SHAKTHI PRASSADH SRIDHAR

TU Delft Delft University of Technology

Plausible factors affecting controversial policy acceptance - an exploratory study

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Shakthi Prassadh Sridhar

Student number: 4596595

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Graduation committee

Chairperson	: Prof. Dr. G.P. (Bert) van Wee, Transport and Logistics group
First Supervisor	: Dr. J.A. (Jan Anne) Annema, Transport and Logistics group
Second Supervisor	: Dr. M.P.M. (Maarten) Franssen, Ethics/Philosophy of Technology

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எல்லாப் புகழும் இறைவனுக்கே

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Summary

Controversial policies have always been subjected to severe social scrutiny and opposition. With the rise of megacities and complex transportation networks, there has been significant growth in the number of controversial policies in the field of transportation. There has been substantial research in the past regarding transport policies, their implementation and their acceptance. But most of these research focusses on particular factors that influence the acceptance of transport policies, and some of them focus on the acceptance levels before and after implementation of a policy. But, there is insignificant research that explains the acceptance of a controversial transport policy as a whole combining various factors from different domains and also focussing on the increase in acceptance after the implementation. This thesis aimed to fill the above-mentioned gap in research by systematically developing a theoretical list of factors influencing the acceptance of a controversial policy with the help of a thorough literature study, and furthermore observing the level of influence of these factors by performing a small-scale case study.

The first part of the thesis is where a theoretical framework of factors explaining acceptance was developed. The framework for the list of factors was built based on an initial framework that was developed for the field of remediation technology. This initial framework was then modified to fit the transportation domain. This was followed by spotting various factors that affect the acceptance of a controversial policy (both proposed and implemented) and these factors were added to the framework under respective domains. These factors were obtained from existing scientific literature with the help of reverse snowballing. Psychological factors were also studied and were added to the framework. Finally the change in acceptance after implementation of a controversial policy was included in the framework using two road pricing case studies from Sweden, the final framework comprises of five contextual domains: the policy's characteristics context, the physical context, the institutional context, demographic and personal context and finally the psychological context. From the Swedish case studies it was noted that the most influential factor that explains the change in acceptance of a policy before and after the implementation is the perceived effectiveness of the policy. (Hence this factor is highlighted in the figure X).

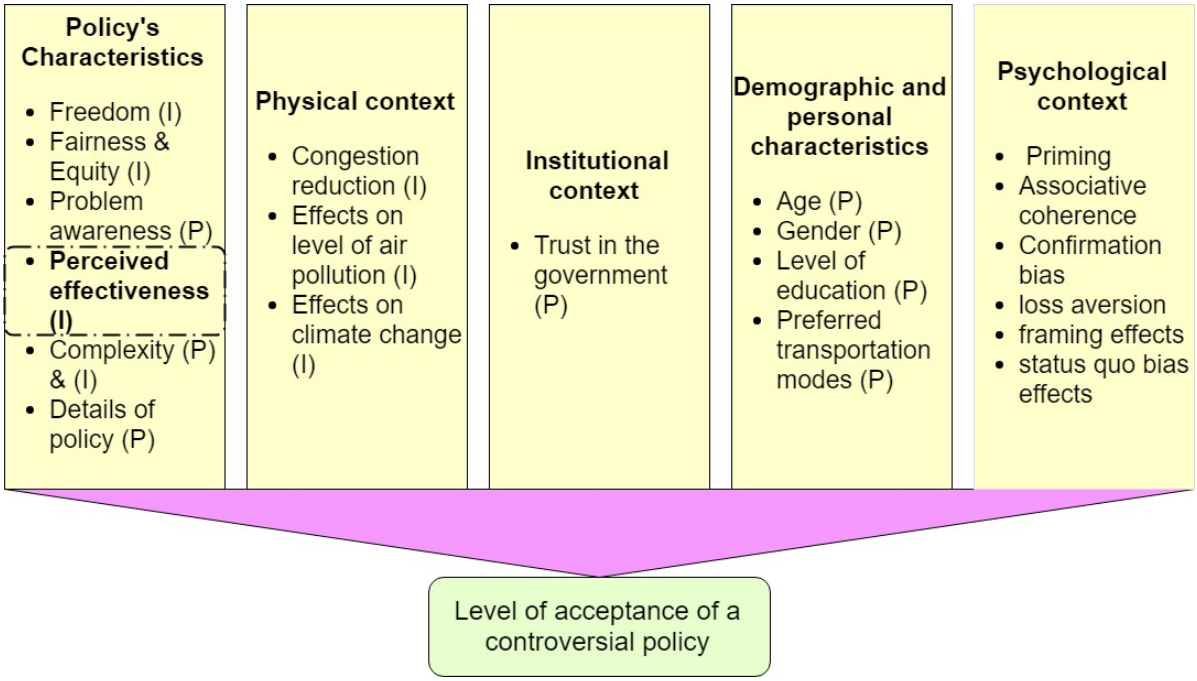

Figure X: Theoretical framework of factors influencing the acceptance of a controversial policy.

The next part of the thesis is to observe the level of influence of the identified factors on the acceptance of a controversial policy with the help of a case study. The road use and parking policies that were recently implemented in the city centre of Delft was chosen for this study. A set of questions were developed based on the theoretical framework for the structured interview, and twenty-one residents of the Oude Delft and Burgwal areas were interviewed for the study. The case study revealed that the list of factors that were proposed earlier was moderately accurate in explaining the level of acceptance of a controversial. There were a few factors that were identified during the development on the model that did not affect the acceptance in a manner it was expected to, for example policy's characteristic of equality did not have much effect on the acceptance of the policy. Similarly, some factors from the physical domains such as climate change and pollution effects did not play a significant role furthermore the demographic factor of gender was also observed to be not very influential in this particular case. From the study, it was observed that the psychological factors of associative coherence, cognitive ease, status quo bias influenced the acceptance of the controversial policy, but there were no instances that support the involvement of the other psychological factors discovered earlier. The study revealed that except for the above-mentioned factors all the other factors presented in the model was indeed influential to some extent on the acceptance of a controversial policy.

It was also noted that there was a substantial increase in the acceptance of the policy after its implementation and the study revealed that the perceived effectiveness of the policy is indeed a very important factor that causes this phenomenon (as it was stated earlier). Another striking finding from the study was that the percentage of businesses opposing the policy initially was far greater than residents living in the area.

Finally, based on the findings from both the theoretical study and the case study recommendations for practice were provided. The limitations of the research and recommendations for future research were also discussed. The impact on businesses by a controversial policy and its level of acceptance was also explored. One major limitation of the thesis is that the case study was done with a small sample and hence the results from the study are not very accurate, and for the future, it is advised to carry out the study with a larger sample. Another drawback was that the case chosen had the policy implemented seven years ago and this made it difficult to find suitable respondents for the study resulting in the small sample. For future study, it is recommended that a study is conducted on a more recent policy and it would be better to have a quantitative analysis as well.

Chapter 1: Introduction

1.1 Introduction

According to the Cambridge dictionary, “Policy” is defined as a noun that is used to describe what to do in particular situations that has been agreed to officially by a group of people, a business organization, a government, or a political party (‘policy Meaning in the Cambridge English Dictionary’, n.d.). As stated above, a policy can be officially defined by the government or political parties or by a business organization. These policies are often controversial and are not welcomed by all the stakeholders involved due to various reasons and factors. Studying the existing literature and news reports revealed that there are many such controversial policies that have been proposed in the past which were subjected to opposition by the stakeholders (examples: London Congestion pricing (LITMAN, n.d.), Opening a new nuclear power plant in south India (Venkat, 2016), opposition against the opening of TATA car manufacturing facility in India (‘Tata’s Nano dreams remain in limbo’, n.d.), etc.).

Such controversial policies have been proposed by different entities (government, businesses, etc.) in a variety of domains including transport policies, energy policies, safety policies in a factory, etc. The internal policies of businesses affect a rather smaller population such as the stakeholders of the business organisation: the employees and customers. In comparison, government policies affect a rather greater population. In some cases, businesses and the government also develop policies together. Irrespective of the type of policies, one of the key goals of a policymaker is to ensure the acceptance of a policy.

This acceptance can further be categorised into different types: the acceptance of a proposed policy or the acceptance of an implemented policy. There are various different factors that influence this acceptance of a proposed or implemented policy. The knowledge about these factors and their interdependence and their causal relationships will enable policymakers to develop effective policies with more acceptance by the stakeholders. To better understand the factors that affect acceptance a clear definition of ‘acceptance’ is inevitable. We tackle this in the following section.

1.1.1 What is acceptance?

While conducting the literature survey, it was evident that most studies did not provide a clear definition of acceptance and it was perceived to be a common everyday term, on the contrary, in reality, there is no common understanding of the term acceptance. As a matter of fact, there were more contradictions than common ground between different definitions of acceptance (Busse & Siebert, 2018).

We performed a literature study by conducting searches in google scholar, Springer link and science direct journals. The search strings used to analyse this was 1. Measurement AND acceptance AND policy, 2. Policy AND acceptance, 3. Acceptance AND definition AND policy. This search yielded an interesting review article written by Busse & Siebert (Busse & Siebert, 2018) and by reverse snowballing from this article many studies with various contrasting definitions of acceptance were identified.

Williams in her article focuses on the acceptance in the domain of land use, defines acceptance as "a condition that results from a judgemental process by which individuals (a) compare the perceived reality with its known alternatives, and (b) decide whether the 'real' condition is superior, or sufficiently similar, to the most favourable alternative condition."(Williams, 2011). Another interesting definition of acceptance can be found in a study by Wolsink in which he explains that "social acceptance is not simply a set of static attitudes of individuals; instead it refers more broadly to social relationships and organisations, and it is dynamic as it is shaped in the learning process."(Wolsink, 2010).

But one of the most cited and most used definition is the one from Wüstenhagen, Wolsink and Bürer. In their article, they explain acceptance by focussing on three dimensions of social acceptance, namely socio-political acceptance, community acceptance and market acceptance (Wüstenhagen, Wolsink, & Bürer, 2007). The socio-political acceptance refers to the acceptance by the general public, key stakeholders and finally the policymakers who deploy the policy. Community acceptance is based on building trust within the closed construct where the policy is being implemented. Finally, market acceptance involves consumers and investors. This is more specific to the acceptance of products and new innovations. The above study on acceptance is based on the acceptance of renewable energy hence market factor plays a crucial role in this case.

For this research, which focusses on the acceptance of controversial policy – 'acceptance' shall be defined by combining the above-mentioned excerpts from literature. In all future references the term acceptance shall be understood as: *The condition from a dynamic and continuous judgemental process where the individuals within a socio-political setup and/or community feel an implemented, or proposed condition (policy) is beneficial to them***.** Furthermore, we shall witness in the upcoming sections, that acceptance is something that could not be static and can vary depending on external factors that make the implemented condition more comfortable or beneficial.

Now that the term 'acceptance' is explained we move back to the factors affecting a controversial policy. As previously mentioned, controversial policies could be a part of a wide variety of domains. The study of all controversial policy domains is very widespread and the time constraints of a master thesis make it unpractical to explore all the different domains. Hence this research will aim to analyse the acceptance of controversial policies pertaining to the transportation domain, the reasons for choosing the transportation domain is explained in the upcoming section.

1.1.2 Controversial policies in the field of transportation

An article published by the UN on the world's cities in 2016 state that over 1.7 billion people live in cities with a population of over a million which is almost 22% of the total population of the world. Studies also show that between 2016 and 2030 the percentage of inhabitants in the city shall increase while the population in rural areas is expected to decrease. Out of this 22 % of urban inhabitants, 6.8% live in megacities with a population over ten million, and this number is expected to grow to 8.7% by 2030 (United Nations, 2016). The increase in urban population coupled with the way the modern society operates, where almost all daily commutation to work, to school, and to run errands occur at the same peak hours due to various socio-ecological reasons. This invariably leads to traffic congestion in metropolitan cities (Downs, 2001). Another major problem that results from this urbanisation and motorisation of the society is the parking issue. These again leads to traffic congestion, accidents and pollution. In today's modern society especially in big cities, parking and congestion problems have a tremendous impact on the life of residents and businesses (Liu et al., 2012).

Some of the major consequences of traffic congestion and parking problems in urban areas are Increased cost for travellers, Increased cost to business, Reduced fuel efficiency, Increased emission of greenhouse and toxic substances, etc. (Falcocchio & Levinson, 2015). There have been a huge array of solutions proposed to curb this problem of congestion. According to an article published by the Federal Highway Administration of the U.S. Department of transportation, congestion pricing is solely the most viable and sustainable approach to decrease traffic congestion (PRIMER, 2006).

It is also believed that parking plays a vital role in the performance of businesses and shopping areas. In their research Mingardo and Van Meerkerk state that the parking situation near a retail business centre has a direct influence on the business (G. Mingardo & van Meerkerk, 2012). These policies are usually termed to be controversial as it usually lacks a unanimous acceptance amidst the stakeholders right away.

1.1.2.1 Transport policies & Parking policies

A report from the European Environment agency suggests that transportation is an integral aspect of most social activities and is, therefore, being dealt with policies at all levels, from the global level to the city council (European Environment Agency, 2008). Congestion pricing is considered to be an effective policy to address traffic congestion in cities (Bagloee & Sarvi, 2017). Congestion pricing or otherwise known as value pricing is a way of harnessing the power of the market to curb the waste generated by traffic congestion, it focusses to shift conventional peak hour traffic to other modes of travel or to off-peak hours (PRIMER, 2006). An economic policy measure such as taxes or fee paid by private vehicle users passing by toll-rings or a central/busy part of the city as a measure to reduce environmental problems such as congestion, parking problems, noise, pollution etc. is referred to as *road pricing schemes* (Nilsson, Schuitema, Jakobsson Bergstad, Martinsson, & Thorson, 2016).

Parking policy is one of the key connectors between the transport policy and land use policy (Marsden, 2006). There are several reasons in literature why research into road pricing is more appealing than parking policy, however under the right conditions parking policies can be effectively used to tackle the problem of congestion effectively (Verhoef, Nijkamp, & Rietveld, 1995). Parking policies are implemented in various forms, but they are generally classified into three major contradicting areas: 1. Implementation of a policy to increase the growth and attractiveness of a region. For example, it has been observed that an increase in parking places improves business in a region. 2. Restricting parking to reduce congestion in a region, 3. Implementing a policy to provide a source of income to the authorities (Marsden, 2006).

Transport policy and parking policies have been briefly explained because this research predominantly focusses on these domains, but the research also analyses a variety of domains such as land use policy, renewable energy, remediation technologies, etc. It is out of the scope of this thesis to describe all the domains.

1.1.2.2 Acceptance of policies in the field of transport

Controversial policy implementations in the field of transport (road pricing, parking pricing) are often a target for opposition from public due to various concerns such as distribution of tolls, scepticism regarding the outcome, concerns over impacts on business and privacy issues (Beuthe, Himanen, Reggiani, & Zamparini, 2004, p. 17,18). It is sometimes believed that parking measures may affect the attractiveness of cities to both commercial and retail parties, raise an initial concern towards parking policies (Marsden, 2006). Despite low acceptance before implementation, studies have shown a considerable increase in acceptance after the implementation of a controversial policy (Schuitema, Steg, & Forward, 2010; Winslott-Hiselius, Brundell-Freij, Vagland, & Byström, 2009).

1.2 Research gap and aim

As stated in the previous section, the knowledge about the factors influencing acceptance of a policy shall enable policymakers to develop better policies and to implement them in a more effective way. Previous literature discusses the differences in acceptance of a policy before and after the implementation of the policy and the various factors that are responsible for this phenomenon. There is also prior knowledge about how specific factors influence the acceptance level of a policy. However there is no concrete research that identifies the list of factors influencing the acceptance of an implemented or proposed controversial policy.

This research aimed to study the acceptance and support towards a controversial transport policy with respect to the view of the public and business. We developed a framework with the plausible list of factors that affect the acceptance of a controversial policy based on the literature available from various domains of controversial policies, especially transport policies. The research also includes the

specific factors that are responsible for the changes in acceptance of a policy after its implementation which were spotted from the literature that analyse the changes in acceptance before and after the implementation.

The project also tests the influence of each of the derived list of factors on a new case that was conducted in the city centre of Delft. The thesis ponders on the impact of such policies on businesses and how the behaviour of businesses towards such policies vary from the residents living in the target area thereby making the findings of this work also relevant to the management perspective. Finally, this project shall propose suggestions for practice.

Thus, in accordance with the above-mentioned research gap, the primary objective of this research to address the gap is:

To develop a list of factors that explain the acceptance of a controversial policy and also explains the increase in acceptance after its implementation in comparison to the acceptance before its implementation and test these factors using an unexplored case.

The above objective is focussed towards although not limited to controversial policies in the field of transportation and logistics. The research aims to develop a framework of plausible factors affecting acceptance from the available literature pertaining to controversial policy implementations in multiple contrasting domains. The influence of these factors are tested at a later part of the research in the domain of road policies which has a strong impact on businesses and the retail sector. This thesis aims to be an initial study towards developing a conclusive model explaining the acceptance of a controversial policy, incorporating all the causal relationships between the web of factors from various domains.

Furthermore, this thesis also discusses the shortcomings of this research and provides ideas for future research. It also discusses the impact of the acceptance of controversial policies on businesses. Furthermore, it provides advice on the implementation of controversial policies and recommendations on how to obtain a higher rate of public support.

1.3 Research question

As mentioned in the previous section this study aims to be an initial contribution to the below research question.

How does the public's acceptance towards a controversial policy change and how does it increase after its implementation in comparison to its acceptance before implementation?

The research questions that aims to contribute to the above study, which are answered in this thesis are as follows:

RQ 1. *What are the factors that affect the public's acceptance of a controversial policy?*

Note that RQ 1 is answered to a great extent in the literature review. The literature review shall focus on but not restrict to the existing case studies on congestion pricing. The review shall also include other areas where controversial policy implementation takes place namely environmental policies or land use policies etc.

After identifying the factors the next step is to establish the factors that influence the increase in acceptance of a controversial policy after its implementation which leads us to the next research question.

RQ 2. *What are the factors that influence the change in the public's acceptance towards a controversial policy after its implementation?*

RQ 2 is also answered with the help of a literature study. This study shall also focus on the psychological aspects that influence acceptance.

1.4 Research Methodology

This project is divided into two major sections which include: identification of factors and testing their level of influence with a case study. In the factor identification phase of the research, the focus is primarily on the existing literature on public acceptance of controversial policies and the literature on the changes in acceptance before and after implementation. The controversial policies predominantly include cases from congestion and road pricing from Stockholm and Gothenburg. But cases from remediation policies, environmental policies, energy policies, and so forth were also studied. A thorough literature survey is conducted in the abovementioned fields, and the factors that affect the public's acceptance of a controversial policy are identified. How this literature study precisely was performed is explained in chapter 2. The literature on psychology (status quo bias, loss aversion etc.) was also studied in order to establish a concrete list of factors affecting the acceptance of a controversial policy.

The case study section of this research is primarily done to observe the level of influence of these identified factors. A controversial parking policy case in the city of Delft was used (see chapter 3) owing to its great business impact. Once the case was chosen, an explorative case study was conducted with the help of structured interviews. The questions for the interviews were based on the factors identified from the initial phase of the research. The data obtained was then analysed, and the level of influence of these identified factors was observed.

In chapter 2 we shall systematically identify the list of factors that explain the acceptance of a controversial policy and then we shall continue to observe the influence of these factors with the help of an exploratory case study in chapter 3. This is followed by chapter 4 where the results obtained from

the case study is analysed. And finally, in chapter 5, we discuss the outcomes of the research and provide suggestions for practice and further research. The methods used for the research are also explained quite elaborately in the sections before each systematic step is performed.

Chapter 2: Developing the framework of plausible factors affecting acceptance

2.1 Introduction

In this chapter, the research aimed to develop a theoretical framework comprising of the plausible factors influencing the acceptance of a controversial policy. This is carried out by a systematic literature survey, the framework focuses on the acceptance of a controversial policy in the transport domain which includes congestion pricing, road pricing, parking policy, etc. but due to the lack of sufficient literature in the transport policy domain, the overall development of the list of factors involves a variety of literature from multiple domains such as land use policy, Technology policy, (renewable) Energy policies, remediation policies etc. After the formation of the initial list of factors that influence the acceptance of a controversial policy – the research proceeds to analyse literature that explores the acceptance of a controversial policy before and after its implementation. For this part, the focus was only on the literature pertaining to the field of transport which includes, congestion pricing, road pricing, etc. The theoretical list of factors which was initially developed was modified based on the new findings from the analysis of the "before and after" study. This final framework was later used to develop a questionnaire – which was used to observe the level of influence of the factors identified with the help of a case which has not yet been studied. The literature is explored and elaborated separately in each section of the chapter.

The overview of the steps involved in this process are as follows:

- Initially, the concept of acceptance was clearly defined with the help of literature (see chapter 1).
- After defining the concept of acceptance, a theoretical framework for analysing the factors influencing the acceptance of a controversial policy was developed and explained, with the help of literature from the domain of remediation technologies. (Prior, 2018)
- Next, a literature on road policy acceptance from Australia was studied, and all the factors involved in the acceptance of a policy were spotted by finding more literature from this study by reverse snowballing (Wohlin, 2014; Zheng, Liu, Liu, & Shiwakoti, 2014).
- The previous step was followed by analysing literature from the field of psychology to identify more factors that influence the acceptance of a controversial policy.

- The next step was to combine these factors and the developed framework to create a theoretical framework of plausible factors influencing the acceptance of a controversial policy.
- After the development of the initial list of factors, the research moved on to analyse literature that explores the acceptance before and after implementation of a controversial policy –two cities were analysed, where there has been an increase in the support and acceptance of a policy after its implementation. (Börjesson, Eliasson, & Hamilton, 2016; Schuitema, Steg, & Forward, 2010).
- Finally, we modified the developed list of factors with the results obtained from the study of the cases where there was an increased acceptance after the implementation of a controversial policy, to obtain the final list of factors that not only influences the acceptance of a policy but also plays a role in the increased acceptance of a policy after its implementation in comparison to the support before its implementation.
- This list was then used to develop a questionnaire, to observe the level of influence of the identified factors with the help of a small unexplored case (which shall be focussed in the next chapter).

2.2 Development of the base framework

In order to develop the plausible list of factors that affect the acceptance of controversial policies – the first step taken was to find the factors in literature with the search string 'Factors AND acceptance AND policy' in Science direct and Springer link journals. This yielded many results (approximately 96000), this was further refined by filtering articles that were published recently (2017 & 2018) which reduced the results to about 5124 articles.

On skimming through these articles, one particular article on the acceptance of remediation technologies by Prior had a framework on the predictors/factors of a resident's acceptance of remediation technologies (Prior, 2018). Similar to transport policies, remediation policies are also a victim of public scrutiny and opposition. The remediation technology policies go hand in hand with land use policies which are in turn quite similar to transport policies (Morimoto, n.d.).

The search also yielded few other interesting articles on acceptance of controversial policies, on further reading the articles mentioned below, we obtained a greater insight into the acceptance of controversial policies. A brief description of the articles referred is as follows.

- The article on risk perception and the public acceptance, which analyses the influence of terminology used on the acceptance and explores on the broader concerns which influences acceptance (Clothier, Greer, Greer, & Mehta, n.d.).

- The article that aims to examine the factor's influencing people on implementation on new gene technologies in Switzerland – this article focussed on what influenced perceived risks and benefits of new technology (Connor & Siegrist, 2010).
- The article that analysis how community benefits shall affect/improve the social acceptance of policies in the field on renewable wind energy (Cowell, Bristow, & Munday, 2011).
- A very interesting article which analyzes the gender and race perception on the analysis of risk which concludes the difference in perception of people based on their race and gender (Flynn, Slovic, & Mertz, n.d.).
- The article which analysis on how the cognitive, affective, socio-cultural and sociodemographic factors influence the adaption of new products (nanotechnology-based products in this case) (Pillai & Bezbaruah, 2017).
- An article from the journal of technological forecasting and Social change which analyse on how participatory decision making and precautionary policy shall influence the social acceptance (Todt, 2011).

It was seen that the framework developed by Jason Prior (Prior, 2018) for the field of environmental policy was not only quite similar to transport policy, but it encompasses the findings of the above-mentioned (diverse) studies to develop the framework making the framework quite reliable and broad. Owing to its sound robustness and acceptance, we referred to the same framework for the development of the framework of factors that influences the acceptance of controversial policies in the field of transportation. We shall now elaborate on the framework developed by Prior and explain each section of the framework. This framework shall be later modified to fit the transport policy domain.

2.2.1 Prior's conceptual framework

According to Prior, acceptance of a policy varies depending on the various stakeholders – Priors definition of acceptance states acceptance as the 'support for the application of a new technology in their local area' which is similar to the definition of 'acceptance' that was presented earlier, hence making the adoption of the conceptual framework more agreeable.

The framework explains that the resident's (that include general public and businesses) acceptance towards a new policy is guided with the help of diverse predictors. But the framework does not stop with the inclusion of these predictors; it also exclaims that the acceptance (or support) is driven by a set of norms which guides the support of the resident's during the engagement with the policymakers (the government in this case). This framework also conceives these norms and sanctions which are used to negotiate the level of acceptance for a policy (or technology) with the policy maker.

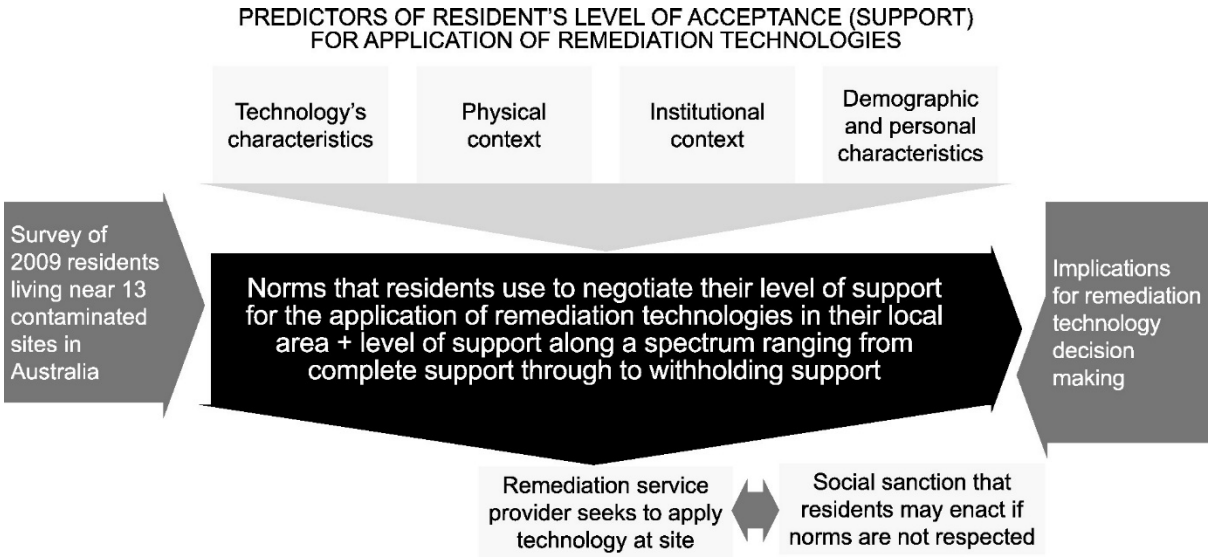

Figure 1: Prior's conceptual framework of resident's support for the application of new technology in their local area (Prior, 2018).

2.2.2 The predictor's/factor's dimensions in prior's framework

From Prior's research, it is found that the acceptance or support towards new technology or policy is firstly affected by the target group's (public or business) *personal and demographic characteristics*, as mentioned earlier another research agrees with this (Flynn et al., n.d.). For example men have found to access a new technology in a contrasting way in comparison to women, and they usually see them as more beneficial, and hence they have an increased acceptance, similarly the education level and the age of the target group also influences the rate of acceptance towards new technologies (Magnusson & Koivisto Hursti, 2002). Similarly, it was also found that an increased income also influences the acceptance towards a new policy (Prior, 2018).

The framework also identifies the personal motivation values as an important predictor or resident's approval of a new technology – values are seen as a foundation that leads to the formation of beliefs that shape a person's approval or disapproval for a new technology (Plant, Boydell, Prior, Chong, & Lederwasch, 2017).

The framework also spots a second set of factors that fall under the *physical context* in influencing the target group's support towards a new technology. The factors that fall under this physical context are but not limited to the nature, extent and impact of the resident's day to day life and their local environment (Prior, 2018).

Thirdly, the framework's *institutional context* refers to the entities or organizations that influence, impose and/or manage the newly adopted policy and/or technology. Within the framework, the ways and methods in which these institutions interact and engage with the residents during the development of a new policy are believed to play a key role in controlling the level of acceptance gained for the application of the policy. The different ways by which an organization engages the public

develop trust and uses the right language also have been shown as an important predictor of the acceptance.

Finally, the framework emphasises that the acceptance of a new technology is directly affected by the *technology's perceived characteristics*. The weighing of the technology's perceived benefits over the risks from its implementation is an important factor (Connor & Siegrist, 2010)

Apart from these predictors (refer figure 1) the unique feature of this framework is that it also includes the set of norms or sanctions that the residents can use to negotiate their level of acceptance with the institutions (Prior, 2018). These norms and rules have multiple components namely the *aim* component and the *prescriptive* component – the aim component are further built by three other components: *the performer of the aim, receiver of the aim, and conditions* and the prescriptive component comprises of what may, must or must not be done (Crawford & Ostrom, 1995; Prior, 2018). However, this section of the framework was not used in this research. The explanation for eliminating this section on norms is given in the next section.

As it has been showcased earlier – this framework has been developed for the analysis of the acceptance of a remediation technology by the residents in the surrounding areas. We shall now modify this framework to fit our research which aims at learning the factors that affect the acceptance of a controversial policy in the domain of transport.

2.2.3 Modifying Prior's framework to fit the transport domain

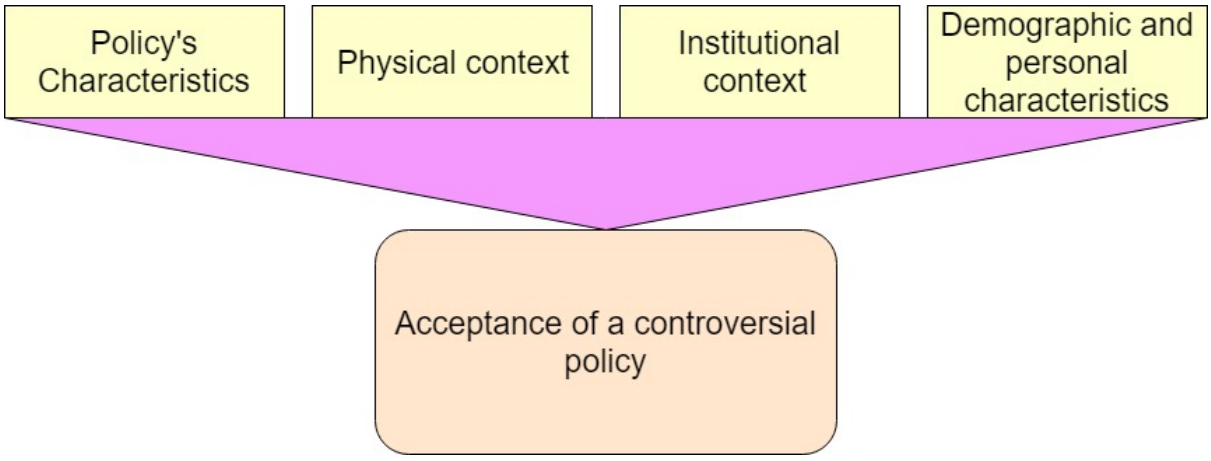

Figure 2: Modified framework for the transport policy domain

Prior's framework is specific and comprehensive for the remediation technology domain, but there are certain elements in the framework that has less or no relevance to the field of transport. From literature exploration, if was seen that there are very few or no cases where the 'norms' explained in Prior's model influenced the acceptance of a controversial policy in the transportation domain. Owing to the limited scope of this study, further exploration towards the influence of these 'norms' was not carried out and could be an interesting topic for future exploration.

For the development of the framework of factors influencing the acceptance of controversial policies in the transport domain only the four predictors dimensions from prior's framework namely the physical context, institutional context, demographic & personal context were incorporated. Furthermore, Prior's framework is developed to explain the acceptance of remediation technologies, and hence the technology's characteristics act as an important domain whereas for our project that focusses on transport policies the domain that must be focussed upon is the policy's characteristics. Hence the technology's characteristics domain from Prior's model shall be modified to the policy's characteristics.

Now the modified framework from Prior's model shall look like the above image (figure 2). There are four major domains by which the predictors/factors of acceptance of a controversial policy are grouped.

2.2.4 The list of factors included in the domains of the framework

Though the skeletal framework and the domains that were explained by Prior in his research could be interpreted for the implementation of a new policy in the field of transportation – it is not the same case with the factors that were identified in his research. The factors affecting remediation technologies and the ones influencing transport policies are not entirely similar. Hence we now dive into spotting various factors from the transport domain. The subsequent sections shall focus on the identification of the factors that influence the acceptance of a controversial policy with a more narrowed focus towards the field of transport (road pricing, congestion pricing, etc.).

2.3 Identifying the factors influencing acceptance of a controversial policy in the transport domain

We've obtained the framework that is used to explain the acceptance of a controversial policy from the previous section. This framework consists of four major domains that predict or influence the acceptance of a policy but does not include the factors that go into each domain. To identify these factors, we go back to the existing literature. To identify the factors more focused towards the domain of transport the search string 'Factors AND Acceptance AND Transport' and the search string 'Factors AND Acceptance AND Congestion charge' revealed some exhaustive literature – the search was further narrowed down to the articles published in the transport policy journals and on sorting the results based on its date of publishing few very interesting articles were identified. These articles were used to further identify the factors involved in the acceptance of a controversial policy. (Gu, Liu, Cheng, & Saberi, 2018; Wohlin, 2014; Zheng et al., 2014).

It was mentioned earlier that the acceptance for a policy could be for an implemented policy or a proposed policy that is yet to be implemented. The factors that might influence the acceptance of a

proposed policy would not be the same factors that would influence the acceptance of an implemented policy. In the upcoming sections where the factors are identified, whether the factor affects the acceptance of an implemented policy or the acceptance of a proposed policy is also discussed. The change in acceptance of a policy after its implementation is also discussed in a separate section later.

The factors that were identified by this study are as listed below:

2.3.1 Infringement on freedom

In an article that analysed the determinants of car user's acceptance of road pricing – it was clearly shown that acceptability of a congestion charge or road pricing should reduce if the people find the policy as an infringement on their personal freedom (Jakobsson, Fujii, & Gärling, 2000).

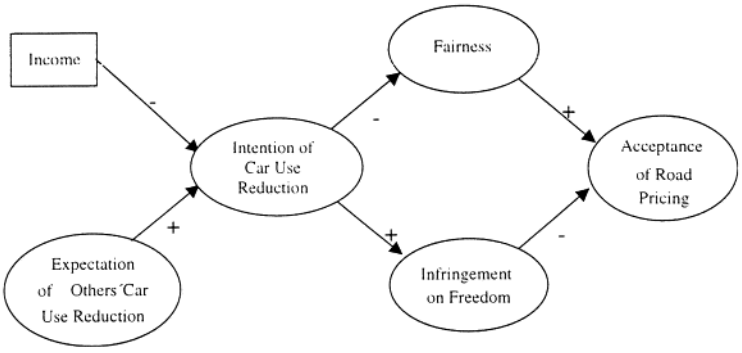

Figure 3: Determinants of acceptance of road pricing (Jakobsson et al., 2000)

This is also backed up by literature from the psychological approach – that states that individuals have certain freedom with regard to their behaviour and when this is threatened or reduced, the individuals shall be motivated or aroused to get them back (Brehm, 1966).

In another article that analyzes the attitudes towards road pricing and taxation among the students in the United States and the United Kingdom concurred with the abovementioned finding that infringement on freedom has a negative effect on the acceptance of a controversial policy (Kim, Schmöcker, Fujii, & Noland, 2013).

From the above image (figure 3) it can also be noted that 'infringement on freedom' is also interdependent on many other factors. However these interdependencies are not discussed in this research. The infringement on freedom is a factor that can be witnessed to a great extent only after the implementation of the policy. The above model is also verified with a survey on an implemented/existing condition (Jakobsson et al., 2000). Thus the infringement on freedom is a factor that influences the acceptance of an implemented policy.

2.3.2 Fairness and equality

The observed fairness is an important factor that influences the acceptance of a policy if a policy scheme is identified to be able to bring positive effects or benefits to the majority of the society is usually considered to be fair and as a result gets higher public support. This is explained in the book 'Acceptability of transport pricing strategies' (Ittner, Becker, & Kals, 2003).

This is also backed up by the literature that studies the determinants of acceptance of road pricing – as shown in figure 3 (Jakobsson et al., 2000). This was further verified in a study conducted in Asian countries that were performed to check if the determinants that were identified by Jakobsson et al. holds true in Asian countries (Fujii, Gärling, Jakobsson, & Jou, 2004).

Also from a psychological standpoint, the equity (perceived justice) is seen as a major concern as a fundamental requirement for acceptance (Schade & Schlag, 2003).

Similar to the previously discussed factor of freedom, fairness and equity of a policy are also factors that influence the acceptance of an implemented policy. Fairness and equity are also interdependent on other factors such as income, the intention of car use, etc. but this research focuses only on listing the factors and does not focus on the relationships between these factors.

2.3.3 Trust in Government as an influential factor of acceptance

In a study conducted by Satoshi Fujii, it was found that there is a direct influence between the trust towards the administration or government and the perceived sense of fairness (Fujii et al., 2004). Another study with the help of a survey of British and Japanese students also revealed that the general trust in the government determines the acceptance of road pricing policies either directly or indirectly (Schmöcker, Pettersson, & Fujii, 2012).

This result was further studied with a target audience of the public from New Jersey, and it was again established that there is a strong relationship between the trust on the government and the perceived fairness thus proving the trust on government influences the acceptance of a policy (Kim et al., 2013).

Unlike the above-mentioned factors, the trust in government is a factor that affects the acceptance of a proposed policy and the studies mentioned explore the acceptance of a policy when announced by the government.

2.3.4 Problem awareness

In a study conducted on 'public acceptability of traffic demand management in Europe' it was stated that creating a sound public awareness about the problems that could be mitigated by the

implementation of the new policy would result in an increased acceptance towards the new policy (these problems could be traffic congestion, air pollution, climate change, etc.) (Schlag & Schade, n.d.)

This was also explained in the book on the acceptability of road pricing, where it was stated 'An awareness of the extent and seriousness on the problems associated with car traffic should be associated with greater acceptability' (Verhoef, Bliemer, Steg, & Wee, 2008).

Furthermore, the problem awareness could be further divided into social problem awareness, self-problem awareness, and personal problem awareness. Among which social problem awareness can be considered to be the most relevant to the acceptability of a policy (Zheng et al., 2014). All the existing research that was referred study the influence of the factors for a policy that has been announced or proposed, hence it is believed that this factor influences the acceptance of a proposed policy.

2.3.5 Policy details and the complexity of the policy

In the book prepared for the U.S Department of transportation, federal highway administration which examines the lessons learnt from the international experience in congestion pricing – it has been discussed that the level complexity of a policy and its implementation has a direct influence on the policy's public acceptance (Mahendra, 2011).

It was also found that the complexity of a policy shall affect its perceived effectiveness hence in turn also affect its acceptability, the study between the cognitive barriers and the acceptability of a policy was studied in past literature (Bonsall & Lythgoe, 2009).

Another more recent study showed that there were difficulties for people to understand more complex pricing schemes and policies (for example the policies that involve both distance and time) in comparison to more straightforward policies (pricing with respect to distance alone) (Francke & Kaniok, 2013). The factor of complexity affects both the acceptance of a proposed policy and the acceptance of an implemented policy.

2.3.6 Factors under socio demographics influencing acceptance

It is also observed from past research that many socio-demographic factors such as age, gender, driving frequency, mode of preferred transportation, etc. Have a great influence on how the public shall react towards new road policies (Francke & Kaniok, 2013). Another study also shows how the education level and type of education affects the acceptance of policy – for example, an expert's approach to a policy shall be different from that of a regular citizen (Xenias & Whitmarsh, 2013). Furthermore, an individual's political bias and personality also influence the acceptance of a new policy implementation (Hårsman & Quigley, n.d.). These factors are found to be influential for the acceptance of a proposed policy; the study conducted saw how people with different demographics perceived a proposed policy and how each factor (age, gender, income, etc.) affected the acceptance of a proposed policy. This

research does not explore the causal relationship between these factors and acceptance but only focusses on identifying the factors.

2.3.7 Factors affecting acceptance with respect to the physical domain

Past research has shown that the influence of a policy on the physical and environmental issues plays a critical role in its acceptance, one such environmental issues that influence transport policies is the effect of a policy on climate change (Kim et al., 2013). It was noted clearly that there was a change in the acceptance of a policy when it directly influenced climate change.

Similar changes in the acceptance was also found when the policy influenced the environmental factors such as congestion and air pollution (Schlag & Schade, n.d.), in contrast to the factor of problem awareness where the policy's influence on these environmental issues is explained in the proposal the physical factors (mentioned in this section) are noticed after the implementation of the policy hence play a role on the acceptance of a policy after implementation.

In the previous sections, the various factors affecting the acceptance of a controversial policy were identified from an array of past research. The next section focusses on a case study that further substantiates that the identified factors are indeed influential on the acceptance of a controversial policy.

2.3.8 The factor of Perceived effectiveness

If a congestion policy scheme is seen to be effective in addressing the problems, it is supposed to mitigate – such as the congestion problem, air pollution, climate change etc. That scheme or policy is seen to be effective and hence gains a greater support from the public (Taylor & Kalauskas, 2010). Like the name suggests it is a factor that can only influence the policy acceptance after the implementation. More details about this factor are explained in the upcoming sections (see section 2.7).

2.4 Case study showing that the identified factors influence the acceptance of a policy

To further substantiate the factors that were identified in the previous sections we look into a study that was conducted in Australia – which aimed to explore the public acceptance of a congestion charge scheme in the cities of Melbourne and Brisbane. The conclusions of this study are summarised as below. (Zheng et al., 2014)

To begin with, as expected, the level of the congestion pricing and the direct financial gains of implementing the congestion pricing (such as a reduce in fuel consumption (travel time) for private vehicle users, and a reduction in bus fare for public transport users) have an influential and positive

effect on the respondent's level of support for implementing the congestion charge and on their chances of taking a public transport to city areas.

Next, financial expenses can have a great impact on personal freedom. If the price of the congestion pricing is high, few people shall be forced to give up the freedom of driving. Meanwhile, the respondent's view of the congestion pricing's influence in protecting the environment by effectively reducing vehicular emissions has a significant influence on their support for its implementation. Generally, the greater extent to which the people agreed that the congestion policy could protect the environment by reducing vehicle emissions, the higher the level of support they showed for the congestion pricing. In opposition, congestion charge's role in reducing congestion has a lesser significant influence on acceptance. Moreover, the fact that public transport service's quality would be further improved by using part of the revenue collected from congestion charge, which in turn would benefit the poor also increased the positive attitude towards the new policy. Revenue redistribution is often regarded as a key factor for public acceptance of congestion charge. However, the analysis shows that revenue redistribution has little impact on respondents' acceptance of a congestion charge in both cities. Strong linkage exists between respondents' support for the congestion charge and the likelihood of their taking a bus. The direction of causality between them is ambiguous. For non-bus riders, the greater support they give for implementing the congestion charge, the more likely they take a bus. However, for bus riders, the causality should be reversed: the more likely they take a bus, the greater support they give for implementing the congestion charge.

Respondents whose primary transport mode is public transport or cycling and walking show much stronger support for the congestion charge than their counterparts who primarily drive to the city. It was also found that the acceptance does vary significantly across different income groups. Education can also be a significant factor in acceptability of congestion charge; however, the study was unable to find its impact amongst respondents in Brisbane, but it was found to be present in Melbourne.

Sociodemographic differences, perception (attitudinal) differences, and specifics of the current transport systems (e.g., the prevalence of toll highways in Melbourne, compared with the situation in Brisbane) also directly influenced the acceptance of the new congestion pricing scheme. The existence of city differences even within the same culture, highlights the complexity of understanding, promoting, and gaining acceptability of congestion charge. Factors and their relative importance should be location-specific and scheme-specific. This also partly explains why contradictory conclusions were often reported in the literature.

This case exploration was conducted to verify that the factors that were identified from the exploration of literature in the previous sections were indeed influencing the acceptance of a policy in the transport domain.

In this section we identified the factors from literature prevalent in the transport or related domains, but the acceptance of a controversial policy also involves factors from the psychology domain owing to the fact that the subject of analysis of this research on 'acceptance' are humans and psychological factors influence the decision making and analytical skills of humans.

2.5 Exploration of the psychological factors influencing acceptance

For the purpose of studying the psychological factors – I had to look through literature covering various aspects, namely: psychology, human perception, irrationality, decision making, errors in judgement, cognitive science, intuition, influenced by statistics, illogical thinking and behavioural economics. While on the search for the literature the research that appeared most frequently were from those of Nobel laureate - Daniel Kahneman. To our ease, Kahneman compiled his years of research into the amazing book named 'Thinking fast and slow'. The book has acquired great critical and scientific acclaim. The book was exclaimed to provide a great deal of assessment and integration that goes beyond simpler books, and despite the engaging narrative, the book is based on years of validated scientific experiments and research (Bazerman, 2011).

For this section of my research I've referred solely to the works of Kahneman, and his book. (Kahneman, 2011)

One of the Heuristics that Kahneman discussed focussing on conscious and subconscious exposure to an idea is priming – It is true if we behave in certain ways our thought and emotions will eventually catch up. Thus priming a positive response from an initial stage of policy implementation might eventually result in a positive behaviour towards the policy.

Another Heuristic that was expressed was that of Cognitive ease – which was also discussed earlier. The psychological research and literature also support the claim that things that are easier to compute or the things that are more familiar and easier to understand seems truer in comparison to things that are harder to compute.

Another characteristic of the human thinking process explained by Kahneman is the property of Associative coherence, where he explains how the human brain tends to associate any new situation with a story from experience – the more these situations fit into these past experiences, the more normal and acceptable they are.

Furthermore, it is also explained that – there is a tendency among humans to jump into conclusions – this may prove risky if the situation is unfamiliar and if the stakes are high. This tendency

where the human mind searches for confirming evidence of a belief while ignoring/overlooking the counterexamples is known as Confirmation Bias**.**

One important concept that is widely discussed in the field of psychology is that of Loss Aversion, according to Kahneman human beings like winning but dislike and fear to lose even more. If the impact of a loss is high, even if the odds of winning are higher we tend to be feared more by the loss and try to avert it by choosing a safer option where the impact/measure of loss is less.

Another concept that influences human's behaviour towards a situation is the way the situation is framed – in his book Kahneman provides the example where people support a scheme with a success rate of 90% whereas are less likely to support a scheme with a failure rate of 10% - though both the schemes yield the same probability of failure and success.

Another important concept is that of change aversion or more commonly known as status quo bias. According to many researchers in the field of psychology including Kahneman, humans perceive the current baseline (or status quo) as a primary point of reference and consider any change from that initial baseline as a loss. (Samuelson & Zeckhauser, 1988)

There are many more factors that influence the behaviour of a human in a psychological level which may affect their behaviour towards a new situation (or new policy in our case) such as; The disposition effect, the fear of regret, narrow thinking, overestimating the likelihood of rare events, the possibility effect, the certainty effect, etc. But, owing to the complexity of these factors they are considered to be beyond the scope of this discussion, and only the factors and phenomenon explained earlier in this section are considered.

2.6 The framework of plausible factors influencing acceptance of a controversial policy

So far we have developed a framework that attempts to include the factors influencing the acceptance of a controversial policy in the field of transport. Though the study focusses on transport domain, the framework and factors were developed and spotted from a variety of different domains including and not restricted to technology implementations, land use, renewable energy implementation, psychology, gene therapy, and of course transportation.

Now that the factors influencing acceptance have been obtained – they are now included in the framework that was previously established – thereby forming a (close to) exhaustive list of factors explaining the acceptance of a policy proposal or implementation among the public (includes general public and businesses).

As discussed earlier (refer figure 2) the framework comprises of different dimensions of predictors. They include the Policy characteristics context, physical context, institutional context and demographic & personal context – since these contexts have been explained in the previous sections of this chapter they shall not be explained again. In addition to all of the above-mentioned domains – the psychological domain that encompasses all the psychological factors that were identified to influence the acceptance of a policy is also included as a separate domain in the framework.

The policy characteristics domain includes factors such as freedom, Fairness & equity, level of problem awareness, perceived effectiveness, complexity and details of the policy. The physical context of the framework includes factors such as effective reduction in congestion, Reduction in local air pollution and the effect on climate change. Furthermore, the institutional context includes the factor that explored the trust in the government (assuming that all major road policy measures are brought about by the government). Next, the demographic and personal context includes factors such as age, gender, level of education and preferred means of transport. Finally, the psychological context comprises of factors such as priming, associative coherence, confirmation bias, loss aversion, framing and status quo bias.

After the inclusion of all these factors in the rightful context of the framework. The theoretical framework of factors influencing a controversial policy is developed as shown in the figure below.

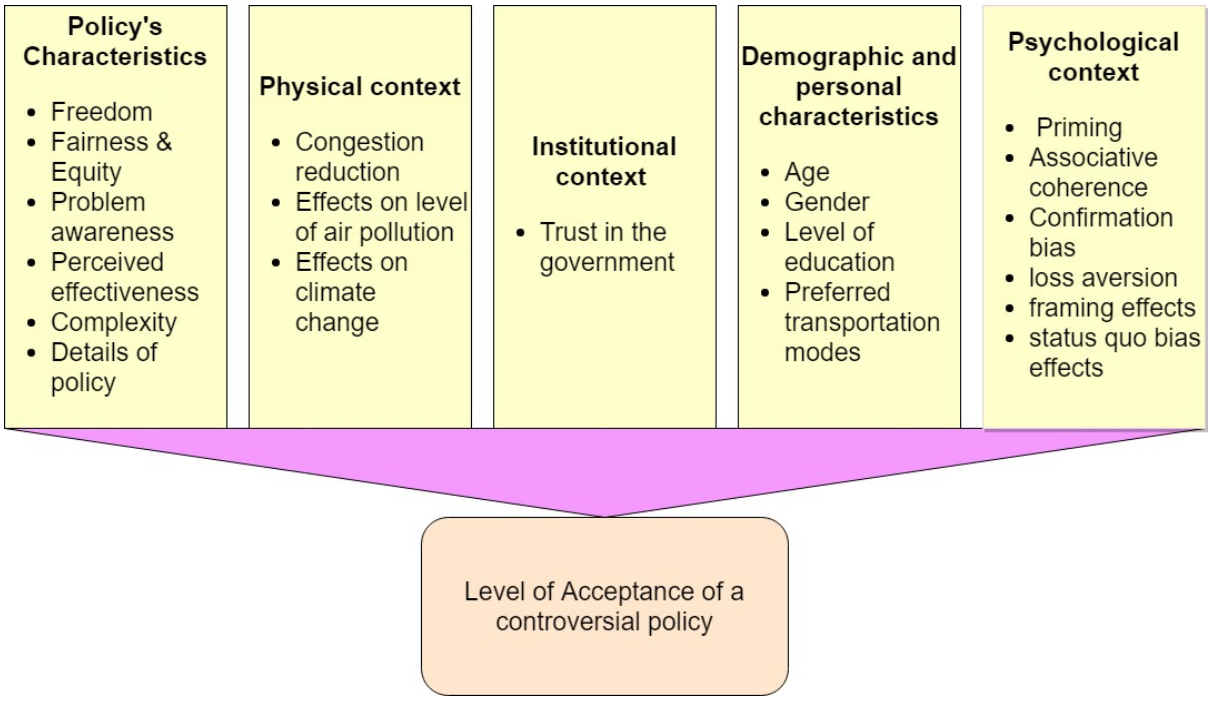

Figure 4: Identified list of factors influencing the acceptance of a controversial policy

Until now we have developed a framework including the factors that influence the acceptance of a proposed or implemented policy– but one of the research goals of this project is to identify the

factors which lead to an increased acceptance of a controversial policy after its implementation in comparison to the support or acceptance the policy gained before the implementation.

In the next section we shall explore the acceptance scenarios before and after implementation with the help of a few cases from the field of transport and try to spot the factors that lead to this phenomenon of increased acceptance – we shall also modify the framework furthermore to obtain a conclusive list of factors that explain the increased acceptance after the implementation of a controversial policy.

2.7 Exploring the acceptance of a controversial policy before and after implementation

On exploring the existing research on the increase in acceptance of a policy after implementation, A few cases were found where there was substantial recorded proof where there was indeed an increase in acceptance and acceptability of the policy measure after the implementation. For this part of the study, we limit ourselves to the domain of transportation.

The search string - Policy AND Acceptance AND increase AND (After OR Before) AND (Transport OR "Road pricing" OR "Congestion pricing") were used in science direct and it yielded an interesting study on the attitudinal changes before and after a congestion tax in the Swedish city of Gothenburg. On reverse snowballing from the abovementioned study, a similar study showcasing an increase in the acceptance of a congestion charge in another Swedish city – Stockholm. Furthermore, a couple of reports showing an increase in the acceptance of a congestion charge in London were also spotted (Bhatt & Higgins, n.d.; LITMAN, n.d.; Nilsson, Schuitema, Jakobsson Bergstad, Martinsson, & Thorson, 2016; Schuitema et al., 2010).

There was also a lot of literature on the successful implementation of a transport policy in various cities – but these articles did not focus on the difference in the increase in acceptance. Some of such successful implementations include Singapore, Hong Kong, Norway, etc. (McCarthy & Tay, 1993).

Owing to the extensive and great quality of research available we shall only consider the Swedish cities of Stockholm and Gothenburg for the study on the increase in acceptance of a policy after its implementation. In the upcoming sections, we shall first have a short review on the previous research on both these cities, we shall then try to identify the factors that lead to this increase in acceptance from the two abovementioned examples. Finally, we shall incorporate the identified factors in the previously developed framework to obtain our final list of factors.

2.7.1 The Gothenburg case

For this case study, the primary article that was referred is the recently published work from Nilsson, Schuitema, Bergstad, Martinsson and Thorson – on the road to acceptance of a congestion tax in the city of Gothenburg (Nilsson et al., 2016).

This study was focussed on the aim to understand why and how the public's attitudes toward implemented policies change after they are implemented. And to understand how this is important to develop better tools to analyse attitudes before an implementation. This shall lead to better predictions that shall, in turn, result in enhanced political decision making.

The study was conducted with the help of a three-wave panel. The research involved in 4738 respondents – the three waves included two before the implementation and one after the implementation of the congestion taxes.

The results of this study concluded that the factors or values that are believed to influence attitudinal changes after the implementation of a controversial policy are abstract in nature. Although it was also discovered that these attitudinal changes were more grounded toward emotional and value-related motives, and not so much based on the more specific expected outcomes of a scheme.

It was also discovered that the changes in attitudes are not a direct result of increased media coverage and more widespread knowledge about the controversial policy. This was proved as a result of the two initial waves of testing where there was a substantial increase in media coverage and knowledge sharing during the second wave before implementation – but however there was no increase in support and the results were similar to the first wave results.

Though the reasons were believed to be abstract – the research proved that some factors did have a large influence, for instance, the perceived ease of use, especially among those who initially were against the policy was found to be an influential factor towards this attitudinal change. The people believed that the tax had more positive consequences and less negative outcomes after the implementation trial than they had expected before the implementation.

From this study, the authors concluded that one effective way to improve the acceptance of a controversial policy is to in some means provide a near reality experience of the effects promised with the implementation of the scheme. And they also proclaimed that the information addressed to the citizens must be tailored as much as possible to promote the motives underlying the policy.

2.7.2 The Stockholm case

For the analysis of this case, the article that was most referred to was one from Schuitema, Steg and Forward – where they try to explain the differences between the acceptance before and the acceptance after the implementation of a congestion charge. This study was based on a thorough

literature survey and a field experiment that was conducted among the residents of Stockholm during 2006, Where the residents completed a questionnaire before and after the trial (Schuitema et al., 2010).

The results from this study were not surprisingly in correlation with the previous case that was discussed (about Gothenburg) (Börjesson et al., 2016; Nilsson et al., 2016). The only significant difference was that in Stockholm unlike Gothenburg the majority of people were in support of the congestion tax – whereas in Gothenburg though there was an increase in support, the majority of people were still against the policy.

This study aimed to explain why acceptance of the congestion charge in Stockholm was higher after its implementation in 2006 than its acceptability beforehand. They hypothesised that acceptance of the charge would be higher than its acceptability levels because people have more favourable or less unfavourable beliefs about the consequences of the congestion charge after the trial than beforehand.

Indeed, they found that respondents considered it more likely that congestion, parking problems, and pollution had decreased after the implementation of the charge than they had expected beforehand, which suggests that respondents had more favourable beliefs about the charge.

Also, after the implementation of the congestion charge, respondents believed that their travel costs had increased less than they expected before the trial, which indicates that respondents also had less unfavourable beliefs about the charge afterwards. So the hypothesis was confirmed: respondents believed that the congestion charge had more favourable (i.e., less congestion, parking problems, pollution) and less unfavourable effects (i.e., fewer increases in travel costs) after the congestion charge had been implemented than was expected beforehand.

A regression analysis revealed that acceptability of the congestion charge was lower when respondents believed their travel costs would increase, while the perceived travel costs after the charge were not significantly related to acceptance judgements.

The research also indicates that instead of focussing on the unfavourable consequences of the charge (i.e., increased travel costs), favourable consequences of the charge (i.e., decreasing parking problems) were more predictive of acceptance.

The study showed that experiencing positive consequences of a road pricing scheme is one important factor for its acceptance. Their results suggest that when the experience of positive consequences is lacking, acceptance of road pricing will not be high, and may even be lower than its acceptability levels before the implementation.

2.8 Factors identified from the case studies and the modified framework of factors

From the previous sections, it was identified that the most influential factor that drives a change in the acceptance of a controversial policy after implementation is the policy's characteristic of perceived effectiveness. It was seen that the acceptance of the people influenced by the policy began to grow once they witnessed the effectiveness of the policy. From these studies, it was identified except for the perceived effectiveness all the other factors were arbitrary and were also very specific to the case that was considered. All the other factors that were identified in the developed theoretical model influences the acceptance of a controversial policy in general, but the only factor that directly influences the increase in acceptance after implementation is the perceived effectiveness of the policy. Thus the final theoretical framework of factors that influences the acceptance of a controversial policy is as shown below.

The "Perceived effectiveness" is highlighted to indicate that it is an important factor that can influence the acceptance of a policy as it is the reason why there is an increase in acceptance after the implementation of the policy. In the previous sections it was also discussed whether the factor identified influences the proposed or implemented policy, this is also incorporated in the framework – the factors expected to affect acceptance of a proposed policy is a suffix of '(P)' and the factors expected to affect the implemented policy shall have the suffix '(I)'. The psychological factors were all derived from the literature on psychology, and hence their effects on either a proposed or implemented policy are not known, so it is not specified in the model. (Refer figure 5)

In the previous sections, it was explained on how the framework for the factors was obtained and on how the various factors from the different domains were spotted from literature. The above list of factors encompasses the major ones (if not all) that is believed to influence the acceptance of a controversial policy. The research also considers the change in acceptance after implementation. Each box or domain in the framework was explained in detail earlier. Now that we have developed the theoretical framework of plausible factors that are expected to influence acceptance of a controversial policy, the next step of this research is to study an unexplored case and observe the level of influence of the identified factors. This shall be carried ours systematically in the upcoming chapter.

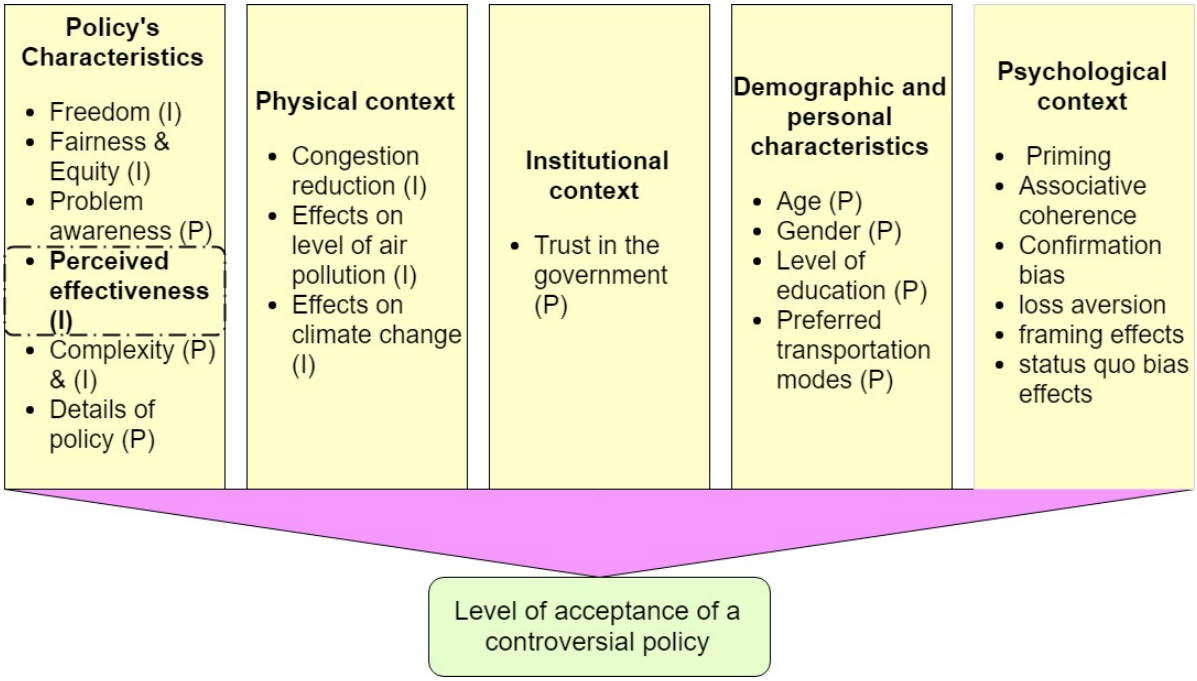

Figure 5: Final framework of plausible factors

Chapter 3: Case study to observe the level of influence of the identified factors

3.1 Introduction

In the previous chapters, a framework was developed with the help of existing knowledge from literature and the various factors that affect the acceptance of a controversial policy were identified. We systematically developed a theoretical list of factors and the next step is to observe the level of influence of these factors. This was done with the help of a case study that was conducted. Each section in this chapter shall explain in details the various steps that were carried out during the case study.

For this research we explored the parking policies in the city of Delft, more accurately focussing on the city centre of Delft where road parking and driving in certain areas has been banned recently. (The reasons for choosing this case shall be explained later in this chapter) The various steps involved in this study are as listed below.

1. Knowing the population – The area of study and its characteristics are established and briefly explained
2. Establishing mode of the survey – The method of survey is explained along with the steps involved in performing the study.
3. Creation of the questionnaire – A questionnaire is developed based on the model which shall be used for the survey.
4. Obtaining a sample – A suitable sample shall be chosen, and the survey shall be conducted among this sample group.
5. Data collection – Once the population, survey methodology, and the sample has been determined the next step is to collect the required data.
6. Organise and clean data – After the data collection step the obtained data is organised and made sure the data sample is of good quality.
7. Analyse the data – The obtained data is analysed with the help of data analysis tools like Microsoft Excel and SPSS.
8. Present the results – Finally, the results obtained from the study are presented and discussed.

This case study was carried out primarily with the help of instructions provided in the book ‘Research Methods for Business’ by Uma Sekaran and Roger Bougie (Sekaran & Bougie, 2016). We

shall now proceed into each step of the case study part of the research systematically and try to test the level of influence of the factors identified.

3.2 Knowing the population

The first step involved in the case study is to know the population, the case study shall be carried out in the Dutch city of Delft. In this section, we shall see the reasons why this particular case was chosen.

The parking/road policy in the city centre of Delft is chosen as the case study to observe the influence of the identified factors on acceptance of a controversial policy owing to the following reasons.

- The proposed policy had a variety of opinions and was not unanimously agreed upon.
- The proposed policy was initially opposed by a great share of people, but after the implementation of the policy this number went down quite a lot.
- The centre of Delft has a good mixture of both residents and business owners giving us a good mix of opinions to perform the study.
- Most of the residents in the area spoke English, which made it easier to conduct interviews.
- The policy in Delft is a mixture of congestion pricing, road use and parking policy, giving us a good case covering multiple aspects of transport policy.
- The case in Delft is similar to many policies in the city centres of other European cities. According to an article on the Business insider magazine, major cities such as Madrid, Oslo, Hamburg, Brussels, etc. have implemented similar ‘car-free’ policies (Garfield, n.d.).
- Furthermore, the location of the case study is very close to the Delft University of Technology, making it convenient to conduct the research. This choice helped save a lot of resources (financial and time).

Before we get into the details of the case here is a brief history of the city

3.2.1 History of Delft

Delft is about 750 years old. The name is Obtained from 'delven' which means *digging*. Delft's earliest canal is called The Old Delft (de Oude Delft). Delft grew around it; later on, other city-canals were dug as lifelines through the city. These *canals* are still the pride of Delft. In 1246 Delft received city rights, granted by Holland's Duke William II. Delft grew prosperous, and new neighbourhoods were added to the city. In 1355 it reached the size it would remain at until the 1900s.

In 1536 a great fire destroyed 2300 houses. The most likely cause was lightning striking the tower of The New Church. About 100 years later, in 1654, an explosion destroyed large parts of town;

a warehouse with 36000 kg of gunpowder blew up. A new warehouse (Kruithuis) was later built, outside the city perimeter.

Delft has long been a centre of art and science. With the foundation of the VOC (Dutch East India Company) in 1602, Delft also became a trading centre. The VOC was at one time the largest trading company in the world, with a huge fleet and offices all over Asia. One of the Dutch offices was in Delft.

In 1842, the Royal Academy for Civil Engineering (Koninklijke Academie ter opleiding van Burgerlijke Ingenieurs) was founded. Now known as Delft University of Technology (TU Delft), it is Delft's biggest employer. About 17,000 students study in Delft (‘Delft - Wikitravel’, n.d.).

3.2.2 Delft Centre

The city centre is a beautiful historic district popular with locals, students and tourists. It is one of the 8 districts in Delft. The many services and attractions make it is a great place to live for people of all ages. There are many different types of housing, including historic properties. The most common type is the single-family home. More than half of the homes were built before 1906, and 15% were built between 1906 and 1979. There are almost 7,000 homes; 40% is owner-occupied.

There are many shops, restaurants and cafes and an open-air market twice a week. Approximately 101,000 people live in Delft out of which 12,000 people live in the centre, and the average age is 36 which is less in comparison to the average age of the Netherlands of 38.7. Many residents participate in neighbourhood improvement projects.

The centre is easily accessible by public transport as well as car and bicycle. Parking is limited and sometimes a problem for residents. A large part of the centre is car-free, and most parking is for permit holders (‘City centre | Gemeente Delft’, n.d.).

3.2.3 Parking Restrictions in Delft

All parking regulations in Delft are being carried out and managed by Parkeren Delft. They were founded in the year 2005 as ‘Parking Delft’ and was renamed to ‘Parkeren Delft’ on 1st January 2017. They are solely responsible for managing parking in the dedicated parking garages, the streets and parking enforcement. Their only shareholder is the municipality of Delft (‘Information about the organisation’, n.d.).

Recently, the city centre of Delft was declared a car-free zone in many areas. A few areas were accessible for cars with an exception. Only the people who live in the area or own an establishment in the area and the ones who deliver goods regularly in the area are provided with the exception. If an individual falls into any of the above-mentioned categories, he/she can apply for an exception via the website of ParkerenDelft or can obtain it at their office. If an individual wants to access the centre just

for a day, he/she can apply for a single day exception as well. The centre of Delft is equipped with licence place recognition technology and any user who enters the centre without obtaining an exception shall be warned the first time and will be fined if the user enters the centre once again. These rules again apply to only certain parts of the centre, there are regions where parking and/or driving is completely banned.

Furthermore, mopeds are also banned in a few areas, and it is advised to walk along with the mopeds in the centre, Bicycles and pedestrians are allowed to move freely in the centre without any restrictions (‘Parking in the centre of Delft’, n.d.).

The various parking restrictions in the city of Delft is shown in the figure below, The yellow areas in the map are the regions where it cost 29.50 EUR per day to park a car on the streets, in the Dark Red coloured areas the price of parking is 3.10 EUR per hour of parking. In the light red sector, the tariff is 1.90 EUR per hour. All the prices are applicable from Monday to Saturday (12:00 to 24:00), and the parking in these regions is free during Sundays (Refer the figure 6 below).

The grey area in the centre is the region where parking and driving without exception is completely banned throughout the week. This grey area comprises the majority of the city centre of Delft, and this shall be the target area of our study (‘Prettig Parkeren - Vind de beste parkeerplek in de binnenstad!’, n.d.).

According to the municipality of Delft, the population of residents and business owners in the centre of Delft is approximately 12000. This set of residents and business owners shall be the population of our study. The area of study is shown in Figure 7 below.

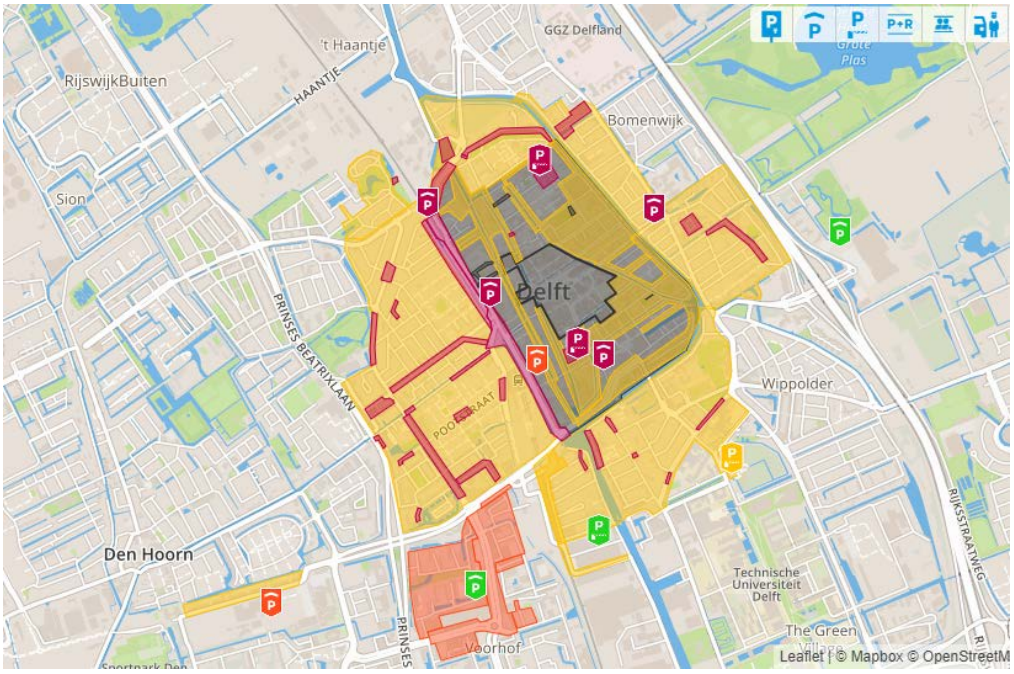

Figure 6: Parking in Delft (‘Prettig Parkeren - Vind de beste parkeerplek in de binnenstad!’, n.d.)

Figure 7: Area of study

3.2.4 History and timeline of events

The process of establishing a car-free centre in Delft was implemented in multiple phases. The phases were designed in relation to the development of parking spaces in dedicated garages around the city centre. The process began in the year 2000 and was proposed to be carried out in four phases.

For this research, we shall focus on the last phase (4th phase) as it is the most recent one there is a greater probability that the people living in the area would remember more details about the policy and its effects. Moreover, government reports show that the final phase had clear opposition when it was proposed. A number of residents and business owners of the Oude Delft and Burgwal area where the final phase was supposed to be implemented informed the municipality that they were clearly dissatisfied with the new parking policy (‘Fractions confused about autoluwplus - News - Internet - Municipality of Delft’, n.d.). The last phase was then carried out in 2010, and eight years later the residents and business owners of the area now do not showcase any opposition to the policy. This makes the case apt for this research.

The brief timeline of events is as follows.

2000 – Proposal to make the delft centre car-free in phases was initiated.

2009 – The municipality after long debates and strong opposition decides to implement the fourth and final phase of the project.

2010 – The fourth phase was implemented in the areas of Burgwal and Oude Delft (between Binnenwatersloot and Heiligegeestkerkhof), along with the realisation of the parking garages (Marktgarage or Koepoortgarage).

2016 – Physical barriers replaced by licence plate authorisation cameras.

2017 – Tourist busses no longer allowed to enter the inner city of Delft.

2017 – Municipality initiates a discussion to extend the area even more (Derteinhuizen: street between Choorstraat and Doelenplein)

3.3 Method of survey

The mode of survey or data collection is an integral part of the research. There are two sources of data.

1. Primary source of data – which comprises of data provided by individuals when interviewed or via the means of an administered questionnaire or by any other means. Usually, the researcher collects the data. Focus groups and panels or any other similar method of data collection also falls under a primary source of data.
2. Secondary source of data – The data that has been collected by someone other than the researcher himself. There are many sources of secondary data, namely books, journals, Government reports, newspapers, statistical abstracts, databases etc. Usually, secondary data is used to save time and resource in collecting information.

So far in our research, we have been solely using secondary sources of data for the Identification of the list of influential factors affecting acceptance. Now we shall dwell into the collection of primary data to test the extent to which these identified factors affect acceptance. We also referred to some secondary sources of data such as municipality reports (government reports) and also some news articles to analyse the history and timeline of the policy.

For this research, we used structured interviews to collect the primary data. As our research is more of a study that involves capturing the thinking, emotions, attitudes and perceptions of individuals, face to face structured interviews is the most appropriate way to capture all of the above-mentioned traits. Moreover, an interview allows us to follow up on unexpected responses and sometimes to confirm interpretations hence making sure that the data obtained is of good quality (Sekaran & Bougie, 2016, Chapter 7).

The study was aimed to be a small scale quantitative research with the objective of observing the level of influence of the factors identified; no concrete causal relationships can be derived from this research.

Though the population of Delft centre is about 12000 people the number of houses in the centre of Delft is close to 7000 houses ('City centre | Gemeente Delft', n.d.). Furthermore, the focus areas where the policy was most recently established (Burgwal, Oude Delft) have less than 85 houses/business establishments. The exact number of residents in the area could not be obtained, the number mentioned above is an estimate from physically scouting the areas. These ~85 residents/business owners were the target or the population of this survey. An overview of how the population for the survey was narrowed down can be seen in the image below.

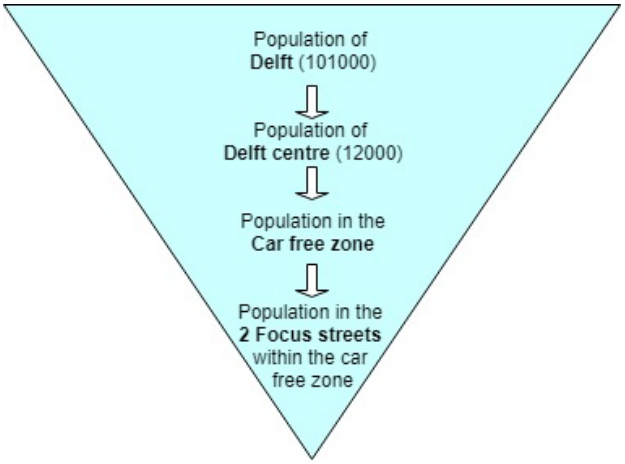

Figure 8: Narrowing down through the four levels of population

Generally a survey of significance has a margin of error (E) ranging from ±2% to ±6%, Taking the confidence level required to be 95% and a population (N) of 85, On looking up on a Z-table we know that the critical value (Z) for 95% confidence is 1.96, Assuming a standard deviation (Population proportion (p)) of 0.5, the necessary ideal sample size can be calculated using the formula below.

$$\frac{\frac{Z^2 \cdot p(1-p)}{e^2}}{1 + \left(\frac{Z^2 \cdot p(1-p)}{e^2 N}\right)}$$

Where Z is the Z-Score or the critical value (1.96 in this case), p is the population proportion (which is assumed to be 0.5), e is the margin of error, and N is the population size (85). For a margin of error of 19% (e=0.19), we obtain a sample size of 21. Since the goal of the research is to just observe the level of influence of the factors identified, we settle for a very large margin of error. This margin of error hampers the significance of the data and the reliability of the survey results. For an ideal, statistically sound survey of this population we would need a margin of error of 5%, and for this, the

sample size would be 70. Since the research aims to be solely of observatory intent, and due to the lack of respondents (which shall be explained in subsequent sections) we settle for this high margin of error. The process of sampling and choosing the respondents shall also be explained in the subsequent sections (Refer to section 3.5). Such a small sample (70 for an ideal, significant analysis) size can be easily achieved with the help of interviews hence the research is conducted with the help of structured interviews.

3.3.1 Structured interviews

These interviews are conducted usually when it is known at the outset what information is required. We (the interviewer) already have a set of predetermined questions to be asked to the respondents personally. As the respondents answer the interviewer notes them down, and the interviewer shall ask the same questions to all the respondents in the sample in the same way. When a sufficient number of structured interviews has been conducted the interviewer, and all the information that is required to understand and describe the important factors that are desired is obtained, the interviewer proceeds to tabulate and analyse the data. Thus the researches aim to answer the research questions.(Sekaran & Bougie, 2016, Chapter 7).

3.4 Developing the questions for the interview

A structured interview like explained earlier has a set of predefined questions that the researcher/interviewer asks the respondent. In this section, we will develop the questions which shall be used to observe the list of plausible factors affecting acceptance of a controversial policy (Refer figure 5).

In this section, we explored each domain separately and developed the questions for each factor, and prior to that, we introduced a few questions that gives us an idea of the level of acceptance of the policy.

The psychological factors are quite hard to be tested with the help of questions in an interview. Hence these factors were analysed from observation, and they shall be seen in context, thus the questions framed in the upcoming sessions shall not include the psychological context.

3.4.1 Questions on acceptance

To measure the current acceptance of the parking policy implemented in the centre of Delft we imposed the question.

How do you feel with the current parking policy implemented at the city centre of Delft?

This question similar to most of the questions in the interview was an open type question. The purpose of the interview and the research is to understand the feelings of the people in order to determine

how particular factors shall influence the level of acceptance and open questions provided the opportunity for the participants to give explanations which provided a deeper understanding.

To measure the level of acceptance before the policy (acceptance to the proposal) the following question was asked (this measure should be ideally obtained before an actual policy has been deployed – but since this is not possible with the case available it is up to the interviewer to obtain the most honest response to the question).

How did you feel when the parking policy was first announced, before its implementation?

Similar to the previous question – this question was also open-ended, this question also aims to retrieve a rich picture of the situation at the time the policy was proposed. In order to achieve that follow up questions such as,

- Were you opposing or in agreement? And why?
- If you joined a protest group or meetings? And why?

Were also asked.

Now that we have formed questions to measure the level of acceptability both before and after implementation of the policy we shall move on to focus on the factors from each domain in the model and see how it affects the level of acceptance of the policy.

3.4.2 Institutional Context

The next set of question is designed to test the factor that falls under the institutional context which is trust in government. This factor was measured with the help of the below question.

How would you react to a new policy/rule/initiative that is proposed by your government?

If the municipality would go back with the parking policy to how it was previously, how would you react? Why?

These questions were also open-ended questions aiming to obtain a bigger picture on how comfortable the people are with the government (It was later found out that these questions were not clear and vague to the respondents from the test interviews conducted and were subsequently removed from the survey (refer section X.XX)).

The following direct question was also used to gain a more straightforward reaction towards the institutions.

How would you rate the trustworthiness of your government? And why?

Similar to the above questions this question was also an open one. With the above set of questions, the institutional context was covered. Next, we move on to the policy's characteristics domain.

3.4.3 Policy's Characteristics

The following questions were developed in order to verify the factors that belong to the policy's characteristics domain, namely: Freedom, Fairness and Equity, Problem awareness, complexity, details of policy and the perceived effectiveness. We aim to develop one question that shall test each factor in this domain.

The questions that test the abovementioned factors are as follows:

Do you feel that the implemented policy infringed on your personal freedom? If yes then why?

Do you believe that the implemented policy is fair to you? And why?

Do you believe that the implemented policy equally affects everyone? How so?

All of the above questions, similar to the previous set of questions are open-ended and will aim to gather a richer picture of the effects; the policy brought about. This also allows gaining an idea regarding the psychological context of the respondent.

For the rest of the factors in this domain we shall use questions with a binary answer (yes/no).

Were you aware of the problems that the policy aimed to eradicate?

Were you well informed about the details of the policy? Do you think the information was sufficient?

These questions are related to the factors of problem awareness and details of the policy.

The next question is designed to explore the complexity of the policy,

How complex do you think the details of the policy were to understand?

Another factor in this domain is the 'perceived effectiveness' of the policy – We already found that this factor is one of the main factors that influence the change in levels of acceptance before and after acceptance (Börjesson et al., 2016; Schuitema et al., 2010).

As this factor explores on how the respondent believes the policy was (in)effective, it is quite difficult to use closed-ended questions to get the right data. Hence we resort to an open-ended question.

What do you feel about the effectiveness of the policy?

Extra attention was paid to this question to make sure the respondent understands what is meant by the perceived effectiveness and they were asked if they could feel the effectiveness after the implementation of the policy.

Next, we proceed to the physical context domain and develop questions that can test the causal relationship between the level of acceptance and various physical factors.

3.4.4 Physical context

The three factors that fall under the physical context are Congestion reduction, Effects on the level of air pollution and effects on climate change. The questions that are framed to explore the impact of these physical factors on the acceptance level are as below.

In your view how much does the policy influence the following environmental issues?

1. **Congestion in the centre of Delft**
2. **Level of air pollution**
3. **Effects of climate change**

Each of the three subdivisions of the question had open-ended answers which also explored why the respondent feels that the policy is influential on the specified environmental issue.

3.4.5 Demographic and personal characteristics

All the questions pertaining to demographic and personal characteristics was explored with the help of direct questions such as.

What is your gender?

What is your age?

What is your level of education?

What is your annual income?

What is your preferred mode of transport?

Each of the above questions was accompanied by a suitable and appropriate set of answer options, for personal questions such as age or income I provided a range of response options, rather than seeking exact figures.

Questions regarding education level, gender and modes of transport had all the possible options in the answer choices.

Like previously explained we shall not dwell into developing particular questions to explore the psychological domain. Now that we have all the questions, they shall be rearranged appropriately to obtain the final list of questions as shown in the following section.

3.4.6 List of interview questions

Demographic/personal section

- What is your Name?
- What is your level of education?
- Gender?
- What is your age? (<25, 25-45, 45-65, >65)
- What is your income? (<15000, 15000-30000, 30000-45000, 45000-60000. >60000)
- What is your preferred mode of transportation?

Policy related questions

- How do you feel with the current parking policy implemented at the city centre of Delft?
- Were you aware of the problems that the policy aimed to eradicate?
- Were you well informed about the details of the policy? Do you think the information was sufficient?
- How complex do you think the details of the policy were to understand?
- How did you feel when the parking policy was first announced, before its implementation? (Were you opposing or in agreement? And why? If you joined a protest group or meetings? And why?)
- Do you feel that the implemented policy infringed on your personal freedom? If yes then why?
- Do you believe that the implemented policy is fair to you? And why?
- Do you believe that the implemented policy equally affects everyone? How so?
- In your view how much does the implemented policy influence the following environmental issues? (Congestion in the centre of Delft, Level of air pollution, Effects of climate change)
- What do you feel about the effectiveness of the policy?
- How would you react to a new policy/rule/initiative that is proposed by your government?
- If the municipality would go back with the parking policy to how it was previously, how would you react? Why?
- How would you rate the trustworthiness of your government? And why?

3.5 Choosing the respondents and collecting the data

We have obtained the list of questions for the structured interview from the previous sections of this chapter; now we move on to determine the target respondents for carrying out the interview and to collect primary data for the qualitative study.

3.5.1 Sampling and choosing the respondents

Sampling for a case study is important irrespective of the type of study. Sampling begins with a clear definition of the target population, which was explained in detail in section 3.2 of this chapter. For this research, I followed nonprobability sampling techniques as it is very difficult to pick desired subjects from the population – this means findings from the study cannot be confidently generalized to the entire population, but we use this method as we sort after preliminary information in a quick and inexpensive way.

I followed a purposive sampling method by choosing our respondents based on a judgemental sampling where we pick the subjects who are most advantageously placed – for our research we pick the subjects living in the region where the parking policy was implemented quite recently (Burgwal, Oudedelft areas).

Like explained earlier (section 3.2) to obtain ideal, statistically significant data, sample size of 70 was necessary. Hence the entire population of these areas were chosen to be the target (respondents), and everyone was approached for the interview. However only 23 respondents in the area were willing to provide input for the survey, the rest were either not available or weren't willing to participate in the interview. This was quite an unexpected setback during the research. Due to the time constraints of the project, the research was continued, and a sample of 21 (two interviews were used as test interviews) was obtained leading to a 19% margin of error. But like it was explained earlier the research aims to spot the plausible factors, and the study was designed to observe if the factors obtained did indeed affect acceptance, and the obtained data did provide a high-level insight.

The 21 respondents were not picked based on any bias and were random.

3.5.2 Data collection

Initially, after forming the questions for the structured interview, a test session with two subjects from the area was conducted.

3.5.2.1 Test interview

This was performed to make sure the questions accurately focus on the factors that affect acceptance as we aimed it to. And to make sure the interview was not too long (it was aimed to keep

the interview between 10 to 15 minutes per interview owing to the concerns of the residents living in the target area.

From the test interviews, the following outcomes were noted.

- The subjects were not comfortable with sharing their name for the interview.
- Most of the questions were pretty straightforward and was simple to understand – and both the subjects were able to give good open-ended answers that could contribute to the research.
- The subjects found the question "How would you react to a new policy/rule/initiative that is proposed by your government?" a little hard to understand or did not know what to answer. This question was aimed to test the trust the people had on the government, but the subjects were focussing on the policy aspects. So this question was removed from the interview.
- The subjects were not comfortable opening up about their personal feelings while answering the questions – they provided straightforward answers which were a sentence long. So Follow up questions such as "could you elaborate" , "can you explain more about it" , "can you give a more detailed view" were asked after every answer to gain more insights, especially to analyse the psychological factors.
- The interview for the first time lasted about 8 minutes, then when the follow-up questions were asked it lasted about 12 minutes on average.
- The respondents were not comfortable with allowing me into their homes, and the external weather factors did not support a longer interview, so it had to be a little short and concise.

After performing the test interviews and streamlining the interview questions to make it more effective, I began performing the interviews in the area.

3.5.2.2 The interview process

The first step that was done to conduct the interview was to inform all the residents in the area about my arrival times – this was done by writing a letter (as shown in appendix 1) in both English and Dutch, this letter was dropped in the letterbox of all the houses and business establishments in the target area two days before I began the interviews. This was done to respect their privacy and to make sure they are not alarmed.

After this, the interviews were performed in the previously mentioned times and most of the respondents were already aware of the fact that I shall be dropping by. I was accompanied by a Dutch-speaking colleague for the residents who were comfortable speaking in Dutch. There were only very few subjects who chose to respond in Dutch, and a greater share was comfortable with conversing in English.

Before the start of each interview, the subjects were asked to sign a declaration (which was also drafted both in English and Dutch) (Refer appendix 2).

All the subjects who participated in the interview signed that they have read the information and understood it and are willing to contribute to this academic research.

Next, all the interviews that was recorded were heard and they were reduced to short reports with just the essential information in a concise way.

The next part of the analysis is the data reduction and data display process which shall be performed and explained in the next sections.

3.6 Data reduction

Data collection results in a large quantity of data. The initial step that has to be performed is a reduction of the data by coding and categorization. Coding is the analytic process through which the qualitative data gathered are reduced, rearranged and integrated to form theory' (Sekaran & Bougie, 2016). Codes are labels given to units of text which shall be later grouped and are transformed into different categories. Coding starts with selecting a coding unit; this unit could be words, sentences, paragraphs, and themes. The unit that is the smallest are the words and the unit that is most widely used in content analysis and larger is the theme. When we are looking for themes, we are primarily looking for the expression of an idea. Thus, we shall assign a specific code to a text section of any size as long as that section of text represents a single theme or issue.

After coding the responses obtained from the interview and reducing the data the next vital step is that of data display. This is the process of taking the reduced data and displaying it in an organised and condensed manner. This shall help us draw conclusions and results from the data.

For this research, we have two main categories

1. Factors
2. Level of acceptance (Proposed policy and Implemented policy)

The goal of this study is to find how each factor influences the level of acceptance of the policy. So each factor is considered to be a unit (subcategory), and the level of acceptance of a proposed or implemented policy is also considered to be a unit. As mentioned earlier not all the factors that affect the acceptance of an implemented policy also affect the acceptance of a proposed policy and vice versa.

How the data obtained was analysed, and the results and discussions of the survey is elaborated in the next chapter.

Chapter 4: Analysis, Results and Discussions of the case study

4.1 Introduction

So far in the previous chapters, we explored on what is the definition of acceptance, and then we continued to develop a framework that showcases the various factors that influence the level of acceptance of a controversial policy, this was done with the help of a sound literature survey. We then continued to find factors that influence the acceptance of a controversial policy again with the help of a literature study. Finally, we explored cases where there was increased acceptance of a policy after its implementation. We managed to find factors that were responsible for this increased acceptance in policy. We also explored the psychological domain and spotted factors from psychology which affects acceptance of a policy. This was followed by embedding the factors within the framework to form a list of factors influencing the acceptance of a controversial policy when it's proposed and also explains the increased acceptance of a policy after implementation. We then continue to observe the level of influence of the theoretical framework of factors with the help of a case from the city centre of Delft, where a parking and road use policy was implemented.

In this chapter the analysis of the data obtained from the case study performed is explained and the results that were obtained from the case study conducted are presented and analysed with the aim to observe the level of influence of the factors identified on the acceptance of a controversial policy.

4.2 Analysis of the data obtained

As previously explained the data obtained from the case study is very high in quantity, as the study was predominantly a set of structured interviews the raw data were audio recordings of the interview sessions, these audios were initially transcribed to short reports with just the important and relevant information. These reports served as the raw data from which the results were obtained. The data was coded into dichotomous (binary) variables (for example: for the question on infringement of freedom was coded with either a 1 (yes, respondent felt there was an infringement) or a 0 (no, the respondent did not feel there was an infringement) based on the response obtained, this was repeated with all the factors analysed and each coding process is explained in detail under the corresponding factors). The variables such as age and level of income which had answer choices with a range were coded with values ranging from 1 to 4 or 1 to 5 based on the ranges (this is also explained in detail under the corresponding section). This coding was done to find the correlation between the two variables (the factor identified, and the level of acceptance of proposed/implemented policy).

The below table (table 1) gives an overview of how the data was coded. To find the association between variables which is the way to find the way if a factor and acceptance is indeed associated we need to perform a bivariate analysis on the data, for this we used a Chi-square based statistics. This was done with the help of the cross-classification tables (crosstabs statistics) function available in the SPSS data analysis tool. This was performed individually for each factor as a variable versus the acceptance of a proposed policy or an implemented policy depending on the factor that was analysed. This is explained individually in the subsequent sections. The '-' in the table correspond to neutral responses.

Table 1: Coded data obtained from the case study interviews

Respondent number	Male/Female	Infringement on freedom (Yes/No)	Fairness (Yes/No)	Equal (Yes/no)	Awareness (Aware/not aware)	Complexity (complex/not complex)	Trust in government (yes/no)	Preferred transport (Car/public)	Effect on congestion (yes/no)	Effect on pollution (yes/no)	Effect on climate change (yes/no)	Accept proposed policy (Yes/no)	Accept implemented policy (yes/no)	Business / Resident	age	Income
	1	0	1	0	1	0	0	0	1	0	0	0	1	1	2	4
2	1	1	0	0	1	1	0	1	0	0	0	0	0	0	3	3
3	1	0	1	0	1	0	1	0	1	0	0	1	1	0	2	5
4	0	0	1	0	1	0	1	0	0	0	0	0	1	1	2	5
5	0	0	1	0	0	1	1	0	0	0	0	1	1	0	2	3
6	1	0	1	0	1	0	1	0	1	1	0	1	1	0	3	1
7	1	0	1	0	0	0	0	1	1	0	0	1	1	0	2	5
8	0	1	1	0	1	0	1	0	1	0	0	0	1	1	1	4
9	1	0	1	0	1	1	1	1	0	0	0	1	1	0	2	5
10	0	0	1	0	1	0	1	1	1	0	0	-	1	0	2	3
11	1	0	1	0	1	0	1	1	1	1	0	-	1	0	3	5
12	0	0	1	0	1	0	0	1	1	0	0	0	1	1	2	5
13	0	0	1	0	1	0	1	0	0	0	0	1	1	1	2	5
14	1	0	1	1	1	0	1	0	1	0	0	1	1	0	2	5
15	0	1	0	0	0	1	0	1	1	0	0	0	0	1	3	2
16	0	0	1	0	1	0	0	0	1	0	0	0	1	0	2	4
17	0	0	1	1	1	0	1	1	1	0	0	1	1	0	2	4
18	1	0	1	0	1	0	1	0	1	0	0	-	1	1	2	5
19	0	0	1	0	1	0	1	0	1	0	0	1	1	0	2	5
20	0	1	0	0	0	1	1	1	0	0	0	0	0	1	4	3
21	0	0	1	0	1	0	0	0	0	0	0	1	1	0	2	4

4.3 Results obtained from the data

The case study was conducted with the aid of structured interviews as explained in the previous chapter. For this study, a total of twenty-one interviews were performed. There were two interviews that were performed which acted as a test interview which helped to streamline the interview and to modify and eliminate a few questions to make the interview concise and also effective.

Out of the total responses of twenty-one, thirteen were from residents living in the target area and eight were from business owners and owners of business establishments in the area. It was observed that the ratio between residents and businesses in the target area was 3:2 and (almost) the same ratio was found to be maintained in the sample as well (this ratio is observed by physically scouting the area under study and may not be accurate).

There was no discrimination on choosing samples based on demographic and personal factors as it was not feasible to pick respondents of all types as the population was limited and the only criteria that was imposed were that they were a part of the area where the latest controversial parking/road use policy was deployed.

Now the results that were obtained from the study shall be presented, the analysis and discussions will follow in the next sections

4.3.1 The test chosen to find the influence of factors on acceptance

The aim of the study is to observe the level of influence of the factors studied on the acceptance of a controversial policy, the level of influence simply means the relationship between the two variables (acceptance and the factor). Most of the factors were reduced and coded to a binary variable. Since we have a very small sample size, and we are not sure if the data is normally distributed we resort to using non-parametric tests for finding the relationship between the variables. One of the commonly used non-parametric tests to find the association or relationship between two binary/dichotomous variables is the Phi coefficient test. The Phi coefficient manages to intersect the binary variables in a 2x2 matrix and tries to find out if there is a pattern that is not random. The Phi coefficient varies from -1 to +1 where +1 and -1 depict a very high relationship. A Value closer to 0 depict a less strong relationship. The various level of association based on the Phi value is as shown below.(Ken Plummer, 2014)

-1.0 to -0.5 or 1.0 to 0.5	Strong
-0.5 to -0.3 or 0.3 to 0.5	Moderate
-0.3 to -0.1 or 0.1 to 0.3	Weak
-0.1 to 0.1	None or very weak

4.3.2 Acceptance levels

The interview comprised of questions that were expected to bring out the acceptance levels of the respondents both the current level of acceptance and satisfaction (after implementation of the policy) and also their level of acceptance when the policy was first announced/proposed (refer the previous chapter for the questions).

It was easy to understand the responses for this question as it was pretty straightforward, some of the responses received for the question 'How do you feel with the current parking policy implemented at the city centre of Delft?' were as follows

- "I feel very peaceful and happy on how it is right now."
- "The residents now have a beautiful view and not cars in front of the houses."
- "It is much safer and serene at the same time."
- "It is very hard to park the car in the garage and walk every day"
- "I had to sell my car as it was more convenient to use the public transport."

The above responses are just a few from the array of responses received, on reducing the responses and coding it we could notice that out of twenty-one responses; eighteen were happy with the current policy and three were not satisfied with the policy. There were no neutral responses.

The question that was intended to obtain insights on the acceptance of the policy when it was first announced before the implementation ("How did you feel when the parking policy was first announced, before its implementation? (Were you opposing or in agreement? And why? If you joined a protest group or meetings? And why?)"), yielded the following responses (not limited to).

- "I was sceptical about the policy at first."
- "The fact that I shall not be able to get my car to my house didn't seem comforting."
- "I was looking forward to a peaceful surrounding, and we were looking forward to the policy."
- "I was pleased with it, I don't own a car, and this only gave me good outcomes."
- "I was afraid the number of customers I will get at the café would go down."

After reducing and codifying all the responses obtained, it was observed that ten respondents were happy and was looking forward to the policy – but eight respondents were sceptical about the policy and were not looking forward to it. Three respondents did not have an opinion on the policy and were neither welcoming nor opposing.

The summary of the above results is as follows.

Table 2: Acceptance levels before and after implementation of the policy

	Happy	Unhappy	Neutral
Before implementation	10	8	3
After implementation	18	3	0

Now that we have presented the results pertaining to the acceptance level of the controversial policy we move on to see how each factor interacts with the acceptance levels.

4.3.3 Factors and acceptance levels

In this section, we shall present on how each factor influences acceptance, for this section the results are presented domain wise (refer figure 5).

4.3.3.1 Policy's characteristics domain

The different questions that were asked within this domain to find out how the factors from the policy's characteristics domain affect the acceptance and a few example responses to each question are as follows. The level of influence of each factor is also presented with the help of statistical analysis using SPSS.

Freedom: "Do you feel that the policy infringed on your personal freedom? If yes then why?"

- "I don't feel any infringement on my personal freedom."
- "I feel the new policy, and the licence plate scanning adds a safety value."
- "I have not had any bad experience, but the fact that all my activity is being recorded makes me uncomfortable."
- "I don't have the freedom to drive all the way to my house anymore."

From the responses obtained it was coded that if a respondent felt that freedom was infringed as '1' and if the respondent felt freedom was not infringed as '0' and similarly if the respondent agreed with the implemented policy as '1' and if not the response was coded with a '0'. As discussed earlier the infringement on freedom is a factor that affects the acceptance of an implemented policy, on performing the crosstabs statistics on SPSS the following results were obtained.

Table 3: Cross tabulation between Freedom infringement and Acceptance of an implemented policy

Cross-tabulation

Count

		Acceptance of implemented policy		
		0	1	Total
Infringement on Freedom	0	0	17	17
	1	3	1	4
Total		3	18	21

On further performing correlation tests for verifying the relation between two binary variables, the following results were obtained.

Table 4: Phi and Cramer's v test for binary variables (freedom and acceptance)

Symmetric Measures

		Value	Approximate Significance
Nominal by Nominal	Phi	-.842	.000
	Cramer's V	.842	.000
N of Valid Cases		21	

Fairness: "Do you believe that the policy is fair to you? And why?"

- "I feel it is fair to me and also everyone, we were given comfortable spots in the parking garage."
- "the policy is unfair to me personally as I have to spend extra money for parking my car in the garages."
- "There are elderly members in my family, and this makes it hard for their commute."

From the responses obtained it was coded that if a respondent felt that the policy was fair as a '1' and if the respondent felt the policy was not fair as '0' and like previously explained, if the respondent agreed with the implemented policy as '1' and if not the response was coded with a '0'. Similar to infringement on freedom, the factor of fairness is also a factor that affects the acceptance of an implemented policy, on performing the crosstabs statistics on SPSS the following results were obtained.

Table 5: Cross tabulation between Fairness and Acceptance of an implemented policy

Cross-tabulation

Count

		Acceptance of implemented policy		
		0	1	Total
Fairness	0	3	0	3
	1	0	18	18
Total		3	18	21

On further performing correlation tests for verifying the relation between two binary variables, the following results were obtained.

Table 6: Phi and Cramer's v test for binary variables (fairness and acceptance)

Symmetric Measures

		Value	Approximate Significance
Nominal by Nominal	Phi	1.000	.000
	Cramer's V	1.000	.000
N of Valid Cases		21	

Equality: "Do you believe that the policy equally affects everyone? How so?"

- "I feel that people who use public transport, benefit more from the policy."
- "No, the policy affects each resident in a different way – some have a more dire need for a car and some don't."
- "Yes – I believe the rules and policy are equal to all and affect everyone equally – at least those who live in the same locality."

From the responses obtained it was coded that if a respondent felt that the policy was equal to all as a '1' and if the respondent felt the policy was not equal to all as '0' and like previously explained, if the respondent agreed with the implemented policy as '1' and if not the response was coded with a '0'. Similar to the previously discussed factors, the factor of equality is also a factor that affects the acceptance of an implemented policy, on performing the crosstabs statistics on SPSS the following results were obtained.

Table 7: Cross tabulation between Equality and Acceptance of an implemented policy

Cross-tabulation

Count

		Acceptance of implemented policy		
		0	1	Total
Equality	0	3	16	19
	1	0	2	2
Total		3	18	21

On further performing correlation tests for verifying the relation between two binary variables, the following results were obtained.

Table 8: Phi and Cramer's v test for binary variables (Equality and acceptance)

Symmetric Measures

		Value	Approximate Significance
Nominal by Nominal	Phi	.132	.544
	Cramer's V	.132	.544
N of Valid Cases		21	

Awareness: "Were you aware of the problems that the policy aimed to eradicate?"

- "Yes, it was well presented and explained."
- "Yes – the congestion, safety and ease of commutation for both residents and tourists were the main focus."
- "Not really! It was explained, but the main goal was unclear."
- "It was don't to make the city centre prettier."

"Were you well informed about the details of the policy? Do you think the information was sufficient?"

- "Yes, The information shared was very elaborate and clear."
- "I felt the explanation was very detailed and maybe even too detailed which was a little confusing to comprehend
- "I felt the information was not given to everyone – but to only those in the region – the people who moved in later and the outsiders were not well informed."

It was noted that those who were aware of the problems that the policy aimed to solve also felt they were well informed about the details.

From the responses obtained it was coded that if a respondent felt that he/she was well aware of the policy and its details as a '1' and if the respondent felt that he/she wasn't aware of the policy and its details as a '0'. Furthermore, if the respondent agreed with the proposed policy as '1' and if not the response was coded with a '0'. The factor of Awareness is a factor that affects the acceptance of a proposed policy, on performing the crosstabs statistics on SPSS the following results were obtained. The valid cases are just 18 because 3 of the respondents were neutral without any opinions about the proposed policy.

Table 9: Cross tabulation between Awareness and Acceptance of a proposed policy

Cross-tabulation

Count

		Acceptance of a Proposed Policy		
		0	1	Total
Awareness	0	2	2	4
	1	6	8	14
Total		8	10	18

On further performing correlation tests for verifying the relation between two binary variables, the following results were obtained.

Table 10: Phi and Cramer's v test for binary variables (Awareness and acceptance)

Symmetric Measures

		Value	Approximate Significance
Nominal by Nominal	Phi	.060	.800
	Cramer's V	.060	.800
N of Valid Cases		18	

Complexity: "How complex do you think the details of the policy were to understand?"

- "the policy was not very clear – especially the parking replacements in the garage was not explained clearly."
- "the policy was very straightforward and was clear to understand."
- "certain rules were clear, but not all of them."

From the responses obtained it was coded that if a respondent felt if the details of the policy were complex as a '1' and if the respondent felt that the details of the policy were not complex as a '0'. Similar to the above factors, if the respondent agreed with the proposed or implemented policy as '1' and if not the response was coded with a '0'. It was mentioned earlier that the complexity is a factor

that affects the acceptance of both proposed and implemented policy, on performing the crosstabs statistics on SPSS the following results were obtained.

Table 11: Cross tabulation between Complexity and Acceptance of a proposed policy

Crosstabs

Count

		Acceptance of a proposed policy		
		0	1	Total
Complexity	0	5	8	13
	1	3	2	5
Total		8	10	18

Table 12: Cross tabulation between Complexity and Acceptance of an implemented policy

Crosstabs

Count

		Acceptance of implemented policy		
		0	1	Total
Complexity	0	0	16	16
	1	3	2	5
Total		3	18	21

On further performing correlation tests for verifying the relation between two binary variables, the following results were obtained.

Table 13: Phi and Cramer's v test for binary variables (complexity and acceptance of proposed policy)

Symmetric Measures

		Value	Approximate Significance
Nominal by Nominal	Phi	-.194	.410
	Cramer's V	.194	.410
N of Valid Cases		18	

Table 14: Phi and Cramer's v test for binary variables (complexity and acceptance of implemented policy)

Symmetric Measures

		Value	Approximate Significance
Nominal by Nominal	Phi	-.730	.001
	Cramer's V	.730	.001
N of Valid Cases		21	

All the above-mentioned results are from the policy's characteristics domain – now we move on the institutional context.

4.3.3.2 Institutional context

The only factor that the study wanted to test from this context was the trust in the present government. For this purpose, the following questions were included in the structured interview. "How would you rate the trustworthiness of your government? And why?" and "How would you react to a new policy/rule/initiative that is proposed by your government?" – Like it was explained earlier the second question was removed as the results it yielded from the test interview was not the one it was aimed to produce. But the first question was more direct, and some of the responses obtained are as follows.

- "The government is not the most efficient one, but they are trying."
- "I don't like the government that much, because they are very short minded and don't consider long-term goals."
- "yes, the government is pretty trustworthy, and they usually deliver what they promise."
- "The government is money minded and aims to make more money from the citizens, and most policies are focussed towards this cause."

From the responses obtained it was coded that if a respondent had trust in the government as a '1' and if the respondent did not trust the government as a '0'. Similar to the above factors, if the respondent agreed with the proposed policy as '1' and if not the response was coded with a '0'. It was mentioned earlier that the trust in government is a factor that affects the acceptance of a proposed policy, on performing the crosstabs statistics on SPSS the following results were obtained.

Table 15: Cross tabulation between trust on the government and Acceptance of a proposed policy

Cross-tabulation

Count

		Acceptance of a proposed policy		
		0	1	Total
Trust in Government	0	5	2	7
	1	3	8	11
Total		8	10	18

On further performing correlation tests for verifying the relation between two binary variables, the following results were obtained.

Table 16: Phi and Cramer's v test for binary variables (trust in government and acceptance of proposed policy)

Symmetric Measures

		Value	Approximate Significance
Nominal by Nominal	Phi	.433	.066
	Cramer's V	.433	.066
N of Valid Cases		18	

4.3.3.3 Physical context

This section focusses on the results obtained with respect to the factors in the physical context – the questions asked during the interview to see how physical factors influence the acceptance was as follows. “In your view how much does the policy influence the following environmental issues? (Congestion in the centre of Delft, Level of air pollution, Effects of climate change)”. Some of the responses obtained for this questions are as follows.

- “The congestion has definitely gone down – as a result, air pollution also has gone down, but I don’t feel this policy plays a major role in climate change.”
- “The congestion does not have much of an impact as the trucks and some vehicles still pass by.”
- “The streets are more free and safer, but there is no change in the air pollution or climate change – the government has to do more to curb those”

The similar to the previous factors the cases where a respondent felt the policy had an influence on a particular physical factor was recorded as a ‘1’, and if they felt it had no influence on the physical factor, it was coded as a ‘0’. And the acceptance of an implemented policy is coded as mentioned earlier. It was also mentioned earlier that the physical factors have an influence on the implemented policy. On

performing the cross-tabulation analysis for all the factors in this domain, the following results were obtained

Table 17: Cross tabulation between the perceived effect on pollution and Acceptance of an implemented policy

Crosstab

Count

		Acceptance of implemented policy		
		0	1	Total
Pollution	0	3	16	19
	1	0	2	2
Total		3	18	21

Table 18: Cross tabulation between the perceived effect on climate change and Acceptance of an implemented policy

Crosstab

Count

		Acceptance of implemented policy		
		0	1	Total
Climate Change	0	3	18	21
Total		3	18	21

Table 19: Cross tabulation between the perceived effect on congestion and Acceptance of an implemented policy

Crosstab

Count

		Acceptance of implemented policy		
		0	1	Total
Congestion	0	2	5	7
	1	1	13	14
Total		3	18	21

On further performing correlation tests for verifying the relation between two binary variables, the following results were obtained.

Table 20: Phi and Cramer's v test for binary variables (effect on pollution and acceptance of implemented policy)

Symmetric Measures

		Value	Approximate Significance
Nominal by Nominal	Phi	.132	.544
	Cramer's V	.132	.544
N of Valid Cases		21	

Table 21: Phi and Cramer's v test for binary variables (effect on climate change and acceptance of implemented policy)

Symmetric Measures

		Value
Nominal by Nominal	Phi	.[a]
N of Valid Cases		21

a. Phi value is 0 in this case – no correlation

Table 22: Phi and Cramer's v test for binary variables (effect on congestion and acceptance of implemented policy)

Symmetric Measures

		Value	Approximate Significance
Nominal by Nominal	Phi	.289	.186
	Cramer's V	.289	.186
N of Valid Cases		21	

4.3.3.4 Personal and demographic factors

In this section the results obtained from the case study with respect to the various factors from the personal and demographic domain is presented, we begin with,

Gender

From the responses obtained it was coded that if a respondent was a male as ‘1’ and if the respondent was a female as ‘0’. Similar to the above factors, if the respondent agreed with the proposed policy as ‘1’ and if not the response was coded with a ‘0’. It was mentioned earlier that the demographic and personal factors affect the acceptance of a proposed policy, on performing the crosstabs statistics on SPSS the following results were obtained.

Table 23: Cross tabulation between Gender and Acceptance of a proposed policy

Cross-tabulation

Count

		Acceptance of a proposed policy		
		0	1	Total
Gender	Female	6	5	11
	Male	2	5	7
	Total	8	10	18

On further performing correlation tests for verifying the relation between two binary variables, the following results were obtained.

Table 24: Phi and Cramer's v test for binary variables (gender and acceptance of proposed policy)

Symmetric Measures

		Value	Approximate Significance
Nominal by Nominal	Phi	.255	.280
	Cramer's V	.255	.280
N of Valid Cases		18	

Preferred mode of transportation

From the responses obtained it was coded that if a respondent preferred car as a preferred mode of transport as ‘1’ and if the respondent preferred public transport and bikes as ‘0’. Similar to the above factors, if the respondent agreed with the proposed policy as ‘1’ and if not the response was coded with a ‘0’. On performing the crosstabs statistics on SPSS, the following results were obtained.

Table 25: Cross tabulation between the preferred mode of transport and Acceptance of a proposed policy

Cross-tabulation

Count

		Acceptance of a proposed policy		
		0	1	Total
Preferred Transport	0	4	7	11
	1	4	3	7
Total		8	10	18

On further performing correlation tests for verifying the relation between two binary variables the following results were obtained.

Table 26: Phi and Cramer's v test for binary variables (Preferred mode of transport and acceptance of proposed policy)

Symmetric Measures

		Value	Approximate Significance
Nominal by Nominal	Phi	-.204	.387
	Cramer's V	.204	.387
N of Valid Cases		18	

Age

Unlike all the previously identified factors (variables) the age is not coded as a dichotomous variable, so for testing the correlation between age and the acceptance we can no longer use the Phi coefficient, For studying this particular association we resort to the Pearson bivariate correlation analysis, Similar to the Phi coefficient, the Pearson's coefficient varies from -1 to +1 where a value between ±0.1 to ±0.3 shows a slight correlation and a value between ±0.3 to ±0.5 Shows a moderately strong correlation and any value between ±0.5 to ±1 shows a strong correlation. The age was coded into 4 different ranges, and the correlation analysis was performed between the age range and the acceptance of a proposed policy (binary variable) to give the results as shown below.

Table 27: Correlation between age and acceptance of a proposed policy

Correlations

		Age	Acceptance
Age	Pearson Correlation	1	-.217
	N	21	18
Acceptance	Pearson Correlation	-.217	1
	N	18	18

Income

The variable of income is similar to that of age, and it was coded into 5 different ranges, hence as we did earlier the correlation between the income and acceptance of a proposed policy was analysed with the help of a Pearson's bivariate correlation analysis, the results obtained are as shown below

Table 28: Correlation between income level and acceptance of a proposed policy

Correlations

		AcceptProposal	Income
AcceptProposal	Pearson Correlation	1	.194
	N	18	18
Income	Pearson Correlation	.194	1
	N	18	21

It was noticed during the interview; coincidently all the respondents had a university-level education hence the relationship between education level and acceptance was not presented as it has no significance in this case.

In this section we only presented the data (results) obtained, the discussions about these factors shall be done in the upcoming section. In the next section, we shall also discuss the outcomes of the case study and also explore the psychological aspects that was noticed during the study.

Another important aspect of this research is to pinpoint the increase in acceptance after the implementation of the policy – during the model development phase, it was noted that perceived effectiveness of the policy is the major contributing factor to this change. This was also tested during the case study and the observations from this study is explained in detail under the discussions section.

4.4 Discussions on the data obtained

4.4.1 Discussion on the perspective of business and residents

In this section, we shall have a brief discussion on the different perspectives of businesses and residents that was noticed during the case study. The responses received from the residents and the businesses were almost similar – they had very similar views on most of the questions. It was the reason why the results in the previous section were presented together for businesses and residents. However, there were a few unique differences in some areas of the interview. We shall further explore these differences in this section. It was also noted that almost all the business owners in the area were not living in the same area but were living elsewhere this could also influence their perspective of the policy.

Out of the eight respondents who were against the policy initially, six of them were businesses. This shows that a majority of the people who were against the policy initially were businesses in the area. Another observation was that out of the eight businesses that were interviewed six were against the policy furthermore proving the point that businesses had a greater opposition to the policy than the residents. On performing a small Cramer's v test on the data obtained to find the Phi coefficient, the following results was obtained. It can be observed that the value of Phi coefficient is -0.663 showing that businesses have a greater chance of opposing a proposed policy.

Table 29: Cross tabulation too see the correlation between the nature of the respondent and acceptance of a proposed policy

Cross-tabulation

Count

		Acceptance of proposed policy		
		0	1	Total
Business or Resident	0	2	9	11
	1	6	1	7
Total		8	10	18

Table 30: Phi test to check the correlation between the nature or respondent and acceptance

Symmetric Measures

		Value	Approximate Significance
Nominal by Nominal	Phi	-.663	.005
	Cramer's V	.663	.005
N of Valid Cases		18	

"The houses just lose a parking spot, and in return, they get a peaceful street, but we lose not only the parking but also the customers it might bring" was one of the responses from a business owner when he was explaining his reasons for initial opposition. Another observation was that many of these businesses that were initially against the policy, began accepting the policy after it was implemented and like mentioned earlier one of the major contributing factors to this effect was the perceived effectiveness.

One of the major initial concerns for the businesses was the transportation of the goods to and from outside the city centre, but the policy gave these establishments the facility to load and unload goods for the establishments. Which led to the satisfaction of the businesses, but ironically this led few residents to be unhappy with the policy, "I don't think there is much of a change, the trucks and vehicles for the stores still use the streets very often" exclaimed one of the residents who is against the policy even after the implementation. This section reveals that a controversial policy play a major role in businesses and a further study focussing on the influence of such controversial policies and their level of acceptance on businesses is conducted in the next chapter.

4.4.2 Discussion on various factors influencing acceptance

A summary of all the results obtained can be seen in the table below

Table 31: Summary of all the analysis performed

Acceptance of implemented policy	
Factors	**Phi coefficient**
Freedom	-0.842
Fairness	1
Equality	0.132
Effects on pollution	0.132
Effects on climate change	0
Effects on congestion	0.289
Complexity	0.73
Acceptance of proposed policy	
Factors	**Phi coefficient**
Complexity	0.194
Trust on government	0.433
Gender	0.255

Awareness	0.06
Preferred mode of transport	-0.204
Factors	**Pearson correlation**
Age	-0.217
Income	0.194

From the results that were presented in the previous section, the following observations are noted. As we previously mentioned during the identification of the factors, the **policy's characteristics** domain is a vital aspect that determines the level of acceptance of a controversial policy.

The factors included in this context are

- **Freedom**: It was observed clearly that the people who found that the policy infringed on their personal freedom eventually were not happy with it and among the residents who felt satisfied with the policy not many found their freedom infringed upon. This was statistically substantiated with a Phi coefficient of -0.842, which shows a very strong relationship between acceptance and the level of infringement on freedom. And the negative value of the Phi coefficient shows the reverse correlation (i.e. more the infringement lesser the acceptance).
- **Fairness**: Again it was observed that fairness of the policy is a very influential factor on the acceptance of a policy. It was observed that the majority (almost all of them) of the people who found the policy beneficial also felt that it was fair to them and on the contrary, those who were not happy with the policy found that the policy was unfair to them. This is again supported by the statistical analysis with a Phi coefficient of +1 which is the highest possible value showing a very strong relationship between fairness and acceptance, and the positive value indicates a direct association (i.e. The more the fairness, more the acceptance)
- **Equality**: The case of equality was not the same as the above – it was expected that equality should also influence the acceptance in a similar fashion to fairness or freedom, but the study showed that a great number of people who accepted the policy also found that the policy did not equally affect everyone. And as expected those who refuse to accept the policy unanimously felt that it was not equal to all. Statistically speaking the Phi coefficient was just 0.132 which indicates that there is a weak relationship between equality and acceptance of the policy.
- **Awareness**: The rate of awareness about the policy and the problems it tries to curb also did not influence the acceptance of a proposed policy as it was expected to, the correlation between the awareness and acceptance of a proposed policy was very weak (Phi coefficient = 0.06). On the contrary, it was noticed that the awareness about the policy affected the acceptance of an implemented policy which was also backed up statistically with a Phi coefficient of 0.495.

- **Complexity:** The complexity of the policy also was proven to be a decisive factor when it comes to acceptance of a (implemented) controversial policy. It was observed that majority of the respondents who found the policy agreeable also found that it was easy to comprehend but on the other hand unanimously all those who were in opposition to the policy also found it complex and hard to understand. This was further supported with a Phi coefficient of 0.73 which indicates a very strong relationship between the two variables. On the other hand, the correlation between complexity and the acceptance of a proposed policy was not found to be very strong but only moderate with a Phi coefficient of 0.194.

Now we move on to the **institutional context**. The only factor that was tested from this domain was the trust in government. It was clearly observed from the case study that it indeed is a contributing factor for the acceptance of a proposed policy. A majority of the people who supported the policy were ones who trusted the government. Only a very few who opposed the policy also had a lack of trust on the government. The statistical analysis showed a correlation (Phi coefficient) of 0.433 which can be interpreted as a moderately strong relationship between the variables.

Next we shall shift our focus towards the **physical context domain**. It was mentioned that the physical effects of the policy that influences environmental issues should also affect the acceptance of the policy during the development of the model. This was put to the test in the case study – during the initial factors identification phase the three factors that were spotted were Congestion, pollution and climate change. It was observed from the study that people who found that the policy influenced the congestion in the city centre of Delft also felt inclined to be supportive and vice versa. But the according to the respondents the policy didn't seem to influence the other physical factors namely pollution and climate control and additionally this had no effect on the acceptance of the policy as well. This was supported statistically with a Phi value of association between the effects on congestion and acceptance was 0.289 which corresponds to a moderately strong relationship, whereas for the other two factors (effects on pollution and climate change) the Phi coefficients were 0.13 and 0 respectively, showing a very weak relationship or no relationship between these factors and acceptance of an implemented policy.

Next, we shall move on to the **demographics and personal factors** – from the case study, the following observations pertaining to these factors and their influence on the acceptance of the policy were observed.

- It was observed that the younger subjects seem to be more compatible with the new policy change and on the other hand, it was found all the subjects who opposed the policy were above the age of forty-five. On performing the cross bivariate statistical analysis on the data it was seen that the Pearson's correlation value was -0.217, which indicated that there is a mildly strong

correlation between the age and the acceptance of the policy, the negative value indicates greater the age correlates to lesser the acceptance of the proposed policy.

- It was also seen that people with a greater income (greater than 45000 per year) were more comfortable with the new policy and those with lower income (15000 to 45000) were more sceptical about the policy. There were not many instances with subjects whose income was lesser than 15000 so a concrete result couldn't be obtained. (All incomes in EUR). The Pearson's correlation test gave a result of 0.194 which indicates that there is indeed a correlation between the factors of income and acceptance (higher the income, higher the acceptance) but the relationship between the variables is not very strong.
- It was also found that the gender was a moderately strong influential factor on the acceptance. It was seen that men had a higher tendency to accept a proposed policy than a woman. This was seen from the Phi coefficient which was 0.255.
- Finally the personal preferences on modes of transport was also found to be an influential factor in the acceptance of a proposed policy, it was seen with the help of the statistical analysis that there was a moderately strong correlation between the preferred mode of transport and acceptance of a proposed policy (i.e. People who preferred public transport is more likely to accept the proposal) (Phi= -0.204). Though the preference of transport was expected to affect the proposed policy, it was discovered that all the subjects who preferred public transport and bikes unanimously welcomed the policy and on the other hand all the subjects who opposed the policy preferred car as their modes of transport when the policy was implemented.

The above discussion showcases that the developed list of factors influencing the acceptance of a controversial policy is not entirely accurate, most of the factors identified do behave like they were expected to, but a few factors were found to be not as influential as they were expected to be.

4.4.3 Discussion on the change in acceptance

As mentioned earlier one of the main purpose of this research is to analyse the increased acceptance of a controversial policy after its implementation. The case of parking policy in Delft centre was deliberately picked as there were reports of opposition from the residents of the area before the implementation of the policy. There were questions in the qualitative study to check whether the respondents are in support of the implemented policy currently and their view when the policy was first announced was also captured by the interviews. A summary of the results after reducing the data and coding is as shown in table 2.

It was observed that as the reports earlier indicated a large number of respondents were sceptical about the policy at first – eight of the 21 respondents were initially against the policy and three were neither supportive nor against the policy. But similar to the case of Gothenburg that was discussed

earlier – there was a rise in acceptance of the policy after its implementation. It is now observed that eighteen respondents are happy with the policy and only three are against it.

During the development of the model, we spotted the perceived effectiveness as one of the most influential factors for this phenomenon of increased acceptance. During the case study while analysing the data obtained from the respondents especially those who initially opposed the policy or were having a neutral stand but later on went on to agree with the policy after its implementation it was seen that all of these eight respondents unanimously felt that the policy's effectiveness was much better than what they had expected.

"I expected parking in the garage every day will be a great inconvenience, but it was quite convenient, we also usually had a guaranteed spot which was not the case on the streets" expressed one of the respondents who had a change in the acceptance levels. "The congestion reduced much more than we expected, the streets were more enjoyable" exclaimed another resident in the area. "We expected a shortage of customers as they no longer could park their vehicle close the store, but it was surprising to notice not only there was no drop in the number of customers, but there was a rise in both customer numbers and their satisfaction" was the response from a business owner in the area.

Like the examples above, most of the respondents claimed that they began accepting the policy because the gains from the policy and its effectiveness were perceived to be better after it was implemented and when they were actually able to experience the benefits of the policy. This study proved that the perceived effectiveness of the policy is indeed a very influential factor of not only the acceptance levels of a policy but also the increase in the acceptance of a policy after its implementation.

In addition to the perceived effectiveness, from the previous sections, it was observed that there are more factors that influence the acceptance of an implemented policy that may influence the increase in the acceptance of a policy after the implementation. The factors that strongly influence the acceptance of an implemented policy were Freedom, Fairness and complexity. Furthermore, though the literature claims the awareness of a policy's details influences the acceptance of a proposed policy, the case study revealed that it affects the acceptance of an implemented policy more strongly. There were more factors that influenced the acceptance of an implemented policy more moderately than the above-mentioned factors (e.g. Effect on congestion).

4.4.4 The psychological domain

As explained in the third chapter, there were no particular questions in the interview to measure the psychological factor. It is really hard to measure psychological factors with the help of structured questions. Hence the psychological factors were studied based on observation and were studied in specific contexts. The following section shall discuss and analyse about the psychological factors that are mentioned in the theoretical model and how they affect the acceptance.

During the case studies, it was evident that people do not agree with a policy when they feel that the policy is complex and hard to understand. One of the respondents stated “It was hard to understand all the regulations in the garages which are the replacement for the parking” another one exclaimed, “the new rules just seem too complex”. This, though not concrete, is evidence that one of the psychological factors (**cognitive ease**) that was spotted during the identification of the factors, indeed influences the acceptance of a controversial policy.

Also, among the respondents who agreed to the policy, a few of them reported that they don’t mind the policy because it was previously implemented in the other areas of the city and in other cities and they had already witnessed the reaps of the policy, “the Markt square is much better with the no cars policy and I believe it would be the same here at Oude Delft” mentioned one of the respondents who was agreeing with the policy even before the implementation. As mentioned earlier the policy in Delft was carried out in phases, and the Markt square was announced car-free prior to the policy implementation in Oude Delft and Burgwal. This phenomenon throws light on the fact that the psychological factor of **associative coherence** also plays a role in the acceptance of a controversial policy.

Furthermore, one of the most common responses from the people who were initially against the policy was that they were comfortable with the way things were. Especially the business owners were comfortable with the fact that the customers could travel to their stores with their vehicle and they were sceptical to the new policy at the beginning. The residents in the region were also more comfortable with the fact that they can travel to their homes with their own vehicle and they had an aversion to the fact that they have to park the cars in a garage after the policy. This shows the change aversion characteristic in people and justifies the fact that **status quo bias** is influential in the acceptance of a controversial policy.

Though this study yielded some responses which threw light on a few of the psychological factors that was discovered during the initial phase, it was not possible to gain particular insights about all the other psychological factors (Priming, loss aversion, confirmation bias and framing).

So far in this chapter, we have presented the results obtained from the qualitative case study, and we also presented the interpretations and discussions from the results that were obtained. In the next chapter, we shall discuss the final conclusions of this research and the recommendations for practice and for further study.

Chapter 5: Discussions on business impact, Limitations of research, Recommendations for further study and for practise & conclusions.

5.1 Discussion on Business impact

In the previous chapter, it was noticed that businesses were in opposition with a proposed policy more aggressively in comparison with residences, this phenomenon motivated further investigation on the impact of controversial policies on businesses and this section shall discuss more about this. “The government alter the economic environment within which businesses operate for the purpose of achieving specific objectives” (Harling & Thomson, 1983). Companies and businesses constantly develop their technologies and working methods (in all areas such as manufacturing, research and development, transportation and logistics etc.) to maximise profits, improve customer experience and also to reduce the price of services or products they offer. In addition to all the efforts that the companies take, the extent of the goodness reaped depends on the “government interventions” within each area (Harling & Thomson, 1983).

There is evidence in the literature suggesting government policies have a direct impact on businesses, for example, a study conducted revealed that the acceptance and acceptability of a parking policy measure directly influence the amount of sales in a nearby café (‘(16) Do parking fees affect retail sales?’, n.d.). Another research also states that the road use and parking policies implemented by the government affects the public’s choice of shopping stores and supermarkets and also plays a role on the amount of customer turnover (Giuliano Mingardo, Wee, & TRAIL Onderzoekschool, 2016). Furthermore, it was also noted that government policies affecting the accessibility to a particular area also affects the community’s economic and business development (‘Economic Effects - Transportation Benefit-Cost Analysis’, n.d.). There are many such examples showing the effect of the governmental policies on the businesses.

This effect is not only witnessed in the field of transport policies, there are many areas where the government policies affect businesses, and there are also examples where the policies are driven by businesses, for example in the United States of America the policies regarding firearms was driven by

some of the businesses, similar policies are also witnessed in the field of sustainability, workplace ethics, poverty, etc. (Reeves, n.d.).

From the above discussions, it is clearly evident governmental policies, and its acceptance has a significant and direct influence on businesses. Thus the study about the factors influencing the policy acceptance is also beneficial to businesses. In this research, it was seen that businesses were more sceptical with regard to the policy implementation in comparison with the residents. The reasons for this could be the fact that businesses have a chance to be subjected to monetary losses due to the policy and on the other hand, for residents, the policy posts a threat of inconvenience. The loss that a business may experience from a policy failure seems to be greater than households, the psychological factor of loss aversion may play an effect in such cases, and this may be the reason why businesses are more sceptical about the implementation of a controversial policy especially in the case chosen in this research. However, there is limited research that explores the accurate reasons for this observed phenomenon, and there is also not much research available discussing the relationship between businesses and governmental policies. This could be a very beneficial future research domain that will be useful for businesses and also for the government to streamline their policies in such a way that there is no economic hindrance to businesses due to the policies. This research solely focussed only on how the government's controversial policy's acceptance is influenced by various factors but the study on what the controversial policy means to companies has not been explored in detail, and this could be viable research for the future.

5.2 Limitations of the research and possible corrections for the future

There are many areas where this research could be improved upon, and the following are the limitations of this research.

- Firstly, the framework used for this research was developed using the literature from the field of remediation technologies which was then modified to fit the transportation domain. The fit of this framework may not be entirely accurate for the transport policy field, and the domains are not precisely in correlation for the transportation domain. For future studies, it would be more beneficial to build a framework from scratch exclusively for the area of study that may be more precise and accurate.
- The list of factors may not be exhaustive. The factors were spotted with the help of reverse snowballing from a few influential articles. More factors could be identified and included in the model if suitable. This research aimed to identify a broad spectrum of factors influencing both the acceptance of a proposed policy and also an implemented policy. For future studies, it

would be recommended to focus on one area and obtain a more exhaustive list of factors for the specific type of acceptance.

- The choice of case study could be improved – the case chosen had several setbacks, firstly the number of respondents who could contribute for the study were very few, and the number of people who actually responded for the interviews was even lesser. This resulted in obtaining data that was not very significant and conclusive. The accuracy of the study was also hampered due to this. This could have been avoided if there was a preliminary study of the area before beginning with the case study.
- The case study focusses only in the area where the policy was implemented, but in reality, all the people living around the target area are also affected by the policy. The study fails to analyse their responses to the policy, since the benefits of the policy is reaped by the people residing in the target area of the policy their opinions would probably vary from the view of those residing outside the area and more elaborate and accurate results could be obtained if they are also included in the study.
- In the chosen case – the policy was implemented about seven years prior to the interview period. It was difficult to obtain information on how the public responded to the policy when it was announced seven years ago. A lot of residents were new in the region as well thereby leaving a smaller sample for the interviews. This can be avoided by choosing a case that had occurred more recently in the past.
- It was seen that the population that was studied were not the typical Dutch population. The fact they preferred using public transport over personal means is quite atypical in comparison to most of the population living in the city centres of other cities, this instance is an example of how different the population was in comparison to the ideal case, in future studies it should be made sure that the population is not only ideal for the research aim but also that the respondents are similar to the ideal population.

5.3 Recommendations for further study

This thesis focused on identifying the factors affecting the acceptance of a controversial policy (both proposed and implemented) and to observe the level of influence of each factor. But this study did not focus on the causal relationship between the factor and the causal relationship between a web of identified factors and the acceptance of a controversial policy. For future study, it is recommended that this causal relationship between the web of factors influencing the acceptance of a policy is studied and this can be used to develop a concrete causal model explaining the acceptance of a policy.

The study identified several factors that are responsible for the rise in acceptance of an implemented policy, but like mentioned above a causal model explaining the interactions between all the factors and how it explains the increase in acceptance should be studied in the future. Such causal

interactions shall require a larger and more accurate sample, the case studies should be chosen accordingly, and multiple case studies must be performed to ensure that the model is consistent. These models should be backed up with significant statistical analysis. Like mentioned earlier future studies must focus on both businesses and residents, it should explore the differences and similarities between businesses and residents with respect to acceptance of controversial policies.

This findings of this research should be considered as an initial base for the formation of a conclusive and exhaustive causal model which should be systematically developed.

5.4 Recommendations for practice

Generally, most of the controversial policies are drawn up by the bodies with higher authority in the society, usually the government. From this research, the following suggestions are proposed to these bodies, which they could follow to obtain a better acceptance of a policy among the public.

- Making sure that the policy is fair to all the people and making sure that it does not affect the personal freedom of the people it affects shall improve the acceptance of the policy – the policy maker should make conscious efforts to achieve this and also explain the efforts taken to the target who are affected by the policy. But the authorities must also consider how all the factors are interconnected, for instance, if the policy is made fair to all then it has a risk of increasing the complexity of the policy hence resulting in reducing the acceptance levels. Thus the authorities should try to strike a balance between the trade-offs of various factors and aim to obtain an effective policy.
- The policy maker should make sure that the people are made aware of the reasons for the new policy and also the details of the policy should be provided to the public – the details must not only be transparent and exhaustive but also simple to understand.
- The government should try and emphasis on the physical or environmental factors that the policy will curb and explain well the benefits that the policy can bring.
- The government should build the trust among its peers – this can be done by consistent reforms, being entirely transparent, making decisions democratically and involving the public in the decision-making process and also in the policy development process.
- Another important factor is to provide the public with a feel of what is expected from the policy – for instance, a trial run of the policy for a short period of time or area before the full-fledged implementation of the policy. We spotted that perceived effectiveness was a crucial factor when it came to the increase in acceptance of a policy after implementation. The authorities should find a way to provide this feeling even prior to the implementation of the policy.
- The government must study the psychological factors and also aim to tackle them. They can use the factors such as Associative coherence, to their advantage (they can point out similar

policies which were successful and use these instances for developing trust among the public) and they can also frame the policy in such a manner that the factors such as status quo bias do not have a major effect on acceptance.

These are few of the recommendations for practice that can be derived from this research.

5.5 Conclusions

This thesis aims to be an initial step in developing a model explaining the acceptance of a controversial policy. This was achieved by initially systematically developing a theoretical list of factors that might influence the acceptance of a proposed or implemented controversial policy with the help of a thorough literature study. In the second phase of this thesis, the level of influence of the identified list of factors was tested with the help of a small case study. The results from the study revealed that most of the factors identified in the initial phase do indeed affect acceptance levels of a controversial policy.

The theoretical framework of factors developed comprises five contextual domains: the policy's characteristics context, the physical context, the institutional context, demographic and personal context and finally the psychological context. Additionally, this research indicates that the most influential factor that can explain the change in acceptance of a policy before and after the implementation is the perceived effectiveness of the policy.

The various factors that were spotted during the study are freedom, fairness, equality, problem awareness, complexity and details of the policy which were all a part of the policy's characteristics context. The physical context included factors such as effects on congestion, Effects on the level of air pollution and effects on climate change. The trust in government is the factor identified pertaining to the institutional context. The demographic and personal factors include age, gender, level of education and preferred mode of transportation. Finally, the factors identified in the psychological domain are priming, associative coherence, confirmation bias, loss aversion, framing effects, and status quo bias. The phenomenon of increased acceptance after implementation of a policy was also studied and perceived effectiveness of the policy was identified to be the major influential factor for this phenomenon.

The case study to observe the level of influence of the identified factors was performed in the city centre of Delft where a new road policy was implemented recently. This study proved that most of the above-mentioned factors were indeed influential on the level of acceptance of a proposed or implemented controversial policy. A few factors namely: Equality, awareness, effects on climate change and pollution was not as influential as they were expected to be. The psychological factors identified from the study that could play a role in influencing the acceptance of a controversial policy were associative coherence, status quo bias and cognitive ease. The other psychological factors

identified were not observed during the case study. It was also clear that the perceived effectiveness was a major factor influencing the change in acceptance of a controversial policy after implementation.

To throw light on the management of technology perspective. The impact on businesses by a controversial policy and its level of acceptance was briefly discussed. It was also evident that the reaction towards a controversial policy was different for businesses in comparison with the residents. Businesses seemed to be more sceptical about a new policy as the financial effects due to such policies are more evident and profound on businesses. The other possible reasons for this phenomenon was also briefly explored.

This was proceeded by discussing the various limitations of the research and recommendations for curbing these limitations were mentioned. The target group (population) for the case study had some shortcomings, they were atypical and the sample size was not significant due to several external factors. The recommendations and suggestions to curb these short comings and to improve further research was also provided. The main recommendation for future research is to analyse the causal relationships between the factors identified with the help of a significant quantitative study and to subsequently develop a sound model explaining the acceptance of a controversial policy. Finally, some recommendations obtained from the study was given to help policymakers improve the acceptance of controversial policies. These recommendations include striking a balance between the trade-offs of the various factors, to make sure the policy is clear and the public are well informed and to also include the people during the development of the policy and to also provide a trial before the implementation of the policy.

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Appendix 1: Letter informing residents about the interview

English

Dear resident,

I am Shakthi Prassadh Sridhar, a master's student at TU Delft (Student number: 4596595). For my master thesis I am exploring on the acceptance of controversial policies. This research requires me to conduct a qualitative study on the parking policies in the city centre of Delft for which I need to carry out interviews with residents and business owners in the Oude Delft and Burgwal areas.

The interviews shall be in English but I shall also have a Dutch speaking colleague accompanying me. I shall conduct the interviews from the 26th September to 28th September between 17:30 until 20:30. It would be a tremendous help if you could participate in my research. An interview should last about 15 minutes.

If you have any concerns kindly contact me at ***s.p.sridhar@student.tudelft.nl.***

Thanks and Regards,

Shakthi Prassadh Sridhar

Dutch

Beste bewoner,

Mijn naam is Shakthi Prassad Sridhar en ik ben een masters student aan de TU Delft (student nummer: 4596595). Voor mijn master thesis onderzoek ik de acceptie van controversieel beleid. Voor deze thesis voer ik een qualitatief onderzoek uit naar het parkeerbeleid in het centrum van Delft. Hiervoor wil ik graag interviews met bewoners en winkeleigenaren in Oude Delft en Burgwal omgeving uitvoeren. The interviews zullen in het engels gevoerd worden, maar er zal ook een Nederlands sprekende collega bij zijn.

Ik zal de interviews uitvoeren vanaf 26 september tot 28 september tussen 17:30 en 20:30. Het zou mij enrom veel helpen als u mee zou kunnen doen aan mijn onderzoek. Een interview zal ongeveer 15 minutes duren.

Als u vragen heeft kunt u mij bereiken op **s.p.sridhar@student.tudelft.nl.**

Dankuwel.

met vriendelijke groet,

shakthi Prassadh Sridhar

Appendix 2: Declaration letter for data privacy

English

Dear respondent,

Firstly many thanks for participating in this interview.

This is to inform you that I shall record our conversation from the interview and use it for my research. I will also make a short report of our conversation and I will send it to you via email for your perusal. If you find any discrepancies in the report you can contact me immediately at s.p.sridhar@student.tudelft.nl. If I do not receive an email within a week from the day I send the report, I shall assume that you have no problems with the report and I will continue to use your input for my research.

I assure you that all the information collected shall be solely used for academic purposes only. I also assure you no personal information shall be disclosed while presenting the findings of this research. Your identity shall always remain anonymous. I also assure you that the recordings taken during the interview shall be deleted within sixty days from the day I send you the report.

Thanks and regards

Shakthi Prassadh Sridhar

I've read and understood the above message clearly and I am willing to provide my input for the interview and for this research.

Date and place Name and signature

Dutch

Geachte respondent,

Allereerst hartelijk dank voor het deelnemen aan dit interview.

Dit is om u te informeren dat ik onze conversatie uit het interview zal opnemen en gebruiken voor mijn onderzoek. Ik zal ook een kort verslag van ons gesprek maken en ik zal het u per e-mail toesturen voor uw inzage. Als je discrepanties in het rapport tegenkomt, kun je direct contact met mij opnemen via s.p.sridhar@student.tudelft.nl. Als ik geen e-mail ontvang binnen een week vanaf de dag dat ik het rapport verzend, neem ik aan dat u geen problemen heeft met het rapport en ik zal uw input blijven gebruiken voor mijn onderzoek.

Ik verzeker u dat alle verzamelde informatie uitsluitend voor academische doeleinden wordt gebruikt. Ik verzeker u ook dat er geen persoonlijke informatie zal worden onthuld tijdens het presenteren van de bevindingen van dit onderzoek. Je identiteit zal altijd anoniem blijven. Ik verzeker u ook dat de opnamen die tijdens het interview zijn gemaakt binnen zestig dagen na de dag waarop ik u het rapport stuur, worden verwijderd.

met vriendelijke groet,

Shakthi Prassadh Sridhar

Ik heb bovenstaande boodschap duidelijk gelezen en begrepen en ben bereid om mijn inbreng te leveren voor het interview en voor dit onderzoek.

Datum en plaats Naam en handtekening