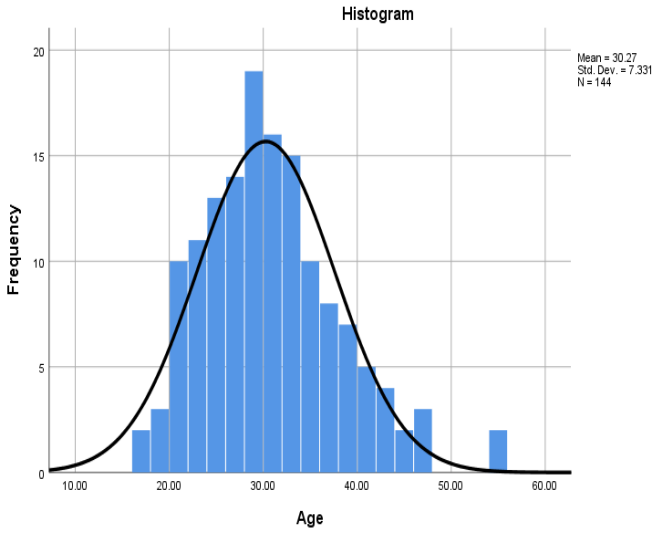

Figure 0.1 Age of Uber riders

From the response in table 4.2, the mean age of Uber riders is 30.27 years (7.331 Std. Deviation), a range of 38 years between 17 to 55,figure 4.1 show the riders' age distribution.

4.3.3. Marital Status of Uber riders

Table 0.3 Marital Status of Uber riders

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Single	71	49.0	49.3	49.3
	Married without children	28	19.3	19.4	68.8
	Married with children	45	31.0	31.3	100.0
	Total	144	99.3	100.0	
Missing	System	1	.7		
Total		145	100.0		

From the response in table 4.3, 49 of Uber riders are single, 19.3% of Uber riders are Married without children, 31% of Uber riders are Married with children.

4.3.4. Education Level

Table 0.4 Education Level of Uber riders

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	below high school	4	2.8	2.8	2.8
	high school graduate	36	24.8	25.4	28.2
	college graduate	74	51.0	52.1	80.3
	post graduate degree	28	19.3	19.7	100.0
	Total	142	97.9	100.0	

Missing	System	3	2.1		
Total		145	100.0		

From the response in table 4.4, 2.8% of the Uber riders' education level is below high school, 24.8% high school graduate, 51% college graduate, 19.3% have post graduate degree.

4.3.5. Income Per Month

Table 0.5 Income Per Month

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less than 2000 tl	23	15.9	16.0	16.0
	2000-5000 tl	70	48.3	48.6	64.6
	5000-10000 tl	38	26.2	26.4	91.0
	More than 10000 tl	13	9.0	9.0	100.0
	Total	144	99.3	100.0	
Missing	System	1	.7		
Total		145	100.0		

From the response in table 4.5, 15.9% of the Uber riders' monthly income is less than 2000 tl, 48.3% monthly income is between 2000-5000 tl, 26.2% monthly income is between 5000-10000 tl and 9.0% make more than 10000tl monthly. As the response in table 4.6 shows, 4.1% have a very tight financial status, 17.2% tight financial status, 42.1% neither good nor bad financial status, 25.5% good financial status, 11.0% very good financial status.

Table 0.6 Financial status of Uber riders

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very tight	6	4.1	4.1	4.1
	A bit tight	25	17.2	17.2	21.4
	Good	61	42.1	42.1	63.4
	Very good	37	25.5	25.5	89.0
	Excellent	16	11.0	11.0	100.0
	Total	145	100.0	100.0	

4.3.6. Years riding with Uber

Table 0.7 Years riding with Uber

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less than a year	85	58.6	59.0	59.0
	1-3 years	49	33.8	34.0	93.1
	More than 3 years	10	6.9	6.9	100.0
	Total	144	99.3	100.0	
Missing	System	1	.7		
Total		145	100.0		

From the response in table 4.7, 58.6% of the Uber riders had been riding with Uber for less than a year, 33.8% had been riding with Uber for 1-3 years, 6.9% had been riding with Uber for more than 3 years.

4.3.7. Frequency of Using Uber

Table 0.8 Frequency of Using Uber

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Daily	16	11.0	11.3	11.3
	Weekly	58	40.0	41.1	52.5
	Once in a month	47	32.4	33.3	85.8
	Less often than once in a month	20	13.8	14.2	100.0
	Total	141	97.2	100.0	
Missing	System	4	2.8		
Total		145	100.0		

From the response in table 4.8, out of Uber's riders, 11% ride with Uber daily, 40% weekly, 32.4% monthly, 13.8% ride less often than once in a month.

4.4. Uber's rider satisfaction

Descriptive analysis was applied in order to examine Uber riders' perceived satisfaction over the services and features provided by Uber. To calculate the mean of the satisfaction level, a Likert Scale of five levels, 1 being "least satisfied" to 5 being "most satisfied" was used. Each service attribute and the satisfaction level over the general relationship with Uber responses are measured and the results are provided in Table 4.9. Similarly, to measure how much participants agree with the statements regarding each service attribute separately and the general relationship with Uber, a Likert Scale of five levels, 1 "Strongly

disagree" to 5 "Strongly agree" was used, which is tabulated in Table 4.10. Finally, the satisfaction level of the respondents was measured for the service attributes of the normal taxi in which a Likert Scale of five levels from, 1 being "least satisfied" to 5 being "most satisfied" was used, as in Table 4.11.

Table 0.9 satisfaction level over services and features of Uber

	N	Mean	Std. Deviation
Money saver	145	4.0207	.97517
Availability	145	4.2000	1.03816
Waiting time	145	4.0690	1.01827
Uber's app	144	4.4514	.90708
Uber's safety	145	4.3310	.94322
Navigation system	144	4.1319	1.02586
Time estimation system	145	4.0966	1.00225
Driver Politeness	145	4.5103	.85892
Uber experience	145	4.3517	.92444
Paying method	145	4.7448	2.58140
General relationship with Uber	145	4.2621	4.2621
Valid N (listwise)	143		

Table 0.10 riders' agreement level

	N	Mean	Std. Deviation
Uber's app is easy-to-use	145	4.2414	.97379

Good navigation system	145	4.1517	.92294
Paying method is easy	145	4.4069	.94646
Uber time estimation is accurate	145	3.9724	.92755
Uber time estimation is helpful	145	4.0000	.95743
Customer representatives doing a good job	145	3.8897	1.01460
Valid N (listwise)	145		

Table 0.11 riders' satisfaction level for normal taxi

	N	Mean	Std. Deviation
Ride cost	145	2.1172	1.12116
Taxi availability	145	2.3793	1.11846
Waiting time	144	2.5417	1.16400
Trip route	144	1.9097	1.08977
Driver politeness	145	1.8897	1.07443
Paying method	144	1.9444	1.08890
Pick-up and drop-off place	145	2.3448	1.22689
Valid N (listwise)	142		

As shown in Table 4.9, the means of Uber's services and features satisfaction level indicate that costumers were satisfied with all services and features in. The mean of the score of

the general relationship with Uber also indicates that customers are satisfied with the services and features Uber is providing (M >4.2621(.89769 Std. Deviation)).

Hence, the following points can be noted regarding the satisfaction level over Uber services and features:

- Paying method: This feature received the highest mean of 4.7448 (2.58140 Std. Deviation) and became the feature of Uber the customers are the most satisfied with. Similarly, the statement "Paying method is easy" has the highest agreement level, with a score of 4.4069 (.94646Std. Deviation). Comparing it with the satisfaction level for the same feature provided by normal taxi, paying method of normal is scored at a mean value of 1.9444(1.08890 Std. Deviation), being the second worst feature for normal taxi in terms of customer satisfaction.
- Driver Politeness: This is the second feature that people are most satisfied with, at an average satisfaction level of 4.5103 (and with the lowest Std. Deviation of all features, .85892). In contrary, the driver politeness satisfaction level of normal taxi is 1.8897(1.07443 Std. Deviation), which was the worst feature of normal taxi in terms of customer satisfaction.
- Uber's app: This is the third feature that people are satisfied with, at an average satisfaction level of 4.4514 (.90708 Std. Deviation). Similarly, there was an average 4.2414 agreement level (.97379 Std. Deviation) on the statement of "Uber's app is easy-to-use".
- Uber experience: This is the forth feature that people are satisfied with, at an average satisfaction level of 4.3517 (.92444 Std. Deviation).
- Uber safety: This is the fifth feature that people are satisfied with, at an average satisfaction level of 4.3310 (.94322Std. Deviation). To get a better understanding of people's usual concerns toward safety, a question was asked to determine people's actions when hailing a taxi. The answers reveled the following answers in table 4.12:

  -40.7% of the participants choose the answer "Remember the car license plate".

  -28.3% of the participants choose the answer "Trust the Taxi office".

  -18.6% of the participants choose the answer "Do nothing since there is nothing to worry about in the first place".

-6.2% of the participants choose the answer “Remember other information regarding the car (such as taxi office) or its driver”.

-6.2% of the participants choose the answer “other” in which, some other actions were used to deal with safety issues, the answers collected are provided in table 4.13.

In order to find out if these concerns and the actions related to them have any difference between hailing a normal taxi and hailing an Uber taxi, the following question were asked: “With Uber knowing both sides’ contact information, phone number, bank account number and the car information, is there any reason to choose normal taxi rather than Uber regarding your safety?” table 4.14 provided the following answers:

-86.9% which makes the majority of the participants choose the answer “No”.

-12.4% chose the answer “Yes” in which people expressed some reasons, the reasons collected are provided in table 4.15.

- Money saver: This feature has the lowest score at a mean of 4.0207 (.97517 Std. Deviation).
- Waiting time: This feature has the second to lowest score at a mean of 4.0690 (1.01827 Std. Deviation) and the same feature got a satisfaction level of 2.5417 (1.16400 Std. Deviation), becoming the most satisfying feature in the normal taxi.

Table 0.12 safety actions

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Remember the car license plate	59	40.7	40.7	40.7
	Remember other information regarding the car (such as taxi office) or its driver	9	6.2	6.2	46.9

Do nothing since there is nothing to worry about in the first place	27	18.6	18.6	65.5
Trust the Taxi office	41	28.3	28.3	93.8
Other	9	6.2	6.2	100.0
Total	145	100.0	100.0	

Table 0.13 safety concerns

Safety concerns	English translation
Plakayı bi arkadaşa atarım	Forward the plate to a friend
Taksi kullanmıyorum bildiğim sabit taksi olmasına özen gösteririm	I do not use taxi, I make sure that I am always working with a fixed taxi that I know from before
yakınlarımla iletişim halinde olurum	I communicate with my relatives

Table 0.14 Safety preference

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	18	12.4	12.5	12.5
	No	126	86.9	87.5	100.0
	Total	144	99.3	100.0	
Missing	System	1	.7		
Total		145	100.0		

Table 0.15 safety reasons to choose normal taxi

safety reasons to choose normal taxi	English translation
Eğer yanıtınız evet'se lütfen ayrıntılı sebebini belirtiniz: Daha konforlu ve güler yüzlü	More comfortable and friendly
Karşımda sorumlu olan bir kurum olması	A responsible organization to answer my complaints
Über'den haberleri yoktur	Those people did not know about Uber

4.5. Correlations for Uber's rider satisfaction

For the purpose of examining the relationship between the riders' satisfaction level with the services and features provided by Uber and the satisfaction with the general relationship with Uber, a Pearson Coefficient was conducted, which is a type of correlation that will represent the strength of association between two measured variables. The Pearson coefficient is represented in a value ranging from r = -1(a perfect negative relationship) to r = +1 (perfect positive relationship), r = 0 means that there is no correlation between the two variables. (Investopedia)

Level of significance: for a two-tail test, degree of freedom of 142 (# of pairs -2) for Uber's safety and 143 (# of pairs -2) for all other variables. The correlation is significant when the p (the significant degree) are less than 0.01 for values with ** on top, less than 0.05 for values with * on top.

A Pearson's Coefficient correlation is done with IBM SPSS the statistical software and presented in Table 4.16.

Table 0.16 rider satisfaction Correlations.

		Availability	Waiting time	Uber's app	Uber's safety	Navigation system	Time estimation system	Driver Politeness	Uber experience	Paying method	General relationship
Money saver	Pearson Correlation	.538**	.537**	.523**	.415**	.320**	.367**	.435**	.354**	0.121	.335**
	Sig. (2-tailed)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.148	0.000
	N	145	145	144	145	144	145	145	145	145	145
Availability	Pearson Correlation		.709**	.540**	.584**	.446**	.535**	.477**	.563**	0.157	.495**
	Sig. (2-tailed)		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.060	0.000

	N		145	144	145	144	145	145	145	145	145
Waiting time	Pearson Correlation			.660**	.620**	.532**	.619**	.587**	.572**	.173*	.383**
	Sig. (2-tailed)			0.000	0.000	0.000	0.000	0.000	0.000	0.037	0.000
	N			144	145	144	145	145	145	145	145
Uber's app	Pearson Correlation				.695**	.566**	.565**	.668**	.624**	0.153	.384**
	Sig. (2-tailed)				0.000	0.000	0.000	0.000	0.000	0.068	0.000
	N				144	143	144	144	144	144	144
Uber's safety	Pearson Correlation					.715**	.671**	.707**	.766**	0.095	.553**
	Sig. (2-					0.000	0.000	0.000	0.000	0.257	0.000

	tailed)										
	N					144	145	145	145	145	145
Navigation system	Pearson Correlation						.722**	.621**	.708**	0.110	.439**
	Sig. (2-tailed)						0.000	0.000	0.000	0.188	0.000
	N						144	144	144	144	144
Time estimation system	Pearson Correlation							.620**	.735**	0.104	.497**
	Sig. (2-tailed)							0.000	0.000	0.215	0.000
	N							145	145	145	145
Driver Politeness	Pearson Correlation								.708**	.269**	.366**
	Sig. (2-								0.000	0.001	0.000

	tailed)										
	N								145	145	145
Uber experience	Pearson Correlation									0.090	.491**
	Sig. (2-tailed)									0.280	0.000
	N									145	145
Paying method	Pearson Correlation										0.128
	Sig. (2-tailed)										0.125
	N										145
General relationship	Pearson Correlation										
	Sig. (2-										

	tailed)										
	N										

**. Correlation is significant at the 0.01 level (2-tailed), *. Correlation is significant at the 0.05 level (2-tailed).

Following points can be noted regarding the correlations behind rider satisfaction level over Uber services and features:

- All the services and features provided by Uber have a positive correlation with the customers' general relationship with Uber.
- There is a significant positive relationship (the highest) between the General Relationship with Uber and the Uber's safety, r (145) = +.553, p = 0.000.
- There is a significant positive relationship between the General Relationship with Uber and the Time estimation system, r (145) = + .497, p = 0.000.
- There is a significant positive relationship between the General Relationship with Uber and the Availability, r (145) = +.495, p = 0.000.
- There is a significant positive relationship between the General Relationship with Uber and Uber experience, r (145) = +.491, p = 0.000.
- There is a significant positive relationship between the General Relationship with Uber and Navigation system, r (144) = +.439, p = 0.000.

4.6. Hypothesis testing with two samples in the riders' demographic conditions:

An independent-samples t-test was conducted to compare the means of satisfaction levels for Uber's services and features in various demographic conditions. This test compares the means for just two independent groups in order to determine if there is statistical evidence that those means are significantly different.

For each t-test, a table of the group statistic will be provided which will contain the N, Mean, Std. Deviation, Std. Error Mean. Then in a t-test table, each feature will be tested in Levene's Test for Equality of Variances which tests the aforementioned homogeneity

assumption. If Sig. p > alpha level, we conclude that the assumption of equal variances holds; if Sig. p < alpha level, we conclude that the assumption of not equal variances holds.

Then within the t-test section of the second table, two Hypotheses will be examined:

- The null hypothesis H0: $\mu 1 = \mu 2$ ("the two groups means are equal")
- Alternative hypothesis (H1) H1: $\mu 1 \neq \mu 2$ ("the groups two means are not equal")

Where $\mu 1$ and $\mu 2$ are the groups means.

If Sig. (2-tailed). P > alpha level, we conclude that the null hypothesis holds, if Sig. (2-tailed). p < alpha level, we conclude that the Alternative hypothesis holds.

In this test a significance level (alpha level) of $\alpha = 0.05$ is used.

Then, within the last section of the t-test table, a Confidence Interval of the Difference will complement the previous test results in which if the means difference of the Confidence Interval contains 0, then the results are not significant.

In this test a confidence level of 95% is used.

4.6.1. Gender:

An independent-samples t-test was conducted to compare satisfaction level over services and features provided by Uber in Gender conditions, the hypotheses for this test can be expressed as:

H0: $\mu 1male = \mu 2female$ ("the two groups means are equal")

H1: $\mu 1male \neq \mu 2female$ ("the groups two means are not equal")

The group statistics are provided in table 4.17.

From the table 4.18, there was no significant difference in satisfaction level averages between the male and female groups, for any of the services and features of Uber.

Table 0.17 Gender group statistics

	Gender	N	Mean	Std. Deviation	Std. Error Mean
Money saver	Female	49	4.0204	.92398	.13200
	Male	96	4.0208	1.00503	.10258
Availability	Female	49	4.3673	.88256	.12608
	Male	96	4.1146	1.10377	.11265
Waiting time	Female	49	4.1224	1.01309	.14473
	Male	96	4.0417	1.02512	.10463
Uber's app	Female	48	4.5000	.92253	.13316
	Male	96	4.4271	.90315	.09218
Uber’s safety	Female	49	4.3469	.99060	.14151
	Male	96	4.3229	.92332	.09424
Navigation system	Female	49	4.1837	1.09304	.15615
	Male	95	4.1053	.99439	.10202
Time estimation system	Female	49	4.0612	1.04897	.14985
	Male	96	4.1146	.98269	.10030
Driver Politeness	Female	49	4.5306	.89214	.12745
	Male	96	4.5000	.84604	.08635
Uber experience	Female	49	4.2245	.98457	.14065
	Male	96	4.4167	.89050	.09089
Paying method	Female	49	5.2245	4.25864	.60838
	Male	96	4.5000	.87057	.08885

General relationship	Female	49	4.2449	.82993	.11856
	Male	96	4.2708	.93448	.09537

Table 0.18 Gender t-test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Money saver	Equal variances assumed	.638	.426	-.002	143	.998	-.00043	.17181	-.34004	.33919
	Equal variances not assumed			-.003	104.266	.998	-.00043	.16717	-.33192	.33106
Availability	Equal variances assumed	2.339	.128	1.391	143	.166	.25276	.18168	-.10636	.61189
	Equal variances not assumed			1.495	117.421	.138	.25276	.16908	-.08207	.58760

Waiting time	Equal variances assumed	.121	.729	.451	143	.653	.08078	.17927	-.27359	.43515
	Equal variances not assumed			.452	97.786	.652	.08078	.17859	-.27362	.43519
Uber's app	Equal variances assumed	.059	.808	.453	142	.651	.07292	.16080	-.24495	.39078
	Equal variances not assumed			.450	92.347	.654	.07292	.16195	-.24871	.39454
Uber’s safety	Equal variances assumed	.066	.797	.145	143	.885	.02402	.16617	-.30444	.35248
	Equal variances not assumed			.141	90.970	.888	.02402	.17002	-.31370	.36175
Navigation system	Equal variances assumed	.285	.595	.433	142	.665	.07841	.18095	-.27929	.43611
	Equal variances not assumed			.420	89.408	.675	.07841	.18652	-.29218	.44900
Time estimation system	Equal variances assumed	.060	.806	-.302	143	.763	-.05336	.17652	-.40229	.29557

	Equal variances not assumed			-.296	91.371	.768	-.05336	.18032	-.41152	.30480
Driver Politeness	Equal variances assumed	.059	.808	.202	143	.840	.03061	.15130	-.26847	.32970
	Equal variances not assumed			.199	92.349	.843	.03061	.15395	-.27512	.33635
Uber experience	Equal variances assumed	.613	.435	-1.186	143	.238	-.19218	.16208	-.51255	.12820
	Equal variances not assumed			-1.148	88.643	.254	-.19218	.16746	-.52494	.14059
Paying method	Equal variances assumed	1.438	.233	1.607	143	.110	.72449	.45074	-.16649	1.61547
	Equal variances not assumed			1.178	50.058	.244	.72449	.61483	-.51040	1.95938
General relationship	Equal variances assumed	1.985	.161	-.164	143	.870	-.02594	.15814	-.33853	.28666
	Equal variances not assumed			-.170	107.482	.865	-.02594	.15216	-.32756	.27569

4.6.2. Age:

An independent-samples t-test was conducted to compare satisfaction level over services and features provided by Uber in Age conditions, the hypotheses for this test can be expressed as:

H0: μ1age>= 30 = μ2age< 30 ("the two groups means are equal")

H1: μ1age>= 30 ≠ μ2age< 30 ("the groups two means are not equal")

The group statistics are provided in table 4.19.

From the table 4.20, it can be observed that there was a significant difference in average satisfaction levels over Uber's app between participants aged >= 30 and participants aged < 30 (t134.058 = -1.997, p < .05) confirming the t-test result that younger people aged < 30 are significantly more satisfied with Uber's app than people aged >= 30 (i.e. means 4.6056 vs. 4.3056). In all other features and services of Uber, there was no significant difference between the satisfaction levels of the two groups.

Table 0.19 Age group statistics

	Age	N	Mean	Std. Deviation	Std. Error Mean
Money saver	>= 30.00	72	3.9583	1.05400	.12422
	< 30.00	72	4.0694	.89327	.10527
Availability	>= 30.00	72	4.1111	1.12031	.13203
	< 30.00	72	4.2778	.95272	.11228
Waiting time	>= 30.00	72	3.9583	1.11882	.13185
	< 30.00	72	4.1667	.90383	.10652
Uber's app	>= 30.00	72	4.3056	1.00195	.11808

	< 30.00	71	4.6056	.78338	.09297
Uber’s safety	>= 30.00	72	4.2083	1.06066	.12500
	< 30.00	72	4.4444	.80297	.09463
Navigation system	>= 30.00	72	3.9722	1.11295	.13116
	< 30.00	71	4.2817	.91313	.10837
Time estimation system	>= 30.00	72	3.9444	1.07322	.12648
	< 30.00	72	4.2361	.91148	.10742
Driver Politeness	>= 30.00	72	4.4028	.95916	.11304
	< 30.00	72	4.6111	.74220	.08747
Uber experience	>= 30.00	72	4.2639	.99283	.11701
	< 30.00	72	4.4306	.85294	.10052
Paying method	>= 30.00	72	4.8333	3.59185	.42330
	< 30.00	72	4.6528	.77204	.09099
General relationship	>= 30.00	72	4.2639	.83906	.09888
	< 30.00	72	4.2500	.96049	.11319

Table 0.20 Age t-test

	Levene's Test for Equality of Variances	t-test for Equality of Means

		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Money saver	Equal variances assumed	1.545	.216	-.682	142	.496	-.11111	.16282	-.43298	.21076
	Equal variances not assumed			-.682	138.282	.496	-.11111	.16282	-.43306	.21084
Availability	Equal variances assumed	.284	.595	-.962	142	.338	-.16667	.17332	-.50928	.17595
	Equal variances not assumed			-.962	138.428	.338	-.16667	.17332	-.50935	.17602
Waiting time	Equal variances assumed	.365	.547	-1.229	142	.221	-.20833	.16950	-.54341	.12674
	Equal variances not assumed			-1.229	135.991	.221	-.20833	.16950	-.54354	.12687
Uber's app	Equal variances assumed	2.346	.128	-1.993	141	.048	-.30008	.15054	-.59769	-.00246

	Equal variances not assumed			-1.997	134.058	.048	-.30008	.15029	-.59732	-.00283
Uber's safety	Equal variances assumed	5.285	.023	-1.506	142	.134	-.23611	.15678	-.54604	.07381
	Equal variances not assumed			-1.506	132.261	.134	-.23611	.15678	-.54623	.07401
Navigation system	Equal variances assumed	2.326	.130	-1.816	141	.071	-.30947	.17037	-.64628	.02735
	Equal variances not assumed			-1.819	136.502	.071	-.30947	.17014	-.64592	.02698
Time estimation system	Equal variances assumed	.705	.403	-1.758	142	.081	-.29167	.16594	-.61970	.03636
	Equal variances not assumed			-1.758	138.372	.081	-.29167	.16594	-.61977	.03644
Driver Politeness	Equal variances assumed	2.607	.109	-1.458	142	.147	-.20833	.14293	-.49088	.07421
	Equal variances not assumed			-1.458	133.586	.147	-.20833	.14293	-.49103	.07436

Uber experience	Equal variances assumed	1.284	.259	-1.080	142	.282	-.16667	.15426	-.47160	.13827
	Equal variances not assumed			-1.080	138.846	.282	-.16667	.15426	-.47166	.13833
Paying method	Equal variances assumed	1.249	.266	.417	142	.677	.18056	.43297	-.67535	1.03646
	Equal variances not assumed			.417	77.546	.678	.18056	.43297	-.68150	1.04262
General relationship	Equal variances assumed	1.991	.160	.092	142	.927	.01389	.15030	-.28323	.31101
	Equal variances not assumed			.092	139.483	.927	.01389	.15030	-.28328	.31106

4.6.3. Marital Status:

An independent-samples t-test was conducted to compare satisfaction levels of married vs. single participants. The hypotheses for this test can be expressed as:

H0: μ1married = μ2single ("the two groups means are equal")

H1: μ1married ≠ μ2single ("the groups two means are not equal")

The group statistics are provided in table 4.21.

From the table 4.22, there was no significant difference in the satisfaction level means of any of the Uber features between the two groups married and single.

Table 0.21 Marital Status group statistics

	Marital Status	N	Mean	Std. Deviation	Std. Error Mean
Money saver	married	73	4.1096	1.03497	.12113
	single	71	3.9296	.91533	.10863
Availability	married	73	4.2466	.93957	.10997
	single	71	4.1408	1.13761	.13501
Waiting time	married	73	4.0959	1.01604	.11892
	single	71	4.0423	1.03422	.12274
Uber's app	married	73	4.3699	.93552	.10949
	single	70	4.5429	.87949	.10512
Uber’s safety	married	73	4.2055	.99943	.11697
	single	71	4.4507	.87487	.10383
Navigation system	married	72	4.0278	1.04776	.12348
	single	71	4.2254	1.00281	.11901
Time estimation system	married	73	3.9726	1.02703	.12020
	single	71	4.2254	.97390	.11558
Driver Politeness	married	73	4.4247	.88062	.10307
	single	71	4.5915	.83798	.09945
Uber experience	married	73	4.2740	.91682	.10731
	single	71	4.4225	.93598	.11108
Paying method	married	73	4.8904	3.54166	.41452
	single	71	4.5915	.87141	.10342

General relationship	married	73	4.2192	.93164	.10904
	single	71	4.2958	.86840	.10306

Table 0.22 Marital Status t-test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Money saver	Equal variances assumed	1.114	.293	1.104	142	.271	.18001	.16299	-.14218	.50220
	Equal variances not assumed			1.106	140.745	.270	.18001	.16271	-.14166	.50168
Availability	Equal variances assumed	2.085	.151	.609	142	.544	.10573	.17367	-.23758	.44904
	Equal variances not assumed			.607	135.646	.545	.10573	.17413	-.23863	.45009
Waiting time	Equal variances assumed	.011	.915	.314	142	.754	.05364	.17086	-.28412	.39139

	Equal variances not assumed			.314	141.704	.754	.05364	.17090	-.28421	.39148
Uber's app	Equal variances assumed	.453	.502	-1.138	141	.257	-.17299	.15198	-.47346	.12747
	Equal variances not assumed			-1.140	140.947	.256	-.17299	.15179	-.47307	.12708
Uber’s safety	Equal variances assumed	1.754	.188	-1.565	142	.120	-.24522	.15670	-.55498	.06454
	Equal variances not assumed			-1.568	140.464	.119	-.24522	.15641	-.55444	.06399
Navigation system	Equal variances assumed	.087	.769	-1.152	141	.251	-.19757	.17155	-.53672	.14157
	Equal variances not assumed			-1.152	140.875	.251	-.19757	.17150	-.53661	.14147
Time estimation system	Equal variances assumed	.159	.690	-1.515	142	.132	-.25275	.16688	-.58264	.07714
	Equal variances not assumed			-1.516	141.910	.132	-.25275	.16676	-.58240	.07690

Driver Politeness	Equal variances assumed	.702	.404	-1.164	142	.246	-.16689	.14332	-.45022	.11643
	Equal variances not assumed			-1.165	141.934	.246	-.16689	.14323	-.45002	.11624
Uber experience	Equal variances assumed	.069	.793	-.962	142	.338	-.14856	.15440	-.45378	.15666
	Equal variances not assumed			-.962	141.665	.338	-.14856	.15445	-.45388	.15675
Paying method	Equal variances assumed	.603	.439	.691	142	.491	.29886	.43255	-.55621	1.15394
	Equal variances not assumed			.700	80.920	.486	.29886	.42723	-.55120	1.14892
General relationship	Equal variances assumed	.011	.918	-.510	142	.611	-.07660	.15019	-.37348	.22029
	Equal variances not assumed			-.511	141.747	.610	-.07660	.15004	-.37320	.22000

4.6.4. Education Level:

An independent-samples t-test was conducted to compare satisfaction level of people who are grouped according to their Education Levels. The hypotheses for this test can be expressed as:

H0: μ1college graduate or more = μ2high school graduate or less ("the two groups means are equal")

H1: μ1college graduate or more ≠ μ2high school graduate or less ("the groups two means are not equal")

The group statistics are provided in table 4.23.

From the table 4.24, it can be observed that there was a significant difference in the two groups regarding their average satisfaction of Uber's Time estimation system. The participants who are college graduate or more have a significantly higher mean satisfaction level over Uber's Time estimation system (4.3750) than the participants who are high school graduate or less (4.3056).

Table 0.23 Education Level group statistics

	Education Level	N	Mean	Std. Deviation	Std. Error Mean
Money saver	college graduate or more	102	3.9216	.95115	.09418
	high school graduate or less	40	4.2250	1.02501	.16207
Availability	college graduate or more	102	4.1961	1.05342	.10430
	high school graduate or less	40	4.1500	1.02657	.16231

Waiting time	college graduate or more	102	4.0098	1.06701	.10565
	high school graduate or less	40	4.1750	.90263	.14272
Uber's app	college graduate or more	102	4.4706	.90877	.08998
	high school graduate or less	39	4.3846	.93514	.14974
Uber’s safety	college graduate or more	102	4.2843	.99879	.09889
	high school graduate or less	40	4.4000	.81019	.12810
Navigation system	college graduate or more	102	4.0588	1.08840	.10777
	high school graduate or less	39	4.2564	.84970	.13606
Time estimation system	college graduate or more	102	3.9706	1.05733	.10469
	high school graduate or less	40	4.3750	.80662	.12754

Driver Politeness	college graduate or more	102	4.4902	.89824	.08894
	high school graduate or less	40	4.5250	.78406	.12397
Uber experience	college graduate or more	102	4.2941	.95012	.09408
	high school graduate or less	40	4.4500	.87560	.13844
Paying method	college graduate or more	102	4.8529	3.02922	.29994
	high school graduate or less	40	4.4500	.84580	.13373
General relationship	college graduate or more	102	4.2647	.92197	.09129
	high school graduate or less	40	4.2000	.85335	.13493

Table 0.24 Education Level t-test

	Levene's Test for Equality of Variances	t-test for Equality of Means

		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Money saver	Equal variances assumed	1.165	.282	-1.673	140	.097	-.30343	.18139	-.66204	.05518
	Equal variances not assumed			-1.619	66.843	.110	-.30343	.18744	-.67759	.07073
Availability	Equal variances assumed	.010	.920	.236	140	.814	.04608	.19514	-.33973	.43188
	Equal variances not assumed			.239	73.049	.812	.04608	.19294	-.33844	.43060
Waiting time	Equal variances assumed	.184	.669	-.865	140	.389	-.16520	.19101	-.54284	.21245
	Equal variances not assumed			-.930	83.745	.355	-.16520	.17757	-.51833	.18793
Uber's app	Equal variances assumed	.206	.650	.498	139	.619	.08597	.17246	-.25502	.42696

	Equal variances not assumed			.492	67.105	.624	.08597	.17470	-.26272	.43466
Uber's safety	Equal variances assumed	.834	.363	-.653	140	.515	-.11569	.17723	-.46609	.23471
	Equal variances not assumed			-.715	87.357	.477	-.11569	.16183	-.43733	.20596
Navigation system	Equal variances assumed	1.604	.207	-1.020	139	.309	-.19759	.19366	-.58050	.18532
	Equal variances not assumed			-1.138	87.655	.258	-.19759	.17357	-.54254	.14737
Time estimation system	Equal variances assumed	.353	.553	-2.181	140	.031	-.40441	.18541	-.77098	-.03784
	Equal variances not assumed			-2.451	92.966	.016	-.40441	.16500	-.73208	-.07675
Driver Politeness	Equal variances assumed	.031	.861	-.215	140	.830	-.03480	.16192	-.35493	.28532
	Equal variances not assumed			-.228	81.174	.820	-.03480	.15257	-.33837	.26876

Uber experience	Equal variances assumed	.207	.650	-.898	140	.370	-.15588	.17349	-.49889	.18712
	Equal variances not assumed			-.931	76.994	.355	-.15588	.16738	-.48918	.17742
Paying method	Equal variances assumed	.034	.854	.827	140	.410	.40294	.48717	-.56022	1.36611
	Equal variances not assumed			1.227	131.673	.222	.40294	.32840	-.24668	1.05257
General relationship	Equal variances assumed	.000	.983	.384	140	.702	.06471	.16853	-.26849	.39790
	Equal variances not assumed			.397	76.674	.692	.06471	.16291	-.25971	.38912

4.6.5. Income Per Month:

An independent-samples t-test was conducted to compare satisfaction levels of two groups of people who were categorized according to their income level. The hypotheses for this test can be expressed as:

H0: μ1income 5000tl and above = μ2income below 5000tl ("the two groups' means are equal")

H1: μ1income 5000tl and above ≠ μ2income below 5000tl ("the two means are not equal")

The group statistics are provided in table 4.25.

From the table 4.26, it can be observed that there was a significant difference between the two groups in Uber experience. The participants whose income is below 5000tl have a significantly higher mean satisfaction level over Uber experience (4.4624) than the participants with higher income level (4.1373).

Table 0.25 Income Per Month group statistics

	Income Per Month	N	Mean	Std. Deviation	Std. Error Mean
Money saver	income 5000tl and above	51	4.0196	1.02937	.14414
	income below 5000tl	93	4.0215	.95529	.09906
Availability	income 5000tl and above	51	4.1765	1.12616	.15769
	income below 5000tl	93	4.2043	.99520	.10320
Waiting time	income 5000tl and above	51	4.0000	1.16619	.16330
	income below 5000tl	93	4.1075	.93788	.09725
Uber's app	income 5000tl and above	51	4.3922	1.02134	.14302
	income below 5000tl	92	4.4891	.84508	.08811
Uber’s safety	income 5000tl and above	51	4.2157	1.08284	.15163
	income below 5000tl	93	4.3871	.86013	.08919

Navigation system	income 5000tl and above	51	3.9216	1.19738	.16767
	income below 5000tl	92	4.2391	.90626	.09448
Time estimation system	income 5000tl and above	51	3.9020	1.13587	.15905
	income below 5000tl	93	4.2043	.91556	.09494
Driver Politeness	income 5000tl and above	51	4.4118	1.02326	.14328
	income below 5000tl	93	4.5591	.75846	.07865
Uber experience	income 5000tl and above	51	4.1373	1.02019	.14285
	income below 5000tl	93	4.4624	.85413	.08857
Paying method	income 5000tl and above	51	4.4510	.90142	.12622
	income below 5000tl	93	4.9032	3.14872	.32651
General relationship	income 5000tl and above	51	4.3725	.74728	.10464
	income below 5000tl	93	4.1935	.96974	.10056

Table 0.26 Income Per Month t-test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Money saver	Equal variances assumed	.094	.760	-.011	142	.991	-.00190	.17111	-.34015	.33635
	Equal variances not assumed			-.011	96.664	.991	-.00190	.17490	-.34904	.34524
Availability	Equal variances assumed	.100	.752	-.153	142	.879	-.02783	.18177	-.38715	.33149
	Equal variances not assumed			-.148	92.751	.883	-.02783	.18846	-.40209	.34643
Waiting time	Equal variances assumed	.892	.347	-.603	142	.548	-.10753	.17844	-.46027	.24522
	Equal variances not assumed			-.566	85.886	.573	-.10753	.19007	-.48537	.27032

Uber's app	Equal variances assumed	.651	.421	-.609	141	.543	-.09697	.15913	-.41156	.21761
	Equal variances not assumed			-.577	88.176	.565	-.09697	.16798	-.43078	.23684
Uber’s safety	Equal variances assumed	1.484	.225	-1.041	142	.299	-.17141	.16458	-.49676	.15394
	Equal variances not assumed			-.974	85.053	.333	-.17141	.17592	-.52117	.17835
Navigation system	Equal variances assumed	6.829	.010	-1.785	141	.076	-.31756	.17790	-.66927	.03414
	Equal variances not assumed			-1.650	82.241	.103	-.31756	.19246	-.70040	.06528
Time estimation system	Equal variances assumed	1.520	.220	-1.737	142	.084	-.30234	.17401	-.64633	.04165
	Equal variances not assumed			-1.632	86.040	.106	-.30234	.18523	-.67057	.06589
Driver Politeness	Equal variances assumed	2.095	.150	-.982	142	.328	-.14738	.15003	-.44396	.14921

	Equal variances not assumed			-.902	80.687	.370	-.14738	.16345	-.47261	.17786
Uber experience	Equal variances assumed	.766	.383	-2.037	142	.044	-.32511	.15961	-.64064	-.00958
	Equal variances not assumed			-1.934	88.704	.056	-.32511	.16808	-.65910	.00888
Paying method	Equal variances assumed	.049	.825	-1.002	142	.318	-.45225	.45134	-1.34445	.43996
	Equal variances not assumed			-1.292	116.755	.199	-.45225	.35006	-1.14553	.24104
General relationship	Equal variances assumed	1.879	.173	1.144	142	.254	.17900	.15642	-.13021	.48822
	Equal variances not assumed			1.233	126.403	.220	.17900	.14513	-.10819	.46619

4.6.6. Years using Uber:

An independent-samples t-test was conducted to compare satisfaction levels of two groups of people who were categorized according to the time they had been using Uber. The hypotheses for this test can be expressed as:

H0: µ1less than one-year users = µ2one year and more users ("the two groups means are equal")

H1: µ1less than one-year users ≠ µ2one year and more users ("the groups two means are not equal")

The group statistics are provided in table 4.27.

From the table 4.28, it can be seen that there was no significant difference between the two groups' average satisfaction levels for any of the services Uber provides.

Table 0.27 Years using Uber group statistics

	Years using Uber	N	Mean	Std. Deviation	Std. Error Mean
Money saver	less than one year	59	4.1864	.88033	.11461
	one year and more	85	3.9059	1.03076	.11180
Availability	less than one year	59	4.1864	.99090	.12900
	one year and more	85	4.2000	1.07792	.11692
Waiting time	less than one year	59	4.0508	1.00728	.13114
	one year and more	85	4.0824	1.03753	.11254
Uber's app	less than one year	59	4.5085	.77399	.10077
	one year and more	84	4.4167	.99648	.10872

Uber's safety	less than one year	59	4.2542	.90198	.11743
	one year and more	85	4.3765	.97561	.10582
Navigation system	less than one year	58	4.0000	1.04294	.13694
	one year and more	85	4.2118	1.01294	.10987
Time estimation system	less than one year	59	4.0339	.99942	.13011
	one year and more	85	4.1412	1.01363	.10994
Driver Politeness	less than one year	59	4.5085	.81733	.10641
	one year and more	85	4.5059	.89474	.09705
Uber experience	less than one year	59	4.2881	.87199	.11352
	one year and more	85	4.3882	.96479	.10465
Paying method	less than one year	59	4.5763	.62155	.08092
	one year and more	85	4.8588	3.33507	.36174
General relationship	less than one year	59	4.3051	.79338	.10329

	one year and more	85	4.2235	.96826	.10502

Table 0.28 Years using Uber t-test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Money saver	Equal variances assumed	.090	.764	1.703	142	.091	.28056	.16473	-.04508	.60620
	Equal variances not assumed			1.752	135.921	.082	.28056	.16011	-.03607	.59719
Availability	Equal variances assumed	.068	.794	-.077	142	.939	-.01356	.17678	-.36302	.33590
	Equal variances not assumed			-.078	131.263	.938	-.01356	.17410	-.35797	.33085
Waiting time	Equal variances assumed	.018	.894	-.181	142	.856	-.03151	.17374	-.37495	.31194

	Equal variances not assumed			-.182	127.236	.856	-.03151	.17280	-.37345	.31044
Uber's app	Equal variances assumed	1.421	.235	.593	141	.554	.09181	.15484	-.21430	.39792
	Equal variances not assumed			.619	139.518	.537	.09181	.14824	-.20128	.38489
Uber’s safety	Equal variances assumed	.011	.916	-.762	142	.447	-.12223	.16034	-.43920	.19473
	Equal variances not assumed			-.773	130.862	.441	-.12223	.15807	-.43494	.19048
Navigation system	Equal variances assumed	.012	.911	-1.213	141	.227	-.21176	.17460	-.55694	.13341
	Equal variances not assumed			-1.206	120.201	.230	-.21176	.17557	-.55938	.13585
Time estimation system	Equal variances assumed	.000	.984	-.628	142	.531	-.10728	.17078	-.44488	.23033
	Equal variances not assumed			-.630	126.030	.530	-.10728	.17034	-.44438	.22983

Driver Politeness	Equal variances assumed	.000	.989	.018	142	.986	.00259	.14640	-.28681	.29200
	Equal variances not assumed			.018	131.702	.986	.00259	.14402	-.28229	.28748
Uber experience	Equal variances assumed	.000	.996	-.637	142	.525	-.10010	.15725	-.41096	.21076
	Equal variances not assumed			-.648	132.425	.518	-.10010	.15440	-.40550	.20530
Paying method	Equal variances assumed	.639	.425	-.642	142	.522	-.28255	.43984	-1.15203	.58692
	Equal variances not assumed			-.762	92.282	.448	-.28255	.37068	-1.01872	.45362
General relationship	Equal variances assumed	1.451	.230	.534	142	.594	.08156	.15267	-.22024	.38335
	Equal variances not assumed			.554	138.042	.581	.08156	.14730	-.20971	.37282

4.6.7. Frequency of Using Uber:

An independent-samples t-test was conducted to compare the average satisfaction levels of two groups of people who were categorized according to their frequency of using Uber. The hypotheses for this test can be expressed as:

H0: μ1less than once a week= μ2once a week or more ("the two groups' means are equal")

H1: μ1less than once a week ≠ μ2once a week or more ("the two means are not equal")

The group statistics are provided in table 4.29.

From the table 4.30, it can be observed that there was a significant difference in average satisfaction level regarding the money-saving feature of Uber. The participants who use Uber once a week or more have a significantly higher mean satisfaction level regarding this feature (4.1892) than the participants who use Uber less than once a week (3.8358).

Again, there was a significant difference in average satisfaction levels of the two groups regarding the waiting time. The participants who use Uber more frequently have a significantly higher average satisfaction level (4.2568) is those who do not use Uber so frequently (3.8806).

Table 0.29 Often Using Uber group statistics

	Often Using Uber	N	Mean	Std. Deviation	Std. Error Mean
Money saver	less than once a week	67	3.8358	1.05309	.12866
	once a week or more	74	4.1892	.90168	.10482
Availability	less than once a week	67	4.0299	1.18027	.14419
	once a week or more	74	4.3378	.88018	.10232

Waiting time	less than once a week	67	3.8806	1.17451	.14349
	once a week or more	74	4.2568	.84498	.09823
Uber's app	less than once a week	67	4.3582	1.06886	.13058
	once a week or more	73	4.5479	.74612	.08733
Uber’s safety	less than once a week	67	4.3731	.99751	.12187
	once a week or more	74	4.2973	.91756	.10666
Navigation system	less than once a week	67	4.0597	1.07140	.13089
	once a week or more	73	4.2055	.99943	.11697
Time estimation system	less than once a week	67	4.0448	1.05073	.12837
	once a week or more	74	4.1486	.97478	.11332
Driver Politeness	less than once a week	67	4.4776	.99023	.12098
	once a week or more	74	4.5541	.72418	.08418
Uber experience	less than once a week	67	4.4328	.95701	.11692

	once a week or more	74	4.2703	.91108	.10591
Paying method	less than once a week	67	4.4627	.95867	.11712
	once a week or more	74	5.0000	3.48775	.40544
General relationship	less than once a week	67	4.2239	.83159	.10159
	once a week or more	74	4.2838	.97250	.11305

Table 0.30 Often Using Uber group t-test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Money saver	Equal variances assumed	1.287	.259	-2.146	139	.034	-.35337	.16468	-.67896	-.02777
	Equal variances not assumed			-2.129	130.652	.035	-.35337	.16595	-.68166	-.02507

Availability	Equal variances assumed	2.859	.093	-1.767	139	.079	-.30799	.17430	-.65261	.03664
	Equal variances not assumed			-1.742	121.376	.084	-.30799	.17681	-.65801	.04204
Waiting time	Equal variances assumed	3.659	.058	-2.198	139	.030	-.37616	.17115	-.71455	-.03777
	Equal variances not assumed			-2.163	118.771	.033	-.37616	.17389	-.72049	-.03183
Uber's app	Equal variances assumed	3.637	.059	-1.226	138	.222	-.18974	.15477	-.49576	.11629
	Equal variances not assumed			-1.208	116.817	.230	-.18974	.15709	-.50085	.12138
Uber’s safety	Equal variances assumed	.099	.753	.470	139	.639	.07584	.16128	-.24304	.39471
	Equal variances not assumed			.468	134.494	.640	.07584	.16195	-.24446	.39614
Navigation system	Equal variances assumed	.021	.884	-.833	138	.406	-.14578	.17502	-.49184	.20029

	Equal variances not assumed			-.830	134.739	.408	-.14578	.17554	-.49296	.20140
Time estimation system	Equal variances assumed	.113	.738	-.609	139	.544	-.10387	.17059	-.44115	.23341
	Equal variances not assumed			-.607	134.886	.545	-.10387	.17123	-.44251	.23476
Driver Politeness	Equal variances assumed	2.151	.145	-.527	139	.599	-.07644	.14517	-.36346	.21058
	Equal variances not assumed			-.519	119.964	.605	-.07644	.14738	-.36825	.21537
Uber experience	Equal variances assumed	.198	.657	1.033	139	.303	.16257	.15737	-.14858	.47371
	Equal variances not assumed			1.030	135.977	.305	.16257	.15776	-.14941	.47454
Paying method	Equal variances assumed	.022	.883	-1.220	139	.225	-.53731	.44056	-1.40838	.33375
	Equal variances not assumed			-1.273	85.036	.206	-.53731	.42202	-1.37640	.30177

General relationship	Equal variances assumed	1.222	.271	-.391	139	.696	-.05990	.15318	-.36276	.24296
	Equal variances not assumed			-.394	138.563	.694	-.05990	.15199	-.36043	.24062

4.7. Demographic Information for Uber drivers

4.7.1. Gender of Uber drivers

Table 0.31 Gender of Uber drivers

Gender		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	38	100.0	100.0	100.0

From the response in table 4.31, it was observed that all of Uber drivers are men.

4.7.2. Age of Uber drivers

Table 0.32 Age of Uber drivers

N	Valid	38
	Missing	0
Mean		32.4474
Std. Deviation		6.99304
Range		33.00

Minimum	22.00
Maximum	55.00

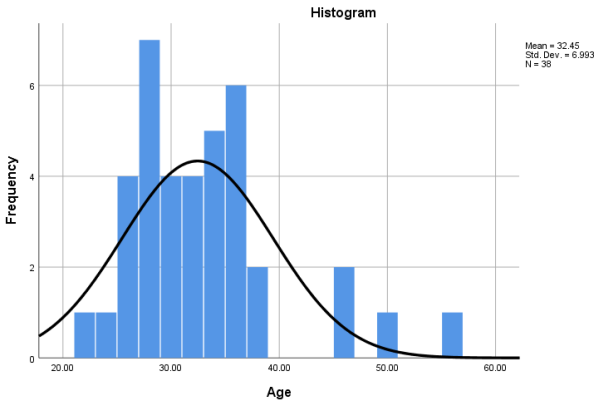

Figure 0.2 Age of Uber drivers

From the response in table 4.32, the mean age of Uber drivers is 32.44 years (6.993 Std. Deviation), a range of 33 years between 22 to 55, figure 4.2 show the riders' age distribution.

4.7.3. Marital Status of Uber drivers

Table 0.33 Marital Status of Uber drivers

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Single	14	36.8	36.8	36.8
	Married without children	9	23.7	23.7	60.5
	Married with children	15	39.5	39.5	100.0
	Total	38	100.0	100.0	

From the response in table 4.33, it can be seen that 36.8% of Uber drivers are single, 23.7% of Uber drivers are married without children, 39.5% of Uber drivers are married with children.

4.7.4. Education Level

Table 0.34 Education Level

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	below high school	15	39.5	39.5	39.5
	high school graduate	15	39.5	39.5	78.9
	college graduate	6	15.8	15.8	94.7
	post graduate degree	2	5.3	5.3	100.0
	Total	38	100.0	100.0	

From the response in table 4.34, it is evident that 39.5% of the Uber drivers' education level is below high school, 39.5% are high school graduate, 15.8% college graduate, 5.3% have post graduate degree.

4.7.5. Income Per Month

Table 0.35 Income Per Month

	Frequency	Percent	Valid Percent	Cumulative Percent	
Valid	Less than 2000 tl	5	13.2	13.2	13.2
	2000-5000 tl	24	63.2	63.2	76.3
	5000-10000 tl	9	23.7	23.7	100.0
	Total	38	100.0	100.0	

From the response in table 4.35, it is seen that 13.2% of the Uber drivers' monthly income is less than 2000 tl, 63.2% monthly income is between 2000-5000 tl, 23.7% monthly income is between 5000-10000 tl. Similarly, table 4.36 shows, a 2.6% very tight financial status, 15.8% tight financial status, 26.3% neither good nor bad financial status, 42.1% good financial status, 13.2% very good financial status.

Table 0.36 Financial status

Financial status		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	1	2.6	2.6	2.6
	Disagree	6	15.8	15.8	18.4
	Neither agree nor disagree	10	26.3	26.3	44.7
	Agree	16	42.1	42.1	86.8
	Strongly agree	5	13.2	13.2	100.0
	Total	38	100.0	100.0	

4.7.6. Owners and Renters

Table 0.37 Owners and Renters

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	own	16	42.1	42.1	42.1
	rent	22	57.9	57.9	100.0
	Total	38	100.0	100.0	

From the response in table 4.37, it is seen that 42.1% of Uber drivers does own their cars, 57.9% of Uber drivers are renters.

4.7.7. Years driving for Uber

Table 0.38 Years driving for Uber

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less than a year	21	55.3	55.3	55.3
	1-2 years	12	31.6	31.6	86.8
	More than 2 years	5	13.2	13.2	100.0
	Total	38	100.0	100.0	

From the response in table 4.38, it can be observed that 55.3% of the Uber drivers had been driving for Uber for less than a year, 31.6% had been driving for Uber for 1-2 years, 13.2% had been driving for Uber for more than 2 years.

4.7.8. Driving hours per week

Table 0.39 Driving hours per week

N	Valid	38
	Missing	0
Mean		36.9737
Std. Deviation		16.07329
Range		73.00
Minimum		7.00
Maximum		80.00

From Table 4.39, it is seen that the average of uber drivers' driving hours per week is 36.9737 with a Std. Deviation of 16.07329, a minimum value of 7 hours per week and a maximum of 80.

4.8. Uber's driver satisfaction

Descriptive analysis was applied in order to examine Uber drivers' perceived satisfaction over the services and features provided by Uber. To measure the satisfaction levels, a Likert Scale of five levels from 1 "being the least satisfied" to 5 "being the most satisfied you can be" was used. Table 4.40 exhibits the results that are obtained. Similarly, the agreement level of participants on the statements regarding Uber services was measured using a Likert Scale of five levels from 1 "Strongly disagree" to 5 "Strongly agree". These results are tabulated in Table 4.41.

Table 0.40 Drivers' satisfaction level

	Time Driving for Uber							
	Less than a year		1-2 years		More than 2 years		Total	
	Mean	Std. Deviation	Mean	Std. Deviation	Mean	Std. Deviation	Mean	Std. Deviation
Extra income	4.1429	1.06234	3.9167	0.79296	3.4000	1.34164	3.9737	1.02632
Flexible hours and days	4.0000	0.83666	4.2500	0.75378	4.0000	0.70711	4.0789	0.78436
Uber's app	4.0952	0.99523	4.5000	0.67420	4.8000	0.44721	4.3158	0.87318
Navigation system	3.8095	0.81358	3.3333	0.65134	4.0000	0.70711	3.6842	0.77478
Uber experience	3.4762	1.07792	3.0833	0.66856	3.6000	1.14018	3.3684	0.97040

Paying method	4.1905	0.67964	4.0000	0.60302	4.2000	0.83666	4.1316	0.66459
Uber’s safety	4.0476	0.97346	3.6364	0.67420	4.8000	0.44721	4.0270	0.89711
Uber's features	3.3810	1.39557	2.9167	0.99620	3.8000	1.09545	3.2895	1.25004
Time estimation system	3.3333	0.96609	3.1667	1.02986	3.4000	0.89443	3.2895	0.95600
General relationship	3.6667	1.01653	3.5000	0.67420	4.2000	0.44721	3.6842	0.87318

Table 0.41 Drivers’ agreement level

	Time Driving for Uber							
	Less than a year		1-2 years		More than 2 years		Total	
	Mean	Std. Deviation	Mean	Std. Deviation	Mean	Std. Deviation	Mean	Std. Deviation
Good extra income	3.3810	1.3593	3.4167	0.9003	3.8000	0.4472	3.4474	1.1318
Driving for Uber is fun	3.6667	1.2383	3.5833	1.2401	3.6000	0.8944	3.6316	1.1722
Driving for Uber is a good experience	3.2857	1.0556	3.1667	0.9374	4.2000	0.4472	3.3684	0.9979

Flexible working hours	3.7143	1.3093	3.5833	1.0836	3.8000	1.6432	3.6842	1.2543
Flexible working days	3.6190	1.2032	3.8333	1.1146	4.8000	0.4472	3.8421	1.1514
Uber's app is easy-to-use	3.7143	1.3470	3.9167	0.9003	4.2000	0.8367	3.8421	1.1514
Good navigation system	3.3333	1.0165	3.5000	0.7977	4.2000	0.8367	3.5000	0.9515
Uber complementary features are helpful	3.4762	1.3274	2.6667	0.6513	3.4000	1.3416	3.2105	1.1891
Uber time estimation is accurate	3.2381	0.8891	3.0000	1.0445	4.0000	0.7071	3.2632	0.9497
Uber time estimation is helpful	3.5238	1.4007	3.1667	0.8348	3.6000	0.8944	3.4211	1.1771
Paying method is easy	3.5714	1.3990	3.2500	1.2154	3.7500	1.5000	3.4865	1.3254
Uber is safer than a normal taxi	3.9048	0.7003	3.4167	0.5149	3.8000	1.0954	3.7368	0.7235
Customer representatives doing a good job	3.8947	1.1002	3.1667	0.8348	3.8000	1.6432	3.6389	1.1251
General relationship with Uber is good	4.0000	1.0488	3.8333	0.7177	4.2000	0.4472	3.9737	0.8849

As shown in Table 4.40, the average values indicate that drivers were satisfied with all services and features in Istanbul. The mean of the overall satisfaction in the general

relationship with Uber also indicates that drivers are satisfied with the services and features Uber is providing (M >3.6842(0.87318 Std. Deviation)).

The following part presents a brief discussion regarding the results of Table 4.40:

- Uber's app: This feature of Uber got the highest average satisfaction level of 4.3158 (0.87318 Std. Deviation). Similarly, the average agreement level to the statement of "Uber's app is easy-to-use" has a score of 3.8421 (1.1514 Std. Deviation). The satisfaction level increased in parallel with how many years a driver has been driving for Uber. An average satisfaction level of 4.0952 (0.99523 Std. Deviation) was recorded for drivers that had been driving for one year or less, 4.5 (0.67420 Std. Deviation) for drivers that had been driving for one to two years and 4.8 (0.44721 Std. Deviation) for drivers that had been driving for two years or more. This is also supported by the increasing level of agreement (3.7143 (1.3470 Std. Deviation), 3.9167 (0.9003 Std. Deviation), 4.2000 (0.8367 Std. Deviation) to the statement "Uber's app is easy-to-use", respectively.
- Paying method: This is the second feature that people are satisfied with, presenting an average satisfaction level of 4.1316 (and the lowest Std. Deviation of all features, 0.66459). Similarly, the average agreement level on the statement of "Uber's paying method is easy and smooth" was recorded as 3.4865 (1.3254 Std. Deviation).
- Flexible hours and days: This is the third feature that people are satisfied with, scoring an average satisfaction level of 4.0789 (0.78436 Std. Deviation). The average agreement level on the statement of "Uber's working hours are flexible" was 3.6842 (1.2543 Std. Deviation), and the agreement level on the statement of "Uber's working days are flexible" was 3.8421 (1.1514 Std. Deviation).
- Uber's safety: This is the forth feature that people are satisfied with, revealing an average satisfaction level of 4.027 (0.89711 Std. Deviation). Similarly, the average agreement level on the statement of "With Uber knowing both sides' contact information, phone number, bank account number, driving for Uber is safer than driving a normal taxi," was 3.7368 (0.7235 Std. Deviation).
- Uber's complementary features: This feature obtained the lowest average satisfaction level with a score of 3.2895 (1.25004 Std. Deviation which is the

highest of all features). Similarly, the average agreement level on the statement of "Uber's complementary features (e.g. cleaning fee, canceling fee) are helpful" scored an average of 3.2105 (1.1891 Std. Deviation which is the highest among all statements).

4.9. Correlations for Uber's driver satisfaction

For the purpose of examining the relationship between the drivers' satisfaction level over the services and features provided by Uber and the satisfaction level over the general relationship with Uber, a Pearson Coefficient was conducted.

A Pearson's Coefficient correlation is done with IBM SPSS the statistical software and presented in Table 4.42. If the p (the significance degree) are less than 0.01, these are indicated by ** on top, and those less than 0.05 for values were shown with * on top.

The following points present a brief discussion regarding the correlation of Uber's driver satisfaction level and satisfaction about Uber services and features:

- The average satisfaction level for all the services and features provided by Uber have a positive relationship with the satisfaction level of drivers regarding their General relationship with Uber.
- The highest significant positive relationship was observed between the General Relationship with Uber and the Uber's complementary features, r (36) = +.581, p = 0.000.
- There is a significant positive relationship between the General Relationship with Uber and the Uber's Navigation system, r (36) = + .488, p = 0.002.
- There is a significant positive relationship between the General Relationship with Uber and the Time estimation system, r (36) = +.469, p = 0.003.
- There is a significant positive relationship between the General Relationship with Uber and Uber experience, r (36) = +.46, p = 0.004.
- There is a significant positive relationship between the General Relationship with Uber and Uber safety, r (36) = +.397, p = 0.015.

Table 0.42 driver satisfaction Correlations

Correlations

		Extra income	Flexible hours and days	Uber's app	Navigation system	Uber experience	Paying method	Uber's safety	Uber's features	Time estimation system	Uber's rewards	General relationship
Extra income	Pearson Correlation		.607**	.281	.091	.526**	.362*	.303	.027	.256	.267	.202
	Sig. (2-tailed)		.000	.088	.586	.001	.026	.068	.871	.121	.105	.225
	N		38	38	38	38	38	37	38	38	38	38
Flexible hours and days	Pearson Correlation			.278	.176	.316	.239	.196	-.079	.077	.105	.156
	Sig. (2-tailed)			.091	.292	.053	.149	.246	.637	.647	.529	.350
	N			38	38	38	38	37	38	38	38	38
Uber's app	Pearson Correlation				.191	.465**	.020	.025	.186	.470**	.258	.241
	Sig. (2-tailed)				.250	.003	.907	.884	.263	.003	.118	.146
	N				38	38	38	37	38	38	38	38

Navigation system	Pearson Correlation					.411*	.345*	.392*	.460**	.528**	.335*	.488**
	Sig. (2-tailed)					.010	.034	.016	.004	.001	.040	.002
	N					38	38	37	38	38	38	38
Uber experience	Pearson Correlation						.342*	.211	.244	.523**	.469**	.460**
	Sig. (2-tailed)						.036	.211	.140	.001	.003	.004
	N						38	37	38	38	38	38
Paying method	Pearson Correlation							.325	.116	.194	.028	.213
	Sig. (2-tailed)		.					.050	.490	.244	.870	.199
	N							37	38	38	38	38
Uber's safety	Pearson Correlation								.288	.345*	.285	.397*
	Sig. (2-tailed)								.084	.036	.087	.015
	N								37	37	37	37

Uber's features	Pearson Correlation								.606**	.585**	.581**
	Sig. (2-tailed)								.000	.000	.000
	N								38	38	38
Time estimation system	Pearson Correlation									.588**	.469**
	Sig. (2-tailed)									.000	.003
	N									38	38
Uber's rewards	Pearson Correlation										.442**
	Sig. (2-tailed)										.006
	N										38
General relationship	Pearson Correlation										
	Sig. (2-tailed)										
	N										

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

4.10. Comparison of the differences between drivers from two demographic groups:

A comparison of satisfaction level over services and features provided by Uber was meant to be done in drivers' various demographic conditions. However, due to the small sample size of several demographic groups, a required check for normality was done through Kolmogorov-Smirnova test and Shapiro-Wilk test as seen in table 4.43, where both of the tests resulted in a non-normally distribution of data and the null hypothesis was not accepted (sig. < 0.05). Thus, with small non-normally distributed groups, the assumptions to do an independent-samples t-test are violated and an alternative Mann-Whitney test was used.

The Mann-Whitney test is a non-parametric equivalent to independent samples t-test and it is used to compare if there is any difference in the dependent variable (which is the satisfaction level in this case) for two independent groups. This test uses ranking in order to give values, it replaces all scores with their rank numbers: 1, 2, 3 where the lowest value gets a score of one, and then uses the sum of this ranks for each group in the calculation of the Mann-Whitney test, and if the grouping variable does not affect the satisfaction level, then the mean ranks should be nearly the same in both groups.

For each Mann-Whitney test, a table of the group statistic will be provided which will contain the N, Median. Then in a Mann-Whitney test table, each feature will be examined according to the following two Hypotheses:

- The null hypothesis H0: the distribution of scores for the two groups are equal
- Alternative hypothesis H_A: the distribution of scores for the two groups are not equal.

The original test was done by Wilcoxon (1945) and later modified by Mann & Whitney (1947) to allow for different sample sizes, both Mann-Whitney U and Wilcoxon W

summarize the difference in mean rank numbers in a single number, whether the observed U supports the null or alternative hypothesis can be tested by comparing it to the appropriate critical value of U that can be found in the table of the critical value of the Mann-Whitney U, but it is preferable to report significance level in the following way:

If Sig. (2-tailed). P > alpha level, we conclude that the null hypothesis holds, if Sig. (2-tailed). p < alpha level, we conclude that the alternative hypothesis holds.

In this test, a significance level (alpha level) of $\alpha = 0.05$ is used.

Table 0.43 Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Extra income	.251	37	.000	.814	37	.000
Flexible hours and days	.255	37	.000	.828	37	.000
Uber's app	.275	37	.000	.740	37	.000
Navigation system	.266	37	.000	.841	37	.000
Uber experience	.262	37	.000	.866	37	.000
Paying method	.295	37	.000	.791	37	.000
Uber’s safety	.239	37	.000	.826	37	.000
Uber’s features	.194	37	.001	.888	37	.001
Time estimation system	.235	37	.000	.859	37	.000
General relationship	.265	37	.000	.870	37	.000

4.10.1. Gender:

From the response in table 4.31, all of Uber drivers are men so there is no grouping based on gender.

4.10.2. Age:

A Mann-Whitney test was conducted to compare if there is any difference in the satisfaction level for two “Age” groups (participants aged >= 30 and participants aged < 30).

The group statistics are provided in table 4.44.

From the table 4.45, there was no significant difference in the distribution of scores for the two age groups.

Table 0.44 Age report

Age		Extra income	Flexible hours and days	Uber's app	Navigation system	Uber experience	Paying method	Uber’s safety	Uber’s features	Time estimation system	Uber’s rewards	General relationship
aged < 30	N	17	17	17	17	17	17	17	17	17	17	17
	Median	4.0000	4.0000	4.0000	4.0000	3.0000	4.0000	4.0000	3.0000	3.0000	2.0000	4.0000
aged >= 30	N	21	21	21	21	21	21	20	21	21	21	21
	Median	4.0000	4.0000	5.0000	4.0000	3.0000	4.0000	4.5000	4.0000	4.0000	3.0000	4.0000
Total	N	38	38	38	38	38	38	37	38	38	38	38
	Median	4.0000	4.0000	4.5000	4.0000	3.0000	4.0000	4.0000	3.0000	3.0000	3.0000	4.0000

Table 0.45 Age Test Statistics

	Extra income	Flexible hours and days	Uber's app	Navigation system	Uber experience	Paying method	Uber's safety	Uber's features	Time estimation system	Uber's rewards	General relationship
Mann-Whitney U	177.000	176.500	129.000	170.500	174.500	165.500	148.000	144.000	157.000	165.500	163.500
Wilcoxon W	330.000	407.500	282.000	323.500	327.500	396.500	301.000	297.000	310.000	318.500	316.500
Z	-.047	-.063	-1.601	-.254	-.124	-.426	-.709	-1.043	-.665	-.401	-.472
Asymp. Sig. (2-tailed)	.963	.949	.109	.799	.902	.670	.478	.297	.506	.689	.637
Exact Sig. [2*(1-tailed Sig.)]	.977[b]	.954[b]	.152[b]	.816[b]	.908[b]	.706[b]	.517[b]	.322[b]	.542[b]	.706[b]	.663[b]

4.10.3. Marital Status:

A Mann-Whitney test was conducted to compare if there is any difference in the satisfaction level for two “Marital Status” groups (single and married).

The group statistics are provided in table 4.46.

From the table 4.47, there was no significant difference in the distribution of scores for the two “Marital Status” groups.

Table 0.46 Marital Status report

Marital Status		Extra income	Flexible hours and days	Uber's app	Navigation system	Uber experience	Paying method	Uber’s safety	Uber’s features	Time estimation system	Uber’s rewards	General relationship
Single	N	14	14	14	14	14	14	14	14	14	14	14
	Median	4.0000	4.0000	4.0000	4.0000	3.0000	4.0000	4.0000	3.5000	3.0000	2.0000	4.0000
Married	N	24	24	24	24	24	24	23	24	24	24	24
	Median	4.0000	4.0000	5.0000	4.0000	3.0000	4.0000	4.0000	3.0000	3.5000	3.0000	4.0000
Total	N	38	38	38	38	38	38	37	38	38	38	38
	Median	4.0000	4.0000	4.5000	4.0000	3.0000	4.0000	4.0000	3.0000	3.0000	3.0000	4.0000

Table 0.47 Marital Status Test Statistics

	Extra income	Flexible hours and days	Uber's app	Navigation system	Uber experience	Paying method	Uber's safety	Uber's features	Time estimation system	Uber's rewards	General relationship
Mann-Whitney U	152.000	162.500	125.500	164.000	144.500	140.500	144.000	165.500	147.000	145.500	155.000
Wilcoxon W	257.000	267.500	230.500	464.000	249.500	245.500	420.000	270.500	252.000	250.500	260.000
Z	-.513	-.180	-1.416	-.131	-.749	-.928	-.563	-.078	-.669	-.715	-.422
Asymp. Sig. (2-tailed)	.608	.857	.157	.896	.454	.353	.573	.938	.503	.475	.673
Exact Sig..[2*(1-tailed Sig.)]	.643[b]	.870[b]	.201[b]	.917[b]	.482[b]	.410[b]	.610[b]	.940[b]	.540[b]	.501[b]	.709[b]

4.10.4. Education Level:

A Mann-Whitney test was conducted to compare if there is any difference in the satisfaction level for two "Education Level" groups (drivers whose education level is below high school and drivers who are high school graduate or more).

The group statistics are provided in table 4.48.

From the table 4.49, there was no significant difference in the distribution of scores for the two "Education Level" groups.

Table 0.48 Education Level report

Education Level		Extra income	Flexible hours and days	Uber's app	Navigation system	Uber experience	Paying method	Uber's safety	Uber's features	Time estimation system	Uber's rewards	General relationship
below high school	N	15	15	15	15	15	15	14	15	15	15	15
	Median	4.0000	4.0000	4.0000	4.0000	3.0000	4.0000	4.0000	3.0000	3.0000	2.0000	4.0000
high school graduate or more	N	23	23	23	23	23	23	23	23	23	23	23
	Median	4.0000	4.0000	5.0000	4.0000	3.0000	4.0000	4.0000	3.0000	3.0000	3.0000	4.0000
Total	N	38	38	38	38	38	38	37	38	38	38	38
	Median	4.0000	4.0000	4.5000	4.0000	3.0000	4.0000	4.0000	3.0000	3.0000	3.0000	4.0000

Table 0.49 Education Level Test Statistics

	Extra income	Flexible hours and days	Uber's app	Navigation system	Uber experience	Paying method	Uber's safety	Uber's features	Time estimation system	Uber's rewards	General relationship
Mann-Whitney U	150.500	154.000	137.000	166.000	125.000	157.000	158.000	143.000	150.000	135.000	163.500

Wilcoxon W	426.500	430.000	257.000	286.000	245.000	433.000	434.000	263.000	270.000	255.000	439.500
Z	-.697	-.597	-1.168	-.210	-1.493	-.516	-.099	-.907	-.707	-1.175	-.288
Asymp. Sig. (2-tailed)	.486	.551	.243	.833	.135	.606	.921	.364	.479	.240	.773
Exact Sig. [2*(1-tailed Sig.)]	.516[b]	.595[b]	.300[b]	.860[b]	.162[b]	.658[b]	.938[b]	.391[b]	.516[b]	.273[b]	.791[b]

4.10.5. Income Per Month:

A Mann-Whitney test was conducted to compare if there is any difference in the satisfaction level for two "Income Per Month" groups (drivers whose income is above than 5000 tl and drivers whose income is 5000 tl or less).

The group statistics are provided in table 4.50.

From the table 4.51, a Mann-Whitney test indicated that the satisfaction level over Uber's safety was greater for participants whose income is above than 5000 tl monthly (Mdn = 5) than for participants whose income was 5000 tl or less (Mdn = 4), U = 71.000, p = .39.

A Mann-Whitney test indicated that the satisfaction level on Uber's features was greater for participants whose income was above than 5000 tl monthly (Mdn = 5) than for participants whose income was 5000 tl or less (Mdn = 3), U = 66.500, p = .024.

Table 0.50 Income Per Month report

Income Month	Per	Extra income	Flexible hours and days	Uber's app	Navigation system	Uber experience	Paying method	Uber's safety	Uber's features	Time estimation system	Uber's rewards	General relationship
Less than 2000 tl	N	29	29	29	29	29	29	28	29	29	29	29
	Median	4.0000	4.0000	4.0000	4.0000	3.0000	4.0000	4.0000	3.0000	3.0000	3.0000	4.0000
2000-5000 tl	N	9	9	9	9	9	9	9	9	9	9	9
	Median	4.0000	4.0000	5.0000	4.0000	4.0000	4.0000	5.0000	5.0000	4.0000	4.0000	4.0000
Total	N	38	38	38	38	38	38	37	38	38	38	38
	Median	4.0000	4.0000	4.5000	4.0000	3.0000	4.0000	4.0000	3.0000	3.0000	3.0000	4.0000

Table 0.51 Income Per Month Test Statistics

	Extra income	Flexible hours and days	Uber's app	Navigation system	Uber experience	Paying method	Uber's safety	Uber's features	Time estimation system	Uber's rewards	General relationship
Mann-Whitney U	117.000	101.000	94.500	78.000	93.000	118.500	71.000	66.500	83.500	120.000	86.500

Wilcoxon W	162.000	536.000	529.500	513.000	528.000	553.500	477.000	501.500	518.500	555.000	521.500
Z	-.491	-1.094	-1.361	-1.953	-1.355	-.460	-2.059	-2.264	-1.699	-.378	-1.619
Asymp. Sig. (2-tailed)	.623	.274	.173	.051	.175	.646	.039	.024	.089	.705	.105
Exact Sig. [2*(1-tailed Sig.)]	.661[b]	.325[b]	.221[b]	.074[b]	.208[b]	.686[b]	.053[b]	.026[b]	.107[b]	.736[b]	.133[b]

4.10.6. Years driving for Uber:

A Mann-Whitney test was conducted to compare if there is any difference in the satisfaction level for two “Years driving for Uber” groups (drivers who had been driving for one year or less and drivers who had been driving for more than one year).

The group statistics are provided in table 4.52.

From the table 4.53, there was no significant difference in the distribution of scores for the two “Years driving for Uber” groups.

Table 0.52 Years driving for Uber report

Time Using Uber	Extra income	Flexible hours and days	Uber's app	Navigation system	Uber experience	Paying method	Uber’s safety	Uber’s features	Time estimation system	Uber’s rewards	General relationship
N	21	21	21	21	21	21	21	21	21	21	21

Less than year	Median	4.0000	4.0000	4.0000	4.0000	3.0000	4.0000	4.0000	4.0000	3.0000	3.0000	4.0000
1-2 years	N	17	17	17	17	17	17	16	17	17	17	17
	Median	4.0000	4.0000	5.0000	4.0000	3.0000	4.0000	4.0000	3.0000	3.0000	2.0000	4.0000
Total	N	38	38	38	38	38	38	37	38	38	38	38
	Median	4.0000	4.0000	4.5000	4.0000	3.0000	4.0000	4.0000	3.0000	3.0000	3.0000	4.0000

Table 0.53 Years driving for Uber Test Statistics

	Extra income	Flexible hours and days	Uber's app	Navigation system	Uber experience	Paying method	Uber's safety	Uber's features	Time estimation system	Uber's rewards	General relationship
Mann-Whitney U	132.500	160.000	125.000	143.500	158.500	159.500	159.500	159.500	169.500	134.000	175.500
Wilcoxon W	285.500	391.000	356.000	296.500	311.500	312.500	295.500	312.500	322.500	287.000	406.500
Z	-1.432	-.587	-1.730	-1.113	-.618	-.622	-.276	-.575	-.278	-1.371	-.094
Asymp. Sig. (2-tailed)	.152	.557	.084	.266	.537	.534	.783	.566	.781	.170	.925

Exact [2*(1-tailed Sig.)]	Sig.	.179[b]	.601[b]	.121[b]	.308[b]	.561[b]	.581[b]	.797[b]	.581[b]	.794[b]	.199[b]	.931[b]

4.10.7. Frequency Using Uber:

A Mann-Whitney test was conducted to compare if there is any difference in the satisfaction level for two "Frequency of Using Uber" groups (drivers who drive more than 36 hours weekly and drivers who drive 36 hours or less weekly).

The group statistics are provided in table 4.54.

From the table 4.55, a Mann-Whitney test indicated that the satisfaction level over Uber's Navigation system was greater for drivers who drive 36 hours or less weekly (Mdn = 4) than for participants who drive more than 36 hours (Mdn = 3.5), U = 112.000, p = .40.

Table 0.54 Frequency Using Uber report

Often Using Uber		Extra income	Flexible hours and days	Uber's app	Navigation system	Uber experience	Paying method	Uber's safety	Uber's features	Time estimation system	Uber's rewards	General relationship
1.00	N	16	16	16	16	16	16	16	16	16	16	16
	Median	4.0000	4.0000	4.0000	4.0000	3.0000	4.0000	4.0000	4.0000	4.0000	3.0000	4.0000
2.00	N	22	22	22	22	22	22	21	22	22	22	22
	Median	4.0000	4.0000	5.0000	3.5000	3.0000	4.0000	4.0000	3.0000	3.0000	3.0000	4.0000
	N	38	38	38	38	38	38	37	38	38	38	38

Total	Median	4.0000	4.0000	4.5000	4.0000	3.0000	4.0000	4.0000	3.0000	3.0000	3.0000	4.0000

Table 0.55 Frequency Using UberTest Statistics

	Extra income	Flexible hours and days	Uber's app	Navigation system	Uber experience	Paying method	Uber's safety	Uber's features	Time estimation system	Uber's rewards	General relationship
Mann-Whitney U	166.000	159.500	150.000	112.000	171.000	159.500	129.500	129.000	118.000	156.500	127.000
Wilcoxon W	302.000	412.500	286.000	365.000	307.000	295.500	360.500	382.000	371.000	409.500	380.000
Z	-.313	-.527	-.847	-2.050	-.156	-.544	-1.248	-1.431	-1.805	-.605	-1.552
Asymp. Sig. (2-tailed)	.754	.598	.397	.040	.876	.586	.212	.152	.071	.545	.121
Exact Sig. [2*(1-tailed Sig.)]	.781[b]	.630[b]	.455[b]	.060[b]	.895[b]	.630[b]	.241[b]	.171[b]	.089[b]	.569[b]	.153[b]

4.10.8. Car Owner or Renter:

A Mann-Whitney test was conducted to compare if there is any difference in the satisfaction level for “Car Owner or Renter” groups (Owner versus Renter).

The group statistics are provided in table 4.56.

From the table 4.57, a Mann-Whitney test indicated that the satisfaction level over Uber's Paying method was greater for car owners (Mdn = 4.5) than for car renters (Mdn = 4), U = 101.500, p = .014.

Table 0.56 Car Owner or Renter report

Owners or Renters		Extra income	Flexible hours and days	Uber's app	Navigation system	Uber experience	Paying method	Uber's safety	Uber's features	Time estimation system	Uber's rewards	General relationship
own	N	16	16	16	16	16	16	15	16	16	16	16
	Median	4.0000	4.0000	5.0000	4.0000	3.5000	4.5000	4.0000	4.0000	4.0000	3.5000	4.0000
rent	N	22	22	22	22	22	22	22	22	22	22	22
	Median	4.0000	4.0000	4.0000	4.0000	3.0000	4.0000	4.0000	3.0000	3.0000	2.0000	4.0000
Total	N	38	38	38	38	38	38	37	38	38	38	38
	Median	4.0000	4.0000	4.5000	4.0000	3.0000	4.0000	4.0000	3.0000	3.0000	3.0000	4.0000

Table 0.57 Car Owner or Renter

	Extra income	Flexible hours and days	Uber's app	Navigation system	Uber experience	Paying method	Uber's safety	Uber's features	Time estimation system	Uber's rewards	General relationship

Mann-Whitney U	167.000	162.000	151.000	158.000	140.500	101.500	114.500	117.500	117.000	133.500	172.000
Wilcoxon W	420.000	415.000	404.000	411.000	393.500	354.500	367.500	370.500	370.000	386.500	425.000
Z	-.282	-.447	-.814	-.577	-1.105	-2.457	-1.652	-1.782	-1.837	-1.319	-.127
Asymp. Sig. (2-tailed)	.778	.655	.416	.564	.269	.014	.098	.075	.066	.187	.899
Exact Sig. [2*(1-tailed Sig.)]	.804[b]	.693[b]	.473[b]	.609[b]	.298[b]	.026[b]	.119[b]	.084[b]	.084[b]	.212[b]	.919[b]

4.11. How does Uber capture value

4.11.1. Uber pricing business model

It is well known that Uber generates its revenue through a commission-based pricing model.

Uber keeps 25 percent of the ride fare -the rest goes to the driver- under the name of service fee which covers the following:

- The use of Uber software
- Collection and transfer of fares
- Credit card commission
- Distribution of invoices to clients

(Uber, n.d.).

4.11.2. Uber fares structure

Uber fares structure depends on the city in which Uber is used and it can be calculated upfront or immediately after the ride ends.

- UPFRONT FARES: In this type of trip pricing, the rider knows in advance the exact fare he is going to pay at the end of the trip, and this fare includes the base rate, rates for the expected time and distance of the route, booking fee and some other fees.
- POST-TRIP FARES: In some cities where this type of trip pricing is used, the rider pays either a minimum fare or a fare based on the time and distance for the trip's route, including a base fare, booking fee and some other fees. Fares differ from one city to another, the vehicle option selected, and other factors (Uber, n.d.).

4.11.3. Price discrimination

A commission of the fare would generate revenue, but to capture more value, a price discrimination tactic should be used. A price discrimination tactic is a way to charge each customer the price he is willing to pay. Pricing the same product differently would not work because it is not easy to identify the more willing-to-pay customers and even if they are identified, preventing them from using the lower priced service is not possible. The solution to this problem is using the self-segmented fencing tactic in which the customers with high willingness-to-pay will reveal themselves by choosing superior features and pay for it (Michel, 2015).

In its business, Uber did evolve such a price discrimination tactic and developed different vehicle options. Each option serves a different segment of people and calls for different pricing. A small discerption for some of Uber’s vehicle options is in the following:

- UberX: It is the most popular Uber service, affordable, 4 seats, and its cars are typically regular sedan.
- UberXL: It is popular for groups or people with luggage. SUVs and minivans take up to 6 seats and it costs more than UberX.

- UberPool: It will group up riders heading for the same direction in order to share the cost.
- UberSUV: Luxury SUVs are used with professional drivers and works for groups of 6 people.
- Uber Black: High-end black cars are used with professional drivers and this service is conceded to be the most expensive Uber car service (Dough, 2018).

In the following table 4.58, the details of a virtual trip using different Uber vehicle options from Chicago Midway International to The University of Chicago are presented (Uber, n.d.).

Table 0.58 Virtual trip fares

	UberX	UberXL	UberPool
Estimated fare	$22-29	$39-51	$22-23
PICK UP			
Base Fare	$1.70	$3.00	$1.70
Long Pickup Fee	Variable		Variable
Per Minute to Pickup	$0.20		$0.14
Per Mile to Pickup	$0.95		$0.95
CANCELLATIONS			
Cancellation Fee	Variable	Variable	Variable
Standard Driver Initiated Cancellation Fee	$5.00	$5.00	$5.00
Standard Rider Initiated Cancellation Fee	$5.00	$5.00	$3.00
Per Minute Prior to Cancellation	$0.20	$0.35	$0.14

Per Mile Prior to Cancellation	$0.95	$1.80	$0.95
ON TRIP			
Booking Fee	$1.60	$1.90	$1.60
Minimum Fare	$4.60	$8.90	$4.60
Per Minute	$0.20	$0.35	$0.14
Per Mile	$0.95	$1.80	$0.95

4.11.4. Surge pricing

For the sake of capturing more value, Uber uses a demand-driven pricing tactic or what could be called surge pricing. In case of a demand boost or supply lack, when demand does exceed supply, Uber fare prices increase in a way aligned with the supply lack in order to find an "equilibrium price" (Dholakia, 2015).

Uber's surge pricing takes place at rush hours when people ride between their homes and work or in case of holidays, city events, or bad weather. Riders get notified before ordering Uber's vehicle, since the fare has increased due to the demand boost and a confirmation is requested. Due to surge pricing, Uber drives away customers who are not willing-to-pay, which means a bigger chance of catching a cap for those customers who are willing-to-pay with less waiting time. This will also provide drivers with more incentives to get behind the wheel and drive people to their destination for the aim of making more money and thus, a bigger commission for Uber itself in alignment with the first objective of capturing more value (Titcomb, 2015).

4.11.5. Route-based pricing

Route-based pricing is a new pricing tactic launched in certain cities at late 2016 as Uber had announced in an interview with Bloomberg in May 2017. Instead of the old fare calculation system of using a mixture of expected time and distance rates with respect to the demand value, Uber will charge customers on what they are expected to be willing-to-pay with this tactic. For this purpose, Uber is using a machine-learning technique to figure

out which route and in what time, people are willing to sacrifice a higher payment, and the result would be a higher fare for someone leaving his resident in some rich area and heading for a fancy nightclub to spend the evening. The route prices would be developed by the mechanism of Route-based pricing which figures out that people are willing to pay more for this route and at this time (Newcomer, 2017).

4.12. Findings, Discussion, and Recommendations:

The main issue addressed in this research is how Uber -a company in the sharing economy- can create value for its users, what is the users' satisfaction level over the services and features provided by Uber, and how the created value can be captured taking into account customer satisfaction levels. This research handled two segments of Uber users, Uber riders and Uber drivers.

4.12.1. Uber Riders

According to the survey results, riders have the following demographics. They exhibit a slightly higher percentage of male users (66.2%), a mean age of 30.27 years (7.331 Std. Deviation), almost equivalent rates of single and married users, a very good education level with 70% college graduate, and good financial status with 78% users reporting a good financial status or better. Moreover, the results indicate a growing user base with almost 60% Uber users having started riding with Uber in the past year and 85.8% do ride with Uber at least once a month. According to the analysis results, Uber riders are mainly satisfied with all features and services that Uber provides. Uber's paying method got the highest satisfaction scores among all other features, driver politeness was rated second, and Uber's app got the third highest score. Uber should benefit from this advantage and highlight those features in its advertisements as something Uber is proud to provide, not available with the normal taxi service and guaranteed to satisfy customers. Driver politeness and Uber's experience are highly connected to each other, satisfaction level with those two features can be a good indicator of the success of the rating system. Although Uber's safety scores are still high, this feature was ranked in the fifth place. In this case, Uber should make sure that its riders do keep in mind what Uber is doing regarding their

safety -Uber knows both sides' contact information, phone number, bank account number and the car information-, waiting time received the second least satisfaction score. Having combined with the fact that waiting times were the most satisfying feature of the normal taxi service, Uber must pay extra attention to correcting this feature in the short run. Still, the network effect will be helpful in the long run in resolving the waiting times issue as the number of Uber riders and drivers continue to increase. One should note that this long-term solution seems to be working out good as almost 55.3% Uber drivers started driving for Uber in the past year, indicating an increasing trend in Uber user numbers, finally, Uber as a Money Saver got the least satisfaction score. The correlations between the satisfaction level over Uber features and the satisfaction level over the general relationship with Uber can indicate the most important features to customers which would require more attention. The satisfaction over Uber's safety has the most significant correlation with the satisfaction over the general relationship with Uber. Next comes the time estimation system, Uber availability, Uber experience and navigation system respectively. Hence, Uber can pay more attention to improving these features to improve customer satisfaction levels. Coming to the differences of the satisfaction level in the riders' demographic conditions, the analysis resulted in the following points:

- Gender: There was no significant difference in average satisfaction levels between the males and females.
- Age: Younger people are significantly more satisfied with Uber's app than elderly people which can be understandable since younger generations get along with technology better than elderly people.
- Marital Status: No significant difference in the satisfaction levels of married and single riders.
- Education Level: Riders who are college graduates are significantly more satisfied with Uber's Time estimation system than riders who are high school graduates.
- Financial status: Riders with lower income are significantly more satisfied with Uber experience than riders with higher income which can be understandable since richer people tend to be more critical and hard to get satisfied.
- Years using Uber: No significant difference was recorded in the average satisfaction levels between riders recently started to use Uber and riders using Uber for longer time.

- Frequency of Using Uber: Riders who use Uber more frequently are significantly more satisfied with Money-saving feature of Uber than riders who use Uber less frequently which can be understandable since money saving has more impact when one uses Uber more frequently.

Overall there is not much significant differences in the satisfaction levels of the riders' from different demographic groups. Again, this situation indicates that Uber can be promoting itself to all customer groups and capture value better by emphasizing its strong features (e.g. Uber's payment method, driver politeness, etc.) and increase the satisfaction level of all customer groups by focusing more on the same problematic areas or the areas customers are most sensitive to (e.g. the waiting times, Money Saving).

Within Uber, pricing is connected to the service offered to the rider while the driver takes his share of what the rider pays, to achieve a maximum value capturing, some effective pricing strategies should be employed. In Istanbul, Uber just offer UberXL service - Affordable SUVs for groups up to 6-, limiting its services to just UberXL is costing Uber a lot of value to be captured. The survey indicated that "Uber as a Money saver" got the least satisfaction rank among all other features of Uber, a problem that can be solved by offering Uber's most common service UberX, it will satisfy riders of low financial status and draw new people of low financial status to start ride with Uber which particularly means capturing more value through price discrimination. In addition to that, this will solve the problem that has been mentioned before which is waiting time, UberX means more drivers on the street which will lead to less waiting time for riders.

Among the previously mentioned pricing strategies, surge pricing is the only strategy used in Istanbul. Applying surge pricing does not seem to be making a bad effect on Uber, since Uber prices are still below the normal taxi fares. In addition to that, there was no comments from the survey participants complaining about this pricing strategy.

Uber new tested route-based pricing strategy does seem promising as a way of capturing the most value available and it is encouraging to apply such a strategy on Istanbul as a city in which its riders do have a high satisfaction level over all services and features of Uber. However, it certainly needs more investigating regarding its success and regarding people's reaction to it.

4.12.2. Uber Drivers

The survey results indicated that all drivers are men, which can be understandable knowing that all taxi drivers in turkey are men. A mean age of 32.44 years (6.993 Std. Deviation) and a higher percentage of married drivers than single drivers (37% vs. 63%) were observed. Almost 80% of Uber drivers are high school graduates or less, 57.9% work with a rented car, they drive on average 37 hours per week, they have a medium to good financial status. Moreover, Uber has a growing drivers base with 55.3% of the drivers having started driving for Uber in the last year. According to the analysis results, Uber drivers are mainly satisfied with all features and services that Uber provides, although their general average satisfaction level is lower with respect to Uber riders (4.2621vs 3.6667). Uber's app got the highest satisfaction level among all other features, paying method got the second highest score; which were similar results to the Uber user satisfaction survey. Flexible hours and days was also appreciated by Uber riders and received the third highest score. Uber should benefit from this advantage and highlight those features in its advertisement as something Uber is proud to provide, not available with the normal taxi service and is guaranteed to satisfy drives. Uber's safety got the forth rank and Uber's complementary features got the least satisfaction score. This result indicates that Uber should work on its drivers' features in Turkey and add previously tested features that had been granted to drivers in other countries. Moreover, the correlation between the satisfaction level over Uber's complementary features and the satisfaction level over the general relationship with Uber is the strongest one, indicating that providing drivers with better features requires more attention. Again, Uber's Navigation system, Time estimation system, Uber experience and Uber safety have strong correlations with riders' overall satisfaction level. Coming to the differences of the satisfaction level in the drivers' demographic conditions, the research results indicated the following points:

- Age: No significant difference was observed in the average satisfaction scores of younger and older drivers.

- Marital Status: No significant difference was observed in the average satisfaction scores of married and single drivers.
- Education Level: No significant difference was observed in the average satisfaction scores of different education level drivers.
- Financial status: Satisfaction level over Uber's safety and Uber's features was greater for drivers with higher income.
- Years using Uber: No significant difference was recorded in the average satisfaction scores of drivers who started driving recently and drivers who had been for longer time.
- Frequency of Using Uber: Satisfaction level over Uber's Navigation system was greater for drivers who drive more frequently than for drivers who drive less frequently which can be understandable since more frequent drivers become more familiar with Uber's Navigation system.
- Car Owner or Renter: Satisfaction level over Uber's Paying method was greater for car owners than for car renters.

Overall there is not much significant differences among the satisfaction levels across the drivers' demographic conditions. This result is again an indication that as Uber provides more attention to improving the complementary features it provides to Turkish drivers, it will be improving the satisfaction level of all driver groups at once.

CHAPTER 5
CONCLUSIONS

Sharing economy is way of giving individuals the chance to do business with no middle-hand agents and maximize the use of their underutilized assets by encouraging sharing over ownership under a fee-based agreement and through an appropriate digital platform in order to make direct communication among people easier. Network Effect, transaction costs and rating system are critical concepts when determining the fate of the sharing economy. Uber is a leader company in the ride-hailing business and one of the most promising companies within the sharing economy. Uber provides a platform for individuals to directly contact other individuals with cars and ask them for a ride. Although Uber is a young company (started in 2009), Uber was operating in 45 countries around the world by 2014.

The main issue addressed in this research is the determination of Uber users' satisfaction level over value created by Uber in the shape of services and featured and how Uber can capture the value it had created. For the sake of reaching that objective, a literature review was conducted to look into contributions of past research in this particular topic and past having similar objectives and similar data collection methods were reviewed. Next, a survey was conducted to analyze the customer satisfaction levels for Uber.

The findings indicated that riders were satisfied with all of Uber's services and features in Istanbul. Uber's paying method was the most satisfying feature followed by driver politeness, Uber's app, Uber's experience and Uber's safety. The satisfaction level over Uber's safety has the most significant correlation with the satisfaction level over the general relationship with Uber, followed by Uber's time estimation system, Uber availability, Uber experience and navigation system. Moreover, there is not much significant differences in the satisfaction levels across Uber riders' demographic conditions.

The findings indicated that drivers were satisfied with all of Uber's services and features in Istanbul. Uber's app was the most satisfying feature followed by Uber's paying method, flexible hours and days and Uber's safety. The satisfaction level over Uber's

complementary features had the most significant correlation with the satisfaction level over the general relationship with Uber, followed by Uber's Navigation system, Time estimation system, Uber experience and Uber safety. Moreover, there is not much significant differences in the satisfaction levels across drivers' demographic conditions.

Uber captures the value it had created through its commission-based business pricing model. Tts fare structure includes a base rate, rates for the expected time and distance of the route, booking fee and some other fees depending on the city, the vehicle option selected and other factors. The fares can be calculated up-front where the rider knows in advance the exact fare he is going to pay at the end of the trip or post-trip where the rider pays either a minimum fare or a fare based on the time and distance for the trip's route. Price discrimination through vehicle options, surge pricing -demand driven pricing- and route-based pricing are all pricing tactics used to help Uber capture the most value in which we found that the one and only tactic used is Istanbul (surge pricing) seems consistent and appropriate with the survey results.

Our research is among the first research that focuses on value creation and value capture practices of a firm operating in the sharing economy. However, our research has following limitations: Since Uber does not share information regarding customer or driver demographics and customer satisfaction levels, we had to rely on data from an online survey. The results only involve the users in Istanbul, therefore one must be cautious to generalize the findings to other cities and other cultures. Moreover, since only volunteering Uber users participated in the survey, the results can be biased towards higher satisfaction levels than for a survey applied on a more general population. We hope that this research attracts more attention to the area and several other researchers take an interest in analyzing the value creation and value capture practices of firms operating in the sharing economy.

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Appendixes

Appendix A

This survey aims to examine your perceptions about Uber. This survey is to be used strictly as part of a master thesis under the supervision of Dr. Nur Ayvaz Cavdaroglu at Kadir Has University.

Participants must be residing in Istanbul and must have ridden with Uber at least once to participate in this survey.

There are no right or wrong answers to any of the questions below. Please check the appropriate box that indicates your level of agreement.

1. What is your gender?

Female/Male

2. What is your age? _____

3. What is your current marital status?

Single

Married without children

Married with children

4. What is the highest level of education you have completed?

below high school

high school graduate

college graduate

post graduate degree

5. How much is your income per month?

Less than 2000 tl

2000-5000 tl

5000-10000 tl

More than 5000 tl

6. How long have you been using Uber service for?

Less than a year

1-3 years

More than 3 years

7. How often do you typically use Uber?

Daily

Weekly

Once in a month

Less often than once in a month

8. Out of the last 10 times you used a taxi, how many was with Uber? _____

9. When you are travelling with a normal taxi service, what do you normally do of the following to assure your travel safety?

Remember the car license plate

Remember other information regarding the car (such as taxi office) or its driver

Do nothing since there is nothing to worry about in the first place

Other:

10. Out of the last 10 times you called the taxi-office, how many times they said that the taxi is not available in a short notice? _____

11. How would you describe your financial status these days?

Very tight - a bit tight - good - very good - excellent

12. which taxi type will answer your need and reach your doorstep faster?

Always normal taxi - mostly normal taxi – both normal taxi and Uber - mostly Uber - always Uber

13. With Uber knowing both sides' contact information, phone number, bank account number and the car information, is there any reason to choose normal taxi rather than Uber regarding your safety?

Yes/No, if Yes please specify. _____

Please indicate your level of agreement with the statements below.

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
14. Uber gives me a better social experience than a normal taxi.					

15. Uber-app is easy-to-use.					
16. Uber's Navigation system is helpful in finding the right route.					
17. Uber's paying method is better than the normal taxi service.					
18. Uber time estimation is accurate.					
19. Uber time estimation is helpful.					
20. Uber's customer service representatives are doing a good job.					

21. Regarding Istanbul normal taxi service, on a scale from 1 to 5, (1: you are the least satisfied, 5: you are the most satisfied) how would you evaluate each of the following statements:

Taxi service price					
Taxi service availability					
Time until the taxi service gets to my doorstep					
Taxi drivers' finding the shortest route to destination					
Politeness of the taxi drivers					
The efficiency of the paying by cash method					
The appropriateness of the pick-up place and the drop off					

22. Regarding Uber, on a scale from 1 to 5, (1 being the least satisfied and 5 being the most satisfied you can be) how would you evaluate each item of the following:

Potential to save money					
Availability					
Time until Uber gets to my doorstep					
Uber app's easiness to use					
Uber safety					
Uber navigation system					
Uber time estimation system					
Politeness of Uber drivers					
Social experience of using Uber					
Easy paying method					
General relationship with Uber					

24. Any other comments you would like to add regarding normal taxi service of İstanbul or Uber _____

Thanks for participation

Appendix B

This survey aims to examine your perceptions about Uber. This survey is to be used strictly as part of a master thesis under the supervision of Dr. Nur Ayvaz Cavdaroglu at Kadir Has University.

Participants must be residing in Istanbul and must have driven for Uber at least once to participate in this survey.

There are no right or wrong answers to any of the questions below. Please check the appropriate box that indicates your level of agreement.

1. What is your gender?

Female/Male

2. What is your age? _____

3. What is your current marital status?

Single

Married without children

Married with children

4. What is the highest level of education you have completed?

below high school

high school graduate

college graduate

post graduate degree

5. How much is your income per month?

Less than 2000 tl

2000-5000 tl

5000-10000 tl

More than 5000 tl

6. How long have you been driving for Uber?

Less than a year

1-2 years

More than 2 years

7. How many hours do you drive for Uber weekly? _____

8. Do you own/rent a car? own/rent

9. How would you describe your financial status those days?

Very tight - a bit tight - good - very good - excellent

Please indicate your level of agreement with the statements below.

	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
10. Working for Uber provides me a good extra income.					
11. As a way of earning extra income, driving for Uber is fun.					
12. As a way of earning extra income, driving for Uber counts as a good experience.					
13. With Uber it is Flexible to choose work hours.					
14. With Uber it is Flexible to choose work days.					
15. Uber's app is easy-to-use.					
16. Uber's Navigation helps me as a driver.					
17. Uber's complementary features (e.g. cleaning fee, canceling fee) are helpful.					
18. Uber time estimation is accurate.					
19. Uber time estimation is helpful.					
20. Uber's paying method is easy and smooth.					
21. Uber's rewards such as free insurance, discounted car maintenance, motivate me as a driver.					
22. With Uber knowing both sides' contact information, phone					

	number, bank account number, driving for Uber is safer than driving a normal taxi.					
23.	Uber's customer service representatives are doing a good job.					
24.	Generally, my relationship with Uber is good.					

25. Regarding Uber, on a scale from 1 to 5, (1 being the least satisfied, 5 being the most satisfied you can be) how would you evaluate each of the following items:

The amount of extra income it brings					
Flexibility to choose work hours and days					
Easiness of use of Uber app					
Navigation system					
Social experience of driving for Uber					
Easiness of the paying method					
Uber safety					
Uber’s complementary features (like cleaning fee, canceling fee					
Uber time estimation system					
Uber’s rewards such as free insurance, discounted car maintenance					

24. Any other comments you would like to add: _____

Thanks for participation