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Willingness to pay in the ridesharing industry.

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Executive summary:

The rise of the so-called “sharing economy” has created new opportunities in many markets. In the market for transportation and ride hailing, the sharing economy has opened doors that have been entered by new companies such as Uber, Bolt and Lyft.

Through theoretical and empirical analyses, this research tries aims to add to the existing literature on ridesharing services. Trying to offer more insights on the economic implications of the ridesharing industry and provide advice for policymakers, CEO’s, managers, and customers on how to improve the ridesharing industry and its marketing goals.

This thesis aims to answer what is the customers' willingness to pay (WTP) for ridesharing services and which factors influence are of influence on the willingness to pay.

This research is relevant for the entire ridesharing industry and covers the main research question of: *What is the influence of attributes on the willingness to pay for ride-sharing services and how to implement and/or change this in the marketing strategies of the companies that take part in the ride-sharing industry?*

This central question is broken down into fewer sub questions to divide the research into a theoretical and empirical part.

The empirical part of the research answers questions on *What are ridesharing services? What is the current market situation for ride sharing services like? What are the current marketing strategies of the ridesharing companies ? What attributes are important for the willingness to pay for ride-sharing services?*

While the empirical part focuses on questions answering the following sub questions: *What is the importance of the attributes/factors that are considered to be of influence on the willingness to pay for ride-sharing services? What is the influence of attributes on the willingness to pay for ride-sharing services?*

The study assumes a relation between the willingness to pay for the attributes, performance expectancy, effort expectancy, social influence, price, and trust on the willingness to pay for the economic benefits of ridesharing.

The results pose no significant influence for the attributes effort expectancy, social influence, and price. There is a significant influence on the willingness to pay for economic benefits of ride sharing for the attributes: performance expectancy and trust.

Table of Contents

Chapter 1: Introduction

Introduction:

The rise of the so-called “sharing economy” has created new opportunities in many markets. In the market for transportation and hitching a ride, the sharing economy has opened doors that have been entered by new companies such as Uber, Bolt and Lyft.

In recent years, the ridesharing service industry has experienced massive growth. The industry offers a new way of transporting yourself from place A to place B. It offers a revolutionized way of “ordering” the service compared to the taxi or scooter/bike rentals that have been around for the last decades. The ridesharing industry has lots of growth potential when looking into the future. Therefore it’s important to understand what factors influence the customers decision to choose for ridesharing services, what makes a customer want to pay more and what is an aspect that makes a consumer opt out of ridesharing and looking for an alternative? Thus it is important to look at the customers’ willingness to pay for ridesharing services. (Walsten S., 2015).

Through theoretical and empirical analyses, this research tries aims to add to the existing literature on ridesharing services. Trying to offer more insights on the economic implications of the ridesharing industry and provide advice for policymakers, CEO’s, managers, and customers on how to improve the ridesharing industry and its marketing goals.

This thesis aims to answer what is the customers' willingness to pay (WTP) for ridesharing services and which factors influence are of influence on the willingness to pay.

1.2 Relevance of subject:

1.2.1 Social relevance:

Ride-sharing services such as Uber are a booming industry, over the course of the last years ridesharing has become more prominent in people’s lives. This thesis is socially relevant because it addresses a very topical industry. This thesis will give an insight in the ride-sharing companies and how they market their products. It also addresses the current market situation and the way the consumers feel about the attributes and prices of the services offered by the company.

1.2.2 Managerial relevance:

This thesis is relevant on managerial level because it takes a look and draws conclusions on the industries marketing strategies. The thesis will look at what the companies are currently implementing in their strategies and what could be improved or be implemented with more

focus. It also offers a view into the consumers world and on what attributes of the offered services are important for the consumers. The willingness to pay analysis gives insight in what the consumers are willing to pay for the services. Managers can use the findings of this thesis to improve their marketing strategies, making the thesis relevant on a managerial level.

1.2.3 Academic relevance:

Chakravorti & Noel (2017) state and explain the differences between the ride-sharing sector and regular taxis. The article states that the experience given by drivers impacts consumer preferences and perceptions, the article also states that the drivers of a ridesharing company should be engaged to take part in the company's marketing strategy since the authors believe that the services offered by the drivers are the main influence on the consumers preferences.

Alemi, Circella, Mokhtarian & Handy have done research on distinguishing the factors that affect the frequency of use and corresponding willingness to pay for ride-sharing services. This study gives an insight on which sociodemographic and other factors play a role in the frequency of use. The article gives a basis for this thesis to dive deeper into these factors and to test the importance of these factors. Also the model used to calculate the willingness to pay could be implemented in this thesis.

1.3 Research questions:

1.3.1 Main research question:

What is the influence of attributes on the willingness to pay for ride-sharing services and how to implement and/or change this in the marketing strategies of the companies that take part in the ride-sharing industry?

1.3.2 Sub research questions:

From a theoretical perspective it is imported to state what ridesharing is and what services are offered, thus the first theoretical question is:

What are ridesharing services?

Furthermore it is important to disclose what the market is looking like today, who are the big companies, what aspects are given the main focus. This results in the second theoretical question:

What is the current market situation for ride sharing services like?

To answer the main research question on how the willingness to pay can be implemented in the marketing strategies of the companies that take part in the ridesharing industry, it is important to disclose first what the current situation look like, this leads to the third theoretical question:

What are the current marketing strategies of the ridesharing companies ?

The finale theoretical question is based around attributes of ridesharing services. To compute a willingness to pay analysis, it is needed that the attributes from whom you think are important to the willingness to pay are specified. Resulting in the following theoretical question:

What attributes are important for the willingness to pay for ride-sharing services?

Importance shows us how much and to what extent each chosen attribute influence the consumers choice for ridesharing services, this is important to specify since it is likely that attributes with a higher importance will be more influential on the willingness to pay of customers. The following empirical question is formed:

What is the importance of the attributes/factors that are considered to be of influence on the willingness to pay for ride-sharing services?

This thesis is mainly around the willingness to pay for ridesharing services, it is therefore of high importance that this willingness to pay is computed, the following empirical question is needed to answer our main research question:

What is the influence of attributes on the willingness to pay for ride-sharing services?

1.4 Possible research limitations:

This research could be face with ethical issues. These issues are faced in the part of the data collection. The data must be collected completely anonymous and must be stored in a safe environment. Therefore the participants in the data collection will sign a form of consent, so that this ethical issue is addressed. Furthermore the way this research is set-up, the collected data could be biased or not completely representative for the entire population or participants could think of the data collection as a boring matter, resulting in these respondents not answering to their full capacity and thus giving different answers.

1.5 Brief thesis chapter descriptions:

This thesis consists of multiple chapters. These chapters will help in answering the main research question of this thesis. The first chapter is written above and states what is being researched in this thesis and why this research is relevant. In the second chapter a literature review will be done, and a conceptual framework will be formed. This framework will result in hypotheses on the main research questions and the sub-research questions will be reviewed. The third chapter explains the data that is used in the research and how this data has been collected. It also describes which quantitative methods will be used to answer the research questions, also this chapter focusses on bias prevention. In the fourth chapter, the results of the data analysis will be presented. Lastly in the fifth and final chapter of this thesis, the results and hypotheses will be concluded and contain a summary of the main findings, answer on the main and sub- research questions, recommendations on future research and limitations/biases that have occurred/ are of in influence in the research.

Chapter 2: Literature review

The rise of the sharing economy and ridesharing platforms have not only led to a completely new niche-market, but also to more interests in the subject from an academic point of view. For instance Alemi, F., Circella, G., Mokhtarian, P., & Handy, S. (2019) have done research on the driving factors behind the use of Uber and Lyft in California. Chakravorti & Noel (2017) state and explain the differences between the ride-sharing sector and regular taxis. The article states that the experience given by drivers impacts consumer preferences and perceptions, the article also states that the drivers of a ridesharing company should be engaged to take part in the company's marketing strategy since the authors believe that the services offered by the drivers are the main influence on the consumers preferences.

Finally Rasheed Gaber, H., & Elsamadicy, A. M. (2021) have researched the drivers behind intention to use ridesharing services during the COVID-19 crisis, giving an image which factors drive the use of ridesharing applications. All of the above stated articles provide a basis on which this research can build. Extending the existing literature to the level of willingness to pay. Which will all be discussed later in this chapter.

2.1 Import terms

2.1.1 What is ridesharing?

This paragraph will be used to give a clear understanding of what is and what is not meant by ridesharing in this research. Ridesharing can be interpreted in many ways, one individual thinks of ridesharing as simple as sharing a ride with you friend, neighbor, or colleague (like carpooling). Others think of ride sharing in the way of companies that offer to rent scooters, bikes or even whole cars via their sharing platforms and apps, like Check, Felyx and GO in the Netherlands.

In this thesis report, we will focus more on the ride sharing service part that consist of drivers offering their services to customers in need of a ride via sharing platforms and applications, like Uber, Bolt and Lyft. Another word used for this type of ridesharing is ride-hailing.

Posen, H. A. (2015) states that ridesharing is an extension and innovation in the taxi-industry, Posen finds that: "Innovation and technology in fields virtually unknown or unrealized 50 years ago have shaped consumer culture today, and most consumers rely on the ease and accessibility of their smartphones to get what they need and even to go where they need to go. Uber, a ridesharing experience that allows users to request a car through a smartphone

app, was developed in the midst of this new consumer culture in which access to commodities is more valuable than individual ownership and where people value social interaction and the human experience. Unsurprisingly, Uber's unforeseen growth across the country has created new competition in a taxi industry that has been largely undisrupted since it began in the early 20th century."

According to Furuhata, M., Dessouky, M., Ordóñez, F., Brunet, M. E., Wang, X., & Koenig, S. (2013), Ridesharing refers to a mode of transportation in which individual travelers share a vehicle for a trip and split travel costs such as gas, toll, and parking fees with others that have similar itineraries and time schedules. Conceptually, ridesharing is a system that can combine the flexibility and speed of private cars with the reduced cost of fixed-line systems, at the expense of convenience. These fixed-line systems refer to public transportation means, such as bus, tram, subway, and trains.

Lastly, a lot of researchers agree on one thing when it comes to ridesharing, the technology behind ridesharing and its entire business can be seen as disruptive. The ridesharing companies are disruptors in the transportation sector.

The above stated description of ridesharing does not only give an understanding for the remainder of this research, but the description also answers the first theoretical sub-question:

What are ridesharing services?

2.1.2 What is WTP?

Willingness to pay (WTP) refers to the maximum amount that an individual is willing to pay for a product or service (Mukherjee & Kadiyali, 2014). An individual's perception on the value of the service is the main determinant for the willingness to pay of the individual. This perception takes multiple factors into account, these factors differ for every product or service. Also the individuals socioeconomical factors play a role in the willingness to pay of an individual.

2.1.3 What is attribute importance?

Attribute importance refers to the perceived significance or value of specific product or service attributes or features to consumers or users (Louviere & Woodworth, 1983).

Attribute importance can be measured and computed via various quantitative research methods. Attribute importance is useful for companies since it shows the company what part

of the service, product or marketing needs to be adjusted so that it fits the customers preferences and expectations.

2.2 Current market situation

The following paragraph will describe the current market situation in the ridesharing industry and will show what companies are the current big players. This paragraph will also be used to answer the second theoretical sub-question of this thesis:

What is the current market situation for ride sharing services like?

According to Fortune business insights (2022) the following five companies are described to be the biggest players in the worldwide ride-hailing market.

1. *Uber Technologies inc.*

Uber is based in the United States of America and is the world's biggest company in the ridesharing sector. Uber offers their ridesharing and food delivery services in over 85 countries worldwide. Uber is praised for the ease of use that their app provides and that booking a ride is accessible for almost everyone. With 12.5 million installs in January 2020, Uber was the most downloaded ride-sharing and taxi app worldwide. Uber has used a range of business tactics to achieve sustained growth throughout the years (Fortune business insights, 2022).

2. *Lyft, inc.*

Just like Uber, Lyft inc. is based in the United States of America and is the second company in Americas ridesharing market behind Uber. Lyft is mostly active in the USA and Canada but is also slowly spreading its services in the worldwide market, currently Lyft is active in Europe, but they are yet unable to gain a market share in the European market that comes close to the market share they have in the USA.

Lyft uses its technology platform, user network density and scale, and data from many rides to continuously improve its marketplace efficiency and develop new offers.

In May 2020, the wait & save function was made more widely available by the company. Riders will pay less in this mode than in conventional Lyft rides, and the longer they have to wait, the more they will save.

In the first quarter of 2020, Flexdrive, LLC, one of Lyft's long-standing Express Drive partners, was bought by the company. Riders can hire automobiles to perform ride-sharing services on the Lyft Platform through this initiative (Fortune business insights, 2022).

3. Didi Chuxing Technology Co.

This Chinese transportation company is one of the world's biggest ridesharing companies, mainly because of its dominance in China, but also because of their activities in Australia, Latin America, and Asia. he organization provides various transportation options, including bus, taxi, luxury, bike, e-bike sharing, and others. The company will have a major market share in China's by 2020. Didi develops its offering and expands its global footprint through partnerships with automakers, legislators, and the taxi industry. The Swedish car manufacturer Volvo closed a deal with Didi Chuxing Technology Co. in 2021. They have agreed that Volvo will supply cars for Didi's global autonomous driving development (Fortune business insights, 2022).

4. *ANI Technologies Pvt. Ltd*.

Ola an Indian based company that is currently trying to start in the British market, is a ridesharing service owned by ANI Technologies Pvt. Ltd. The company is still in their startup phase and offers its customers a connection with drivers via an online ridesharing platform. The company does not only operate in India and the UK, but they also operate in New Zealand and Australia, to improve its global market, it is expanding its operations globally.

For example, the business launched its services in London in February 2020. The corporation is primarily focused on deploying an electric car fleet on its platform. Ola Electric Mobility, ANI Technologies Pvt. Ltd.'s new electric two-wheeler manufacturing company, was launched in 2017.

In August 2021, Ola Electric Mobility revealed that it wants to build a 100,000-strong network of electric vehicle chargers called the Hypercharger Network, spanning 400 Indian cities in the next five years (Fortune business insights, 2022).

5. *Gojek*

Gojek is an Indonesian based multi-service online platform. The platform started with motorcycle ridesharing but has now also expended into the food sector and the delivery of packages. The platform is still growing and expending and currently offers more than 20 services.

Expert Market Research (2022) states the same list as stated above, however this article states that the fifth biggest ride hailing company worldwide is not Gojek, but Cabify Spain SLU.

Cabify Spain SLU

Is a ridesharing platform founded in Madrid, Spain. The Spanish company is active all over Spain and the South American continent. When looking at the countries the company operates in (Spain, Brazil, Argentina, Colombia, Chile, Spain, Ecuador, Panama, Mexico, Uruguay, Peru, Portugal, and the Dominican Republic) it can be concluded that the company operates in its mother language. So only in Spanish speaking countries. The company only focus on matching drivers with customer who need a ride.

Khatri (2022) published a paper on the European market for ride hailing activities. This paper does not describe a specific order in how big each ride hailing company is, it rather gives all big competitors of Uber Technologies inc.. We therefore depict that Uber is the largest company in the European ridesharing market.

In Europe, the other big names other than Uber are Lyft, Bolt, Gett, Hailo, Taxilo, Bike taxi and the recently founded company called Ola.

Statista. (2023) states that the European market is divided in the following way, Uber and Bolt take up more than 50% of the market, with Uber (34%) being bigger than Bolt (24%). The remainder of the European market is taken by the Russian company Yandex Go (14%) and local companies such as taxis (13%). Finally Lyft, who is one of the biggest companies worldwide in the sector. Has a small market share in the European market, Lyft is new to the European market and “owns” about 2% of this market.

Now that we have described the bigger companies in the ridesharing market and their current situations, we also want to address the market capitalization of these companies. The market capitalization will tell something about the company’s size.

In the last years the ridesharing market has grown massively, with some companies arising as the big boys within this new niche market. According to Forbes (2021), the largest businesses inside the ridehailing enterprise primarily based on marketplace capitalization are Uber Technologies Inc., LYFT Inc., and Didi Global Inc.

Uber currently has a market capitalization of around $90 Billion. Didi Global follows with a market cap of around $67 billion and Lyft with $21 billion.

These three big companies have managed to gain a huge share of the total market, this is mainly due to their business and enterprise models, Customer approach, innovation, and technological powers.

2.3 Marketing strategies

In chapter 2.2 we have disclosed what the current market situation is like in the ridesharing industry and which companies are currently leading the market. In this paragraph these market leading companies will have their marketing explained. Not all named companies form chapter 2.2 will be mentioned in this paragraph, the following three companies have been selected Uber, Lyft and Didi global. This will be helpful to answer the third theoretical sub-question of this research:

What are the current marketing strategies of the ridesharing companies ?

Uber:

According to Baron, D. P. (2018) the marketing strategy of Uber can be described as following. Uber tries to be a disrupter in an already existing market, Uber does not want to be just another company in the taxi/ridesharing industry. Uber tries to innovate and revolutionize the market for ride hailing and matching drivers with customers. The way Uber tries to be innovative does raise some questions, *The first is whether Uber is a platform company or a transportation service that falls under the jurisdiction of local regulators*. This question is an important question for the strategy of Uber. The way the company is recognized and "registered" is off influence on which laws they have to follow and how their business can work.

For example, Uber currently works with freelance drivers who can work at any given time and for any given number of hours. This means that Uber has no "fixed" salary costs for their drivers and that Uber only has to pay a fee to the driver when the driver brings a customer from location A to location B.

In this research by Baron, D. P. (2018) the strategy of Uber is quoted in the following way : "Uber's market strategy for winning a market and sustaining its position is to move first and quickly in entering a local transportation market, and its success is determined by its ability to match travelers with drivers. Uber's business model is built on flexibility and responsiveness. Flexibility is possible because as a platform Uber is unregulated and drivers are independent contractors who choose their driving. Uber taps a large pent-up demand for local transportation and matches demand with capacity provided by drivers seeking to supplement their income. Demand for local travel varies considerably by location and within and across days of the week, and Uber uses surge pricing to elicit additional capacity to respond to periods of high demand. The key to market success is relatively short wait times for travelers and relatively short idle periods for drivers before their next passenger. Uber enters a market maintaining that it does not require regulatory permission because it provides a platform that matches travelers with drivers and hence is not subject to regulation as a transportation service. Once Uber has entered a local transportation market, it frequently faces challenges from local regulators, city councils, and state legislatures and from taxi companies, their drivers, and unions. Uber's nonmarket strategy is to anticipate and respond to the challenges, including withdrawing from a market if harmful regulation is imposed."

Didi Global:

In the research (Lin, P et al. 2020) on platform economies in the ridesharing industry, Didi global is given as an example case study. The conclusion of this report on the platform economies are all in line with the case study of Didi global. So the given strategies can be interpreted as the same for Didi global.

The conclusion was "With the rapid development of Internet technology, the number of platform enterprises increased significantly, and many unicorn enterprises have been developed. Platform enterprises are quite different from traditional manufacturing industries in terms of production cost structure, trading pattern, profit mode, and consumer consumption habits. Under the dynamic environment, the company must make strategic adjustment which means that the company should undertake business model innovation. Most previous research about dynamic capabilities mainly focused on content and composition and ignored the relationship between dynamic capabilities and business model innovation.

Based on the previous literature, this paper shows that the elements of business model innovation of platform enterprise are value proposition innovation, product innovation, partnership innovation, and profit model innovation. The dimensions of dynamic capabilities of platform enterprises are market perception capability, learning and integration capability, coordination capability, and organizational flexibility. Dynamic capabilities promote business model innovation which has different guiding effects on the cultivation of dynamic capabilities."

Lyft:

Appiah, I. O. O. (2022) states that business model of Lyft is as following "Passenger security and comfort during transportation services are key long-term goals of Lyft. At the time of booking, Lyft provides the estimated cost of service. Commission and service fees are paid to Lyft drivers,plus tips. Lyft allows passengers to rate drivers or use anonymous platforms for feedback on possibleareas of service improvement. Lyft has a relaxed approach to customer service,rooted in friendliness and authenticity of the driver-customer and Lyft has a comprehensive marketing strategy (Iqbal, 2022)."

Lyft uses strategic partnerships with car manufacturers, rental services and bike sharing services to boost their revenues. Lyft has a competitive advantage because they are trustworthy and have a good reputation, they solve their problems with customers and employees quick as well, contributing to their good reputation. Lyft is the second market leader behind Uber, because their marketing consists of a strong importance for passenger safety and comfort. Lyft also invest a lot in reducing their carbon footprint and have the principal of autonomous electrical vehicles by 2025.

"Lyft's other competitive advantages via its marketing strategies include car seat options for babies, passenger perksloyal customers'rewards forreferredriders, in-app payment for services, tips and bonus for driver who cover extra mileages. Lyft's marketing strategy uses many communication channels;thus, campaigns, direct communication, and various social media channels, rider communities,and word of mouth. The marketing messages are catchy, creative, and easily relatable. They use promotional vehicles such as brand awareness campaigns, Search Engine Optimization (SEO), sales, entertainment partnerships, sponsoredevents,and Lyft is involved in various corporate social responsibilities. They use the traditional media such as TV and radio as well (Goel, 2022)."

2.4 The conceptual model:

Existing literature and the research by Gaber & Elsamadicy (2021) suggest that the customers willingness to pay for ride-sharing services is influenced by six factors: Performance expectancy, effort expectancy, social influence, facilitatory conditions, price, and economic benefits. These six factors are presented in the following sections, together with the hypotheses and their relevant literature.

These hypotheses and conceptual framework will mainly be based on the literature that describes the unified theory of acceptance and use of technology (UTAUT), by Venkatesh et al. (2003). The UTAUT is a framework that is designed to explain the individual's usage behavior and intention toward a system, service, or application. The UTAUT model will help explain the intention toward a ridesharing service and the six factors that are stated above, so that there will be an image of what this intention does to the consumers' willingness to pay for economic benefits of ridesharing.

2.4.1 Performance expectancy

The UTAUT model states that performance expectancy is explaining to which level a consumer feels that a service, system, product, or application boosts their productivity. If a consumer belief that a service boosts their productivity and thus their performance, the performance expectancy of the consumer rises (Venkatesh et al., 2012). According to Venkatesh et al. the higher performance expectancy results in a higher intention to use the service.

Chen, J. M., et al. (2020) have found that the willingness to pay for ridesharing services in China is influenced by the value of time. Tourist were willing to pay more if that meant they were able to save time in their travel schedule, while older Chinese residents were willing to pay more for the service if this meant that their waiting time to get a ride would decrease. This research can be transmitted to the theory of performance expectancy, since the tourists and Chinese residents are clearly willing to pay more if this means that their performance and productivity increases, thus also meaning that their intention to use the service has increased. The result that the consumers' willingness to pay is influence by the value of time is also stated by Alemi, F., et al (2019). Alemi, f. et al. state that "individuals with a higher willingness to pay to reduce their travel time use ride hailing more often."

In the research conducted by Gaber & Elsamadicy (2021), it is stated that ridesharing services provide some benefits for the customer. Some of these benefits are convenience, safety,

efficiency and allowing them to reach their destination quickly. We could argue that these benefits could enhance the way consumer feel about a service and increase their performance expectancy and thus create a higher intention of using the service.
This higher intention of using the service could potentially lead to the customer being willing to pay more for the same service, this leads to the following hypothesis:

Hypothesis 1: Performance expectancy has a significant positive influence on the consumer's willingness to pay for ridesharing services.

2.4.2 Effort expectancy

Within the UTAUT framework, effort expectancy refers to the user's perception of using a particular technology or application to be easy and effortless (Venkatesh et al., 2003). When applying the research of Venkatesh et al. to this thesis, it means that users need to think of the ridesharing application as easy and effortless.
Palau-Saumell et al. (2019) have found that effort expectancy and perceived ease of use have a positive impact on the customers intention to use a ridesharing service/application. Meaning the customers are using the services more often when perceived ease of use is high. Hsiao, J. C. Y., et al. (2018) state in their research that perceived ease of use positively correlates with willingness to pay.
In this research is argued that perceived ease of use and thus, effort expectancy is of influence on the willingness to pay for ridesharing services, this results in the following hypothesis:

Hypothesis 2: Effort expectancy has a significant positive influence on the consumer's willingness to pay for ridesharing services.

2.4.3 Social influence

In the context of technology, social influence refers to the degree that individuals believe that other people who are important to them think that they should use a certain system (Venkatesh et al., 2003). It shows the extent to which a person's beliefs, attitudes and intentions are affected by other people (Chiu & Wang, 2008).
Cheah, I., et al. (2022) have stated that there is a positive relationship between word of mouth and the attitude of a consumer towards ridesharing. They suggest that more focus/attention on word-of-mouth marketing could lead to consumers using the services more often.

The paper by Gaber & Elsamadicy (2021) has found that there is a positive relation between the intention towards a service/application and social influence, social influence from friends, family, co-workers, influencers etc. results in a higher intention to make use of a ridesharing service.

Bower, J. A., Saadat, M. A., & Whitten, C. (2003) have found that there is a relation between liking of a product, purchase intention and willingness to pay.

In this paper, the willingness to pay and the factors influencing WTP are researched. In this paper it is argued that social influence leads to higher WTP for ridesharing activities. The following hypothesis is proposed:

Hypothesis 3: Social influence has a significant positive influence on the consumer's willingness to pay for ridesharing services.

2.4.4 Price

Bower, J. A., Saadat, M. A., & Whitten, C. (2003) found a negative labor supply elasticity for ridesharing drivers, suggesting that drivers tend to drive less during days with a higher average hourly wage. Specifically, a percent increase in hourly wage will lead to a 0.931 percent decrease in daily working hours. This surprising finding is consistent with the behavioral income-targeting model based on the theory of reference-dependent preferences (Crawford, V. P., & Meng, J. 2011): Drivers have heuristic daily targets for total earnings and are more motivated to supply labor when they are below their income target than when they are above it. Therefore, they work less on days when earnings per hour are high and quit the market once their income target is reached. In addition, we find that taxi drivers are more rational and have positive labor supply elasticity, which implies that drivers are more rational when they have repeated opportunities for learning.

Now we see what the price of ridesharing does to the supply of drivers, we can state that a higher price possibly leads to a lower supply in rides and thus a lower availability of ride for the customer.

This lower availability of rides could potentially lead to consumers not being able to get a ride or having to wait extra-long, which could be a factor that influences the WTP of the customer. Leading to the below proposed hypothesis.

Hypothesis 4: Price has a significant negative influence on the consumer's willingness to pay for ridesharing services.

2.4.5 Trust

Shao, Z., & Yin, H. (2019) state that there are two different forms of trust (applicable to the ridesharing sector). Institution based trust refers to trust a consumer or individual has in a company or institution. In case of ridesharing it means in the company, the application etc.

There also is interpersonal trust, this trust refers to the trust between two individuals, in case of this thesis it refers to the trust between a customer and a driver.

According to Shao & Yin there also is a trade-off between institution-based trust and interpersonal trust, a negative experience regarding interpersonal trust has a negative influence on that consumer's institution-based trust and vice versa.

Nocella, G., Romano, D., & Stefani, G. (2014), found that there is a positive relationship between trust and willingness to pay in the market for food safety and information.

Habibov, N., Cheung, A., & Auchynnikava, A. (2017), also state that there is a positive relationship between trust and willingness to pay, their research is done on the trust and willingness to pay on taxes to improve public healthcare.

Lastly, Oh, H., & Hong, J. H. (2012) state that there is a positive relationship between trust and willingness to pay too. Oh & Hong found that if the trust in governments and governmental projects decreases, that this results in a higher chance that citizens will not be willing to pay for the projects, thus decreasing willingness to pay.

Now that can be seen that across different sectors in the world economy there is a relationship between trust and willingness to pay, and that there is a high dependency on trust in the ridesharing market, the following hypothesis is proposed:

Hypothesis 5: Trust has a significant positive influence on the consumer's willingness to pay for ridesharing services.

2.4.6 Economic benefits

Individuals tend to perform cognitive tradeoffs between the perceived benefits of the products and services and the monetary cost needed to purchase them (Dodds et al., 1991). They tend to use technological developments such as online shopping to get discounts, compare between prices and to reach to the best deals (Jung et al., 2014).

In the research conducted by Gaber & Elsamadicy (2021) it is concluded that there is a relationship between economic benefits and the intention to use a ridesharing service, from the customers perspective. Egyptian customers see the surge pricing system and clear way of structuring the prices as a positive economic benefit.

Customers tend to buy more of a product when there are discounts or loyalty programs in play. This does not always mean that a discount or loyalty program always brings forward the customers that a company is looking for. A company is looking for loyalist, whom have a high satisfaction and feel a connection with the company they are buying from. These customers will return and make more purchases in the future. Some customers are just shopping/ using the service because of the discount and have zero to no connection with the company they are buying from, however these mercenaries are not what a company should be focusing on when it comes to developing economic benefits for the customers. McIlroy, A., & Barnett, S. (2000).

2.4.7 Important attributes

Concluding the findings of the conceptual model we state that the following six attributes are to some extent important for the WTP for ridesharing services. (Gaber & Elsamadicy, 2021) These attributes are:

1. Performance expectancy
2. Effort expectancy
3. Social influence
4. Price
5. Trust
6. Economic benefits

These findings answer the fourth theoretical sub-research question:

What attributes are important for the willingness to pay for ride-sharing services?

As shown in figure 2.1, the conceptual research model suggests that the customers willingness to pay for the economic benefits of ride-sharing services is influenced by five factors: Performance expectancy, effort expectancy, social influence, facilitatory conditions and price.

The conceptual research model is stated below.

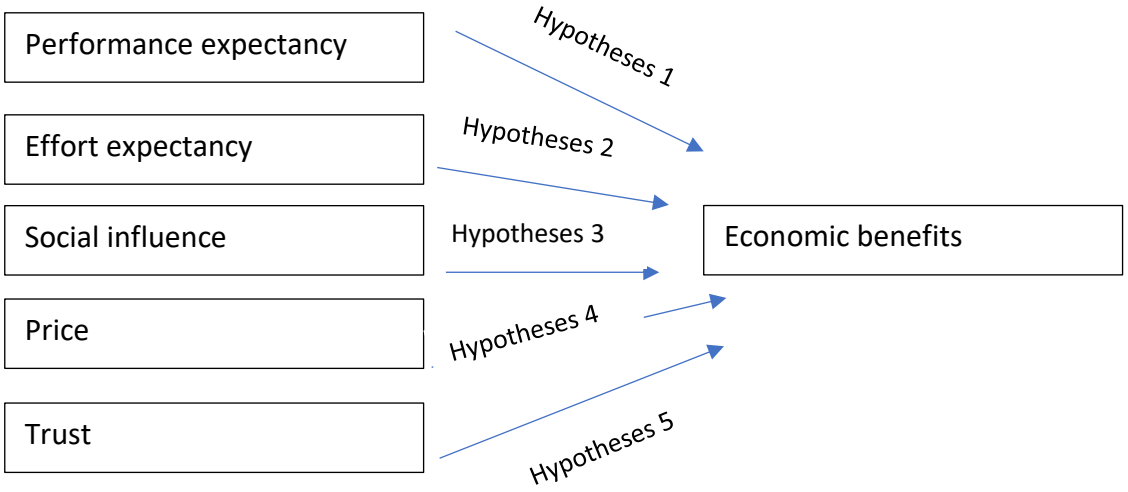

Figure 2.1: Conceptual model for willingness to pay for ridesharing attributes.

Chapter 3: Research methodology and data

This chapter gives an outline of the methods that are used in this thesis, to test the formulated hypotheses (chapter 2) and the research questions. The chapter is written in the following order, first the design of our model will be discussed. Followed by the procedure. The final paragraph explains the methods used to analyze the data.

3.1 Empirical setting

Research questions and hypothesized relationships can be test using quantitative data and qualitative data. Quantitative research establishes statistically significant conclusions about a population by studying a representative sample of the population.1 The population consists of the entire group being studied. It does not matter if the population is broad or narrow, only that it includes every individual that fits the description of the group being studied. (Bryman, 2017).

Qualitative research describes events in the natural environment. It is a subjective view of living life and an attempt to explain the behavior being studied. Qualitative researchers study participants using anthropological and ethnographic techniques rather than designing experiments and artificially controlling for variables. In qualitative research, interventions should be as few as possible, and researchers often observe participants unnoticed. (Bryman, 2017). Quantitative research aims to test theories by conducting experiments and numerically analyzing the results, whereas qualitative research attempts to arrive at a theory that explains observed behavior. Thus, quantitative research is more deductive and qualitative research is more inductive. (Bryman, 2017).

The main research question and hypothesized relationships between ridesharing attributes and willingness to pay are tested using quantitative data. To be able to answer the research questions and test our hypotheses, an online survey is conducted. This survey will collect the data that is needed for the analysis.

Compared to other methods of data collection an online survey has some advantages over these other methods. Therefore the choice to use an online survey. By maintaining high external validity and achieving a high level of internal validity valid results can be found and generalized

3.2 Research design model

To research the effect of certain attributes on the willingness to pay for ride sharing activities, a survey will be conducted to measure and compare the influence of an attribute on the willingness to pay. The six attributes that are being researched and tested in the survey are:

1. Performance expectancy
2. Effort expectancy
3. Social influence
4. Price
5. Trust
6. Economic benefits

The survey consists of seven parts and will be conducted online via the Qualtrics software.

The full detailed copy of the survey can be found in appendix 1.

The first part of the survey is about six control and demographic questions such as age, gender, and education level. These control questions are added because they may affect the overall data quality and because they tell us something about the sample population.

The second and final part of the survey is about the individual attributes, and thus developed to see what people think about the attributes and how they are rated. Each attribute has its own “slide” in the questionnaire in which 4-6 questions are being asked. These questions must be answered on a 1 to 5 Likert scale. The scale must be interpreted as following: 1- strongly disagree, 2- disagree, 3- neutral, 4-agree, 5- strongly disagree.

In the slides about Performance expectancy, effort expectancy, social influence and trust a trap question is included, to ensure that the respondent is paying attention. The overall data quality could be influenced by people who are not paying attention and thus we attempt to recognize and delete these responses by adding a trap question.

Before the questionnaire was sent out in public, the questionnaire was controlled by three students and a Professor from the Erasmus school of economics. The evaluation and feedback of the survey led to some minor adjustments. Mainly in the layout of the survey and the way the questions were presented to the respondents. Finally since not every respondent is familiar with Likert scale questions and ridesharing, an explanation on these two topics is included at the beginning of the survey. To comply to the rules on privacy and data protection,

a privacy statement is shown at the beginning of the survey to ensure that the respondents answer can and may be used in this research.

After the survey was checked and given the green light by the three students and professor from the Erasmus school of economics, the survey was distributed on the 25th of May 2023. The survey was distributed via social media, study related WhatsApp groups, friends, and some word of mouth from respondents. The data collection period ended on the 20th of June 2023

3.3 Measures of variables

This thesis researches the effect of different attributes on the willingness to pay for ride sharing services. And how these hypothetical relationships can be implemented in the future marketing strategies of the companies in the ride sharing business. Since this research covers the effect of six attributes, these six attributes are the six independent variables. The scores and averages of the independent variables will be derived via the survey. The survey asks the respondents to answer on a Likert scale between 1 and 5.

The decision to use a Likert scale from 1 to 5 is firstly because of the simplicity, the scale still gives data that is very usable, but the questions are easier to answer for respondents and easier to analyze for the researcher. (Boone Jr, H. N., & Boone, D. A. (2012)).

Second the choice to use a five-point Likert scale is to decrease the chance that the respondents will experience fatigue and thus not finish and or answer the survey. Since a five-point scale takes less time and less effort to complete in comparison to a seven- or ten-point scale.

Scores of the individual question on each attribute will be added together and divided by the number of questions that are used for the individual attribute. Resulting in an average score for the individual attribute between 1 and 5 for every individual respondent. Were 1 is regarded as of no influence and 5 as of high influence.

Negatively loaded questions will need to be inverted. This means that if these types of questions are answered with a 5, it need to be given a loading of 1 and vice versa.

To ensure that respondents answer the survey with care and attention, four trap questions have been included in the survey. These questions are shaped like: “if you have read this statement, please answer …..”.

If a response fails to meet the requirement of answering the trap questions correctly, the response will be deleted when the data analysis is started.

3.4 Procedure

The influence on the willingness to pay regarding the six attributes will be determined by sending the questionnaire to the people that fit the target audience of this research. Since the target audience is very broad the questionnaire can be sent via numerous ways, e.g. social media platforms, face to face communications, private messages.

When the answers of the survey are analyzed and compared to each other it will be possible to form a conclusion as to what attributes have an influence on the consumer's willingness to pay. Also these analyzed answers could be compared to the current marketing strategies of the big ride sharing companies, to investigate what changes in the current strategies could be implemented. The goal is to collect 130-200 respondents in order to form a valid conclusion on the effect on willingness to pay for ride sharing services.

The survey data was collected between the start of may till mid-June.

The questionnaire was distributed in numerous ways, mainly spread via social media, e-mail and study-related WhatsApp groups.

As soon as a sufficient number of respondents was reached, the data was cleaned by removing the respondents with missing values or respondents who answered one or more of the trap questions incorrectly.

3.5 Data analysis

To control the reliability of the developed scales for each attribute, Cronbach's Alpha will be used. Cronbach's alpha checks whether these scales measure the same construct as their attribute. Cronbach Alpha measures how closely related a set of items are as a group (Malhotra & Birks, 2003).

The data extracted from the survey will be used to test the hypotheses and to answer the research questions.

The raw data that is exported out of Qualtrics can be found in appendix 1.

The software SPSS will be used to conduct the data analysis.

This thesis research is based on six attributes on the willingness to pay for ride sharing. Thus there are six independent variables. So to start of the analysis six linear regressions will be performed to see to what extent the independent variables influence willingness to pay and also which independent variable is of the most influence of the willingness to pay for ride sharing services.

Resulting in the following regression:

$$Y = B0 + B1 * Attribute_{name} + \varepsilon$$

With Y representing the dependent variable, $B0$ the constant, $B1$ the value of a single attribute, attribute_name the rating on a 1 to 5 Likert scale for the attribute and E represents the error term.

To answer the research question with regard to the attribute importance a regression model with all six independent variables will be computed. The output of this regression will then be used to compute the attribute importance for each individual attribute.

$$Y = B0 + B1 * Rperfomance + B2 * Reffort + B3 * RSocialInfluence + B4 * RPrice + B5 * Trust + \varepsilon$$

With Y representing the economic benefits, $B0$ the constant, $B1$ the value of performance expectancy, $B2$ the value of effort expectancy, $B3$ the value of social influence, $B4$ the value of price, $B5$ the value of trust, RAttributename represents the rating on a 1 to 5 Likert scale for attribute and E represents the error term.

3.6 Bias prevention

There are several bias threats in terms of the internal and external validity of the results in this research. The internal validity was increased by adding trap questions to the questionnaire, these questions ensure that a respondent has indeed read and thought about what he/she would answer. In addition, the six attributes each had 4-6 scaling questions. Which together with the general questions about age meant that the survey had over 40 questions. In the response rate and time can be seen that respondents experienced fatigue at the end. The response time went down, when interpreting the results this fatigue will be taken into consideration.

Also all questions and attributes are based on real-life situations, meaning that respondents could potentially feel like answering completely free. However based on the explanation given in the survey, respondents could possibly still feel some kind of pressure to respond in a certain way that fits the research and thus adjust their own opinions and ratings.

The external validity of this research has its main biases in the sample collection.

Because of non-probabilistic sampling, the data was not random and thus skewed towards a bias. Self-selection bias is also present in the data of this research, because of the data protection rules the process of completing the questionnaire could not be verified individually, meaning it is extremely hard to control if respondents have filled in the survey more than once.

Chapter 4: Research outcome

In this chapter the research outcome of this thesis will be presented. At first the sample that concludes from the survey will be checked for missing data, unfinished surveys, and other irregularities. Then Cronbach's Alpha will be used to test the reliability of the survey. Cronbach's Alpha will test if all the mentioned attributes and attribute related questions in the survey are reliable. Afterwards, the hypotheses formed in chapter 2 will be test via multiple regressions analyses in SPSS.

4.1 Sample

During the data collection period between the start of May and Mid-June, a total of 141 responses were collected. The recorded responses have been checked for irregularities and been cleaned and removed if necessary. Starting with removing respondents that started the survey but did not answer anything at all and with the respondents that started seriously but did not finish the survey. This led to 8 people that opened but did not fill in the survey and 28 People that started but did not finish the survey. Ultimately leading to 105 fully answered collected surveys. Afterwards, the trap questions were checked, to see if the respondent answered these questions in the way he/she should have. This led to a removal of 11 respondents, resulting in a final sample of 94 recorded surveys.

To add as a sidenote, participants which have answered the entire survey but left a blank answer in the questions regarding their "reason of using ridesharing" or "frequency of using ridesharing" have still been taken in this survey and have not been removed. This is because it has turned out that not offering the option "never" resulted in participants not answering this question to indicate that they have never used ridesharing services.

4.2 Descriptive statistics

The descriptive statistics from the final sample of 94 responses are summarized in table 4.1.

Table 4.1 Descriptive statistics of demographic and personal factors.

Type	Variable	Frequency	Percent	Cumulative percent
Gender	Female	32	34.0%	34.0%
	Male	61	64.9%	98.9%
	Non-Binary	1	1.1%	100.0%
	Total	94	100.0%	
Age	<18	4	4.3%	4.3%
	19-21	59	62.8%	67.1%

	22-29	20	21.2%	88.3%
	30-50	6	6.4%	94.7%
	50+	5	5.3%	100%
	Total	94	100.0%	
Education	MBO	7	7.4%	7.4%
	HBO	22	23.4%	30.8%
	University	61	64.9%	95.7%
	Other	4	4.3%	100.0%
	Total	94	100.0%	
Ever made use?	Yes	74	78.7%	78.7%
	No	20	21.3%	100.0%
	Total	94	100.0%	
Use for what?	Work	11	12.5%	12.5%
	Private	77	87.5%	100.0%
	Total	88	100.0%	
How often do you make use?	0-10	64	69.6%	69.6%
	10-25	16	17.4%	87.0%
	25-50	9	9.8%	96.7%
	50+	3	3.3%	100.0%
	Total	92	100.0%	

Notes: Table 4.1 shows information about the respondents of our sample. The data of the sample is measured in between May and Mid-June 2023.

Table 4.1 tells us the most about our sample, this frequency table gives information about how many respondents have responded to each type of answer. At first can be seen that the sample mostly consists of man, more than 60% of the sample is male, almost all of the rest of the sample identifies as female, with one respondent identifying as non-binary.

The age category has been merged into age-groups; it can be seen that the biggest age-group is the group of 19-21 years. Which is in line with the answer on the education question, where it can be seen that most of the respondents are still students.

Table 4.2 Descriptive statistics Demographic factors

	N	Minimum	Maximum	Mean	Std.Dev.
Gender	94	1	3	1.67	0.495
Age	94	17	61	23.56	8.768
Education	94	1	4	2.66	0.681
Ever made use?	94	1	2	1.21	0.411
Use for what?	92	1	2	1.87	0.333
How often do you make use?	88	1	4	1.47	0.805

Notes: Table 4.2 shows information about the respondents of our sample. The data of the sample is measured in between May and Mid-June 2023.

In table 4.2 the descriptive statistics of the demographic question are presented. The most useable information that can be taken from this table is about the age of the respondents and for what reasons the respondents use ridesharing. The mean age is 23.56 years so 24 Years of age. The reason respondents make use of ride sharing is mostly because of private reasons. This can be said because the mean (1.87) is skewed towards the value 2 (the value of private in the dataset).

Table 4.3 Descriptive statistics of averages for the different attributes of ridesharing

	N	Minimum	Maximum	Mean	Std.Dev.
Performance expectancy	94	1.00	5.00	2.99	0.944
Effort expectancy	94	1.00	5.00	3.73	0.696
Social Influence	94	1.00	5.00	2.89	0.743
Price	94	2.25	5.00	3.58	0.624
Trust	94	1.00	5.00	3.50	0.737
Economic benefits	94	1.00	5.00	2.94	0.744

Notes: Table 4.3 shows information about the respondents of our sample. The data of the sample is measured in between May and Mid-June 2023.

The data is displayed in table 4.3 is used to make regressions and thus test the hypotheses. The fact that the attributes are measured with a 1-5 Likert scale means that when analyzing it will be considered that this Liker scale is used.

The overall sample cannot be seen as representative for the entire European/World population, a much larger sample is needed for that. The sample also is not representative for the Dutch population, the average age is to low, and the lower educated people are underrepresented, this sample is assumed to contain a lot of students as respondent which also means it is hard to be representative for the entire Dutch population.

4.3 Factor analysis and Cronbach's Alpha

Factor analysis and Cronbach's Alpha (also referred to as CA) are used to test the reliability of the five attributes that measure the influence of willingness to pay on the economic benefits of ridesharing (Cronbach, 1951).

In the research conducted by Field (2013), it is stated that, reliability and internal consistency across the different items of a questionnaire or research are considered to be excellent reliable if Cronbach's Alpha is >0.90, highly reliable if 0.70<CA<0.90, moderately reliable if 0.50<CA<0.70 and slightly reliable if CA<0.50.

In table 4.4 the results of the Cronbach's Alpha test for reliability of the items used in the survey are presented.

Table 4.4 Cronbach's Alpha

Construct	Items	Cronbach's Alpha	Cronbach's Alpha if item deleted
Performance expectancy	Q1.1	0.842	0.789
	Q1.2		0.810
	Q1.3		0.787
	Q1.4		0.814
Effort expectancy	Q2.1	0.576	0.458
	Q2.2		0.490
	Q2.3		0.454
	Q2.4		0.615
Social Influence	Q3.1	0.726	0.746
	Q3.2		0.674
	Q3.3		0.574
	Q3.4		0.640
Price	Q4.1	0.438	0.297
	Q4.2		0.236
	Q4.3		0.352
	Q4.4		0.533
Trust	Q5.1	0.756	0.686
	Q5.2		0.681
	Q5.3		0.776
	Q5.4		0.643
Economic benefits	Q6.1	0.649	0.554
	Q6.2		0.571

	Q6.3	0.547
	Q6.4	0.630
	Q6.5	0.669

The designed scales in the survey are considered to be reliable on different levels, the results are discussed below.

The performance expectancy of the sample is considered to be highly reliable, scoring 0.842. Furthermore Social influence and trust also have a highly reliable, with respective scores of 0.726 and 0.756. In addition, Effort expectancy with a score of 0.576 and economic benefits with a score of 0.649, have a score that is considered to be moderately reliable. Lastly, price proves to be slightly reliable with a score of 0.438 and thus lower than 0.500. When regressing, the results displayed in table 1 will be taken into consideration.

4.4 Regression results

Linear regressions are used to test the hypotheses that have been formulated in chapter two of this thesis.

Table 4.5: Regression results of performance expectancy on economic benefits.

Economic benefits	**Coefficient**	**Std. Error**	**t**	**P-value**
Constant	1.678	0.218	7.700	<.001
Performance expectancy	0.420	0.070	6.043	<.001
Number of obs.		**R-squared**		
94		0.284		

4.4.1 Results performance expectancy

Table 4.5 shows that the coefficient of performance expectancy is 0.420, since the coefficient is positive we can state that a rise in the valuation of the willingness to pay for performance expectancy attributes leads to an increase in the willingness to pay for economic benefits. A rise of the valuation for the willingness to pay for performance expectancy attribute by 1 on the Likert-scale (e.g. going from agree to totally agree, or from disagree to neutral), leads to an increase in the rating of the willingness to pay for economic benefits by 0.420 points on the scale of Likert. Since the P-value is below the significance level (0.001<0.05) a significant

correlation is assumed. The R-squared of the model is 0.284, meaning that 28.4% of the variance in the data can be explained by the model.

4.4.2 Results effort expectancy

Table 4.6: Regression results of effort expectancy on economic benefits.

Economic benefits	Coefficient	Std. Error	t	P-value
Constant	1.572	0.398	3.952	<.001
Effort expectancy	0.365	0.105	3.486	<.001
Number of obs.		**R-squared**		
94		0.117		

Table 4.6 shows that the coefficient of effort expectancy is 0.365, since the coefficient is positive we can state that a rise in the valuation of the willingness to pay for effort expectancy attributes leads to an increase in the willingness to pay for economic benefits. A rise of the valuation for the willingness to pay for effort expectancy attribute by 1 on the Likert-scale (e.g. going from agree to totally agree, or from disagree to neutral), leads to an increase in the rating of the willingness to pay for economic benefits by 0.365 points on the scale of Likert. Since the P-value is below the significance level (0.001<0.05) a significant correlation is assumed. The R-squared of the model is 0.117, meaning that 11.7% of the variance in the data can be explained by the model.

4.4.3 Results social influence

Table 4.7: Regression results of social influence on economic benefits.

Economic benefits	Coefficient	Std. Error	t	P-value
Constant	1.698	0.282	6.015	<.001
Social influence	0.428	0.094	4.526	<.001
Number of obs.		**R-squared**		
94		0.182		

Table 4.7 shows that the coefficient of social influence is 0.428, since the coefficient is positive we can state that a rise in the valuation of the willingness to pay for social influence attributes leads to an increase in the willingness to pay for economic benefits. A rise of the valuation for the willingness to pay for the social influence attribute by 1 on the Likert-scale (e.g. going from agree to totally agree, or from disagree to neutral), leads to an increase in the rating of the willingness to pay for economic benefits by 0.428 points on the scale of Likert. Since the

P-value is below the significance level (0.001<0.05) a significant correlation is assumed. The R-squared of the model is 0.182, meaning that 18.2% of the variance in the data can be explained by the model.

4.4.4 Results Price

Table 4.8: Regression results of Price on economic benefits.

Economic benefits	Coefficient	Std. Error	T	P-value
Constant	1.887	0.437	4.314	<.001
Price	0.293	0.120	2.431	0.017
Number of obs.			**R-squared**	
94			0.060	

Table 4.8 shows that the coefficient of price is 0.293, since the coefficient is positive we can state that a rise in the valuation of the willingness to pay for price attributes leads to an increase in the willingness to pay for economic benefits. A rise of the valuation for the willingness to pay for the price attribute by 1 on the Likert-scale (e.g. going from agree to totally agree, or from disagree to neutral), leads to an increase in the rating of the willingness to pay for economic benefits by 0.293 points on the scale of Likert. Since the P-value is below the significance level (0.017<0.05) a significant correlation is assumed. The R-squared of the model is 0.060, meaning that 6.0% of the variance in the data can be explained by the model.

4.4.5 Results trust

Table 4.9: Regression results of trust on economic benefits.

Economic benefits	Coefficient	Std. Error	t	P-value
Constant	1.372	0.338	4.062	<.001
Trust	0.447	0.094	4.727	<.001
Number of obs.			**R-squared**	
94			0.195	

Table 4.9 shows that the coefficient of trust is 0.447, since the coefficient is positive we can state that a rise in the valuation of the willingness to pay for trust related attributes leads to an increase in the willingness to pay for economic benefits. A rise of the valuation for the willingness to pay for the trust attribute by 1 on the Likert-scale (e.g. going from agree to totally agree, or from disagree to neutral), leads to an increase in the rating of the willingness to pay for economic benefits by 0.447 points on the scale of Likert. Since the P-value is below

the significance level (0.001<0.05) a significant correlation is assumed. The R-squared of the model is 0.195, meaning that 19.5% of the variance in the data can be explained by the model.

4.5 Attribute importance and full regression model

4.5.1 Full regression model results

Table 4.10 Full regression model

Economic benefits	Coefficients
Constant	1.065*
	(0.419)
Performance expectancy	0.391***
	(0.085)
Effort expectancy	-0.065
	(0.117)
Social influence	0.122
	(0.099)
Price	-0.183
	(0.124)
Trust	0.356***
	(0.102)
N	94
R-squared	0.413

Notes: Standard error is displayed between brackets. Significance levels are as followed: P<0.05, P<0.01**,P<0.001***.*

The full regression model, shown in table 4.10 shows the attributes added together. Before analyzing all different attributes, the P-values of the attributes are taken into consideration. This results in the fact that the attributes performance expectancy and trust are the only significant attributes. Thus, only these two attributes have an influence on the willingness to pay for the economic benefits of ridesharing services. The coefficient of performance expectancy is 0.391 since the coefficient is positive we can state that a rise in the valuation of the willingness to pay for performance expectancy attributes leads to an increase in the willingness to pay for economic benefits. A rise of the valuation for the willingness to pay for performance expectancy attribute by 1 on the Likert-scale (e.g. going from agree to totally agree, or from disagree to neutral), leads to an increase in the rating of the willingness to pay for economic benefits by 0.391 points on the scale of Likert.

The coefficient of trust is 0.356 since the coefficient is positive we can state that a rise in the valuation of the willingness to pay for trust attributes leads to an increase in the willingness

to pay for economic benefits. A rise of the valuation for the willingness to pay for trust attribute by 1 on the Likert-scale (e.g. going from agree to totally agree, or from disagree to neutral), leads to an increase in the rating of the willingness to pay for economic benefits by 0.356 points on the scale of Likert. The R-squared of the model is 0.413, meaning that 41.3% of the variance in the data can be explained by the model.

4.5.1 Attribute importance

In figure 4.1 the attribute importance is given; this attribute importance is computed based on the coefficients given in the full regression model.

Looking at figure 4.1 we can see that the willingness to pay for performance expectancy attributes and trust attributes are of most importance for the willingness to pay for economic benefits, respective 35% and 32%. Effort expectancy (respectively 6%) is of the smallest importance to the willingness to pay for economic benefits.

Figure 4.1 Attribute importance

Notes: Figure 4.1 shows the importance of all attributes as a percentage. This calculation is done for all respondents.

4.6 Summary of research outcome

In summary, four different types of analyses have been conducted: Factor analysis (based on Cronbach's Alpha), single linear regression models, a full regression model and a test on attribute importance.

Cronbach's Alpha resulted in the performance expectancy of the sample considered to be highly reliable, social influence and trust are highly reliable, effort expectancy and economic benefits are moderately reliable and finally price proved to be slightly reliable.

The single regression models showed a significant impact of all the five different on the willingness to pay for economic benefits of ridesharing services, however the full regression model proved that only the willingness to pay for performance expectancy and trust had a significant and positive influence on the willingness to pay for economic benefits of ridesharing services.

Finally, the full regression model was used to compute the attribute importance of the different attributes resulting in a graph that showed that performance expectancy and trust were of the highest importance and effort expectancy being of the lowest importance to the willingness to pay for economic benefits of ridesharing services.

Chapter 5: Conclusion, recommendations, and discussion.

In the final chapter of this thesis, the results (presented in chapter 4) will be described and connected to the research questions and hypotheses. This will lead to a final conclusion that answers the main research question of the thesis. Furthermore managerial implications will be given, and the limitations of the research will be stated. Finally suggestions on future or further research on this topic will be given.

5.1 Key findings in literature

In chapter 2 the literature was reviewed, and this formed the basis for this thesis. This literature review also provided answers to the sub-questions of this thesis. The key-findings of chapter 2 will be discussed in this part. The questions "what is ridesharing?" and "what is the current market situation?" gave a description of what this thesis is about and how the current market is in this day and age. The three biggest companies in the ridesharing industry turned out to be Uber, Didi Global and Lyft. These three companies had than been used as an example to show off their marketing strategies, in order to answer the question "what are the current marketing strategies in the ridesharing industry?". Finally a theoretical framework and corresponding hypotheses were formulated. This framework consists of six attributes of ridesharing. Being, performance expectancy, effort expectancy, social influence, price, trust, and economic benefits. In which the first five attributes will be used to test their influence on the willingness to pay for the economic benefits attribute.

5.2 Key findings in research

When looking at the results from chapter 4 the below stated findings are key to this research paper. After Cronbach Alpha analysis, performance expectancy of the sample considered to be highly reliable, social influence and trust are highly reliable, effort expectancy and economic benefits are moderately reliable and finally price proved to be slightly reliable.

The single regression models show a significant impact of each attribute on the willingness to pay for economic benefits. However, a multiple linear regression (or the full regression model) gives a better image of the influence of the attributes on the willingness to pay for economic benefits. This multiple regression models shows that there is a significant impact on the willingness to pay for economic benefits for the performance expectancy and trust attributes. This results in the fact that *Hypothesis 1: Performance expectancy has a significant positive influence on the consumer's willingness to pay for ridesharing services* and *Hypothesis 5: Trust*

has a significant positive influence on the consumer's willingness to pay for ridesharing services are not rejected.

However for the attributes, effort expectancy, social influence, and price there was no significant influence on the willingness to pay for economic benefits. Resulting in the rejection of the below stated hypotheses.

Hypothesis 2: Effort expectancy has a significant positive influence on the consumer's willingness to pay for ridesharing services.

Hypothesis 3: Social influence has a significant positive influence on the consumer's willingness to pay for ridesharing services.

Hypothesis 4: Price has a significant negative influence on the consumer's willingness to pay for ridesharing services.

This all answers the second empirical sub-question of this thesis.

"*What is the influence of attributes on the willingness to pay for ride-sharing services?"*

Lastly the attribute importance shows that performance expectancy and trust are the most important attributes in the influence on willingness to pay for economic benefits, which is in line with the p-values and significance that came out of the multiple regression model. And also answers the first empirical sub-question of this thesis.

What is the importance of the attributes/factors that are considered to be of influence on the willingness to pay for ride-sharing services?

5.3 Conclusions

After taking the findings in the literature and empirical research into account conclusions can be drawn. The most important conclusion is the answering on the main research question of this thesis.

What is the influence of attributes on the willingness to pay for ride-sharing services and how to implement and/or change this in the marketing strategies of the companies that take part in the ride-sharing industry?

The findings in the literature have shown that there were six attributes that were considered to be of influence. The empirical research showed that the performance expectancy attribute and the trust attribute are both of influence on the willingness to pay for the economic benefits of a ridesharing service. Both of these attributes had a positive impact on the rating of the willingness to pay for economic benefits on a 1 to 5 Likert scale.

Meaning that the influence of the two attributes leads to higher willingness to pay for the economic benefits of ridesharing.

The literature also proved that the marketing strategies of the different companies in the ridesharing industry differ. However the results of the empirical research show a significant influence of performance expectancy and trust, meaning that these two attributes should be addressed or emphasized more in the marketing strategies of the companies.

5.4 Managerial implications

As stated above in chapter 5.3, it Is useful for the companies in the ridesharing industry to take the results of the empirical research into consideration. The marketing strategies could be adjusted with a higher emphasize on trust between riders and drivers/the platform and a higher emphasize on the performance expectancy aspect of ridesharing. For example people who use ridesharing to be more efficient in their daily lifes.

The higher focus on the trust attribute can be implemented and interpreted in many ways. It could be that there should be investments in the trustworthiness between a driver and a customer, so that a customer feels safer. This could mean that a ridesharing company could differentiate themselves from others by introducing something like “certified trustworthy”. In which a company invests in their drivers’ taking courses in safety and how to handle customers to increase the level of trust between the company, driver, and customer.

The performance expectancy could increase the efficiency of a customer, a customer could experience that ridesharing services help them to be more efficient during the day. These results could be extended to corporate levels. Having ridesharing companies invest in helping working people to be more efficient during their working days, business trips etc.

Even though the data in the research shows that only 12.5% of the respondents make use of ridesharing for work purposes, the ridesharing industry should take this into consideration and look deeper into this. A partnership between big firms and ridesharing companies could do good for the ridesharing companies.

5.5 Research limitations

The conclusions of this research are hindered by a few limitations, starting with the external validity of the sample. The external validity is poor, and this is because of the way the sample and data were collected. The sample consist mainly of students and relatives of the researcher and is also not that big. This means that the sample is not representative for the entire

population. Secondly the regressions are run on data that is made up out of a 1 to 5 Likert scale. This results in non-parametric variables that have no normal distribution, making the regressions more complicated to interpret. Thirdly, not all possible attributes that are of influence on the consumers' willingness to pay for the economic benefits of ridesharing are given in this research. Lastly, the results of this research might be influenced by biases, such as response bias. For example fatigue could play a role, the trap questions have tried to mitigate this bias, but it is impossible to completely rule out this bias in the span of this research.

5.6 Future research

For future research it would be advised to take the research limitation of this research into account. Starting by creating a bigger, random, and externally valid sample. To fully capture the willingness to pay, a choice-based experiment could be conducted that lets customers decide between two options for a numerous amount of "tries". So it can be seen how much a person is willing to pay in euros for a specific attribute of the ridesharing services. Also splitting this research into firm specific research could be of use for future research since most companies operate slightly different and have different attributes on offer.

As suggested in paragraph 5.4, ridesharing companies could focus more on the performance expectancy and efficiency of customers coming from the working forces. Since this research is based on data that consists of mostly private users of ridesharing services, future research would do good to rerun this research but just for people who use ridesharing for work purposes. So that ridesharing companies can see whether it would be right to invest in a partnership with bigger corporate firms.

Finally, the presented attributes in this research do not make up all the attributes that exist in the ridesharing industry. Future research should look beyond these attributes and see if there are other attributes that pose a significant impact on the willingness to pay in the ridesharing industry.

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Appendix

What is your age?	
I identify myself as.	1. Man 2. Woman 3. non-binary 4. other
What is your highest attended education level?	1. Secondary vocational education (MBO) 2. Higher vocational education (HBO) 3. University 4. Other, namely.
Did you ever make use of a ride-sharing service? (Uber, Bolt, Bird)	1. Yes 2. No
Do you use ride-sharing services for work or private reasons?	1. Work 2. Private reasons
How often do you use ride-sharing services? (On a yearly basis)	1. 0-10 2. 10-25 3. 25-50 4. 50+

Survey questions:

Introduction: *Introduce ridesharing and explain, explain thesis and goal of thesis, thank for help, privacy statement***.**

Variables	Questions	Scale (likert)
Performance expectancy	I see ridesharing as a nice addition to my options in daily transportation.	1-5 (strongly disagree, disagree, neutral, agree, strongly agree)
	Using ride-sharing services makes me more productive.	1-5 (strongly disagree, disagree, neutral, agree, strongly agree)
	Ride-sharing services are useful in my daily life.	1-5 (strongly disagree, disagree, neutral, agree, strongly agree)
	The time I save by using ridesharing to transport is making me willing to pay a higher fee.	1-5 (strongly disagree, disagree, neutral, agree, strongly agree)
Effort expectancy	I find ride-sharing applications easy to use.	1-5 (strongly disagree, disagree, neutral, agree, strongly agree)
	I do not need experience/skill to use the ride-sharing applications.	1-5 (strongly disagree, disagree, neutral, agree, strongly agree)
	I will (re)use an application when the application is easy to use.	1-5 (strongly disagree, disagree, neutral, agree, strongly agree)

	I'm willing to pay more for a ride when it is easy to book the ride.	1-5 (strongly disagree, disagree, neutral, agree, strongly agree)
Social influence	I tend to use a ride-sharing service faster after positive feedback from friends	1-5 (strongly disagree, disagree, neutral, agree, strongly agree)
	I'm willing to pay more for a ride when friends/family recommend the service to me	1-5 (strongly disagree, disagree, neutral, agree, strongly agree)
	I tend to use a ride-sharing service faster after an advertisement by a celebrity or influencer on social media	1-5 (strongly disagree, disagree, neutral, agree, strongly agree)
	I'm willing to pay more for a ride after seeing an advertisement by a celebrity or influencer on social media	1-5 (strongly disagree, disagree, neutral, agree, strongly agree)
Price	I am familiar with the pricing systems of ride-sharing services (Lower prices in the off-peak hours and higher prices in the peak hours)	1-5 (strongly disagree, disagree, neutral, agree, strongly agree)
	I agree with the pricing systems.	1-5 (strongly disagree, disagree, neutral, agree, strongly agree)
	If the prices of ride-sharing services increase, I would still make use of the services.	1-5 (strongly disagree, disagree, neutral, agree, strongly agree)
	Lower prices would make me use the services more often.	1-5 (strongly disagree, disagree, neutral, agree, strongly agree)
Trust	Trust in a specific ride-sharing provider (Uber, Bolt) makes me want to pay a higher price.	1-5 (strongly disagree, disagree, neutral, agree, strongly agree)
	Specific ride-sharing providers that put more effort in establishing a trustworthy relationship with the customer are entitled to charge higher fees.	1-5 (strongly disagree, disagree, neutral, agree, strongly agree)

	Trust influences my decision to make use of a ridesharing service.	1-5 (strongly disagree, disagree, neutral, agree, strongly agree)
	If there was something called “certified trustworthy”, I would pay more for the service.	1-5 (strongly disagree, disagree, neutral, agree, strongly agree)
		1-5 (strongly disagree, disagree, neutral, agree, strongly agree)
Economic benefits	Using a ride-sharing service or app gives me financial benefits.	1-5 (strongly disagree, disagree, neutral, agree, strongly agree))
	Having a discount on future rides makes me reuse the service in the future.	1-5 (strongly disagree, disagree, neutral, agree, strongly agree)
	I’m willing to pay more if that means that I have more discounts in the future.	1-5 (strongly disagree, disagree, neutral, agree, strongly agree)
	I have used a ride-sharing service because of a discount I received via mail/social media.	1-5 (strongly disagree, disagree, neutral, agree, strongly agree)
	I’m willing to pay more for my ride when the company publicly spends money to reduce their carbon footprint.	1-5 (strongly disagree, disagree, neutral, agree, strongly agree)

SPSS Output

Statistics

		I identify myself as:	What is your age? (answer in numbers, e.g. 21)	What is your highest attended education level?	Did you ever make use of a ride-sharing service? (e.g. Uber, Bolt, Bird)	Do you use ride-sharing services for work or private reasons?	How often do you use ride-sharing services? (On a yearly basis)
N	Valid	94	95	94	94	88	92
	Missing	1	0	1	1	7	3

I identify myself as:

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	32	33.7	34.0	34.0
	2	61	64.2	64.9	98.9
	3	1	1.1	1.1	100.0
	Total	94	98.9	100.0	
Missing	System	1	1.1		
Total		95	100.0		

What is your age? (answer in numbers, e.g. 21)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	17	1	1.1	1.1	1.1
	18	3	3.2	3.2	4.2
	19	12	12.6	12.6	16.8
	20	20	21.1	21.1	37.9
	21	27	28.4	28.4	66.3
	22	12	12.6	12.6	78.9
	23	4	4.2	4.2	83.2
	24	1	1.1	1.1	84.2
	25	1	1.1	1.1	85.3
	28	1	1.1	1.1	86.3
	29	1	1.1	1.1	87.4
	30	2	2.1	2.1	89.5
	33	1	1.1	1.1	90.5
	34	2	2.1	2.1	92.6
	45	1	1.1	1.1	93.7
	51	1	1.1	1.1	94.7
	53	1	1.1	1.1	95.8
	56	1	1.1	1.1	96.8
	60	1	1.1	1.1	97.9
	61	1	1.1	1.1	98.9
	What is your age? (answer in numbers, e. g. 21)	1	1.1	1.1	100.0
	Total	95	100.0	100.0	

What is your highest attended education level?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	7	7.4	7.4	7.4
	2	22	23.2	23.4	30.9
	3	61	64.2	64.9	95.7
	4	4	4.2	4.3	100.0
	Total	94	98.9	100.0	
Missing	System	1	1.1		
Total		95	100.0		

Did you ever make use of a ride-sharing service? (e.g. Uber, Bolt, Bird)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	74	77.9	78.7	78.7
	2	20	21.1	21.3	100.0
	Total	94	98.9	100.0	
Missing	System	1	1.1		
Total		95	100.0		

Do you use ride-sharing services for work or private reasons?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	11	11.6	12.5	12.5
	2	77	81.1	87.5	100.0
	Total	88	92.6	100.0	
Missing	System	7	7.4		
Total		95	100.0		

How often do you use ride-sharing services? (On a yearly basis)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	64	67.4	69.6	69.6
	2	16	16.8	17.4	87.0
	3	9	9.5	9.8	96.7
	4	3	3.2	3.3	100.0
	Total	92	96.8	100.0	
Missing	System	3	3.2		
Total		95	100.0		

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Average Q1	94	1.00	5.00	2.9894	.94394
Average Q2	94	1.00000000	5.00000000	3.72960993	.695681998
Average Q3	94	1.00000000	5.00000000	2.89450355	.742965370
Average Q4	94	2.25	5.00	3.5771	.62436
Average Q5	94	1.00	5.00	3.5000	.73689
Average Q6	94	1.0	5.0	2.935	.7444
Valid N (listwise)	94				

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	Average Q1[b]	.	Enter

a. Dependent Variable: Average Q6

b. All requested variables entered.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.533[a]	.284	.276	.6332

a. Predictors: (Constant), Average Q1

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	14.644	1	14.644	36.521	<.001[b]
	Residual	36.890	92	.401		
	Total	51.534	93			

a. Dependent Variable: Average Q6

b. Predictors: (Constant), Average Q1

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.678	.218		7.700	<.001
	Average Q1	.420	.070	.533	6.043	<.001

a. Dependent Variable: Average Q6

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	Average Q2[b]	.	Enter

a. Dependent Variable: Average Q6

b. All requested variables entered.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.342[a]	.117	.107	.7034

a. Predictors: (Constant), Average Q2

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	6.013	1	6.013	12.152	<.001[b]
	Residual	45.522	92	.495		
	Total	51.534	93			

a. Dependent Variable: Average Q6

b. Predictors: (Constant), Average Q2

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	1.572	.398		3.952	<.001
	Average Q2	.365	.105	.342	3.486	<.001

a. Dependent Variable: Average Q6

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	Average Q3[b]	.	Enter

a. Dependent Variable: Average Q6

b. All requested variables entered.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.427[a]	.182	.173	.6769

a. Predictors: (Constant), Average Q3

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	9.384	1	9.384	20.481	<.001[b]
	Residual	42.150	92	.458		
	Total	51.534	93			

a. Dependent Variable: Average Q6

b. Predictors: (Constant), Average Q3

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	1.698	.282		6.015	<.001
	Average Q3	.428	.094	.427	4.526	<.001

a. Dependent Variable: Average Q6

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	Average Q4[b]	.	Enter

a. Dependent Variable: Average Q6

b. All requested variables entered.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.246[a]	.060	.050	.7255

a. Predictors: (Constant), Average Q4

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3.111	1	3.111	5.911	.017[b]
	Residual	48.423	92	.526		
	Total	51.534	93			

a. Dependent Variable: Average Q6

b. Predictors: (Constant), Average Q4

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	1.887	.437		4.314	<.001
	Average Q4	.293	.120	.246	2.431	.017

a. Dependent Variable: Average Q6

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	Average Q5[b]	.	Enter

a. Dependent Variable: Average Q6

b. All requested variables entered.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.442[a]	.195	.187	.6713

a. Predictors: (Constant), Average Q5

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	10.069	1	10.069	22.341	<.001[b]
	Residual	41.465	92	.451		
	Total	51.534	93			

a. Dependent Variable: Average Q6

b. Predictors: (Constant), Average Q5

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	1.372	.338		4.062	<.001
	Average Q5	.447	.094	.442	4.727	<.001

a. Dependent Variable: Average Q6

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	Average Q5, Average Q1, Average Q3, Average Q4, Average Q2[b]	.	Enter

a. Dependent Variable: Average Q6

b. All requested variables entered.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.643[a]	.413	.380	.5861

a. Predictors: (Constant), Average Q5, Average Q1, Average Q3, Average Q4, Average Q2

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	21.309	5	4.262	12.408	<.001[b]
	Residual	30.225	88	.343		
	Total	51.534	93			

a. Dependent Variable: Average Q6

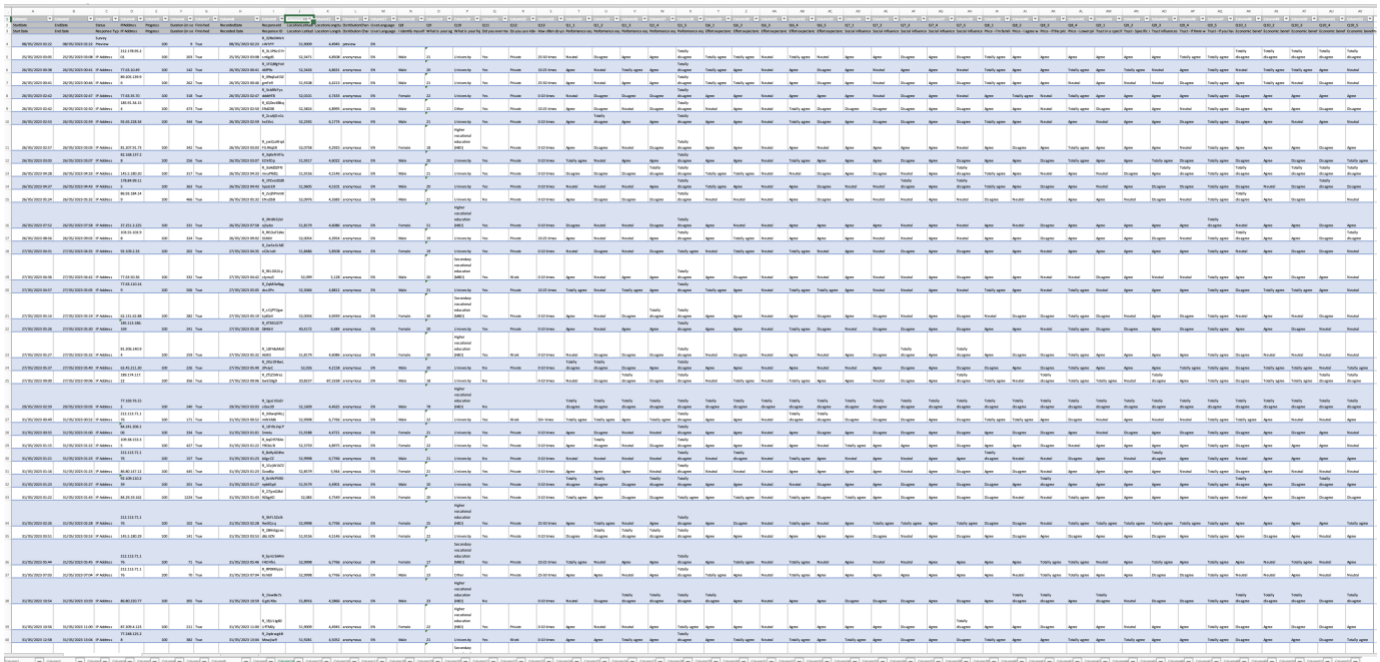
b. Predictors: (Constant), Average Q5, Average Q1, Average Q3, Average Q4, Average Q2

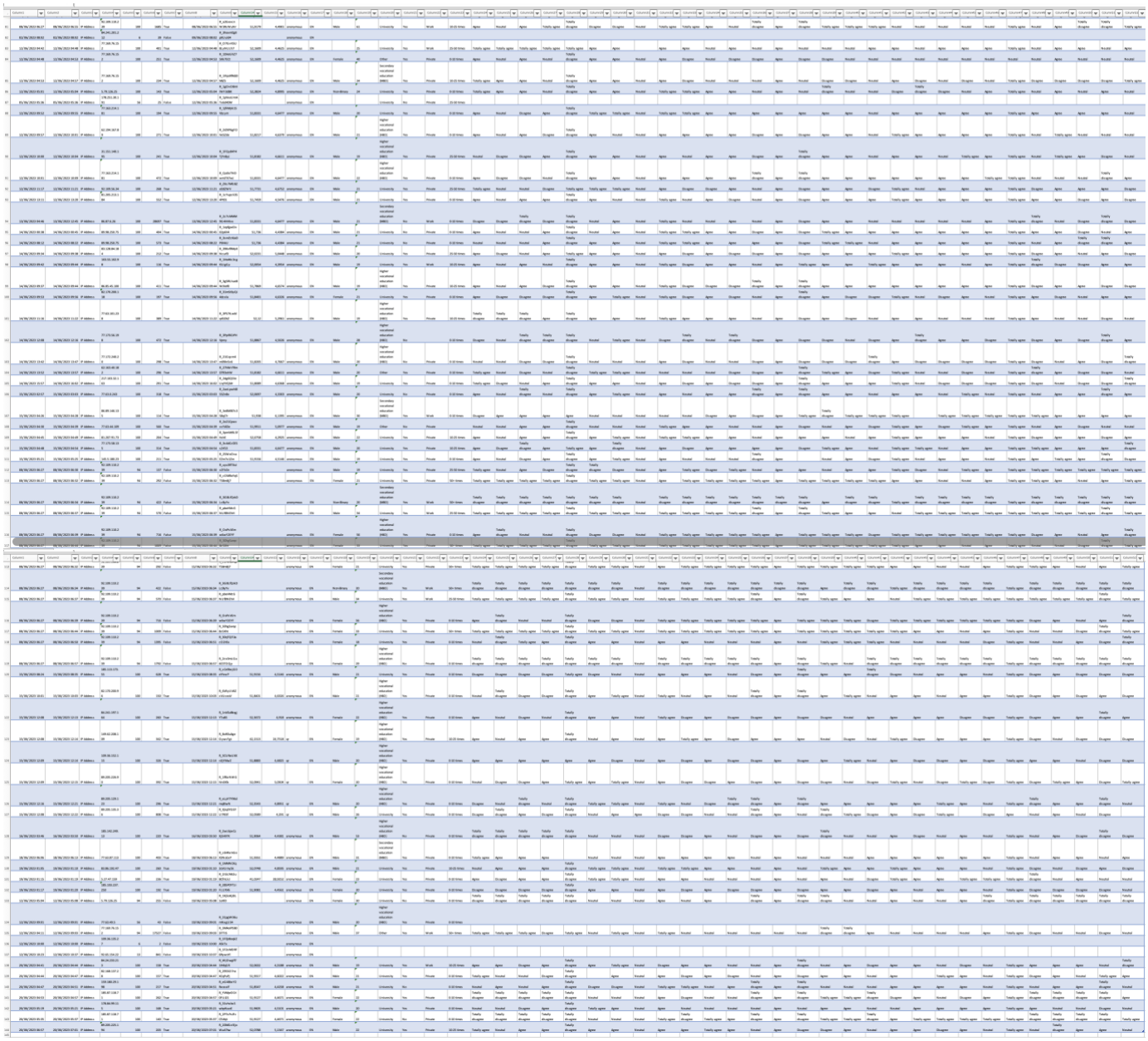
Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	1.065	.419		2.541	.013
	Average Q1	.391	.085	.496	4.609	<.001
	Average Q2	-.065	.117	-.061	-.557	.579
	Average Q3	.122	.099	.122	1.237	.219
	Average Q4	-.183	.124	-.154	-1.482	.142
	Average Q5	.356	.102	.352	3.498	<.001

a. Dependent Variable: Average Q6

RAW DATA





Data used for analysis