LUND UNIVERSITY
School of Economics and Management

# Branding Public Transportation in Sweden

## An Experimental Study of Three different Branding Concepts: Green, Love and Technology

by

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# Abstract

**Purpose:** The purpose of this thesis it to investigate if and how branding in public transportation can influence sustainable consumer behaviour. It is of interest to analyse the influence of different branding concepts (green, love and technology) on attitude towards public transportation, the intention to use and recommend it.

**Methodology:** The study was of quantitative nature. Three brands for a fictive public transportation company, called Svensk Trafik, were developed. The data collection was carried out by an online web-based survey which investigated how the different branding concept would influence Swedish citizens' attitude and behavioural intention. This study was based on an experimental design, in which the treatment consisted of three differently manipulated brands (green, love and technology).

**Findings:** The results showed that the brands were all perceived differently by homogenous groups. Moreover, all branding measures contributed in different ways to explaining the attitude towards public transportation, the intention to use and recommend it. In fact, the green brand had the highest impact on attitude, behavioural intention and recommendation, followed by the technology brand and love brand. Moreover, attitude towards the brand accounted for the strongest predictor in explaining attitude towards public transportation, while self-brand connection was the weakest. For intention to use and recommendation of public transportation, self-brand connection was the most important measure, while brand fit accounted for the weakest. Consequently, a green branding strategy seems to be most successful for building a public transportation brand.

**Research implications/limitations:** More research related to the brand building process of public transportation companies is necessary. In particular, core values, mission and vision that drive the service of public transportation needs to be better understood to develop effective branding strategies. The main limitation of this study was that the tested public transportation brands were fictive.

**Practical implications:** A green branding strategy seems to be most successful to persuade people to use public transportation on a regular basis. Furthermore, it is recommended that managers in the public transportation sector take self-brand connection into consideration in the brand building process.

**Originality/value:** This study is the first of its kind to investigate public transportation from a brand building perspective focusing on the internal values, such a vision, mission and core values and its influence on attitude and behavioural intention.

**Keywords:** Branding public transportation, Attitude towards Advertisement, Attitude towards Brand, Self-brand connection, Brand fit, Green Branding, Love Branding, Technology Branding

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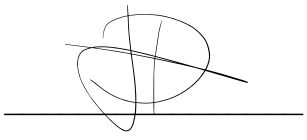

Jana Tigges

# Table of Contents

# List of Tables



# List of Figures



# List of Images

# List of Abbreviations

Aad = Attitude towards the advertisement

Ab = Attitude towards the brand

Bf = Brand fit

BVG = Berliner Verkehrsbetriebe

CBIM = Corporate Brand Identity Matrix

DV = Dependent variable

IV = Independent variable

PT = Public transportation

Sbc = Self-brand connection

# 1. Introduction

Transportation is responsible for a major share of carbon dioxide emissions (Jansson, Nordlund & Westin, 2017). In fact, fossil fuel combustion has the largest impact on the climate with approximately 80% of anthropogenic greenhouse gas emissions (Jansson, Nordlund & Westin, 2017). The increasing number of circulating cars worldwide causes various problems, associated with traffic and quality of life, and results in the need to decrease the number of cars (Ibraeva & Sousa, 2014). The significant rise in car-ownership is becoming a serious issue for society and the environment, and therefore calls for immediate attention and action (Jansson, Nordlund & Westin, 2017). One solution to this issue is the introduction of policies aimed at reducing society's dependence on fossil oil and $CO_2$ emissions (Mannberg et al., 2014; Rezvani, Jansson & Bodin, 2015; Sang & Bekhet, 2015). However, governments should not only restraint themselves to implement policies that regulate the use of cars, since mobility is essential for a city's development (Ibraeva & Sousa, 2014). As opposed to laws and regulation, it might be more effective to encourage consumers sustainable behaviour to reduce the negative environmental impact produced by cars (Ibraeva & Sousa, 2014). In doing so, municipalities could provide an alternative to private vehicles and promote the use of public transportation to foster cities' growth (Ibraeva & Sousa, 2014). Furthermore, strategies can be implemented to build cities with better public transport infrastructure, such as bicycling and walking paths, in order to replace fossil fuels and cars (Mannberg et al., 2014; Rezvani, Jansson & Bodin, 2015; Sang & Bekhet, 2015).

In 2017, Sweden's entire domestic transportation industry produced 16,419,600 tons of carbon dioxide, in which cars alone contributed to 10,325,500 tons (Statistics Sweden, 2018). Due to the cars' enormous negative impact on the environment, the Swedish government is working on finding more sustainable solutions for its transportation sector (Government offices of Sweden, n.d.; Kenworthy, 2019). Svensk Kollektivtrafik estimates that public transport can decrease the carbon dioxide emission of Sweden's entire transportation sector by 740,000 tonnes per year (Svensk Kollektivtrafik, 2018). As a result, public transportation plays a crucial role in moving towards a more sustainable future.

Swedish public transportation is organized by regional public transport authorities which are in charge of the public transport system in each region (Svensk Kollektivtrafik, n.d.). In order to enable better coordination with different forms of social planning, such as the commute to work and schools, these regional authorities are fully responsible for all strategic decision making (Svensk Kollektivtrafik, n.d.). Overall, the volume of passengers transported by train and bus in Sweden has increased steadily over the last decade (OECD, n.d.a). The most frequently used mode of public transportation is by bus (68%), followed by train (24%), metro (17%) and tram (12%) (Svensk Kollektivtrafik, 2017). In 2017, however, the volume of private car passenger transport was almost 5 times higher in comparison to the volume of bus and train passenger transportation (OECD, n.d.a). Beirão and Cabral (2007) have identified motivations for and barriers to public transportation use. Besides obvious hygiene factors such as public transportation's connections and infrastructure, reliability or service quality, further key findings suggest that there is a lack of information; people do not know what to expect and have a negative perception of public transportation in general (Beirão & Cabral, 2007). These

findings clearly show that there is a need to change people's attitude towards public transportation. According to Borhan et al. (2014) attitude plays an important role in influencing the shift from private to public transportation. Ibraeva and Sousa (2014) suggest that the poor image of public transportation use in comparison to owning a car could be a reason for the increased usage of cars. This is due to the fact that the car industry relies heavily on marketing in order to sell its offering successfully (Ibraeva & Sousa, 2014). In fact, owning a car is considered a convenient and fast mode of transportation which is associated with "freedom" or "control", although these views might be contradictory considering the issue of congested cities (Ibraeva & Sousa, 2014). Naturally, people's choice between private and public transportation is highly determined by the quality of public transportation service (Ibraeva & Sousa, 2014). Moreover, the cost of using public transportation and the transport connection also plays a crucial role in choosing public over private transportation (Beirão and Cabral, 2007). Thus, improving the quality and efficiency of public transportation is crucial to change transportation behaviours (dell'Olio, Ibeas & Cecin, 2011). However, despite the fact that these hygiene factors are essential for attracting potential customers, the image of public transportation and access to information about its service should not be disregarded (Ibraeva & Sousa, 2014; Beirão & Cabral, 2007). Consequently, branding, marketing and advertising play a crucial role in shaping the image of public transportation and influencing people's choice of mode of transportation (Hess & Bittermann, 2016).

Considering the enormous carbon dioxide emission produced by cars (Fujii & Gärling, 2005), the poor image of public transportation as well as the car industry's strong image due to its advanced marketing efforts (Ibraeva & Sousa, 2014), it is important to promote the use of public transportation in order to influence travel behaviour and enhance the image of public transportation at large (Hess & Bitterman, 2016; Ibraeva & Sousa, 2014). In order to make public transportation more attractive, branding is crucial because it allows a transport company to create a coherent image for its different services and to share its identity in order to be perceived as a unified entity on the market (Ibraeva & Sousa, 2014). Moreover, branding allows distinguishing a product or service by adding particular values or image to it, which stimulates the interaction with customers through different marketing initiatives such as advertising and promotion (Ibraeva & Sousa, 2014). In fact, the image of a brand influences consumers attitude towards the brand and therefore has an impact on their purchase intention (Keller, 1993; Teng & Laroche, 2007). Strong brands have the power to influence consumers and make products not only different from one another but also function as a driver for consistency, continuity and trust (Kapferer, 2012). This is of particular importance in the public transportation sector in order to encourage citizens to choose the bus or train over the car.

Previous literature in public transportation has mainly focused on marketing (Hess & Bitterman, 2016; Ibraeva & Sousa, 2014), market segmentation (de Oña, de Oña & López, 2016) and citizens perception of public transportation in terms of service and quality (Beirão & Cabral, 2007; d'Ovidio et al., 2014; Dell'Olio, Ibeas & Cecin, 2011; Redman et al., 2013). Only a few studies have looked at public transportation from a branding perspective (Hess & Bitterman, 2016, 2008). These studies mainly focused on the visual elements of the brand identity, consisting of graphical and nominal identifiers such as design, name or logo and colour palette of the transportation company (Hess & Bitterman, 2016; 2008). While the visual identifiers of a brand are crucial for its recognition, a brand's vision, purpose and core values that drive the creation of products and services is of equal importance in order to create brand advocates and loyalty (Kapferer, 2012). Consequently, this thesis builds upon previous literature by not only developing a public transportation brand's visual identity, but also its vision, mission and core

values in order to provide a better understanding of the level of service customers can expect and what benefits come with using it.

In doing so, three different branding concepts were chosen based on literature to provide an overarching theme for the creation of brands for a fictive public transportation company, called Svensk Trafik, in order to find out how they would influence Swedish citizens attitude towards public transportation, their intention to use and recommend it. The first branding concept focused on the emotion of love and was inspired by BVG, a public transportation company in Germany, known for its customer-centric orientation. The reason for choosing the emotion of love as a branding concept refers to the fact that green behaviour is not only influenced by rational aspects but also driven by emotional judgement (e.g., Carrus, Passafaro, & Bonnes, 2008; Kals, Schumacher, & Montada, 1999). The second branding concept focused on the environment and was inspired by Toyota, a multinational automotive manufacturer from Japan, well-known for its sustainable business orientation. A green branding concept was chosen, because research has shown that the promotion of sustainable behaviour will be more effective when communicating altruistic and biospheric values which benefit society and the environment (Groot & Steg, 2009). The third branding concept focused on technology and was inspired by Tesla, an automotive and energy company from America, renowned for its technology-driven business orientation. The reason for choosing technology as a branding concept refers to the fact that sustainable consumer behaviour can be more influenced when linking sustainability with positive associations, such as design in connection with innovative and creative thinking (White, Habib & Hardisty, 2019).

## 1.1 Aim of the Thesis

As outlined above, the enormous carbon dioxide emission produced by cars is becoming a serious issue for society and the environment (Jansson, Nordlund & Westin, 2017; Ibraeva & Sousa, 2014). In order to address this issue, strategies need to be implemented to reduce the overall $CO_2$ emissions caused by the increasing number of cars (Mannberg et al., 2014; Rezvani, Jansson & Bodin, 2015; Sang & Bekhet, 2015). Although Sweden's public transportation usage has increased steadily over the last decade, cars are still predominantly used as a preferred choice of mode of transportation (OECD, n.d.a). One reason for this could be the poor image of using public transportation in comparison to private transportation because of the advanced marketing initiatives of the car industry (Ibraeva & Sousa, 2014). In order to improve the image of public transportation, branding could be a powerful tool (Hess & Bitterman, 2016; 2008) to influence citizens attitude towards public transportation and their intention to use it. As a result of a consistent branding strategy, an increased ridership of public transportation could deliver many benefits to cities such as less traffic, less pollution, better public health, and safety. Therefore, the aim is to analyse how different branding concepts would influence Swedish citizens' attitude towards public transportation, their intention to use and recommend it. In order to achieve this aim, public transportation will be investigated from a brand building perspective. Based on previous literature in branding, attitude and behaviour, branding in public transportation and representative company examples from the transportation sector, three different branding concepts based on the theme of the environment, love and technology laid the foundation for the development of the brands for a fictive public

transportation company, called Svensk Trafik that will be tested empirically. Consequently, this thesis suggests the following research question:

*RQ: How do different branding concepts (green, love, technology) influence Swedish citizens' attitude towards public transportation and their intention to use and recommend it?*

## 1.2 Purpose of the Thesis

The purpose of this thesis is to investigate and present if and how branding in public transportation can influence sustainable consumer behaviour. In particular, it is of interest to analyse the influence of different branding concepts on attitude and behavioural intention. A coherent branding strategy would allow public transportation companies to provide customers with a better understanding of the level of service they expect and what benefits come with using it. By changing people's perception of public transportation, they might be more willing to use public transportation in the future. As a result, an increased ridership of public transportation can reduce the overall $CO_2$ emissions of the transportation sector and eventually lead to a more sustainable urban future.

## 1.3 Aimed Contribution

This thesis builds upon previous literature in public transportation by providing a new perspective on the brand identity development of public transportation companies. In particular, it contributes to the studies of Bittermann and Hess (2008 & 2016) by creating a public transportation brand's vision, mission and core values in order to provide a better understanding of the level of service customers can expect and what benefits come with using it. Moreover, this thesis provides the first quantitative approach investigating how brand identity development influences people's attitude of public transportation, their intention to use and recommend it. This generated insight may offer a practical contribution to (brand) managers of public transportation companies in Sweden by gaining a better understanding of branding in order to promote their services more effectively.

## 1.4 Outline of the Thesis

In order to inform the reader of what to expect in each chapter, an outline of the thesis will be presented. First, the theoretical background provides information about branding in relation to attitude and behavioural intention in general. Afterwards, the scope of literature review will be reduced to branding in public transportation in order to establish the phenomenon of interest. Next, a literature background of three different branding concepts and representative company examples will be provided to lay the foundation for the operationalization of the brands for a fictive public transportation company, called Svensk Trafik, which will be further elaborated in the methodology section. After presenting the creation process of the fictive public transportation brands, the authors' research philosophy will be identified to lay the foundation

for the research approach and design which in turn determines the data collection method of this thesis. Then, the empirical data will be analysed and discussed in order to show how the different branding concepts have influenced Swedish citizens' attitude towards public transportation and their intention to use and recommend it. Finally, concluding thoughts on the research aim and practical implications will be presented, from which possible directions for future research will be suggested.

# 2. Theoretical background

The purpose of this chapter is to provide a theoretical background to answer the research question of this thesis. Consequently, a literature review was conducted to gain a better understanding of branding and its influence on attitude in connection with behavioural intention.

## 2.1 What is a brand?

There is a general consensus in marketing literature that brands have an enormous influence on society by providing a powerful symbolic meaning to products and services (Muniz and O'Guinn, 2001; Holt, 2004). Well-known brands that enjoy common recognition and positive associations have an impact on consumers' social life (Petruzzellis, 2010). In fact, the image of a brand influences consumers attitude towards the brand and therefore influence their purchase intention (Keller, 1993; Teng & Laroche, 2007). Strong brands make products not only different from one another but also function as a driver for consistency, continuity, and trust (Kapferer, 2012). The term "brand" covers a wide range of different interpretations in marketing literature (Jensen & Beckmann, 2009). Back in the early days, brands were created as a legal instrument for companies to defend producers from theft (Kapferer, 2012). Moreover, brands functioned as a risk reducer by guaranteeing a product's origin and authenticity (Kapferer, 2012). Over the last decades, the meaning of a brand has evolved to "a name of a different and superior product"; "an identity endowed on a product to make it unique and superior"; "a position strongly held in consumer's mind" to a "name with the power to influence markets" and "a name that is able to create a community around its values" (Kapferer, 2012, p.12). Another important interpretation defines a brand as a logo by focusing on the visual signifiers that enable consumers to recognize and differentiate the brand from other goods and services (Jensen & Beckmann, 2009). While the visual interpretation of branding is important to assure that consumers associate the brand with specific benefits (Jensen & Beckmann, 2009), a brand's vision, purpose and core values that drive the creation of products and services is of equal importance in order to create brand advocates and loyalty (Kapferer, 2012). In line with this notion, Kapferer (2012) argues that a brand is a system consisting of kernel and peripheral traits. Whereas peripheral traits are unconditional and mainly indicate the authenticity of a brand, kernel traits are conditional and might be perceptible depending on the product within the range (Kapferer, 2012). Brand managers need to identify unique kernel values of their brand, also referred to as core values, and put all their effort into building them consistently throughout the entire business operation in order to shape the brand's image inside and outside of the organization (Kapferer, 2012). While the brand image only indicates which characteristics, benefit or value is associated with a brand, it does not measure how relevant it is to the brand's own identity (Kapferer, 2012). Therefore, Kapferer (2012) stresses on the importance of brand identity as a key concept in brand management. Consequently, in the context of this thesis, the focus will be set on identifying the vision, purpose and core values of different public transportation brands in order

to influence Swedish citizens' attitude towards public transportation, their intention to use and recommend it.

## 2.2 Branding Models

In previous marketing literature, several branding models have been developed in order to help companies to define their brand's identity, increase brand value and build a connection with consumers. Keller (1993) established the Customer-Based Brand Equity Model which primarily focuses on the consumer's perspective of a brand by taking a market-driven approach. The model consists of four steps to build a strong brand including the creation of a brand that customers can associate with, followed by the formulation of a brand meaning that links the tangible and intangible brand associations in order to generate positive customer brand responses, which eventually leads to a loyal customer brand relationship (Keller, 2001). While Customer-Based Brand Equity Model is a well-established model in branding literature, it is not suitable for the purpose of this thesis, since it considers a consumer's perspective of a brand by taking a market-oriented approach. Another important branding model was established by Kapferer (2012). The author's Brand Identity Prism consists of six facets including physique, personality, relationship, culture, reflection and self-image, all of which are essential for determining a brand's identity (Kapferer, 2012). However, Kapferer's model mainly focuses on brands on a product level, rather than on a corporate level (Urde, 2013). According to Urde (2013), the product brand models commonly disregard the internal elements fundamental to corporate brands and predominantly take an image-driven and therefore market-oriented approach (Urde, 2013). In line with previous research on corporate branding, Urde (2013) created the Corporate Brand Identity Matrix (CBIM), a managerial framework that aligns different elements of a corporate identity by describing the characteristics of an organization rather than a company's product or service. According to Kapferer (2012) a "[...] corporate identity helps [...] an organization feel that it truly exists and that it is a coherent and unique being, with a history and a place of its own, different from others." In fact, from a strategic perspective, a corporate brand identity attempts to influence the organization's perception of internal and external stakeholders (Urde, 2013). Moreover, a corporate brand makes companies' activities, core values and missions more visible, creates added value and helps to retain a company's reputation (Kapferer, 2012). After careful evaluation of each branding model, the CBIM from Urde (2013) seems to be most suitable, since it is of interest to develop different corporate brand identities for public transportation companies in order to influence how these companies are perceived by Swedish citizens. Consequently, this model will be presented in the next section to serve as a template for the definition and building of different corporate brands for the fictive public transportation company Svensk Trafik that will be tested empirically.

### 2.2.1 The Corporate Brand Identity Matrix

The Corporate Brand Identity Matrix (CBIM) is a managerial framework that functions as a guideline for the strategic brand building process (Urde, 2013). The CBIM consists of nine distinctive elements that are essential to create a strong corporate brand identity by considering internal (brand) and external (market) aspects, while focusing on the brand core. Consequently, the CBIM combines a brand- and market-oriented approach in order to distinguish an

organization (Urde, 2013) (see Figure 1). The internal elements (sender) describe the reality and values of a company and consist of three organisational elements including 'Mission and Vision', 'Culture' and 'Competence' (Urde, 2013). While the corporate mission clarifies the reason for a corporation's existence and motivation beyond profits (Collins & Porras, 1997), the vision represents a continuation of the mission by determining the company's goals and future direction (De Chernatony, 2010). On the other hand, the cultural element describes a company's attitudes, values, beliefs and its way of operating (Hatch & Schultz, 2001; Schroder & Saltzer-Mörling, 2006 cited in Urde, 2013). Finally, the competence element represents what the company is best at and how it generates and maintains a competitive advantage (Urde, 2013).

The internal-external elements, located in the middle of the CBIM, consist of 'Personality', 'Expression' and 'Brand Core' (Urde, 2013). The personality element describes the corporate character which can be linked to the personal characteristic of its employees (Urde, 2013). Furthermore, the expression elements of the matrix determine the verbal and visual expression of the corporate brand identity (Urde, 2013), consisting of tangible and intangible aspects such as design, graphic styles or logotype (Olins, 1989; Mollerup, 1997 both cited in Urde, 2013). Finally, the brand core can be considered as the heart of a corporate brand identity reflecting the core values and brand promise (Urde, 2013). The external elements (receiver), consisting of 'Value Proposition', 'Relationship' and 'Position', explain how the corporation aims to be perceived by stakeholders outside of the organisation and directly impact the company's image and reputation (Urde, 2013). The value proposition highlights the company's key offerings that are in line with the brand core, and emphasizes on how the company aims to appeal to stakeholders (Urde, 2013). The relationship element reflects how stakeholder relationships are built over time, which define the brand identity (Urde, 2013). Finally, the position element illustrates how the company aims to position itself in the market and in the minds of consumers (Keller, Apéria & Georgson, 2012). Last but not least, the arrows in the CBIM symbolize the interconnection between the elements (Urde, 2013). According to Urde (2013) "[i]n a coherent corporate brand identity, the core reflects all elements, and every element reflects the core" (p.751). This indicates that the interdependence of each factor is important to ensure a strong corporate brand identity (Urde, 2013). In the context of this thesis, the CBIM matrix serves as a template for the definition and building of the different corporate public transportation brands that will be tested empirically.

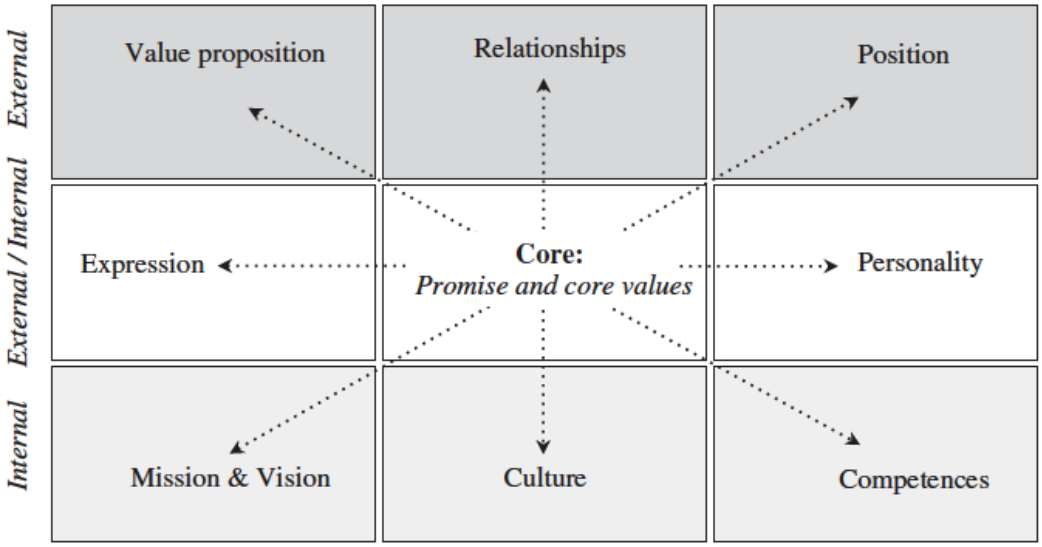


*Figure 1: Corporate Brand Identity Matrix (Source: Urde, 2013)*

## 2.3 Attitude and Behavioural Intention

Over the past few decades attitude and behavioural intention have been studied and analysed in marketing and social psychology research (Armitage & Christian, 2003; Mitchell & Olson, 1981). Eagly and Chaiken (1993) described attitude as "a psychological tendency that is expressed by evaluating a particular entity with some degree of favor or disfavor" (p.1). In other words, attitude is a person's personal positive or negative opinion or emotion towards something. According to Ajzen and Fishbein (1980), attitudes are based on the assumption that a specific behaviour will lead to a certain consequence and on the evaluation of the benefit of that particular consequence. In line with this notion, Fishbein and Ajzen (1975) defined behavioural intention as an individual's subjective probability to behave in a certain way. According to Fishbein and Ajzen (1975) "intentions have often been viewed as the 'conative component of attitude', and it has usually been assumed that this conative component is related to the attitude's affective component" (p. 289). This is where the strong connection between attitude and intentions was formed (Fishbein & Ajzen, 1975). Furthermore, literature has also identified the connection between attitudes and behavioural intentions (Armitage & Christian, 2003; Ajzen, 1991; Ajzen & Fishbein, 1977). According to Ajzen and Madden (1986) attitude has a significant impact on behavioural intention. The stronger the attitudes towards something, the higher the prediction of human behaviour (Armitage & Christian, 2003). In the theory of planned behaviour, the overall evaluation of performing a specific behaviour is reflected by a person's behavioural attitude (Ajzen & Fishbein, 1980). Furthermore, in previous literature, attitude and behavioural intention have been connected to branding (Mitchell & Olson, 1981). For that reason, the concept of branding, attitude and behaviour lay the foundation for the investigation of how branding can influence people's attitude towards public transportation, their intention to use and recommend it.

### 2.3.1 Attitude towards Advertisement and Attitude towards Brand

In previous marketing literature, attitude towards the brand and attitude towards the advertisement have been analysed (Kirmani & Campbell, 2009; Mehta, 2000; MacKenzie, Lutz & Belch, 1986; Ajzen & Fishbein, 1977), which are concepts that derive directly from the attitude in general. According to Kirmani and Campbell (2009) attitude toward the advertisement reflects the thoughts and feelings a customer has towards a specific advertisement. In fact, the attitude towards an advertisement is related to the effectiveness of the advertisement (Mehta, 2000). Consumers who have a positive attitude towards the advertisement tend to absorb the information better and more effectively (Mehta, 2000). Furthermore, previous research found that attitude towards the advertisement can have an impact on the brand attitude and buying intention (MacKenzie, Lutz & Belch, 1986). Similar to attitude towards an advertisement, Mitchell and Olson (1981) defined attitude towards a brand as an "individual's internal evaluation of the brand" (p. 318). In contrast to feelings, attitudes towards the brand are relatively permanent evaluations of a brand that help to predict certain consumer behaviour (Spears & Singh, 2004). According to Teng and Laroche (2007) previous consumer behaviour literature has shown significant links between attitude towards a brand and purchase intentions. Furthermore, Faircloth, Capella and Alford (2001) highlighted an indirect impact of brand attitude on brand image and brand equity. This linkage between brand image and brand attitude was also identified in previous research by Keller (1993).

### 2.3.2 Self-brand connection

Nowadays consumers participate in an ongoing consumption to create their self-concept and own identity (Escalas & Bettman, 2005). Self-brand connection reflects to what extent someone has implemented a brand into its self-concept (Escalas & Bettman, 2003; Moore & Homer, 2008). When consumers associate themselves with a specific brand to show their self-concept, they build a relationship between themselves and the brand (Escalas & Bettman, 2005). The personal relevance associated with a brand stemming from the brands' personality can derive from marketing initiatives created over time as well as their role in society and the consumers brand experience (Escalas, 2004; Keller, 2008; Moore & Homer, 2008). In fact, consumers are more likely to develop a strong self-brand connection, when their brand experience is closely linked to the brand image and their psychological needs are met (Escalas, 2004). Furthermore, previous research has found that self-brand connection can have a positive impact on the attitude towards the brand and its evaluation (Escalas & Bettman, 2003; Moore & Homer, 2008). Moreover, the symbolic meaning consumers derive from the personal connection with a brand influences their purchase intention (Kırcovaa, Enginkaya & Yılmaz, 2015). Consequently, self-brand connection plays a crucial role in consumers' decision process when purchasing a branded product or service (Kırcovaa, Enginkaya & Yılmaz, 2015). In addition to that, consumers are usually more forgiving of mistakes, such as temporary service or product issues, when a self-brand connection exists (Escalas & Bettman, 2003).

### 2.3.3 Brand fit

In previous literature brand fit has been researched in connection with social causes, brand extension and sponsorship (Basil & Herr, 2006; Bridges, Keller & Sood, 2000; Simmons & Becker-Olsen, 2006; Zdravkovic, Magnusson & Stanley, 2010). Inspired by this stream of literature, this study focuses on the fit between a specific branding concept (i.e. love brand, green brand and technology brand) and public transportation in Sweden. According to Fleck and Quester (2007) a fit can be identified from two different elements. The first element is related to the association a consumer makes to identify the linkage while the second element refers to consumers' expectation of the overall fit, meaning how well an item falls into predefined associations. Furthermore, Simmons and Becker-Olsen (2006) pointed out that a fit derives from the company's mission, its offering, its attributes or other important associations. According to previous research, a poor brand fit can have a negative impact on the customer's attitudes and purchase intentions (Becker-Olsen, Cudmore & Hill, 2006; Simmons & Becker-Olsen, 2006).

### 2.3.4 Sustainable Consumer Behaviour

It is important to gain a better understanding of sustainable consumer behaviour to reduce the negative environmental impact of consumption and encourage consumers acceptance of greener technologies and a more sustainable way of living (Nordlund, Marell & Jansson, 2010). Green behaviour can be defined as a multitude of action that reduce the environmental impact (White, Habib & Hardisty, 2019) such as reducing one's consumption (McDonald et al. 2006) purchasing sustainable products (Luchs, Brower, and Chitturi 2012), minimizing waste and energy usage (European Commission, 2012) or choosing a more sustainable mode of transportation (Nordlund, Marell & Jansson, 2010). Similar to the findings outlined above,

attitudinal factors can also influence consumers intention to act sustainably (Stern, 2000). In fact, many consumers state to have a positive attitude towards green behaviour (Trudel and Cotte 2009). However, consumers often do not behave in a more sustainable way (Auger and Devinney 2007; Young et al. 2010). In order to address this "attitude-behaviour gap", White, Habib and Hardisty (2019) have developed the SHIFT framework to promote green behaviour change by leveraging on multiple psychological factors: Social influence, Habit formation, Individual self, Feelings and cognition, and Tangibility. In line with this notion, it is of interest to find out how branding can influence sustainable consumption behaviour. More specifically, the aim of this thesis it to analyse how different branding concepts would influence Swedish citizens attitude towards public transportation and their intention to use and recommend it. Consequently, some of these psychological factors are reflected in the different branding concepts developed for the fictive public transportation company Svensk Trafik in order to encourage an increased usage of public transportation.

### 2.3.5 Positive Word of Mouth / Recommendation

Anderson (1998) described word of mouth as the information of a product or service that is transferred among people which can have a positive, negative or neutral context. Positive word of mouth is the connection to enjoyable, vibrant or new experiences, recommendations and even salient demonstrations (Anderson, 1998). According to Sweeney, Soutar and Mazzarol (2012), recommendations are more explicit and powerful than a statement during a product or service-related communication. If consumers have heard good things about a specific product or service, they might be more willing to try it, especially when recommended from friends and family (Voyer & Ranaweera, 2015). In fact, word of mouth can be more powerful than advertising when aiming to raise awareness of innovations or to ensure the trial of goods or services (Sheth, 1971). According to Anderson (1998), previous literature revealed that word of mouth has an influence on attitude and behaviour. In fact, it has been found that word of mouth has more influence on behaviour than other marketing initiatives (Buttle, 1998). Consequently, it can be assumed that positive word of mouth and intention to use are closely related to each other.

Based on the review of literature in branding, its influence on attitude towards the brand/advertisement and intention to sustainable behaviour, the current study proposes the conceptual framework shown in Figure 2.


*Figure 2: Conceptual Framework*

## 2.4 Branding in the Public Transportation Sector

After having presented the general relationship between branding and its influence on attitude towards sustainable behavioural intention, it is of interest to investigate the influence of branding on the attitude and intention to use public transportation.

Previous literature in public transportation has mainly focused on marketing (Hess & Bitterman, 2016; Ibraeva & Sousa, 2014), market segmentation (de Oña, de Oña & López, 2016) and citizens' perception of public transportation in terms of service and quality (Beirão & Cabral, 2007; d'Ovidio et al., 2014; Dell'Olio, Ibeas & Cecin, 2011; Redman et al., 2013). Only a few studies have looked at public transportation from a branding perspective (Hess & Bitterman, 2016, 2008). Hess and Bittermann (2008; 2016) have explored branding of public transportation in North America. In their study of 2008, the authors have analysed and evaluated bus rapid transit identity programs which communicate the advantages of an improved bus service. After careful analysis of visual identifiers, nominal identifiers and colour palette, Hess and Bittermann (2008) concluded that a consistent brand identity may positively influence the perception of bus rapid transit service and contribute to a positive image of public transportation at large (Hess and Bittermann, 2008). Similarly, in their study from 2016, the authors analysed advertising messages of selected North American public transit markets and found that the way messages were addressed to citizens seemed to be short-sided, inconsistent and therefore not very effective (Hess and Bittermann, 2016). Consequently, the authors concluded that a consistent brand strategy would help to allocate marketing budgets more effectively in order to achieve a lasting impact on the image of public transportation (Hess and Bittermann, 2008; 2016). Although both studies have emphasized on the importance of branding in public transportation, the main focus was set on the visual elements of the brand identity, consisting of graphical and nominal identifiers such as design, name or logo and colour palette of the transportation company (Hess & Bitterman, 2016; 2008). While the visual identifiers of a brand are crucial for its recognition, a brand's vision, purpose and core values that drive the creation of products and services is of equal importance in order to create brand advocates and loyalty (Kapferer, 2012). According to Urde, Baumgarth and Merilles (2013) a brand-oriented approach takes an inside-out perspective by focusing on the brand identity. Thus, the brand functions as a strategic hub and aims to satisfy consumer needs and wants within the limits of its core identity (Urde; Baumgarth & Merrilees, 2013). Similarly, a market orientation takes an outside-in perspective and is driven by the perception of consumers needs and wants (Urde; Baumgarth & Merrilees, 2013). While both perspectives are important for the strategic orientation of a company, Urde (1999) points out that being market oriented is less complicated, short-lived and elementary. In fact, he argues that: "[b]rand orientation [adds] an additional degree of sophistication. To be brand oriented is market orientation 'plus'." (Urde, 1999, p.118). Consequently, it is advantageous to satisfy consumer needs and wants within the limits of the brand's core identity (Urde; Baumgarth & Merrilees, 2013). In line with this notion, this thesis takes a brand-oriented approach by focusing on an inside-out perspective when developing different brand identities for the fictive public transportation company Svensk Trafik. In doing so, this thesis builds upon previous literature by not only creating a public transportation brand's visual identity but also defining its promise, vision, key beliefs and core values in order to build a coherent and strong brand that connects with consumers on an emotional and symbolic level.

## 2.5 Branding Concepts

In order to operationalize the conceptual framework presented in Chapter 2.3.5 for the empirical investigation, a theoretical background of branding concepts and company examples will be presented to build the foundation for the development of different fictive public transportation brands that will be tested empirically.

There is a general consensus that the concept of branding has been well established as a means to differentiate products and services (Jeon, 2017). According to Park et al. (1986) a brand concept can be defined as a particular meaning of a brand chosen by the company in line with consumers needs and wants. In order to ensure a brand's continuing success, it is essential to determine a brand concept before entering the market (Park et al., 1986). Similarly, in the context of this thesis, a branding concept is defined as the overarching theme or meaning of a brand derived from its mission, vision and core values. In the following chapter three different branding concepts based on the theme of love, environment and technology will be elaborated. The reason for choosing these particular concepts refer to the fact that emotion (e.g., Carrus, Passafaro, & Bonnes, 2008; Kals, Schumacher, & Montada, 1999), the communication of altruistic and biospheric values (Groot & Steg, 2009) and the linkage of positive association with sustainability (e.g. technology, innovation, unique design), have shown to be a fruitful strategy to stimulate pro-environmental behaviour (White, Habib & Hardisty, 2019), such as the intention to use public transportation.

According to various authors (e.g., Carrus, Passafaro, & Bonnes, 2008; Kals, Schumacher, & Montada, 1999), the decision to participate in green behaviour is not only influenced by rational aspects, but "[...] [it] is [also] flanked and motivated by emotions [...]." (Kals, Schumacher, & Montada, 1999, p. 179). In fact, Corral-Verdugo et al. (2009), suggest that consumers are more likely to take part in sustainable actions when they derive positive emotions from the behaviour. For example, positive emotions such as joy have been proven to affect consumers' willingness to reduce the usage of plastic water bottles (Peter and Honea 2012).

Furthermore, the promotion of sustainable behaviour will be more effective when communicating altruistic and biospheric values because green behaviour is considered beneficial for society and the environment (Groot & Steg, 2009). People believing in strong altruistic values prioritize the costs and benefits for others, while people having strong biospheric value consider costs and benefits for the environment as more important (Groot & Steg, 2009). Consequently, people are more willing to act on altruistic and biospheric values when communicating reasons for why they should engage in pro-environmental behaviour (Groot & Steg, 2009).

Finally, the self-other trade-off influences consumers decision to engage in green behaviour (White, Habib & Hardisty, 2019). Sustainable actions are often perceived as making trade-offs in terms of increased effort, higher cost, lower quality or inferior aesthetics (Catlin, Luchs & Phipps, 2017). As a result, these negative associations influence consumer perception about costs and benefits of consuming sustainably (White, Habib & Hardisty, 2019). Consequently, linking sustainability with positive associations, such as design in connection with innovative and creative thinking, can influence pro-environmental behaviour (White, Habib & Hardisty, 2019). A good example of a company benefiting from such association is Tesla (White, Habib & Hardisty, 2019). With its innovative technology solutions and unique design, the company has changed the way people perceive electric cars (Matousek, 2018).

In addition to the branding concepts, three different company examples are presented since their branding approach serves as an inspiration for the creation of the fictive public transportation brands. The company examples chosen for the purpose of this thesis are BVG, Toyota and Tesla. The criteria for choosing these particular examples were based on their successful representation of the three different branding concepts in contemporary business practice. Consequently, the theoretical background of the different branding concepts and company examples lay the foundation for the creation of different corporate brands for the fictive public transportation company Svensk Trafik.

### 2.5.1 The Concept of Green Branding

Green branding has increasingly gained popularity in academic research over the last years (Danciu, 2015; Grant, 2008; Hartmann, Forcada Sainz & Apaolaza Ibáñez, 2005; Sarkar, 2012). There are multiple reasons for companies to implement green marketing strategies, such as to avoid conflicts with regulations, to respond to consumers sustainable expectations, to remain competitive (Grant, 2008) or to redefine a company's core values (Polonsky & Rosenberger, 2001). According to Grant (2008), "[a] green brand is one that offers a significant eco-advantage over the incumbents and which hence appeals to those who are willing to making green a high priority" (p.25). Furthermore, Hartmann, Forcada Sainz and Apaolaza Ibáñez (2005) point out that green brands consist of characteristics and benefits which are connected to the brands' effort to minimize its impact on the environment and enhance its sustainable image. Moreover, companies need to be consistent in their communication effort by being able to differentiate themselves with reasonable, sustainable characteristics in order to hold strong green brand position (Hartmann, Forcada Sainz & Apaolaza Ibáñez, 2005). Furthermore, in order to be authentic, the green brand needs to deliver on what it has promised (Danciu, 2015). In that context, Hartmann, Forcada Sainz and Apaolaza Ibáñez (2005) suggest that functional as well as emotional attributes are essential for green branding strategies. Functional characteristics consist of a product's or service's relevant environmental attributes including production processes, product use as well as product elimination (Meffert & Kirchgeorg, 1993; Peattie, 1995), which can build the connection between the brand and sustainability (Hartmann, Forcada Sainz & Apaolaza Ibáñez, 2005). However, limiting the brand strategy solely to functional attributes may not be effective since it ignores the customer's personal benefits (Hartmann, Forcada Sainz & Apaolaza Ibáñez, 2005). Therefore, companies should provide their consumers with valuable sustainable benefits and communicate the brand's emotional attributes (Hartmann, Forcada Sainz & Apaolaza Ibáñez, 2005), in order to complete this strategic gap. According to Hartmann, Forcada Sainz and Apaolaza Ibáñez (2005) emotional brand benefit can be communicated by emphasising on the customer's environmental and societal contribution, by highlighting the customer's environmental concern to others, or by implementing imagery of natural environments to stimulate vicarious nature experiences. When consumers environmental needs and expectations are met, they feel satisfied with the brand and are likely to repurchase it because of the company's sustainable performance and credibility Chen (2010). This leads to a positive association with a brand and its environmental commitment. As a result, a positive green brand image, green satisfaction, and green trust can increase a green brand's equity Chen (2010).

#### 2.5.1.1 Company Example: Toyota

Toyota Motor is a well-known Japanese car manufacturer. With its famous Hybrid Prius cars, Toyota Motor became the pioneer for electric and hybrid vehicles for mass production in the car industry (Loureiro, Sarmento & Le Bellego, 2017). Indeed Toyota has an international reputation for corporate social responsibility and its successful green marketing approaches (Simão & Lisboa, 2017). In 2015, Toyota was awarded for the most environmentally friendly brand (Barrow, 2015). Toyota's commitment towards sustainability goes beyond the norm. In 2015, they announced its six environmental challenges for 2050, which covers every element of their business (Toyota Europe, n.d.): (1) new vehicle zero $CO_2$ emissions, (2) life cycle zero $CO_2$ emissions, (3) plant zero $CO_2$ emissions, (4) minimising and optimising water usage, (5) establishing a recycling-based society and systems, (6) establishing a future society in harmony with nature. With its proactive initiatives, the company aims to contribute to the sustainable development of the environment and society, resulting in trust and admiration by the society (Toyota Motor Corporation, 2019a). Moreover, in 2018, Toyota was awarded as one of the "World's most admired companies" and as the number one carmaker for the fourth consecutive year (Toyota, 2018). The company's environmental commitment contribute to those outstanding recognitions (Toyota, 2018). Furthermore, in order to be credible as a sustainable conscious company, Toyota expects all its employees and business partners to embody the company's sustainability policies and business processes accordingly (Toyota Motor Corporation, 2019b). Toyota's vision is it to "lead the future mobility society" by offering its customers the safest and most sustainable mode of transportation (Toyota Motor Corporation, 2019c). The company deeply believes for people and nature to survive side by side, the environment needs to be protected (Toyota Motor Corporation, 2019d). For that reason, they promote environmental conservation activities on an internal and external level (Toyota Motor Corporation, 2019a). Overall, Toyota can be considered as a company who has successfully implemented a green branding strategy.

Based on the concept of green branding and company example presented above it becomes evident that branding has the power to influence people's attitude towards sustainable modes of transportation. While green branding has gained increasing attention from researchers and practitioners alike, the example of Toyota shows that the concept of green branding can have an impact on consumers sustainable behaviour. In line with this notion, the following proposition is suggested:

*A green brand has an influence on the attitude towards public transportation, the intention to use and recommend it.*

### 2.5.2 The Concept of Love Branding

The linkage of a specific emotion with a brand, also known as emotional branding, has become increasingly prominent in advertising strategies (Roberts, 2005; Rossiter & Bellman, 2012, 2005). Emotional branding allows to build a deep emotional connection between the customer and a brand by using a customer-centric, relational, and story-driven approach (Roberts 2005). In contrast to functional information of a product, personal feeling and experiences allow consumers to better evaluate a brand (Jenkins and Molesworth 2017; Schmitt 2009; Zukin and Maguire 2004). While a brand's functional characteristics might be easily forgotten, consumers still remember the feeling a brand has evoked when using it (Kim & Sullivan, 2019). In fact, emotionally connected customers contribute significant value to a brand (Otley, 2016).

Therefore, this strategy is often used to build a strong connection between consumers and a brand (Akgün, Koçoğlu & İmamoğlu, 2013) to generate brand loyalty which eventually increases a company's sales (Kim & Sullivan, 2019). In the past, many companies connected their brands to a specific emotion. For example, Kodak attached its brand to the emotion of nostalgia while Jim Beam Bourbon used to the emotion of bonding (Rossiter & Bellman, 2012). Furthermore, McDonald's, New York City, or BVG attached their brands to the emotion of love. Subsequently to emotional branding, brand love has increasingly been researched in branding literature (Batra, Ahuvia & Bagozzi, 2012) by focusing on the close relationship between the consumer and the product (Merdin, 2013). According to Malik and Guptha (2013), brand love is the strongest emotional connection a person can have with a brand. In fact, Ahuvia's (1993, 2005a, 2005b) empirical research focused on consumers ability to love products and its consumption and suggests that consumers have strong emotional attachments to some "love objects" such as a musical instrument, computer or book. Moreover, Ahuvia (2005a) found significant similarities between interpersonal love and love in consumer contexts. However, it should be noted that these feelings may not be equal to romantic love for a person (Carroll & Ahuvia, 2006). Based on the deep and trustful relationship between brand and consumers, brand advocates tend to be rather forgiving and remain loyal to the brand (Kapferer, 2012). This strong feeling of belonging towards a brand and identification with its core values makes consumers resistant to price increases (Batra, Ahuvia & Bagozzi, 2012). In the context of this study, the focus will be on the connection between a brand and the emotion of love, since this can be seen as the strongest positive feeling a person can experience towards something or someone.

#### 2.5.2.1 Company Example: Berliner Verkehrsbetriebe (BVG)

The Berliner Verkehrsbetriebe commonly, known as BVG, is a public transportation company that manages the local traffic in Berlin consisting of bus, tram, and subway (BVG, 2019a). As the biggest local traffic in Germany, BVG wants to keep Berlin citizens moving by offering a pleasant journey with the aim to provide a sustainable and affordable way to a chosen destination on time (BVG, 2019b). The company's objective is to be reliable and innovative while also contributing to the face of the city (BVG, 2019a). In 2015, BVG started a rebranding initiative by making a declaration of love to the citizens of Berlin (Beer, 2016; Köhler, 2018). Thus, a modern image campaign with a new vision was created: 'Because we love you' (see Appendix A1) (Beer, 2016). The campaign aimed to function as a bridge to build the foundation for a deeper and more intimate relationship with Berlin citizens by presenting BVG as a modern platform (Beer, 2016). In order to establish an emotional and intimate connection with customers, BVG takes advantage of humours storytelling and makes the Berliner the centre of its advertising communication (see Appendix A2) (Beer, 2016). In addition, BVG takes advantage of highly relevant topics discussed in media and reposts them on its social media accounts (Beer, 2016), which reinforces its relevance and close connection to the everyday life of the customer. Moreover, BVG even went a step further and launched its own collection using their seat prints to design merchandise products such as smartphone cases, or coffee mugs (see Appendix A3) (Beer, 2016; BVG, n.d.). The company also partnered with Adidas, who designed a shoe in the BVG signature print seen on the company's vehicle seats (see Appendix A4) (Arica, 2018). Finally, in line with the new theme of love, the company launched a social media campaign called "I don't care", which shows a rapping ticket inspector controlling all different kinds of people in a playful and funny way (Beer, 2016; BVG, 2015). At the end of the campaign, BVG communicated the slogan "Only we love you for who you are" by emphasizing on their love for everyone, regardless of gender, ethnicity, age or sexual

orientation (see Appendix A5) (Beer, 2016; BVG, 2015). As a result, the social media campaign generated 14 million clicks worldwide leading to 11.000 additional fans on Facebook, 25% more followers on Twitter and a major presence in leading newspapers and magazines (Beer, 2016). Overall, the change in BVG's advertising presence was noticed by 75 % while 60 % find it better than before (Beer, 2016). Moreover, the campaign "#because we love you" improved the company's image with 53.766 fans on Facebook and 17.600 followers on twitter, ultimately generating 17.700 new rider subscribers from October to December 2015 (Beer, 2016). Therefore, it can be assumed that the branding initiative of BVG has increased the overall ridership of public transportation.

Based on the concept of love branding and company example presented above it becomes evident that branding has the power to influence citizens attitude towards public transportation and their intention to use it. While emotional branding (love) has gained increasing attention from researchers and practitioners alike, the example of BVG shows that the concept of love branding can have an impact on an increased ridership of public transportation. In line with this notion, the following proposition is suggested:

*A love brand has an influence on the attitude towards public transportation, the intention to use and recommend it.*

### 2.5.3 The Concept of Technology Branding

The increasing technological improvements are changing the way consumers use and experience technology (Meuter et al., 2003). In today's business world, technological competencies are essential for companies to differentiate their service offerings from basic versus advanced ones (Petruzzellis, 2010). However, the technology development and similarity between product features make it difficult for consumers to distinguish between brands on rational characteristics alone (Temporal & Lee, 2001). Therefore, building strong brands is essential to gain consumers' preference and establish long-term relationships (Kay, 2006). In contrast to consumer goods, high-technology brands focus on the association with the brand image rather than the association between products and companies (Hamann et al., 2007). Moreover, brands function as a guarantee for quality and performance as well as a differentiator and emotional bond with the product (Bahmanziari, Pearson & Crosby, 2003). In light of the mass-commoditization of high-technology products and services, there is a general consensus that branding is of increasing importance (Harris & Schoenfelder, 2004; Ward, Light & Goldstine, 1999). To that end, innovation is a crucial factor to differentiate from similar offerings in a commodity-driven market (Aaker, 2007). Branded innovation can influence the way people perceive the organization or corporate brand in terms of its innovativeness (Aaker, 2007). The ability to innovate makes a company more respected and increases the credibility of its product or service (Aaker, 2007). In marketing and management research, the terms "innovation" and "innovativeness" are often used as synonyms. However, there is a slight distinction between the two terms. Innovation refers to the final product or service of a company, while innovativeness relates to the ability to develop new ideas and solutions (Crawfood & Di Benedetto, 2003). In order to ensure an innovation's success in the marketplace, it is crucial to adopt a customer-oriented perspective to create an offer that fits consumers lifestyles and provides a new experience (Danneels & Kleinschmidt, 2001; Kunz, Schmitt & Meyer, 2011). In particular, innovative brand experience has gained increasing importance because of its unique interplay between functional and emotional aspects that allow to establish a strong connection with consumers (Lin, 2015). For example, a quantitative study

by Lin (2015) revealed that innovative brand experience in the airline industry has a positive effect on brand equity and brand satisfaction. To that end, Hjalager (2010) suggests that product or service innovation may be a decisive factor in a purchase decision. When consumers are subject to different stimuli of the brand, they can to translate the brand into an innovative brand experience that remains memorable (Brakus et al., 2009). This memory influences consumers future purchase decisions (Brakus et al., 2009). Therefore, companies should consider innovative brand experience as an added value to customers and extend their experience offering (Hjalager, 2010). By enhancing the innovative brand experience for customers, transportation service companies can distinguish themselves from the competition, while increasing brand equity and brand satisfaction (Lin, 2015).

#### 2.5.3.1 Company Example: Tesla

Tesla is a well-known automotive and energy company based in North America. The company's mission is to accelerate the world's transition to sustainable energy (Tesla, 2019). Tesla is associated with a vision of the future (Ong, 2017) by building the most technologically advanced vehicles currently available (DeBord, 2015). The company's success lies in its ability to combine safety, performance, and efficiency (Tesla, 2019) while anticipating and implementing change much faster than other car manufacturers (DeBord, 2015). Tesla has proven that people do not need to make a trade-off when driving electric (Tesla, 2019). Due to its unique car design, innovative technological features, and strong digital presence, Tesla provides a superior customer experience that has generated a loyal customer base (Morgan, 2019). In fact, the company's dedication to continuously improve the user experience has shaped the public opinions about the brand (Ong, 2017). For example, 500.000 people were willing deposit $1,000 for a new Tesla model that none of them had test driven before (Ong, 2017). Although the company had initial difficulties in terms of its cars' reliability, Tesla's powerful brand and inspiring mission made customers not only forgive the mistake but also increased their patience (Ong, 2017). Although some of Tesla's most passionate advocates do not even own a Tesla car, their belief in the brand and its values is so strong, that they raise enormous awareness and support for the company (Ong, 2017). As a result, word of mouth has contributed tremendously to the growth and popularity of the company (Ong, 2017). Overall, Tesla has managed to build a very powerful brand that has disrupted the landscape of the automotive industry and forced many car manufacturers to restructure their offerings (Davis, 2014).

Based on the concept of technology branding and company example presented above, it becomes evident that branding has the power to influence people's attitude towards sustainable modes of transportation. While technology branding has gained increasing attention from researchers and practitioners alike, the example of Tesla shows that the concept of technology branding can have an impact on consumers sustainable behaviour. In line with this notion, the following proposition is suggested:

*A technology brand has an influence on the attitude towards public transportation, the intention to use and recommend it.*

## 2.6 Chapter Summary

The purpose of this chapter is to highlight the key findings of the theoretical background which lay the foundation for the empirical investigation to answer the research question of this thesis. Previous literature in branding and attitude in connection with behavioural intention show that branding has an impact on consumers attitudes towards brands/advertisements and their sustainable behavioural intention. In the context of this thesis, it is of interest to analyse how different branding concept influence Swedish citizens' attitude towards public transportation, their intention to use and recommend it. In order to operationalize the conceptual framework for the empirical data collection, a background of different branding concepts and representative company examples is presented. The first branding concept focused on the emotion of love and was inspired by BVG, a public transportation company in Germany, known for its customer-centric orientation. The second branding concept focused on the environment and was inspired by Toyota, a multinational automotive manufacturer from Japan, well-known for its sustainable business orientation. The third branding concept focused on technology and was inspired by Tesla, an automotive and energy company from America, renowned for its technology-driven business orientation. Finally, these different branding concepts and company examples lay the foundation for the development of the brands for the fictive public transportation company Svensk Trafik, which will be further elaborated in the methodology section.

# 3. Methodology

In this chapter the methodology of the thesis will be described. The first subchapter provides background information on how the conceptual framework was operationalized for the empirical data collection. Afterwards, the authors research philosophy will be identified in order to lay the foundation for the research approach and design which in turn determines the data collection method of this thesis.

## 3.1 Development of Fictive Brands - Svensk Trafik

After having presented the different branding concepts and successful company examples, the purpose of this subchapter is to present the different public transportation brands that will be tested empirically. In line with the CBIM, three different brands for the fictive transportation company Svensk Trafik have been developed. Afterwards, the brand matrices were transformed into brand descriptions (see Figure 3, 4 & 5) and brand advertisements (see Image 1, 2 & 3) to give the survey respondents a better understanding of the brand, since every element of the CBIM is difficult to operationalize for a fictive public transportation company.

### 3.1.1 Green Brand: Svensk Trafik - 'Best for our planet'

Inspired from previous literature on green branding and the company example of Toyota, a green brand for a fictional public transportation company called Svensk Trafik was created based on the CBIM (see Figure 3).

*Mission & Vision:* Svensk Trafik's mission is it to provide their customers with an environmentally-friendly transportation service that contributes to the sustainable development of the society. The company's goal is to offer a service that mutually respects their customers and the environment. Svensk Trafik wants to change the way people get around by offering their customers a more sustainable mode of transportation. Through sustainable and modern solutions, Svensk Trafik aims to minimize the company's and their customers' impact on the environment.

*Culture:* Svensk Trafik creates a corporate culture in which people and planet come first. The company believes that people are at their best and feel more comfortable in a healthy and stable environment that empowers their workforce to contribute to a sustainable future of public transportation. Svensk Trafik aims to meet its sustainability goals with the expertise and passion of its employees who share the belief that public transportation is best for the planet.

*Competence:* The company's competence lies in its expertise to offer sustainable mobility solutions that are affordable and reliable. Svensk Trafik provides a service that has a meaningful impact on the environment to which customers can contribute.

*Expression:* The company's logo is the four green leaves next to Svensk Trafik. At the centre of Svensk Trafik's communication lies its commitment towards the environment and how the company and its customers can contribute to a more sustainable future.

*Core:* As part of the company's core, Svensk Trafik wants to provide the best possible transportation mode for the planet and its customer. The company's core values are environmental commitment, sustainable solutions and protection of the planet

*Personality:* The corporate character of Svensk Trafik can be described as green and open minded. Svensk Trafik deeply cares for its customers, the environment and its employees. The employees' expertise and passion for sustainable solutions reflect on the company's goals and commitments towards a sustainable future.

*Value proposition:* Svensk Trafik wants to offer their customers an affordable and sustainable mode of transportation to create shared value for the society and the environment. Furthermore, Svensk Trafik aims to continuously improve its environmentally friendly service. Customers can gain a peace of mind by knowing that they have chosen the most sustainable mode of transportation that will contribute to the protection of the planet.

*Relationships:* Svensk Trafik aims to build a trusting relationship with their customers, in which they can trust the company's commitment and capability to operate in a sustainable and responsible way. The company wants its customers to feel good about themselves while using their mobility services, in which they are able to experience an individual contribution to the environment. Furthermore, in order to fully commit to its sustainable goals, the company expects its business partners to share the same environmental values.

*Position:* Svensk Trafik wants to be perceived as an affordable, sustainable, and environmentally friendly transportation company which aims to provide the best possible mode of transportation for the customer and the planet.

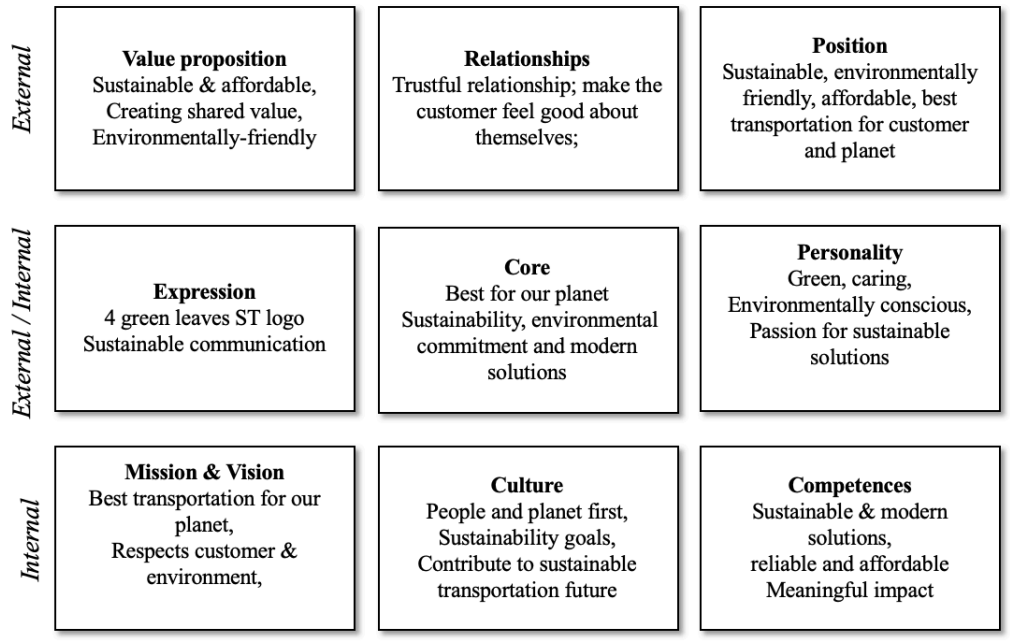


*Figure 3: Corporate Brand Identity Matrix: Green Brand*

### 3.1.1.1 Developed Brand Description and Advertisement

Our mission is it to provide an environmentally-friendly transportation service that contributes to the sustainable development of our society. We want to change the way people get around by offering them a more sustainable mode of transportation. Our goal is to offer a service that mutually respects our customers and the environment. Through sustainable solutions, we aim to minimize our impact as well as that of our customers on the environment. We want our customers to gain a peace of mind by knowing that they have chosen the most sustainable mode of transportation that will contribute to the protection of the planet. Our company's core values that guide our business are environmental commitment, sustainable solutions and protection of the planet


*Image 1: Advertisement of Green Brand*

## 3.1.2 Love Brand: Svensk Trafik - 'Because we love you'

Inspired from previous literature on love branding and the company example of BVG, a love brand for a fictional public transportation company called Svensk Trafik was created based on the CBIM.

*Mission & Vision:* Svensk Trafik's mission is to connect people on many different levels by providing the best possible service that is fun, loving and entertaining while being reliable and affordable. When travelling from one place to the other, the company believes that people can connect and become closer with one another. Their aim is it to bring people closer together again, regardless of where they come from and who they are.

*Culture:* Svensk Trafik believes that its employees are essential for the company's success. They value passionate and curious people from different backgrounds with a team-oriented and open mindset. Svensk Trafik believes that their people work best, if they love what they do and have fun while they are doing it. Therefore, the company cares about the personal and professional development of its employees and want them to become the best version of

themselves. Employees who love their job, can represent the company's values best. Svensk Trafik prioritizes work-life balance for its employees, because they want them to spend more time with their loved ones.

*Competences*: The company's competence lies in the expertise of providing the best possible service to its customers in a loving, fun and entertaining way. The company is best at making its customers feeling cared while delivering reliable and affordable transportation service.

*Expression:* Svensk Trafik puts its customers at the centre of their communication by telling the customers travel experience in a loving, ambivalent, humorous and catchy way. The company is recognizable through its yellow wavy striped heart logo.

*Core*: The love towards its customers lies at the core of Svensk Trafik and guides the company to create the best possible service for their customers. Everything the company does comes out of love for its customers. Svensk Trafik core values are love for everyone, joy and bringing people together.

*Personality*: The corporate character of Svensk Trafik can be described as loving, caring, funny and inclusive. The company loves and cares about its customers which is why they only want the best for them.

*Value proposition*: By providing its customers a reliable and affordable service, Svensk Trafik wants to offer the best possible mode of transportation in a loving, funny and entertaining way. The company wants to make their customers feel loved and cared about while using its transportation service.

*Relationship:* Svensk Trafik wants to build a loving, caring and trustful relationships with its customers and make them feel loved and cared about, while using its transportation service. Svensk Trafik loving and caring service builds the foundation for a loyal relationship with its customers.

*Position*: Svensk Trafik positions itself as a loving, fun and caring public transportation company which provides a reliable and affordable transportation service to connect people. Furthermore, the company wants to be perceived as a brand that welcomes and loves everybody.

| | | | |
|---|---|---|---|
| *External* | **Value proposition**<br>Reliable and affordable service in a fun and loving way | **Relationships**<br>Loving, Caring, Trustful, | **Position**<br>Unique, fun, and loving transportation service<br>Affordable, Reliable |
| *External / Internal* | **Expression**<br>Customer-oriented,<br>Humorous, Catchy & Loving,<br>Yellow wavy striped heart logo | **Core**<br>'because we love you'<br>Best possible service<br>Love, happiness, bring people together | **Personality**<br>Loving, Caring, Funny,<br>Inclusive |
| *Internal* | **Mission & Vision**<br>Connecting people,<br>Bring people closer together,<br>Fun, loving & entertaining | **Culture**<br>Team-oriented,<br>Love what you do,<br>Passionate, open minded, Fun | **Competences**<br>Providing affordable & reliable service,<br>Fun, loving & entertaining |

*Figure 4: Corporate Brand Identity Matrix: Love Brand*

### 3.1.2.1 Developed Brand Description and Advertisement

Our mission is to connect people across Sweden. When travelling to different places, we want to bring people closer together again. Our goal is not only to provide affordable and reliable service to our customers. We also want our customers to enjoy their ride and feel loved. The love towards our customers lies at the core of our brand values and guides us in creating the best possible service. Because of the love towards our customers, we will always be there to take them to their loved ones. Our company's core values that guide our business are love, joy and bringing people together.

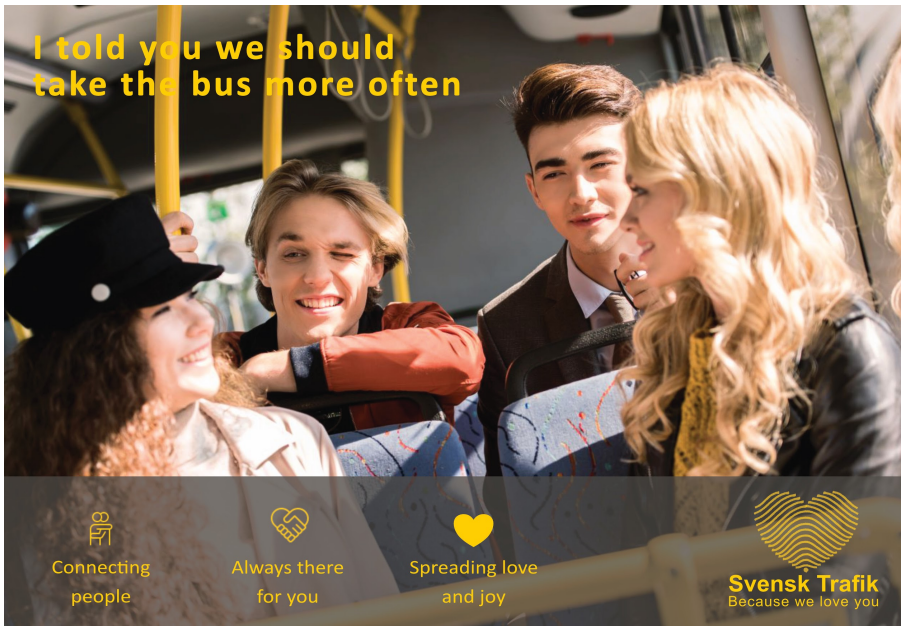


*Image 2: Advertisement of Love Brand*

### 3.1.3 Technology Brand: Svensk Trafik - ‘Moving forward through technology’

Inspired from previous literature on technology branding and the company example of Tesla, a technology brand for a fictional public transportation company called Svensk Trafik was created based on the CBIM.

*Mission & Vision:* The company’s mission is to redefine the future of transportation through technology. The company aims to accelerate the transition to electric and innovative technology driven public transportation, while creating a unique riding experience for its customers.

*Culture:* Svensk Trafik believes that its diversified, ambitious and highly-skilled workforce paves the way to redefine the future of public transportation. Svensk Trafik’s organizational culture creates human resource competence necessary for innovative public transportation solution and the supporting technology-driven service infrastructure. The company empowers its employees to search for innovative solution that stand out in the public transportation industry and its service infrastructure.

*Competence:* Svensk Trafik’s competence lies in its technical expertise in the field of electric mobility. The company is driven by finding innovative technology solutions that redefine the future of public transportation. Moreover, Svensk Trafik provides a technology driven service infrastructure that sets new standards for the digital service experience.

*Expression:* The company can be recognized through its unique circular logo. Through the company’s futuristic train design and unique digital service interface, Svensk Trafik sets itself apart from conventional public transportation companies.

*Core:* At the heart of Svensk Trafik lies technological innovation that moves their customers forward. The company is driven by finding innovative solutions to redefine public transportation. The company’s core values are innovation, technology and unforgettable riding experience.

*Personality:* The personal character of Svensk Trafik can be described as innovative, technology driven, inspiring and forward-thinking.

*Value proposition:* Svensk Trafik offers innovative public transportation solution that solely rely on electric drive systems. Moreover, the company offers its customers a new digital service experience that will facilitate and improve the usage of our transportation service and provide a unique driving experience.

*Relationships:* With their innovative and forward-thinking approach, Svensk Trafik wants to build an emotional and passionate relationship with its customers in order to drive their engagement in moving forward through technology.

*Position:* Svensk Trafik wants to be perceived as the leading innovative driven public transportation company that wants to redefine the future of transportation through innovative technology, such as electric mobility solution and unforgettable riding experience. The company strives to be the innovative leader in their industry.

| | | | |
|---|---|---|---|
| *External* | **Value proposition**<br>Innovative solution,<br>Electric driven,<br>Digital service experience<br>Unique riding experience | **Relationships**<br>Forward thinking,<br>Emotional and passionate relationship with customers | **Position**<br>Leading innovative PT company,<br>Redefining the future of PT |
| *External / Internal* | **Expression**<br>Circular logo,<br>Unique service interface,<br>Futuristic train design | **Core**<br>Technology driven,<br>Redefine the future of transportation,<br>Unforgettable riding experience | **Personality**<br>Innovative, technology driven, inspiring and forward-thinking |
| *Internal* | **Mission & Vision**<br>Redefine the future of transportation,<br>Electric and innovation driven<br>Unique riding experience | **Culture**<br>Diversified, ambitious & highly-skilled,<br>Innovative | **Competences**<br>Electric mobility,<br>Set new standards for digital experience<br>Technology driven service |

*Figure 5: Corporate Brand Identity Matrix: Technology Brand*

### 3.1.3.1 Developed Brand Description and Advertisement

Our mission is to redefine the future of transportation through technology. Our goal is it accelerate the transition to electric and innovative technology driven public transportation to create an unforgettable riding experience for our customers. With our technical expertise in the field of electric mobility, we strive to be the innovative leader in our industry. We aim to provide an innovative and technology driven service that sets new standards for the digital experience in the public transportation industry. Our company's core values that guide our business are innovation, technology and unforgettable riding experience.


*Image 3: Advertisement of Technology Brand*

## 3.2 Theoretical Framework and Propositions

Based on the different branding concepts (love, green, technology) and its representative company examples (BVG, Toyota, Tesla) presented above, it becomes evident that branding has the power to influence people's attitude towards green behaviour and their intention to use a more sustainable mode of transportation. Consequently, it is of interest to analyse how different branding concepts would influence Swedish citizens' attitude towards public transportation and their intention to use and recommend it. In doing so, the brands will be evaluated with the aid of four branding measures: attitude towards the brand (Ab), attitude towards the advertisement (Aad), self-brand connection (Sbc), and brand fit (Bf). In line with this notion, the current study suggests the following propositions shown in the theoretical framework (Figure 2). The first proposition (P1) concerns the difference between the brands, while the other propositions (P2-4) analyse how the measures influence the attitude towards public transportation, the intention to use public transportation and the recommendation of public transportation. Since this type of study has never been done before, it is very difficult to state hypothesis about the differences between the fictive brands and how the measures would contribute to explaining the dependent variables. Consequently, only propositions are suggested which allow a broader scope of analysis and discussion (see Figure 6).

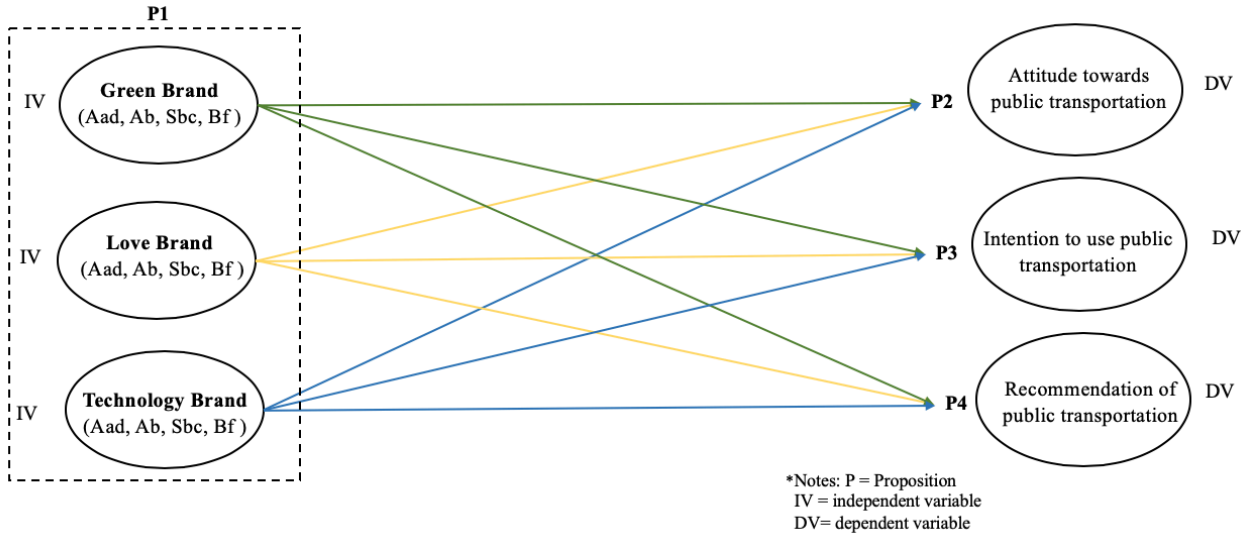


*Figure 6 Theoretical Framework & Propositions*

**P1:** The three brands (green, love, technology) are perceived differently in relation to: attitude towards the brand (Ab), attitude towards the advertisement (Aad), self-brand connection (Sbc), brand fit (Bf), attitude towards PT after the advertisement & description, intention to use PT and likelihood to recommend PT

**P2:** The three brands (green, love, technology) and attitude towards the brand (Ab), attitude towards the advertisement (Aad), self-brand connection (Sbc), brand fit (Bf), all have an influence on attitude towards public transportation

**P3:** The three brands (green, love, technology) and attitude towards the brand (Ab), attitude towards the advertisement (Aad), self-brand connection (Sbc), brand fit (Bf), all have an influence on intention to use public transportation

**P4:** The three brands (green, love, technology) and attitude towards the brand (Ab), attitude towards the advertisement (Aad), self-brand connection (Sbc), brand fit (Bf), all have an influence on the likelihood to recommend public transportation.

## 3.3 Research Philosophy

In management and business research, there are different philosophical assumptions about the way research is conducted (Easterby-Smith et al., 2018). It is important to identify the ontological and epistemological underpinnings of one's research, since the perception of the world provides guidelines on how research should be conducted by determining the research design, methodology, methods and techniques (Easterby-Smith et al., 2018). Consequently, understanding the philosophical viewpoint ensures the overall quality of data collection (Easterby-Smith et al., 2018).

### 3.3.1 Ontological position: Internal realism

In general, ontology refers to the researcher's view of the world and its nature of reality and existence (Easterby-Smith et al., 2018). There are four ontological assumptions that need to be considered when conducting research: realism, internal realism, relativism and nominalism (Easterby-Smith et al., 2018). While realism assumes that only one truth exists which can be revealed through existing fact, internal realism believes that the truth exists, however it is rather obscure (Easterby-Smith et al., 2018). Moreover, facts about the truth are concrete but cannot be accessed directly by the researcher (Easterby-Smith et al., 2018). In contrast, relativism assumes that there are many truths and that facts about the truths depend on the perception of the observer (Easterby-Smith et al., 2018). Similarly, nominalism believes that the reality is created by the way humans perceive the world, however, a single truth does not exist since facts are created from many different viewpoints (Easterby-Smith et al., 2018). In the context of this research, the authors ontological position is internal realism. Since branding is a well-established concept in business practice, the authors believe that it is possible to measure the intention to use public transportation if public transit companies would implement a coherent branding strategy. However, since the tested brands might be perceived differently, people's attitudes towards public transportation and their intention to use it will be influenced by respondents' subjective opinions. Consequently, it is difficult to reveal one single truth about the way public transportation should be branded in to influence people's perception and their intention to use and recommend it. Therefore, it might also be possible to investigate branding in public transportation from a relativist or nominalist perspective to gain a deeper understanding about the underlying reasons for people's different perceptions and behaviours.

### 3.3.2 Epistemological position: Positivist

Epistemology can be defined as that way knowledge about the world is enquired to gain a better understanding of it (Easterby-Smith et al., 2018). A realist perspective of the world is linked to a positivist epistemology, which means that the nature of knowledge should be measured through objective methods usually resulting in a quantitative research method. (Easterby-Smith

et al., 2018). On the contrary, a nominalist perspective is connected to a constructionist epistemology, which means that reality is understood in the way people make sense of it, usually leading to a qualitative research method (Easterby-Smith et al., 2018). In line with the authors ontological belief, this research takes a positivist epistemological perspective, since they believe that influence of branding as an established concept towards the intention to use public transportation should be measured objectively to demonstrate correlation. Consequently, Swedish citizens' opinions and personal judgements about branding in public transportation must be tested and not simply accepted.

## 3.4 Research Approach

The aim of this thesis is to analyse how different branding concept would influence Swedish citizens' attitudes towards public transportation, and their intention to use and recommend it. In order to achieve this aim, a deductive process of theory generation was chosen by using a scientific quantitative research method. The reason for choosing this particular method was based on the authors ontological and epistemological beliefs. Positivist researchers tend to prefer a deductive research approach in order to confirm an already existing theory while interpretive researchers emphasize on an inductive process and develop a theory (Burns & Burns, 2008). However, depending on the nature of the study, much research also involves both approaches since they are considered as complementary (Burns & Burns, 2008). Since the concept of branding has already been well-established in research and business practice, it is of interest to test different branding concepts within the public transportation sector. The first stage of a quantitative research is to gain an understanding of previous literature in the field of interest and develop a model or theory utilizing relationships between abstract concepts or established theory (Burns & Burns, 2008). Consequently, a literature review was conducted to gain an overview branding, attitude and behavioural intention as well as public transportation branding to locate a problem to investigate from. In order to show the nature and direction of relationships between the concepts, it is necessary to operationalize these concepts for the formulation of propositions that will be tested empirically (Burns & Bruns, 2008).

## 3.5 Research Design

A research design functions as a guideline for the appropriate collection of data depending on the nature of the research question (Bryman & Bell, 2011). The choice of the research design has an impact on the research process including causality between variables, the generalisation of the study, the understanding and meaning of the behaviour in relation to its social context as well as the relevance of the studied phenomena (Bryman & Bell, 2011). There are different ways of designing a research including experimental, cross-sectional, longitudinal, case study or comparative research design (Bryman & Bell, 2011). After careful evaluation of the different research design types, an experimental design has been chosen because it is well-aligned with the aim and purpose of this study. In an experimental design, it is required to manipulate the independent variable in order to determine whether it has an effect on the dependent variable (Bryman & Bell, 2011). When conducting an experiment, it is common to allocate participants into multiple groups, each of which represent differently manipulated independent variables (Bryman & Bell, 2011). Therefore, it is possible to find out to what extent differences between

the groups account for variations in the dependent variable (Bryman & Bell, 2011). Since it was of interest to investigate how different branding concepts influence Swedish citizens' attitude towards public transportation and their intention to use and recommend it, it was necessary to manipulate the branding concepts (IV) in order to determine whether it has an influence on the attitude and behavioural intention. Consequently, the experimental treatment consisted of three differently manipulated brands (love, green technology) which were presented in a brief brand description and brand advertisement to three independent and homogenous groups. Afterwards a manipulation check is necessary to ensure that the treatment was perceived as intended by the researchers (Söderlund, 2018). However, it needs to be noted that all features of an experimental design were not given because there was no additional control group for the experiment (Bryman & Bell, 2011). The reason for deciding against a control group refers to the fact, that it would not have made sense to show a control group a neutral message in this experimental setting. Instead, the three groups were compared to each other, since it would be illogical to show a control group a brand description and brand advertisement without any message. For many marketing experiments, it is not unusual to perform an experiment without a control group (e.g. Bertrand et. al, 2010; Söderlund, 2018).

## 3.6 Measurements

In context of this study, the authors evaluated the established fictive brands with the aid of four key elements: attitude toward the brand, attitude toward the advertisement, brand-self connection, and brand fit. These four elements were chosen after an in-depth analysis of previous research in order to evaluate and assess the success of the created fictive public transportation brands. Based on previous branding, marketing and advertising literature the measurement scales Ab, Aad, Sbc and Bf were chosen for the brand evaluation selection process. After evaluating the fictive brands individually, they were put in relation to the attitude towards public transportation, the intention to use public transportation and the recommendation of public transportation.

*Manipulation check*

The manipulation check was measured asking two questions consisting of three items respectively: 'How did you experience the message from Svensk Trafik?' using 'no focus on love' to 'much focus on love', 'no focus on environment' to 'much focus on environment', 'no focus on technology' to 'much focus on technology' on a 7-point Likert scale.

*Attitude towards the brand (Ab)*

In this study, attitude towards the brand was measured with a scale inspired by the study of Teng and Laroche (2007) using the following three items: 'dislike quite a lot' to 'like quite a lot', 'unsatisfactory' to 'satisfactory', and 'very unappealing' to 'very appealing', on a 7-point Likert scale. All Cronbach's alphas from Teng and Laroche (2007) had acceptable values above 0.7 and were therefore chosen for this study.

*Attitude towards the advertisement (Aad)*

In this study, attitude towards the advertisement was measured with a scale inspired by the study of Teng and Laroche (2007) using the following four items: 'very bad' to 'very good', 'very unfavourable' to 'very favourable', 'highly uncreative' to 'highly creative', and 'not very

attractive' to 'very attractive', on a 7-point Likert scale. All Cronbach's alphas from Teng and Laroche (2007) had acceptable values above 0.7 and were therefore chosen for this study.

*Self-brand connection (Sbc)*

The self-brand connection was measured with a scale inspired by the study of Escalas and Bettman (2005) asking three questions consisting of one item respectively: 'how strongly does the brand Svensk Trafik reflects who you are?', 'how strongly can you identify yourself with the brand Svensk Trafik?', and 'how strongly do you feel a personal connection to the brand Svensk Trafik?', using 'not very strongly' to 'very strongly', on a 7-point Likert scale. All Cronbach's alphas from Escalas and Bettman (2005) had acceptable values above 0.7 and were therefore chosen for this study.

*Brand fit (Bf)*

The brand fit was measured with a scale inspired by the study of Zdravkovic, Magnusson and Stanley (2010) asking two questions consisting of three items respectively. First, 'how visible is the relationship between the brand Svensk Trafik and public transportation?', using 'not very visible' to 'very visible', 'unclear' to 'clear', and 'obscure' to 'obvious', on a 7-point Likert scale. Second, 'how do you perceive the overall fit between the brand Svensk Trafik and public transportation?', using 'dissimilar' to 'similar', 'low fit' to 'high fit', and 'does not make sense' to 'makes sense', on a 7-point Likert scale. All Cronbach's alphas from Zdravkovic, Magnusson and Stanley (2010) had acceptable values above 0.7 and were therefore chosen for this study.

*Attitude towards PT and intention to use PT*

The attitude towards public transportation was measured with a scale inspired by the study of Simmons and Becker-Olsen (2006) asking one question consisting of three item: 'What is your current personal attitude towards public transportation?' and 'What is your personal attitude towards public transportation, if the brand Svensk Trafik would be implemented?' using 'very negative' to 'very positive', 'very unfavourable' to 'very favourable', 'very bad' to 'very good' on a 7-point Likert scale. The attitude towards public transportation was measured after the respondents were introduced with the brand. Furthermore, the intention to use public transportation was measure using a scale inspired by Grace and O'cass (2005) giving three statements consisting of one item: 'I am likely to use this service of Svensk Trafik in the future', 'I will probably use this service of Svensk Trafik in the future', and 'I have every intention of using this service of Svensk Trafik in the future' using 'strongly disagree' to 'strongly agree' on a 7-point Likert scale. All Cronbach's alphas from Simmons and Becker-Olsen (2006) had acceptable values above 0.7 and were therefore chosen for this study.

*Positive word of mouth (recommendation) of PT*

Inspired from the study of Arnold & Reynolds (2009), the positive word of mouth was measured giving three statements using one item: 'If the brand Svensk Trafik brand existed, I am likely to say good things about Svensk Trafik', If the brand Svensk Trafik brand existed, I would recommend Svensk Trafik to my friends and relatives', and 'I would recommend Svensk Trafik to others' using 'strongly disagree' to 'strongly agree' on a 7-point Likert scale. All Cronbach's alphas from Arnold & Reynolds (2009) had acceptable values above 0.7 and were therefore chosen for this study.

## 3.7 Data Collection Method

### 3.7.1 Primary and Secondary Data Collection

For this study, primary and secondary data was collected. The secondary data collection entailed journals, books, newspapers and company websites that were gathered through internet search on Google Scholar, and research databases such as ProQuest, Ebsco and Web of Science. The primary data was collected by carrying out an online web-based survey which was implemented by a Swedish research company called Norstat. The reason for choosing this method was based on its effectiveness and the fact that it was the fastest way to reach a large number of respondents in a short period of time (Bryman & Bell, 2011). The respondents received a link per e-mail which led them to a self-completion questionnaire (Bryman & Bell, 2011). The advantage of a questionnaire for self-completion is that the interviewer effect can be eliminated and thus distortions in the answers of the respondents can be avoided (Bryman & Bell, 2011). Furthermore, this method is generally seen as more convenient for respondents, since they have the freedom to choose when and at what pace they want to complete the questionnaire (Bryman & Bell, 2011). However, the disadvantage of this method is that no further assistance can be provided when respondents have difficulties to understand or answer the questions (Bryman & Bell, 2011). Furthermore, there is also a risk of respondent fatigue if the questionnaire is too long or not of interest to the respondent (Bryman & Bell, 2011). The survey had a duration of 12 days, between the 8th and the 20th of May 2019.

### 3.7.2 Sampling Process and Sampling Size

According to Burns and Burns (2008), a sample is abstracted from the target population. The first step in the sampling process was to determine the population (Burns & Burns, 2008). The chosen target population was female and male individuals, between 18 and 65 years old, living in metropolitan areas in Sweden (i.e. Stockholm, Malmö or Gothenburg) and drive a car on an occasional and regular basis and/or use public transportation. Respondents who never use the car were screened out, since it is of interest to persuade car drivers to use public transportation more often. Public transportation users were considered because the frequency of using public transportation can still be influenced.

The sampling method used in this study was based on probability sampling which means that all members of the population have an equal chance of being selected (Burns & Burns, 2008) This method was chosen to ensure that the findings of the survey are generalisable to the target population (Bryman & Bell, 2011). Furthermore, in line with a simple random sampling, participants were chosen randomly, which means that each entity of the population has the same chance to be included in the sample (Burns & Burns, 2008). The survey was sent to three independent homogeneous groups, each completing identical questions however with different branding concepts and advertisements (love, green and technology brand) in randomized order. The questionnaire was sent to 200 respondents for each group; therefore, the total sample size was 600.

### 3.7.3 Questionnaire design and structure

In order to analyse how the different branding concept would influence Swedish citizens attitude towards public transportation and their intention to use and recommend it, one questionnaire (see Appendix B: Questionnaire) was designed which was sent to three independent homogenous group showing a different brand descriptions and advertisements respectively. Since it was of interest to understand Swedish citizens' attitude and behaviour towards branding in public transportation, the questionnaire and the brand description were translated to Swedish to avoid any language barrier. However, the brand advertisements were shown in English because they showed barely any text. Moreover, the structure of the questionnaire was kept simple in order to avoid any confusion for survey respondents (Bryman & Bell, 2011). Therefore, the survey only entailed closed questions, using a seven point Likert scale ranging from (1) negative to (7) positive, with (4) neutral (e.g. (1) strongly disagree, (2) disagree, (3) somewhat disagree, (4) neutral, (5) somewhat agree, (6) agree to (7) strongly agree). The reason for choosing a seven-point Likert scale refers to the fact that it allows to obtain more accurate findings in comparison to a five-point Likert scale (Finstad, 2010). Moreover, a seven-point Likert scale is considered more suitable for electronic and self-completion questionnaires (Finstad, 2010). Furthermore, the questionnaire was pre-tested on a small sample to ensure overall quality in terms of clarity and comprehension.

At the beginning of the questionnaire, the participants were given a brief definition of the term "brand" in order to familiarize respondents with the subject of interest and ensure the required pre-knowledge to complete the questionnaire successfully. The questionnaire consists of five different parts. The first part of the survey asked about the socio-demographic background of the respondents (i.e. age, gender, income, residency, etc.). The second part of the questionnaire contained questions about the respondents' current motivation of using a specific mode of transportation (public or private) in order to get an insight of their current behaviour pattern. Afterwards, the respondents were exposed to the different brand descriptions and the brand advertisements of the fictive public transportation company Svensk Trafik (see Chapter 3.1). The description defined the brand's mission, vision, core values and value proposition while the advertisement illustrated the logo, slogan and colours of each brand respectively. This particular way of displaying the brand was chosen to facilitate the evaluation of the fictive brands for survey respondents because every element of the CBIM is difficult to operationalize for a fictive public transportation company. The logos, slogans and messages of the different advertisement were created by the authors, while the images were bought from a content platform. After the brand description and brand advertisement were shown, a manipulation check was implemented to verify the different perception of the brand concepts. The third part of the questionnaire aimed to evaluate the brand after seeing the brand description and brand advertisement with four key elements: attitude towards brand, attitude towards the advertisement, brand-self connection and brand fit. The fourth part of the survey identified the respondents' attitude towards public transportation after being exposed to the brand description and brand advertisement. Finally, the last part of the survey aimed to identify the behavioural intention towards public transportation use after being influenced by the branding concept. Furthermore, it was of interest to investigate people's willingness to recommend the branded fictive public transportation company to others. In order to avoid partly completed questionnaires, respondents were supposed to answer each question for each part before proceeding to the next one.

## 3.8 Reliability and Validity

According to Burns and Burns (2008), validity and reliability is essential when conducting research to ensure the overall quality of the study. Reliability indicates the consistency and stability of the collected data to provide the possibility of replication (Burns & Burns, 2008). There are three key elements to evaluate the reliability of construct measurements: stability, internal reliability and inter-observer consistency (Bryman & Bell, 2011). The stability of a study tests if the research conducted would show the same results over time to assure the finding of a sample remain the same (Bryman & Bell, 2011). This means that the measurement could be readministered, without detecting any or little variation of the results (Bryman & Bell, 2011). In the context of this study, the authors believe that the perception of the brand, attitude towards public transportation and intention to use public transportation is also influenced by other factors, such as convenience or reliability of the service. If these factors changed, it can be assumed that the initial results would be different when repeating the study and therefore might weaken the overall stability.

The second element of reliability measures the internal reliability of a study and refers to the multiple-item measurements (Bryman & Bell, 2011). One method that allows the evaluation of a questionnaire and test a study's internal reliability is Cronbach's alpha (Tavakol & Dennick, 2011; Bryman & Bell, 2011). Cronbach's alpha measures the internal consistency of a scale to ensure that all items measure the same construct (Tavakol & Dennick, 2011). In the context of this thesis, the questionnaire was inspired by already existing scales from previous studies. All items used in those studies showed acceptable Cronbach's alpha values of 0,7 and above, indicating internal reliability (Bryman & Bell, 2011). Consequently, the internal reliability of this thesis is assumed to be acceptable as well. The last element of reliability, the inter-observer consistency, refers to authors subjective judgement during a data collection process. The subjective way a survey is created, implemented as well as results analysed and interpreted might weaken the overall consistency of the research (Bryman & Bell, 2011). For the empirical data collection of this thesis, a self-completion survey with only closed questions was conducted. This means that the authors did not affect or misinterpret respondents' answers in comparison to an open question survey. However, the way the survey was created and implemented was influenced by the author's subjectivity.

Validity aims to identify whether the indicators really measure the concept they intent to measure (Bryman & Bell, 2011). According to Bryman and Bell (2011) there are different types to test validity, however the most prominent ones are internal and external. The internal validity is measured by how strong the independent variable caused changes in the dependent variables due to the experimental treatment (Söderlund, 2018; Anderson & Bushman, 1997). In the context of this study, a Chi-Square was conducted to ensure the homogeneity of the three groups before the experimental treatment. The manipulation check revealed that the three brands (green, love, technology) were perceived differently. Consequently, it can be assumed that the difference of the brands were the only reasons for the difference in the attitude towards public transportation, the intention to use and recommend it.

The external validity can be split into two different types: population validity and ecological validity (Burns & Burns, 2008). Population validity questions the representativeness of the sample to the population (Burns & Burns, 2008). In context of this thesis, probability and simple random sampling methods were chosen to ensure that the finding of the survey was generalisable to the population (Bryman & Bell, 2011). In order to reach a large and valid

number of people for the sample, the research company Norstat, randomly send the questionnaire to three homogeneous groups of 200 Swedish citizens. Consequently, the sampling choice and the data collection method resulted in a strong external validity. The ecological validity evaluates whether the findings are in line with individual's daily and normal social setting (Burns & Burns, 2008). In the experimental setting, three fictive brands have been tested, which has weakened the overall ecological validity. Furthermore, it could be argued that respondents' perception of the brand cannot fully reflect their behaviour in a real situation since respondents never had any interaction with the brand in real life. To further ensure measurement validity, the questionnaire was translated to Swedish and pre-tested before sending out the survey. Moreover, the advertisement was created in the same structure including font, placement of text, logo and imagery, while the brand descriptions were written in a similar structure to ensure a certain level of consistency between the three brands. Lastly, the advertisements were approved by a Swedish advertising agency, in the sense that they would release them under real circumstances. As a result, a high level of external validity can be assured.

## 3.9 Data Analysis

In order to analyse the data generated from the questionnaire, the statistical computer software SPSS was used. Before starting with the analysis of the descriptive data, it is important to screen for input errors and outliers, missing values and create new variables or recode items needed (Burns & Burns, 2008). Consequently, a histogram, box plot and stem and leaf plot were obtained to ensure a valid data set (see Appendix C & D).

### 3.9.1 Descriptive Statistics

After cleaning the data, a descriptive analysis of respondents' demographic background was performed including gender, age, residence, education, income and children in the household to get an overview of the data collection. Moreover, it was of interest to gain an understanding of respondents' overall transportation behaviour and reasons for (not) using a specific mode of transportations (car or public transportation). Consequently, distribution of frequencies, measures of central tendency and variability as well as the distribution of the data was investigated (Burns & Burns, 2008). In addition to that, a Chi-square test for the descriptive statistic was conducted to show that the groups were not significantly different from each other in order to ensure the homogenous groups for the experimental setting.

### 3.9.2 Cronbach's Alpha

After presenting an overview of the respondents' demographic background and their transportation behaviour, it was of interest to evaluate the internal reliability and consistency of the results by using the Cronbach's alpha (Bryman & Bell, 2011). A Cronbach's alpha is only used for multiple-item measures and needs to have a minimum value of 0.7 in order to fulfil the requirements of internal reliability and consistency of the constructs (Bryman & Bell, 2011). For that reason, all multiple-item measures, such as attitude towards public transportation, intention to use public transportation, recommendation of public transportation, attitude

towards the brand, attitude towards the ad, self-brand connection and brand fit were tested for Cronbach's alpha.

### 3.9.3 Compute Index Scores

After the construct measures were tested and approved by the Cronbach's alpha test, the multiple-item measures were transformed into total mean scores. This was necessary to analyse the results of specific questions as whole, instead of individually (Burns & Burns, 2008). Consequently, multiple index scores were created including attitude towards public transportation, intention to use public transportation and recommendation of public transportation, attitude towards the brand, attitude towards the advertisement, self-brand connection and brand fit.

### 3.9.4 One-Way ANOVA

After having computed the index scores, it was of interest to analyse the differences between the branding concepts (love, green and technology) and their interaction on the dependent variables (attitude towards PT; intention to use PT; recommendation of PT). There are a few assumptions to consider before running a one-way ANOVA: (1) normality, (2) homogeneity of variance, and (3) independence of errors (independent scores) (Burns & Burns, 2008). Consequently, the necessary tests were run to ensure that the assumptions were met before running the ANOVA analysis (see Appendix D: ANOVA). First, a one-way ANOVA was conducted ensure the that the different branding concepts were perceived differently according to their specific theme (manipulation check). Afterwards, another one-way ANOVA was performed to find out if significant mean differences between the concepts existed, by comparing the means of the different branding measures between the three branding concepts.

### 3.9.5 Standard Multiple Linear Regression

A standard multiple linear regression makes prediction of the value of the dependent variable from values of several independent variables (Burns & Burns, 2008). Overall, the regression is closely connected to the Pearson's 'r' (correlation) which determines the strength of the relationship between two variables and therefore the accuracy of the prediction in a regression analysis (Burns & Burns, 2008). Consequently, it is beneficial to run a correlation analysis before conducting a linear regression. In order to run a standard multiple linear regression analysis a few assumptions need to be considered: (1) linearity of relationship; (2) normality of error distribution; (3) independence of error terms (random sample); (4) Homoscedasticity (5) Multicollinearity (Burns & Burns, 2008). Consequently, the necessary tests were run to ensure that the assumptions were met (see Appendix C: Regression). In total three different standard multiple regression models were tested using attitude towards public transportation after being exposed to the brands, intention to use public transportation and recommendation of public transportation as dependent variables and four different branding scales chosen from literature to evaluate how the branding concepts have been perceived by respondents as independent variables including self-brand connection, brand fit, attitude towards the brand and attitude towards the advertisement.

# 4. Results

After having provided an overview of the different statistical test that will be used in this thesis, this chapter will present and discuss the empirical results. The first subchapter provides the descriptive analysis of the sample including socio-demographic background of respondents and their transportation behaviour. Afterwards, the results of the Cronbach's alpha, ANOVA and multiple regressions will be presented and analysed in order to find support for the propositions suggested in Chapter 3.2.

## 4.1 Descriptive Analysis

In order to get a better understanding of the socio-demographic background of the respondents, the first step was the introductory analysis (see Table 1). In total 600 responses were collected which were divided into 200 responses for each branding concept. From the total amount of respondents 304 (51.3 %) were female and 292 (48.7 %) were male. Consequently, there was a fairly equal distribution of gender. The average (arithmetic mean) of the respondents were 42 years old, whereas the age range stretched from 18 to 65. All respondents live in metropolitan areas in Sweden: 284 (47.33 %) in Stockholm, 110 (18.33 %) in Malmö, and 206 (34.33 %) in Gothenburg. The distribution of the educational background was the following: primary school (3.17 %), lower-secondary school (32.50 %), upper-secondary school (US: high school) (2.67 %), university and/or university college 60 credits (40 credits – old system) or less (12.17 %), university and/or university college 60 credits (40 credits – old system) or more (47 %), other (2.5 %). These results showed that the majority of the sample had a higher educational background. The prevailing annual income before taxes was 300.001 - 400.000 SEK representing 22 % of the total number of respondents. The distribution of respondents' number of children in the household was 0 children (56.33 %), 1 child (17 %), 2 children (21 %), 3 children (4.5 %), and more than 3 children (1.17 %). In order to ensure homogeneity between the three different groups a Chi square test was conducted which confirmed that socio-demographic background for the groups were not significantly different from each other ($p > 0.05$). This was an import requirement for the experimental design.

*Table 1: Sample Descriptives and Chi-Square Analysis*

| Sample descriptive (Chi square) | | | | | |
|---|---|---|---|---|---|
| | Green Brand (%) | Love Brand (%) | Technology Brand (%) | Full Sample (%) | Sig. |
| **Gender** | | | | | **0.087** |
| Male | 43.50 | 48.00 | 54.50 | 48.67 | |
| Female | 56.50 | 52.00 | 45.50 | 51.33 | |
| **Age (mean; SD)** | 42.56 | 43.22 | 42.39 | 42.72 | **0.800** |
| **Residence** | | | | | **0.714** |
| Stockholm | 45.50 | 46.50 | 50.00 | 47.33 | |
| Malmö | 21.00 | 18.50 | 15.50 | 18.33 | |
| Gothenburg | 33.50 | 35.00 | 34.50 | 34.33 | |
| **Education** | | | | | **0.521** |
| Primary school | 3.50 | 2.50 | 3.50 | 3.17 | |
| Lower-secondary school | 33.50 | 34.50 | 29.50 | 32.50 | |
| Upper-secondary school-US: high school | 2.50 | 2.50 | 3.00 | 2.67 | |
| University and/or university college 60 credits (40 credits - old system) or less | 14.00 | 13.50 | 9.00 | 12.17 | |
| University and/or university college 60 credits (40 credits - old system) or more | 43.50 | 45.50 | 52.00 | 47.00 | |
| Other | 3.00 | 1.50 | 3.00 | 2.50 | |
| **Annual income before taxes** | | | | | **0.417** |
| 0-100.000 SEK | 4.50 | 4.50 | 4.00 | 4.33 | |
| 100.001-200.000 SEK | 7.00 | 4.50 | 4.50 | 5.33 | |
| 200.001-300.000 SEK | 13.00 | 12.00 | 13.00 | 12.67 | |
| 300.001-400.000 SEK | 25.00 | 22.00 | 19.00 | 22.00 | |
| 400.001-500.000 SEK | 17.00 | 15.50 | 20.50 | 17.67 | |
| 500.001-600.000 SEK | 6.00 | 12.00 | 11.50 | 9.83 | |
| 600.001-700.000 SEK | 2.00 | 5.50 | 5.50 | 4.33 | |
| 700.001-800.000 SEK | 2.50 | 3.00 | 2.50 | 2.67 | |
| 800.001 SEK and more | 5.00 | 4.50 | 6.00 | 5.17 | |
| Do not want to disclose | 1.50 | 2.00 | 2.00 | 1.83 | |
| Do not know | 16.50 | 14.50 | 11.50 | 14.17 | |
| **Number of children in household** | | | | | **0.269** |
| 0 | 48.50 | 62.50 | 58.00 | 56.33 | |
| 1 | 23.50 | 11.50 | 16.00 | 17.00 | |
| 2 | 21.00 | 20.00 | 22.00 | 21.00 | |
| 3 | 7.00 | 4.00 | 2.50 | 4.50 | |
| more than 3 | | 2.00 | 1.50 | 1.17 | |

Notes: n= 600; $n_{green}$= 200; $n_{love}$= 200; $n_{technology}$= 200; SD = Standard deviation

Furthermore, Table 2 shows the respondents' transportation behaviour. The results showed that 48.67 % use the car rarely, 11 % use the car half of the time, 16.5 % use the car often, and 23.83 % use the car always. Respondents who never use the car were screened out, since it was of interest to persuade car drivers to use public transportation more often. In terms of public transportation, 17.50 % of respondents stated to never use public transportation, 30 % rarely use public transportation, 11.33 % use public transportation half of the time, 23.33 % often use public transportation, and 17.83 % always use public transportation. In the second part of Table 2 it became visible that the main reasons for using public transportation and car are travel time, comfort and flexibility. In order to ensure homogeneity between the three different groups a Chi square test was conducted which confirmed that the transportation behaviour and reasons for using a specific mode of transportation for the groups were not significantly different from each other ($p > 0.05$). This was an import requirement for the experimental design.

*Table 2: Respondents' Transportation Behaviours*

| | Mean | SD | Never % | Rarely % | Half of the time % | Often % | Always % | | | sig.*** |
|---|---|---|---|---|---|---|---|---|---|---|
| **Mode of transportation to work/school*** | | | | | | | | | | |
| By foot or by bike | 2.49 | 1.375 | **31.33** | 28.50 | 10.67 | 19.00 | 10.50 | | | **0.53** |
| Car | 3.16 | 1.258 | 0.00 | **48.67** | 11.00 | 16.50 | 23.83 | | | **0.70** |
| General public transport (bus, train, tram etc.) | 2.94 | 1.395 | 17.50 | **30.00** | 11.33 | 23.33 | 17.83 | | | **0.09** |
| Other (flights, taxis, travel services, other means of transport) | 1.48 | 0.737 | **62.50** | 30.83 | 3.67 | 2.33 | 0.67 | | | **0.16** |
| **Reason to use/not use public transport** | | | 1(%)** | 2(%)** | 3(%)** | 4(%)** | 5(%)** | 6(%)** | 7(%)** | |
| Freedom / independent | 4.42 | 2.062 | 15.17 | 7.17 | 8.67 | 15.83 | 18.17 | 13.00 | **22.00** | **0.30** |
| Cost | 4.09 | 2.057 | 18.17 | 9.17 | 9.83 | 16.00 | **18.33** | 12.33 | 16.17 | **0.48** |
| Travel time | 5.12 | 1.843 | 6.50 | 4.83 | 7.33 | 15.33 | 16.17 | 17.00 | **32.83** | **0.14** |
| Comfort | 4.76 | 1.782 | 7.00 | 5.83 | 8.17 | 22.00 | 20.00 | 14.67 | **22.33** | **0.24** |
| Flexibility | 4.86 | 1.784 | 6.83 | 3.67 | 11.33 | 17.67 | 20.17 | 15.67 | **24.67** | **0.21** |
| Less emissions than car | 3.59 | 2.071 | **25.50** | 11.00 | 10.67 | 19.17 | 12.50 | 8.33 | 12.83 | **0.86** |
| Security | 3.87 | 1.907 | 17.17 | 8.50 | 14.67 | **23.33** | 15.33 | 8.50 | 12.50 | **0.49** |
| Reliable | 4.51 | 1.916 | 10.17 | 7.17 | 11.83 | 19.33 | 16.67 | 14.00 | **20.83** | **0.95** |
| Only option | 3.45 | 2.125 | **31.17** | 8.67 | 9.00 | 19.17 | 12.83 | 5.67 | 13.50 | **0.83** |
| No car access | 2.48 | 2.145 | **60.67** | 6.00 | 4.50 | 8.17 | 5.67 | 4.67 | 10.33 | **0.41** |
| Experience | 3.08 | 1.921 | **32.33** | 11.50 | 14.33 | 20.33 | 9.00 | 4.00 | 8.50 | **1.00** |
| **Reason to driven/not drive a car**** | | | | | | | | | | |
| Freedom / independent | 4.34 | 2.246 | 19.50 | 7.00 | 9.17 | 14.50 | 11.33 | 11.00 | **27.50** | **0.37** |
| Cost | 3.97 | 2.023 | 18.67 | 8.50 | 12.00 | **19.17** | 16.50 | 9.67 | 15.50 | **0.77** |
| Travel time | 4.59 | 2.155 | 13.67 | 7.83 | 10.83 | 13.50 | 12.33 | 11.00 | **30.83** | **0.69** |
| Comfort | 4.60 | 2.146 | 14.67 | 7.33 | 8.17 | 14.00 | 13.50 | 13.67 | **28.67** | **0.50** |
| Flexibility | 4.63 | 2.095 | 13.00 | 6.83 | 9.83 | 15.50 | 12.33 | 14.17 | **28.33** | **0.30** |
| Security | 4.08 | 2.118 | 18.33 | 9.83 | 10.83 | 17.17 | 14.00 | 9.83 | **20.00** | **0.18** |
| Reliable | 4.47 | 2.114 | 15.00 | 7.33 | 9.83 | 14.67 | 16.00 | 11.33 | **25.83** | **0.31** |
| Only option | 3.13 | 2.116 | **37.50** | 9.33 | 11.17 | 15.33 | 8.83 | 6.67 | 11.17 | **0.47** |
| Experience | 3.45 | 2.037 | **28.83** | 8.00 | 12.67 | 20.33 | 11.83 | 7.17 | 11.17 | **0.33** |

**Notes:** n= 600; Non-responses; SD= Standard deviation; *Question: When you commute to and from work / studies how often do you do the following, 5-point likert scale; **7-point likert scale: 1= not much / 7 = very much; ***homogeneity of variance assumed

# 4.2 Cronbach's Alpha

In line with the data analysis process described in 3.9.2, a Cronbach's alpha test was conducted to measure the internal reliability of the constructs. The tests showed satisfactory results for all multiple-item measures (ranging from 0.774 to 0.969; see Table 3), indicating highly acceptable results above the threshold value of 0.7 (Burns & Burns, 2008). Consequently, the constructs

were found reliable in measuring the evaluation of the different brands towards attitudes and intention to use public transportation.

*Table 3: Cronbach's Alpha and Mean Values*

| Multi-item measures | Items | $\alpha$ | Mean | Min* | Max* | SD |
|---|---|---|---|---|---|---|
| Attitude towards the ad | 4 | 0.774 | 16.33 | 1 | 7 | 4.404 |
| Attitude towards the brand | 3 | 0.940 | 12.47 | 1 | 7 | 3.686 |
| Self-brand connection | 3 | 0.927 | 9.74 | 1 | 7 | 4.353 |
| Brand fit | 6 | 0.947 | 24.68 | 1 | 7 | 8.416 |
| Attitude towards PT after ad | 3 | 0.964 | 13.01 | 1 | 7 | 4.060 |
| Recommendation of PT | 3 | 0.969 | 11.60 | 1 | 7 | 4.811 |
| Intention to use PT | 3 | 0.931 | 12.38 | 1 | 7 | 4.641 |
| Intention to use and recommendation PT | 6 | 0.891 | 7.99 | 1 | 7 | 2.992 |

**Notes:** n = 600; SD = Standard deviation; *7 point likert scale: 1 = not much to 7 = very much; PT = public transportation

# 4.3 One-way ANOVA

The one-way ANOVA was computed to compare the mean values for the different branding concepts. First, the ANOVA was used to conduct a manipulation check by comparing the mean values of the respondents' different perceptions of each brand to find out whether they experienced the brand as a green, love or technology (see Table 4). The three different branding concepts represented the independent variable, while the three different manipulation questions (focus on environment, focus on love and focus on technology; see Chapter 3.6) represented the dependent variable.

*Table 4: Descriptives of ANOVA: Manipulation Check*

| Perception of Svensk Trafik | Concept | Mean | SD |
|---|---|---|---|
| Focus on love | Green Brand | 4.05 | 1.316 |
| Focus on environment | | **5.75** | 1.338 |
| Focus on technology | | 4.32 | 1.258 |
| Focus on love | Love Brand | **5.04** | 1.732 |
| Focus on environment | | 3.71 | 1.523 |
| Focus on technology | | 3.33 | 1.429 |
| Focus on love | Technology Brand | 3.43 | 1.475 |
| Focus on environment | | 4.51 | 1.517 |
| Focus on technology | | **5.68** | 1.406 |

**Notes:** SD = Standard deviation; homogeneity of variance mostly assumed

Table 4 provides the description statistics, which shows that the green brand was experienced to have a green focus (Mean = 5.75; SD = 1.338), the love brand was experienced to have a focus on love (Mean = 5.04; SD = 1,732) and the technology brand was experienced to have a focus on technology (Mean = 5.68; SD = 1.406). Therefore, it can be concluded that the brands have been perceived in line with their respective branding concept. Furthermore, it became visible that the green brand showed the highest mean value. Consequently, the green brand was

perceived the best in terms of the focus on the appropriate theme, followed by the technology brand and the love brand. Moreover, Table 5 confirmed that the three groups were significantly different from each other ($p < 0.05$).

*Table 5: ANOVA: Significance Level of Manipulation Check*

| | F | Sig. |
|---|---|---|
| Focus on love | 57.295 | 0.000 |
| Focus on environment | 98.829 | 0.000 |
| Focus on technology | 149.147 | 0.000 |

In the second one-way ANOVA the three different branding concepts represented the independent variable, while the different branding measures represented the dependent variable. In order to verify the proposition stated in Chapter 3.2, the ANOVA was conducted to compare the means (M) of the different measures between the three branding concepts (green brand (1), love brand (2) and technology brand (2)) using the Bonferroni post hoc tests for the multiple comparisons (see Table 6).

**P1:** The three brands (green, love, technology) are perceived differently in relation to: attitude towards the brand (Ab), attitude towards the advertisement (Aad), self-brand connection (Sbc), brand fit (Bf), attitude towards PT after the advertisement & description, intention to use PT and likelihood to recommend PT

*Table 6: ANOVA and Multiple Comparisons*

| Measures | Green Brand (1)* | Love Brand (2)* | Technology Brand (3)* | Sig.1-2 | Sig. 1-3 | Sig. 2-3 | Total Sig |
|---|---|---|---|---|---|---|---|
| Attitude towards brand | 4.34 | 3.90 | 4.24 | 0.00 | 1.00 | 0.02 | 0.001 |
| Attitude towards ad | 4.30 | 3.85 | 4.11 | 0.00 | 0.23 | 0.05 | 0.000 |
| Self Brand Connection | 3.41 | 3.05 | 3.28 | 0.04 | 1.00 | 0.35 | 0.047 |
| Brand fit | 4.41 | 3.96 | 3.98 | 0.00 | 0.01 | 1.00 | 0.001 |
| Attitude towards PT after ad & description | 4.59 | 4.15 | 4.27 | 0.00 | 0.06 | 1.00 | 0.004 |
| Recommendation of PT | 4.11 | 3.62 | 3.87 | 0.01 | 0.39 | 0.37 | 0.009 |
| Intention to use PT | 4.29 | 3.90 | 4.19 | 0.04 | 1.00 | 0.18 | 0.034 |

Note: n= 600; $n_{green}$= 200; $n_{love}$= 200; $n_{technology}$= 200; *Mean value; PT=public transportation

The attitude towards the brand is the highest for the green brand (M = 4.34), followed by the technology brand (M = 4.24), and the love brand (M = 3.90). Overall, these mean values are significantly different from each other (Total $p < 0.05$). Comparing the differences between the brands, it became visible that the green (1) and love (2) brand as well as the love (2) and technology (3) brand were significantly different from each other ($p < 0.05$), whereas the green (1) and technology (3) brand were not significant different for the attitude towards the brand ($p = 1.00$). For the attitude towards the advertisement, the green brand (M = 4.30) indicated the highest mean value, followed by the technology brand (M = 4.11), and the love brand (M = 3.85), these values were overall significantly different (Total $p < 0.05$). Similar to the previous

measure, the brands (1) and (2) were significantly different between each other ($p < 0.05$) except for brand (1) and (3), as well as (2) and (3) ($p = 0.23$; $p = 0.05$). For the self-brand connection, the green brand ($M = 3.41$) had the highest mean value, followed by the technology brand ($M = 3.28$), and the love brand ($M = 3.05$); these values were overall significantly different (Total $p < 0.05$). Brand (1) and (2) were significantly different ($p < 0.05$), whereas brand (1) and (3) as well as (2) and (3) were not significantly different ($p = 1$; $p = 0.35$). For the brand fit, the green brand ($M = 4.41$) showed the highest mean values, followed by the technology brand ($M = 3.98$), and the love brand ($M = 3.96$), these values were overall significantly different (Total $p < 0.05$). Brand (1) and (2), as well as (1) and (3) were significantly different ($p < 0.05$), whereas brand (2) and (3) were not ($p = 1$). For attitude towards public transportation after the advertisement and brand description, the green brand ($M = 4.59$) had the highest mean value, followed by the technology brand ($M = 4.27$), and the love brand ($M = 4.15$), these values were overall significantly different (Total $p < 0.05$). Brand (1) and (2) were significantly different ($p < 0.05$), whereas brand (1) and (3), as well as (2) and (3) were not ($p = 0.06$; $p = 1.00$). For recommendation of public transportation, the green brand ($M = 4.11$) showed the highest mean value, followed by the technology brand ($M = 3.87$), and the love brand ($M = 3.62$), these values were overall significantly different (Total $p < 0.05$). Only brand (1) and (2) were significantly different ($p < 0.05$). Brand (1) and (3) as well as (2) and (3) were not significantly different ($p = 0.39$; $p = 0.37$). For the intention to use public transportation, the green brand ($M = 4.29$) indicated the highest mean value, followed by the technology brand ($M = 4.19$), and the love brand ($M = 3.90$), these values were overall significantly different (Total $p < 0.05$). Only brand (1) and (2) were significantly different ($p < 0.05$). Brand (1) and (3), as well as (2) and (3) were not significantly different ($p = 1$; $p = 0.18$). Overall it became apparent that the green brand showed the highest and the love brand the lowest mean value among all measures. Moreover, the green brand and love brand showed always a significantly different result for all measures (see Figure 7).

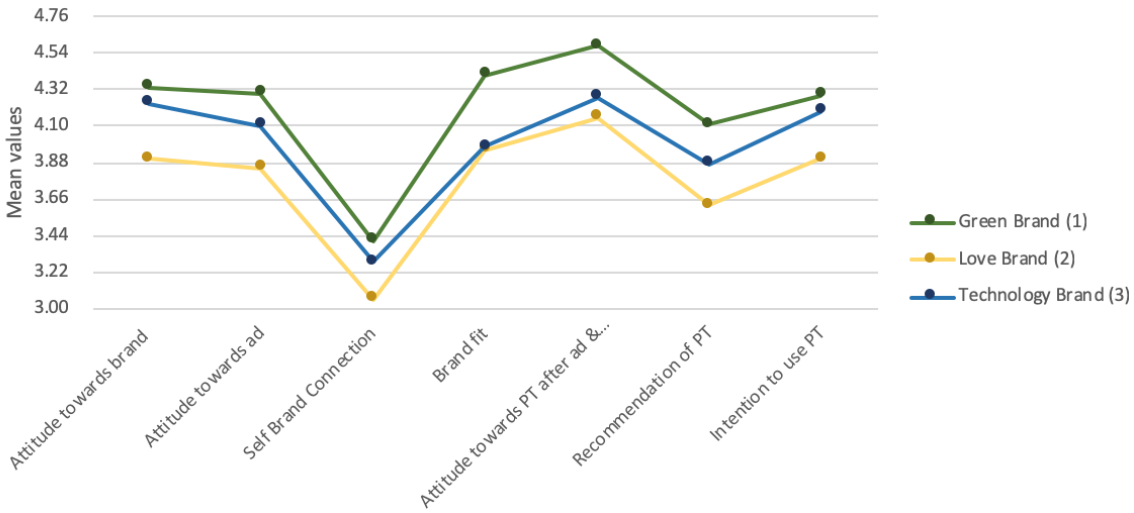


*Figure 7 Mean Value Comparison*

Based on the ANOVA results, **P1** can be supported. The findings clearly showed that a significant difference existed between the green brand, the love brand and the technology brand

among the different measures attitude towards brand (Ab), attitude towards the advertisement (Aad), Self-Brand Connection (Sbc), Brand fit (Bf), attitude towards PT after the advertisement and the brand description, recommendation of PT, intention to use PT (see Table 6; total sig. < 0.05).

## 4.4 Standard Multiple Linear Regression

Before running a multiple linear regression analysis, it is advantageous to first conduct a correlation analysis in order to know how strong the variables correlate with each other. This might provide further insight on explaining how the independent variables contribute to explaining the dependent variables. The results of the correlation analysis showed that all variables are significantly different ($p < 0.05$) and most of them are highly correlated (see Table 7). The highest correlation is between attitude towards the brand and attitude towards PT after seeing the brand ($r = 0.828$), followed by intention to use public transportation and recommendation of public transportation ($r = 0.803$) and attitude towards public transportation after seeing the brand and intention to use public transportation ($r = 0.779$). The weakest correlation is between brand fit and attitude towards the advertisement ($r = 0.527$).

*Table 7 Pearson Correlation of Branding Measures and Dependent Variables*

| | | Attitude towards brand | Attitude towards ad | Self brand connection | Brand fit | Attitude toward PT after ad | Intention use PT | Recommend PT |
|---|---|---|---|---|---|---|---|---|
| Attitude towards brand | Pearson Correlation | 1 | | | | | | |
| | Sig. (2-tailed) | | | | | | | |
| Attitude towards ad | Pearson Correlation | .736** | 1 | | | | | |
| | Sig. (2-tailed) | 0.000 | | | | | | |
| Self brand connection | Pearson Correlation | .738** | .643** | 1 | | | | |
| | Sig. (2-tailed) | 0.000 | 0.000 | | | | | |
| Brand fit | Pearson Correlation | .644** | .527** | .570** | 1 | | | |
| | Sig. (2-tailed) | 0.000 | 0.000 | 0.000 | | | | |
| Attitude toward PT after ad | Pearson Correlation | .828** | .683** | .694** | .709** | 1 | | |
| | Sig. (2-tailed) | 0.000 | 0.000 | 0.000 | 0.000 | | | |
| Intention use PT | Pearson Correlation | .719** | .569** | .700** | .638** | .779** | 1 | |
| | Sig. (2-tailed) | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | | |
| Recommend PT | Pearson Correlation | .744** | .639** | .753** | .633** | .803** | .803** | 1 |
| | Sig. (2-tailed) | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | |

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

In order to analyse which independent variables (self-brand connection, brand fit, attitude towards the brand and attitude towards the advertisement) contribute to explaining the dependent variables (attitude towards public transportation after seeing the brand, intention to use public transportation and recommendation of public transportation) three standard multiple regressions were conducted (see Table 10 and Figure 8), in order to confirm the propositions (P2, P3 and P4) stated in Chapter 3.2.

**P2:** The three brands (green, love, technology) and attitude towards the brand (Ab), attitude towards the advertisement (Aad), self-brand connection (Sbc), brand fit (Bf), all have an influence on attitude towards public transportation

| |
|---|
| **P3:** The three brands (green, love, technology) and attitude towards the brand (Ab), attitude towards the advertisement (Aad), self-brand connection (Sbc), brand fit (Bf), all have an influence on intention to use public transportation |
| **P4:** The three brands (green, love, technology) and attitude towards the brand (Ab), attitude towards the advertisement (Aad), self-brand connection (Sbc), brand fit (Bf), all have an influence on the likelihood to recommend public transportation. |

*Attitude towards public transportation after seeing the brand*

The results of the first regression showed that for the green brand attitude towards the brand accounted for the strongest predictor ($\beta = 51.5\%$; $p < 0.05$), followed by brand fit ($\beta = 24.4\%$; $p < 0.05$), and self-brand connection ($\beta = 14.9\%$; $p < 0.05$) in contributing positively to the attitude towards public transportation after seeing the brand. Similar results were shown for the technology brand with attitude towards the brand as the strongest predictor ($\beta = 42.2\%$; $p < 0.05$), followed by brand fit ($\beta = 30.5\%$; $p < 0.05$), attitude towards the advertisement ($\beta = 13.3\%$; $p < 0.05$), and self-brand connection ($\beta = 11.8\%$; $p < 0.05$). On the contrary, the results for the love brand showed that only the attitude towards the brand accounted for the strongest predictor ($\beta = 60.2\%$; $p < 0.05$), followed by brand fit ($\beta = 25.3\%$; $p < 0.05$). For all brands the attitude towards the advertisement did not show any significant result except for the technology brand ($\beta = 13.3\%$; $p < 0.05$) which accounted for the weakest predictor for explaining the attitude towards public transportation. As seen in Table 8 and 9, the first regression model was significantly different from zero for all three brands ($F = 154.947$ (green); $F = 158.476$ (love) and $F = 126.922$ (technology), $p < 0.05$) and achieved the best model fit with an explanatory power of 75.6% for the green brand (0.756 adjusted $r^2$), 76% for the love brand (0.760 adjusted $r^2$) and 71.7% for the technology brand (0.717 adjusted $r^2$). Based on the results of the first regression **P2** can be supported. The findings clearly showed that different branding measures can influence the attitude towards public transportation (see Table 10 and Figure 8).

*Intention to use public transportation*

The results of the second regression showed that for the green brand, self-brand connection accounted for the strongest predictor ($\beta = 39.8\%$; $p < 0.05$), followed by attitude towards the brand ($\beta = 26.1\%$; $p < 0.05$), and brand fit ($\beta = 24.8\%$; $p < 0.05$), in contributing positively to the intention to use public transportation. The regression for the love brand showed very similar results. On the contrary, the results for the technology brand revealed that attitude towards the brand accounted for the strongest predictor ($\beta = 40.5\%$; $p < 0.05$), followed by brand fit ($\beta = 26.\%$; $p < 0.05$), and self-brand connection ($\beta = 19.6\ \%$; $p < 0.05$). For all brands the attitude towards the advertisement did not show any significant results, consequently it did not contribute to explaining the intention to use public transportation. As seen in Table 8 and 9, the second regression model was also significantly different from zero for all three brands ($F = 94.642$ (green); $F = 77.917$ (love) and $F = 65.952$ (technology), $p < 0.05$) and achieved the weakest model fit with an explanatory power of 65.3% for the green brand (0.653 adjusted $r^2$), 60.7% for the love brand (0.607 adjusted $r^2$) and 56.6% for the technology brand (0.566 adjusted $r^2$). Based on the results of the second regression **P3** can be supported. The findings clearly showed that different branding measures can influence the intention to use public transportation (see Table 10 & Figure 8)

*Recommendation of public transportation*

The results of the third regression showed that for the green brand self-brand connection accounted for the strongest predictor ($\beta = 37.2\%$; $p < 0.05$), followed by attitude towards the

brand (β = 32.2%; p < 0.05), and brand fit (β = 13.7%; p < 0.05), in contributing positively to the recommendation of public transportation. The results for the love brand revealed that self-brand connection accounted for the strongest predictor (β = 42.3%; p < 0.05), followed by brand fit (β = 22.5%; p < 0.05) and attitude towards the brand (β = 22%; p < 0.05) in contributing positively to the recommendation of public transportation. The results for the technology brand were similar to the green brand, with the only difference that attitude towards the brand (β = 25.7%; p < 0.05) indicated a lower result and brand fit a higher one (β = 21.6%; p < 0.05) in contributing positively to the recommendation of public transportation. For all brands, the attitude towards the advertisement did not show any significant results, consequently it did not contribute to explaining the recommendation of public transportation. As seen in Table 8 and 9, the third regression model was also significantly different from zero for all three brands (F= 88.258 (green); F= 120.702 (love) and F= 87.767 (technology), p < 0.05) and achieved second best model fit with an explanatory power of 63.7% for the green brand (0.637 adjusted $r^2$), 70.6% for the love brand (0.706 adjusted $r^2$) and 63.6% for the technology brand (0.636 adjusted $r^2$). Based on the results of the third regression **P4** can be supported. The findings clearly showed that different branding measures can influence the recommendation of public transportation (see Table 10 & Figure 8)

*Table 8: Model Summary of Regressions*

| Dependent variable | Attitude towards PT after the ad & descr. | | Intention to use PT | | Recommendation of PT | |
|---|---|---|---|---|---|---|
| | $R^2$ | Adjusted $R^2$ | $R^2$ | Adjusted $R^2$ | $R^2$ | Adjusted $R^2$ |
| Green Brand | 0.761 | 0.756 | 0.660 | 0.653 | 0.644 | 0.637 |
| Love Brand | 0.765 | 0.760 | 0.615 | 0.607 | 0.712 | 0.706 |
| Technology Brand | 0.722 | 0.717 | 0.575 | 0.566 | 0.643 | 0.636 |

*Table 9: ANOVA of Regressions*

| Dependent variable | | Attitude toward PT after the ad & descr. | | Intention to use PT | | Recommendation of PT | |
|---|---|---|---|---|---|---|---|
| | | F | Sig. | F | Sig. | F | Sig. |
| Green Brand | Regression | 154.947 | 0.00 | 94.642 | 0.00 | 88.258 | 0.00 |
| Love Brand | Regression | 158.476 | 0.00 | 77.917 | 0.00 | 120.702 | 0.00 |
| Technology Brand | Regression | 126.922 | 0.00 | 65.952 | 0.00 | 87.767 | 0.00 |

*Table 10: Three Linear Multiple Regressions*

**Linear Multiple Regression***

| | | **Attitude towards PT after ad & descr.**** | | | **Intention to use PT**** | | | **Recommendation of PT**** | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Concept shown | Independent variable | Unstandardized Coefficients B | Standardized Coefficients Beta | Sig. | Unstandardized Coefficients B | Standardized Coefficients Beta | Sig. | Unstandardized Coefficients B | Standardized Coefficients Beta | Sig. |
| Green Brand | (Constant) | -0.021 | | 0.922 | -0.225 | | 0.455 | -0.410 | | 0.184 |
| | Self_brand_connection | 0.140 | 0.149 | 0.005 | 0.436 | 0.398 | 0.000 | 0.408 | 0.372 | 0.000 |
| | Brand_fit | 0.250 | 0.244 | 0.000 | 0.296 | 0.248 | 0.000 | 0.163 | 0.137 | 0.014 |
| | Attitude_towards_brand | 0.594 | 0.515 | 0.000 | 0.351 | 0.261 | 0.001 | 0.432 | 0.322 | 0.000 |
| | Attitude_towards_ad | 0.105 | 0.081 | 0.168 | 0.047 | 0.031 | 0.658 | 0.126 | 0.084 | 0.244 |
| Love Brand | (Constant) | 0.325 | | 0.081 | 0.636 | | 0.018 | -0.369 | | 0.126 |
| | Self_brand_connection | 0.020 | 0.021 | 0.715 | 0.392 | 0.365 | 0.000 | 0.474 | 0.423 | 0.000 |
| | Brand_fit | 0.231 | 0.253 | 0.000 | 0.268 | 0.260 | 0.000 | 0.241 | 0.225 | 0.000 |
| | Attitude_towards_brand | 0.619 | 0.602 | 0.000 | 0.356 | 0.308 | 0.000 | 0.265 | 0.220 | 0.003 |
| | Attitude_towards_ad | 0.114 | 0.091 | 0.060 | -0.099 | -0.070 | 0.254 | 0.144 | 0.099 | 0.066 |
| Technology Brand | (Constant) | 0.063 | | 0.767 | 0.098 | | 0.744 | -0.486 | | 0.099 |
| | Self_brand_connection | 0.105 | 0.118 | 0.039 | 0.201 | 0.196 | 0.006 | 0.407 | 0.373 | 0.000 |
| | Brand_fit | 0.296 | 0.305 | 0.000 | 0.291 | 0.260 | 0.000 | 0.258 | 0.216 | 0.000 |
| | Attitude_towards_brand | 0.485 | 0.422 | 0.000 | 0.536 | 0.405 | 0.000 | 0.363 | 0.257 | 0.001 |
| | Attitude_towards_ad | 0.155 | 0.133 | 0.023 | 0.001 | 0.001 | 0.989 | 0.111 | 0.077 | 0.240 |

Note: *For all three concepts there is no problem of mulitcollinearity; **Dependent variable

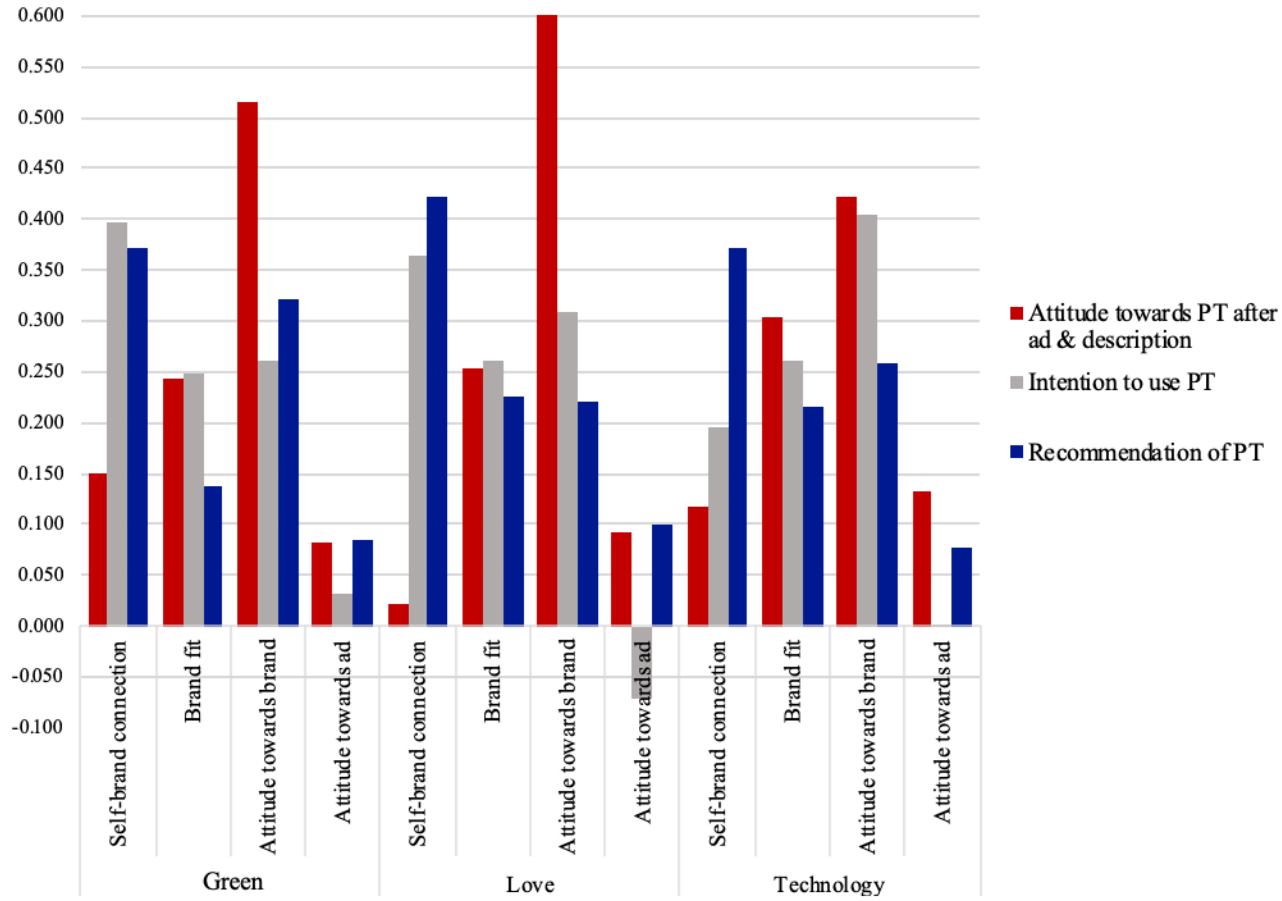


*Figure 8: Comparison of Three Linear Multiple Regressions*

# 5. Discussion

The aim of this thesis was to analyse how different branding concept influence Swedish citizens' attitude towards public transportation, their intention to use and recommend it. In order to achieve this aim public transportation was investigated from a brand building perspective. The purpose of this chapter is it to answer the research question stated in Chapter 1.1 by discussing the results of the empirical data collection.

*The Green Brand's Success*

First, the results from the empirical data collection showed that the three groups were homogenous which means that the randomization of the groups was successful. This was an important requirement to ensure that any differences in attitude towards public transportation and behavioural intention was caused by the different brands. To that end, the findings revealed that the three brands (green, love and technology) were all perceived differently. As a result of the differences of the brands, respondents' attitudes towards public transportation and behavioural intention was influenced differently. This finding was important to further investigate and understand where the difference in between the brands lied. In the experimental setting, all three brands had similarly structured brand description and advertisements which focused on a specific theme in line with the public transportation companies' core values, mission and vision to communicate what the brand stood for (see Chapter 3.1). Furthermore, the brand advertisements aimed to visualize the brand in order to help respondents to gain a better understanding of the brands, since they were all based on a fictive public transportation company. Therefore, the advertisements showed an image that was connected to public transportation in line with a corresponding message, slogan and logo.

Overall, the findings showed that the green brand has been perceived the best among all brands (see Figure 1). This is in line with the findings of Groot and Steg (2009) who found that the communication of altruistic and biospheric values encourages sustainable consumer behaviour. The success of the green brand could be explained by the increasing trend of sustainability in society which is especially prevailing in Sweden. Previous research showed that many consumers are becoming more aware of environmental issues and have a positive attitude towards green behaviour (Trudel & Cotte, 2009). In line with this notion, the success of the green brand can also be explained by the way the advertisement was designed, since the environmental connection was clearly visible. For example, green was predominantly used as a colour in the advertisement. Moreover, the tram was surrounded by a green space and the message communicated an environmental purpose supported by a green leave-shaped logo. Furthermore, three statements connected to the social and environmental benefit were clearly visible: less pollution, less traffic and more green space. In light of the sustainability trend, research has shown that people are generally more attracted to companies which are committed to sustainability (Kiron et al., 2012). Consequently, the results indicated that customers might be more attracted to a public transportation company that connects its service with sustainability.

The results for the technology brand were very similar to the findings of the green brand. This is consistent with the findings of White, Habib and Hardisty (2019) who found that the

connection of sustainability with positive association can influence pro-environmental behaviour. Overall the technology brand was perceived slightly poorer than the green brand, however, it was still better liked than the love brand (see Figure 7). The reason for this might be that technology and sustainability are highly intertwined because technology is often associated with effectiveness and the answer to sustainable solutions (Chertow, 2000). In particular, Sweden is considered as one of the most innovative countries in the world (McKenna, 2018) and known for its environmental commitment (OECD, n.d.b). This might explain why respondents perceived these two branding concepts so similar. Consequently, a public transportation company that combines a sustainable and innovative branding might be a beneficial combination in order to promote public transportation more effectively. However, for the sake of differentiation of the brands, particular brand elements that would have been complementary for the green and technology brand were avoided.

The findings for the love brand showed that the theme of love was perceived the least favourable among all brands. Although emotions have proven to influence sustainable consumer behaviour (e.g., Carrus, Passafaro, & Bonnes, 2008; Kals, Schumacher, & Montada, 1999), the choice of love as an emotion might have been speculative. The poorer perception of the love brand could be explained by the way the advertisement was designed. First of all, the advertisement showed an image of young people. Since public transportation customers are very diversified in terms of age, occupation, lifestyle, habits, needs (Ibraeva & Sousa, 2014), respondents might have not been able to identify themselves with the brand, considering the sample's average age of 42 years (see Table 1). This can also be supported by the graph in Figure 7, which clearly shows that self-brand connection had the lowest mean value of all brands. Moreover, the image showed interaction and communication between random passengers stating the message "I told you we should take the bus more often" which implied a flirtatious situation. This implication might have been too obtrusive within a public transportation environment considering the autonomous lifestyle in Sweden. According to Hofstede's cultural dimension theory, Sweden is considered as an individualist society which means that Swedes are expected to take care of themselves and their close friends and relatives only (Hofstede, 2019). This might indicate that Swedish people do not like to have an interaction with strangers, especially in a public transportation environment. Moreover, the humorous double meaning of the message might have been misunderstood, considering the fact that respondents only saw one message. Overall, using the emotion of love in a branding strategy might be a risky endeavour, since people have different perception of the meaning of love. Especially, when using love in a playful and humorous way, it is important to create a consistent branding and communication strategy to ensure that people understand the message. The example of BVG shows, that it is possible to use the theme of love as a branding strategy, however, building such a brand and coherent communication takes time. Consequently, the concept of love might have been difficult to reveal in only one brand advertisement and short brand description.

For the three brands, the attitude towards public transportation showed the highest score among all branding measures. These results confirmed that the brands had an impact on the perception of public transportation which was an important finding for public transportation companies. On the contrary, self-brand connection performed the weakest for all brands. This finding could be explained by the fact that the brands did not exist in real life. Consequently, it might have been difficult for respondents to personally connect with fictive brands. Furthermore, the results also showed that in general the attitude towards the brand was slightly higher than the attitude towards the advertisement. This could be explained by the fact that the brand, including its values, beliefs, etc., are more important and perceivable than the visuals of an advertisement. Since an advertisement is a visual representation of the brand it can be difficult to include every

element of the brand's core value, mission, and beliefs in only one advertisement. In order for advertisements to communicate what the brand stands for; the marketing initiatives require a consistent and long-term communication. Consequently, the visual interpretation of branding is important to assure that consumers associate the brand with specific benefits (Jensen & Beckmann, 2009). Another interesting finding was that the attitude towards the brand and the intention to use have similar mean values among the brands. This result can be supported by previous literature which has shown that these two concepts are connected (Teng & Laroche, 2007). Moreover, it became apparent that the recommendation of public transportation was generally lower than intention to use public transportation. In general, it is more likely that someone recommends something that one has purchased or used before. Since the presented brand were all fictive, respondents might have been more sceptical towards the brands and it was difficult to recommend a service that they have never used before.

*Attitude towards the brand as predictor of attitude towards PT*

After having shown how the brands have been perceived differently, it was also of interest to analyse how the different branding measures, used to assess the three brands, influenced the attitude of public transportation, the intention to use and recommend it (see Table 10 and Figure 8). Overall, the results showed that attitude towards the brand was the most important measure for explaining the attitude towards public transportation. One possible explanation for this finding could be that attitude towards the public transportation brand is very closely related to the attitude towards the public transportation company, since the corporate brand identity attempts to influence the organization's perception of internal and external stakeholders (Urde, 2013). The core of a corporate brand represents the values and promise of a company, therefore the perception and attitude towards the brand and company should be very similar. This assumption was also supported by the high correlation between these two measures (see Table 7). On the other hand, self-brand connection accounted for the weakest predictor in explaining the attitude towards public transportation. Consequently, self-brand connection did not seem to play a major role for the attitude towards public transportation. One possible reason for this might be that having an attitude towards a brand, does not require to feel personally connected in order to form one's opinion. For example, most students have a positive attitude towards Tesla, but they might not be able to identify themselves with the brand considering their current lifestyle and premium price range. Once these circumstances change, they might feel a stronger connection to the brand and would be willing to purchase a Tesla car.

*Self-brand connection as predictor of intention to use and recommend PT*

In line with this notion, the results for the intention to use public transportation showed that self-brand connection accounted for the strongest predictor in explaining respondents' intentions. One possible explanation for this finding could be that in order to get involved with a branded product or service, it is important to associate oneself with the brand. This is consistent with the findings of (Kırcovaa, Enginkaya & Yılmaz, 2015) who argue that the symbolic meaning consumers derive from the personal connection with a brand influences their purchase intention. Consequently, self-brand connection plays a crucial role in consumers' decision process when purchasing a branded product or service (Kırcovaa, Enginkaya & Yılmaz, 2015). This finding was also supported by the high correlation between self-brand connection and intention to use public transportation (see Table 7). On the contrary, brand fit was the least important measure for explaining intention to use public transportation. One possible reason for this could be that it is difficult to evaluate the overall fit of a brand if the company does not exist. Since previous literature researched brand fit in connection with social causes, brand extension and sponsorship (Basil & Herr, 2006; Bridges, Keller & Sood, 2000; Simmons & Becker-Olsen, 2006; Zdravkovic, Magnusson & Stanley, 2010), it was possible to

compare an already established brand in relation to an issue outside of the company's scope. Consequently, an overall brand fit might have not been applicable to building a brand for a fictive public transportation company. Moreover, at this stage of the decision process, consumers are already willing to purchase a product or service which might indicate that the evaluation of the overall brand fit has taken place in an earlier stage of the consumption process. e.g. attitude towards the brand. This assumption can be supported by the results of attitude towards the brand which showed that self-brand connection accounted for the second strongest predictor for two of three brands. Consequently, the overall brand fit was least important for explaining the intention to use public transportation. For the recommendation of public transportation, the analysis showed the same results as for the intention to use public transportation. The intention to use a product or service and its recommendation is very closely related (Anderson, 1998). If consumers have heard good things about a specific product or service, they might be more willing to try it, especially when recommended from friends and family (Voyer & Ranaweera, 2015). This positive word of mouth can be more powerful than advertising when aiming to raise awareness of innovations or to ensure the trial of goods or services (Sheth, 1971). Consequently, a positive word of mouth can influence the intention to use a product or service, which is why the findings for intention to use and recommendation of public transportation reveal the same results. For all brands, it became apparent that the attitude towards the advertisement did neither contribute to explain the attitude towards public transportation, nor the intention to use or recommend it. One possible reason for this finding could be that assessing an advertisement of a fictive brand, while processing this new information in only a few seconds is a demanding cognitive task. Moreover, the correlation analysis revealed that the attitude towards the advertisement is highly correlated with the attitude towards the brand (see Table 7). Consequently, there might have been an issue of covariance which has influenced the results. Overall, attitude towards public transportation achieved the best model fit, followed by recommendation and intention to use the public transportation. This finding could be explained by the attitude behaviour gap which is a well-established phenomenon in sustainable consumer behaviour (Peattie, 2001). For example, many consumers stated to have a favourable attitude towards green behaviour, however, they often do not behave in a more sustainable way (Trudel & Cotte, 2009; Auger and Devinney 2007; Young et al. 2010). In line with this notion, respondents seem to have a positive attitude towards public transportation, however the results reveal that they have a weaker intention to use the service which also explains the reason for not necessarily recommending it. After all, it also needs to be acknowledged that it might be difficult to intent to use and recommend a public transportation service that does not exist in real life.

# 6. Conclusion

## 6.1 Research Aims

The aim of this thesis was to analyse how different branding concepts would influence Swedish citizens' attitude towards public transportation, their intention to use, and recommend it. In doing so, three different branding concepts based on literature (green, love and technology) were chosen to provide an overarching theme for the creation of brands for the fictive public transportation company Svensk Trafik. The aims were fulfilled by a questionnaire survey that tested how the fictive brands influence Swedish citizens' attitude towards public transportation, their intention to use and recommend it. The fictive brands were evaluated with the aid of four branding measures: attitude towards the brand, attitude towards the advertisement, self-brand connection and brand fit. Overall, the results showed that the advertisements were all perceived differently by homogenous groups. Moreover, all branding measures contributed in different ways to explaining the attitude towards public transportation, the intention to use, and recommend. In fact, the green brand had the highest impact on attitude, behavioural intention and recommendation, followed by the technology brand and love brand. Moreover, attitude towards the brand accounted for the strongest predictor in explaining attitude towards public transportation, while self-brand connection was the weakest. For intention to use and recommendation of public transportation, self-brand connection was the most important measure, while brand fit accounted for the weakest. Consequently, a green branding strategy seems to be most successful for building a public transportation brand. Moreover, it is crucial that people can identify themselves with the brand's values mission and vision in order to persuade them to use public transportation on a regular basis. As a result, these findings provide a new perspective on the identity development of public transportation brands by not only developing a public transportation brand's visual identity but also its vision, mission and core values in order to provide a better understanding of the level of service customers can expect and what benefits come with using it.

## 6.2 Implications

*Research Implications*

The findings of the thesis showed that brand identity development has an impact on people's attitude towards public transportation, their intention to use, and recommend it. Consequently, more research related to the brand building process of public transportation companies is necessary. In particular, the importance of core values, mission and vision that drive the service of public transportation needs to be better understood in order to develop effective branding strategies. Also, it could be of interest to further research the attitude behaviour gap in terms of public transportation usage in order to better align branding strategy and service improvements.

Moreover, the ambiguous findings of the love brand reveal opportunities for further research to better understand the meaning of love in today's society and how this would apply in terms of using the emotion of love as a branding strategy.

*Managerial Implications*

Overall, the findings showed that brand identity development has an impact on people's perception of public transportation, their intention to use and recommend it. Consequently, public transportation companies can benefit from a coherent branding strategy in order to promote their service more effectively. In light of the sustainability movement and the results of this study, a green branding strategy seems to be most successful in order to persuade people to use public transportation on a regular basis. Moreover, a combination of technological and environmental brand values might also attract more potential customers. Using the emotion of love as a branding strategy might be a risky endeavour and requires careful strategic planning in terms of communication. Furthermore, as the results have shown, self-brand connection is an important predictor for behavioural intention. Therefore, it is recommended that managers in the public transportation sector take this factor into consideration in the brand building process. However, implementing long-term branding strategies that aim to increase the usage of public transportation should also be accompanied by improving the overall service quality and infrastructure of public transportation (Ibraeva & Sousa, 2014).

*Policy Implications*

Overall, municipalities could provide an alternative to private vehicles and promote the use of public transportation to foster city's growth (Ibraeva & Sousa, 2014). A coherent branding strategy would allow public transportation companies to provide customers with a better understanding of the level of service they expect and what benefits come with using it. By changing people's perception of public transportation, they might be more willing to use public transportation in the future. As a result, an increased ridership of public transportation can reduce the overall $CO_2$ emissions of the transportation sector and eventually lead to a more sustainable urban future. However, implementing long-term branding strategies that aim to increase the usage of public transportation should also be accompanied by improving the overall service quality and infrastructure of public transportation (Ibraeva & Sousa, 2014). Furthermore, strategies can be implemented to build cities with better public transport infrastructure, such as bicycling and walking paths, in order to replace fossil fuels and cars (Mannberg et al., 2014; Rezvani, Jansson & Bodin, 2015; Sang & Bekhet, 2015).

## 6.3 Limitations and Future Research

The first limitation of this study was that the tested public transportation brands were fictive. This limitation can be split in two parts. First, it was challenging to create the brands in a way for the respondents to easily keep them apart. Especially, the green and technology brand were difficult to differentiate, because technology is often associated with effectiveness and is seen as the answer to sustainable solutions (Chertow, 2000). Therefore, particular characteristics that would have been important for creating a strong brand, such as the technology brand's mission to move towards a zero-emission future with its high-tech electric vehicles (inspired by Tesla), were eliminated. In reality, brands do not only cover one value, they are intertwined with several values and beliefs to communicate a strong message of what their brand stands for (e.g. Tesla and Toyota). However, in context of this study, it was of importance to investigate the

differences between the brands in order to identify which branding concept is most effective. In terms of future research, it might be interesting to test a branding concept that intertwines with different values and beliefs. Second, the fact that the public transportation brands were has weakened the brands from the beginning, as it might have been difficult for respondents to fully relate to a brand that does not exist. Therefore, in terms of future research, it would be interesting to test the different branding concepts with real public transportation companies.

The second limitation of this thesis is the generalisability of the different branding concepts. Although the concepts of love branding, green branding and technology branding have been shown to influence sustainable consumer behaviour, other branding concepts could have been tested as well in order to analyse its influence on attitude and intention to use public transportation. Consequently, it is difficult to assume that these specific branding concepts are generalisable for all public transportation companies in Sweden. Moreover, this study only tested three different brands. In terms of future research, it might be of interest to test more brands and analyse how other branding concepts such as safety and a combination of green and technology influence people's attitude and behavioural intention on public transportation.

Another limitation of this study lied in the difficulty to predict the importance and relevance of the branding measures which were used to evaluate the different branding concepts (e.g. attitude towards the advertisement, attitude towards the brand, self-brand connection and brand fit). Previous literature proposed various other measurement that could have been used for this study (see Veloutsou (2015); Zdravkovic, Magnusson & Stanley (2010)). Therefore, future research could use other branding measures that would provide a different perspective on the influence of the branding concepts on public transportation.

Furthermore, a limitation of this study was the application for public transportation companies in Sweden. The nature of the public transportation service and its limited resources of the transport system make it difficult to apply marketing instruments (Ibraeva & Sousa, 2014). Implementing long-term branding strategies that aim to increase the usage of public transportation might weaken the overall quality of service if public transportation companies are not able to respond properly on the increase of passengers especially during rush hours (Ibraeva, 2014). Consequently, a coherent and long-term branding strategy that targets car drivers should also be accompanied by improving the service quality and infrastructure (Ibraeva, 2014). In fact, the overall hygiene factors such as service quality, reliability and transportation connections should not be disregarded. Although brands can function as a buffer, they need to deliver on their promise in order to meet customers' expectations. In line with this notion, it needs to be noted that public transportation customers are very diversified in terms of age, occupation, lifestyle, habits, needs and reasons for travelling (Ibraeva, 2014). Moreover, they use different channels of communication in order to receive information about the public transportation service and therefore need to be addressed accordingly (Ibraeva, 2014). Therefore, it can be difficult to meet the expectation of all potential customers. As a result, one can conclude that implementing a coherent branding strategy is costly in terms of time, money, human resources and transportation infrastructure. Considering the limited budgets of transportation companies, it might be difficult for them to afford these marketing effort or service improvements.

Moreover, one limitation of the study was the quantitative approach to collect empirical data. This choice of method was beneficial in order to find more generalisable results that allowed to identify patterns in respondent's perception of the different brands. However, a qualitative study could help to understand the underlying reasons for the different perceptions. Therefore, future research could analyse different branding concepts from a qualitative perspective.

The implementation of the CBIM can be considered as a limitation of the methodology. Even though the CBIM was helpful to create the brand identities, it was difficult to fully implement all elements into the brands. First of all, some of the nine elements of the CBIM were very similar to each other, hard to operationalize, and therefore extremely difficult to distinguish. Second, it was not possible to highlight all the elements from the matrix in the advertisement and brand description, so that they were visible to the respondents. Elements such as, relationship or culture were difficult to convey without direct interaction between the customer and the company.

A delimitation of this study was the sample size, which had an effect on the data collection. Since the sample excluded people who never drive a car and only live in Stockholm, Malmö or Gothenburg, the data collection was more difficult and took considerably longer than expected. Consequently, it would be interesting to expand the sample to major cities in other countries. Another delimitation was the sample size. Due to budget as well as time reasons, the sample size was limited to 600 in total. With a larger sample size, the result could have shown even stronger differences between all brand, as well as stronger results in terms of mean values. Therefore, it would be interesting to use larger sample sizes in future studies.

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# Appendix A: BVG

Appendix A1: BVG new image campaign: “Because we love you”


(Source: Beer, 2016)

Appendix A2: BVG’s declaration of love to the Berlin citizens


Translation: “Not even your mum picks you up at 4.30 in the morning.”
(Source: Beer, 2016)

Appendix A3: BVG's merchandise collection


Translation: Curious about our new collection? Awesome, your outfit got stains"
(Source: Beer, 2016)

Appendix A4: Adidas Original in the BVG signature pattern seen on its vehicle seats

(Source: Arica, 2018)

Appendix A5: BVG' social media campaign: "I don't care"


Translation: "Only we love you for who you are "
(Source: Beer, 2016; BVG, 2015)

# Appendix B: Questionnaire

Before we start the survey, you will be given a definition of an expression that you will face throughout the survey. In the context of this study **a brand** is the personality of a company. It reflects a company's values and what it stands for. A brand is a name, slogan, design, symbol, logo or any other feature that differentiates it from the competition.

1. **How old are you?**
- *open question*

2. **Are you a man or a woman?**
- Female
- Male

**3. What is your personal total income before tax per year?**
- 0-100.000 SEK
- 100.001-200.000 SEK
- 200.001-300.000 SEK
- 300.001-400.000 SEK
- 400.001-500.000 SEK
- 500.001-600.000 SEK
- 600.001-700.000 SEK
- 700.001-800.000 SEK
- 800.001 SEK and more
- Do not want to disclose
- Do not know

4. **Please, indicate which mode of transportation you use.**

*(Scale: 1, Never, 2, Rarely, 3, About Half of Times, 4, Often, 5 Always)*
- By foot or by bike
- Car
- General public transport (bus, train, tram etc.)
- Other modes of transport (flights, taxis, travel services, other means of transport)

**5. What is your highest completed education?**
- Elementary school
- High school
- Bachelor's degree
- Master's degree
- PhD
- Other

6. **Indicate the number of children in your household?**
- 0
- 1
- 2
- 3

- more than 3

**7. How much does the following affect your decision to (not) use public transport everyday?**

*(7-point Likert scale: not much to much)*

- Freedom / independent
- Cost
- Travel time
- Comfort
- Flexibility
- Less emissions than car
- Security
- Reliable
- Only option
- No car access
- Experience

8. **How much does the following affect your decision to (not) drive / drive a car everyday?** *(7-point Likert scale: not much to much)*

- Freedom / independent
- Cost
- Travel time
- Comfort
- Flexibility
- Security
- Reliable
- Only option
- Experience

**9. What is your current personal attitude towards public transportation?** *(7-point Likert scale)*

- (1) Very negative; (7) Very positive
- (1) Very Unfavourable; (7) Very Favourable
- (1) Very Bad - (7) Very Good

Now, you will go through a hypothetical scenario in which the Swedish public transportation company, called Svensk Trafik, is branded. In this scenario Svensk Trafik offers its services (bus, train, tram) across Sweden. Below you will find a brand description and advertisement of the fictive public transportation company Svensk Trafik:

***

***Note (this was not shown in the survey):*** *Of the following three brands (Brand 1: Green brand; Brand 2: Love brand; Brand 3: Technology brand), only one brand was randomly shown to each one group).*

***

**Green Brand:**

***Svensk Trafik*** *- Best for our planet*

Our mission is it to provide an environmentally-friendly transportation service that contributes to the sustainable development of our society. We want to change the way people get around by offering them a more sustainable mode of transportation. Our goal is to offer a service that mutually respects our customers and the environment. Through sustainable solutions, we aim to minimize our impact as well as that of our customers on the environment. We want our customers to gain a peace of mind by knowing that they have chosen the most sustainable mode of transportation that will contribute to the protection of the planet. Our company's core values that guide our business are environmental commitment, sustainable solutions and protection of the planet.

**Love Brand:**

***Svensk Trafik*** *- Because we love you*

Our mission is to connect people across Sweden. When travelling to different places, we want to bring people closer together again. Our goal is not only to provide affordable and reliable service to our customers. We also want our customers to enjoy their ride and feel loved. The love towards our customers lies at the core of our brand values and guides us in creating the best possible service. Because of the love towards our customers, we will always be there to take them to their loved ones. Our company's core values that guide our business are love, joy and bringing people together.

**Technology Brand:**

***Svensk Trafik*** *- Moving forward through technology*
Our mission is to redefine the future of transportation through technology. Our goal is it accelerate the transition to electric and innovative technology driven public transportation to create an unforgettable riding experience for our customers. With our technical expertise in the field of electric mobility, we strive to be the innovative leader in our industry. We aim to provide an innovative and technology driven service that sets new standards for the digital experience in the public transportation industry. Our company's core values that guide our business are innovation, technology and unforgettable riding experience.

**10. How did you experience the message from Svensk Trafik?**

*(Scale: 7-point Likert scale)*

- (1) No focus on love; (7) Much focus on love
- (1) No focus on environment; (7) Much focus on environment
- (1) No focus on technology; (7) Much focus on technology

**11. What is your personal attitude towards this advertisement of Svensk Trafik?**

*(Scale: 7-point Likert scale)*

- (1) very bad; (7) very good
- (1) very unfavourable; (7) very favourable
- (1) highly uncreative; (7) highly creative
- (1) not very attractive; (7) very attractive

**12. What is your personal attitude towards the brand Svensk Trafik?**

*(Scale: 7-point Likert scale)*

- (1) dislike quite a lot; (7) Like quite a lot
- (1) unsatisfactory; (7) satisfactory
- (1) very unappealing; (7) very appealing

**13. How strongly does the brand Svensk Trafik reflects who you are?**

*(Scale: 7-point Likert scale)*

- (1) Not very strong; (7) Very strong

**14. How strongly can you identify yourself with the brand Svensk Trafik?**

*(Scale: 7-point Likert scale)*

- (1) Not very strongly; (7) Very strongly

**15. How strongly do you feel a personal connection to the brand Svensk Trafik?**

*(Scale: 7-point Likert scale)*

- (1) Not very strongly; (7) Very strongly

**16. How visible is the relationship between the brand Svensk Trafik and public transportation?**

*(Scale: 7-point Likert scale)*

- (1) Not very visible; (7) Very visible
- (1) Unclear; (7) Clear
- (1) Obscure; (7) Obvious

**17. How do you perceive the overall fit between the brand Svensk Trafik and public transportation?**

*(Scale: 7-point Likert scale)*

- (1) Dissimilar; (7) Similar
- (1) Low fit; (7) High fit
- (1) Does not make sense; (7) Makes sense

**18. What is your personal attitude towards public transportation, if the brand Svensk Trafik would be implemented?**

*(Scale: 7-point Likert scale)*

- (1) Very negative; (7) Very positive

- (1) Very Unfavourable; (7) Very Favourable
- (1) Very Bad - (7) Very Good

**19. If the brand Svensk Trafik brand existed, I am likely to say good things about Svensk Trafik**
*(Scale: 7-point Likert scale)*

- (1) Strongly disagree; (7) Strongly agree

**20. If the brand Svensk Trafik brand existed, I would recommend Svensk Trafik to my friends and relatives**
*(Scale: 7-point Likert scale)*

- (1) Strongly disagree; (7) Strongly agree

**21. I would recommend Svensk Trafik to others**
*(Scale: 7-point Likert scale)*

- (1) Strongly disagree; (7) Strongly agree

**22. I am likely to use this service of Svensk Trafik in the future.**
*(Scale: 7-point Likert scale)*

- (1) Strongly disagree; (7) Strongly agree

**23. I will probably use this service of Svensk Trafik in the future.**
*(Scale: 7-point Likert scale)*

- (1) Strongly disagree; (7) Strongly agree

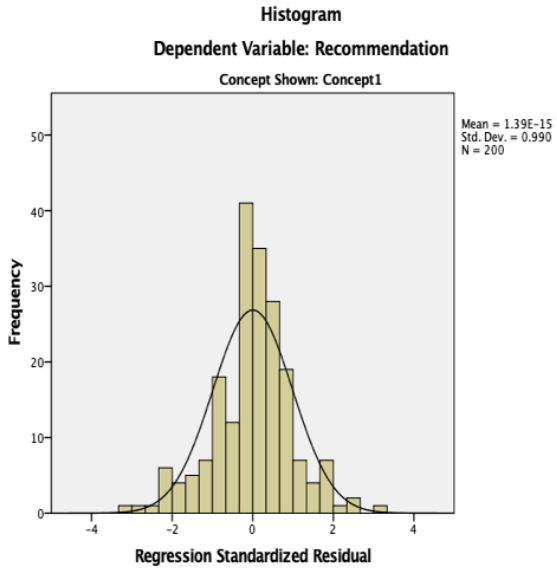
**24. I have every intention of using this service of Svensk Trafik in the future.**
*(Scale: 7-point Likert scale)*

- (1) Strongly disagree; (7) Strongly agree

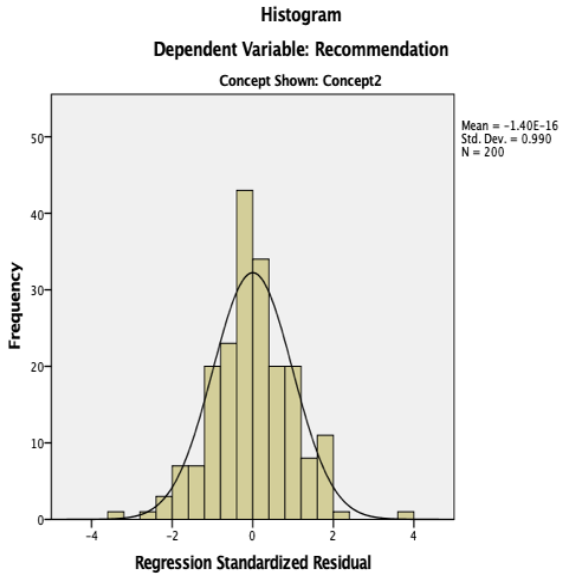
**End of questionnaire, thank you for your participation.**

# Appendix C: Regression

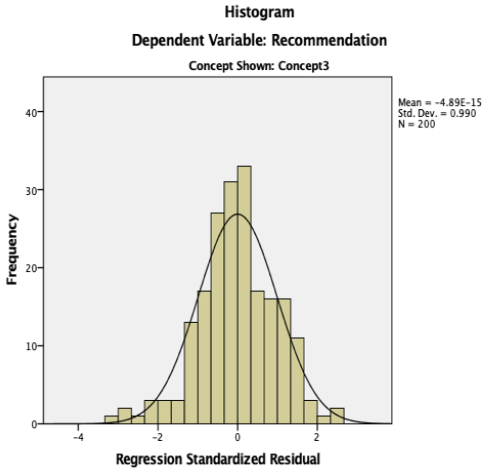
Appendix C1: Histogram - Recommendation (Green Brand)



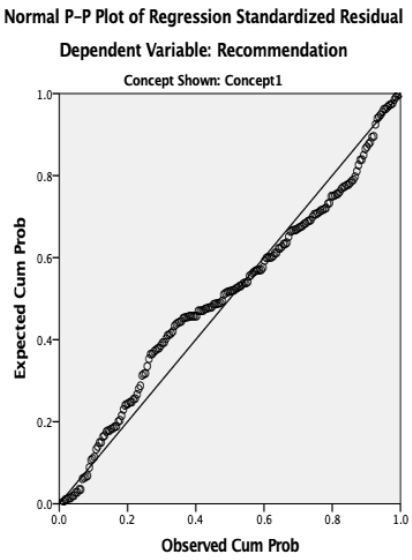

Appendix C2: Histogram - Recommendation (Love Brand)



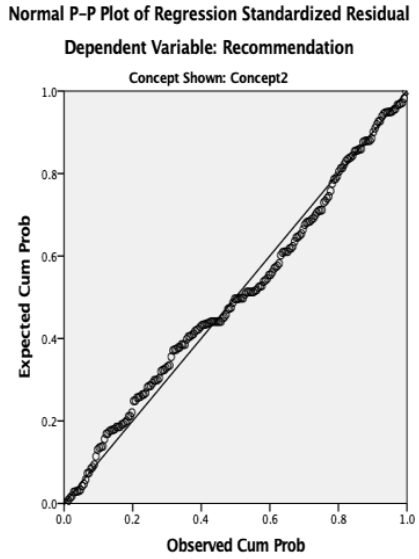
Appendix C3: Histogram - Recommendation (Technology Brand)



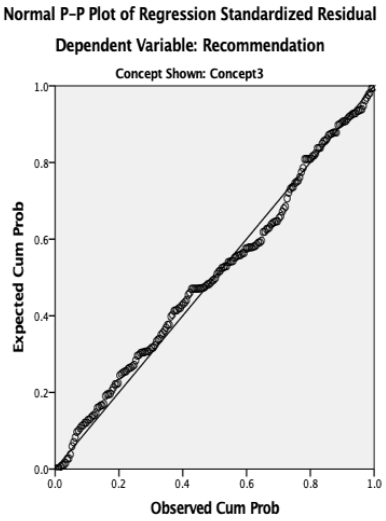

Appendix C4: Normal P-P Plot - Recommendation (Green Brand)



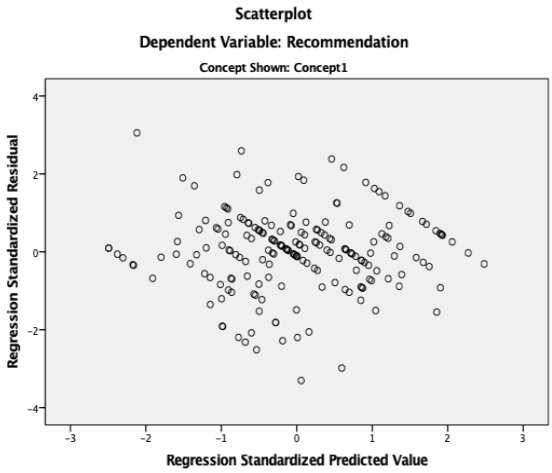

Appendix C5: Normal P-P Plot - Recommendation (Love Brand)



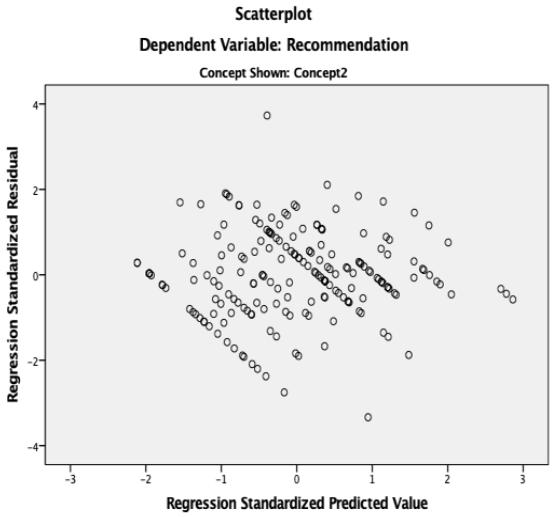
Appendix C6: Normal P-P Plot - Recommendation (Technology Brand)



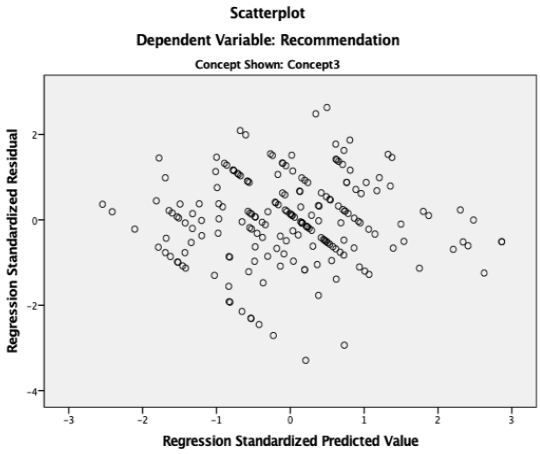

Appendix C7: Scatterplot - Recommendation (Green Brand)



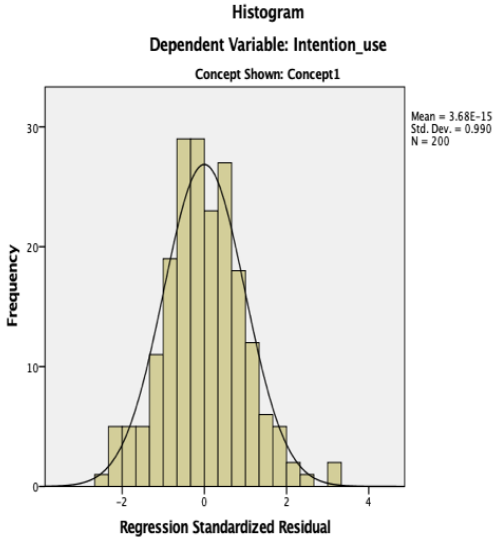

Appendix C8: Scatterplot - Recommendation (Love Brand)



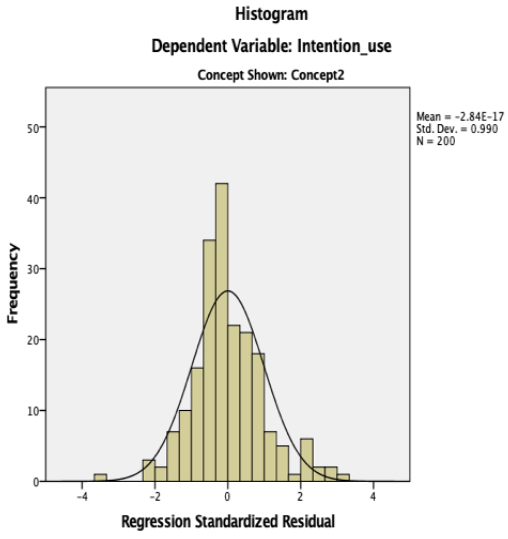
Appendix C9: Scatterplot - Recommendation (Technology Brand)



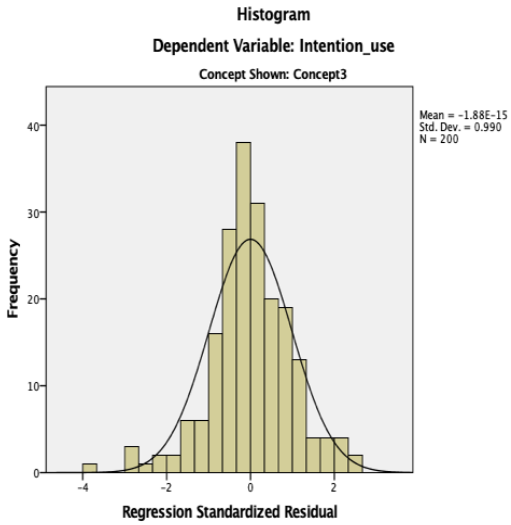

Appendix C10: Histogram - Intention to use (Green Brand)



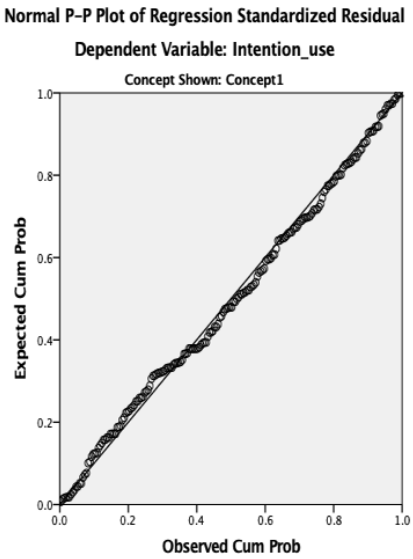

Appendix C11: Histogram - Intention to use (Love Brand)



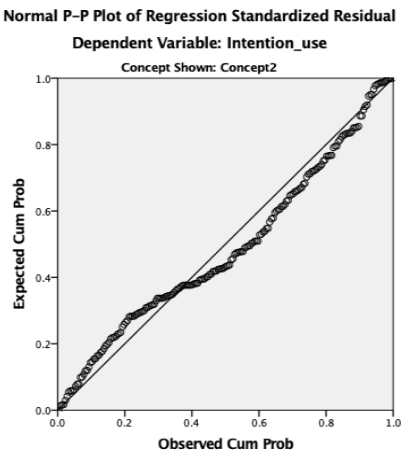
Appendix C12: Histogram - Intention to use (Technology Brand)



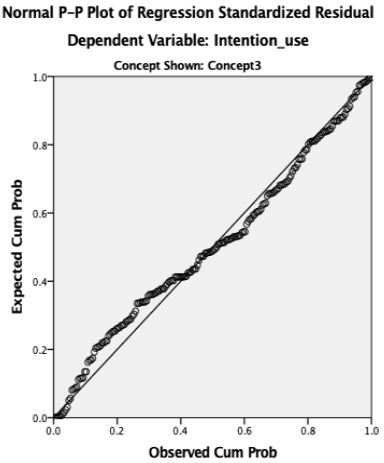

Appendix C13: Normal P-P Plot - Intention to use (Green Brand)



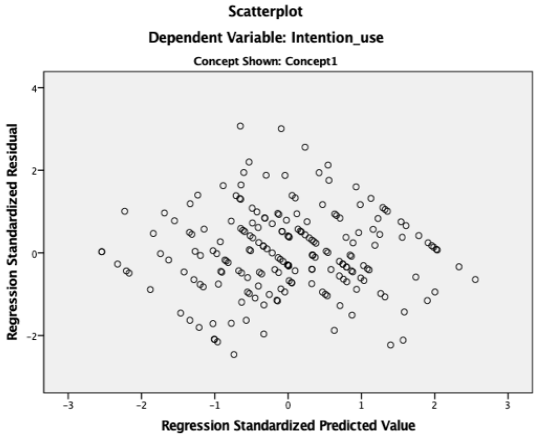

Appendix C14: Normal P-P Plot - Intention to use (Love Brand)



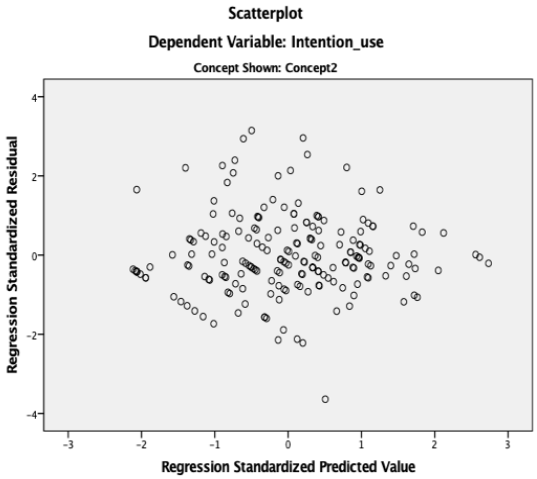
Appendix C15: Normal P-P Plot - Intention to use (Technology Brand)



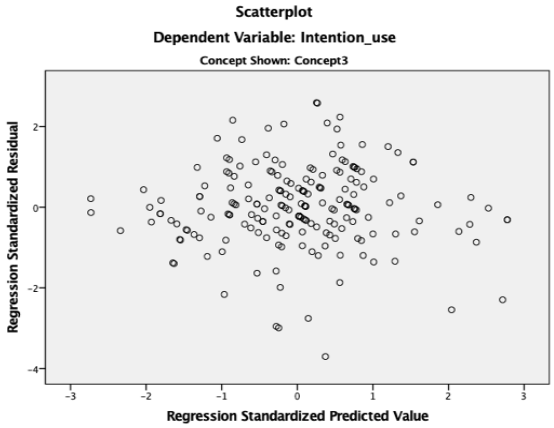

Appendix C16: Scatterplot - Intention to use (Green Brand)



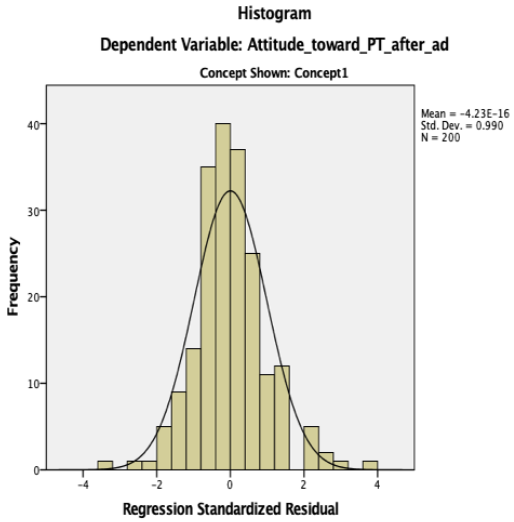

Appendix C17: Scatterplot -Intention to use (Love Brand)



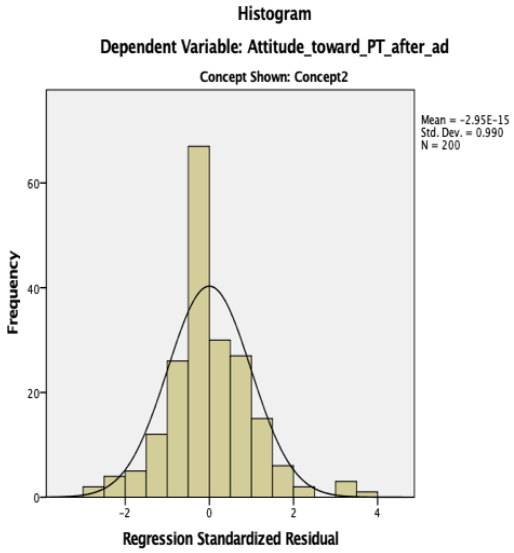
Appendix C18: Scatterplot - Intention to use (Technology Brand)



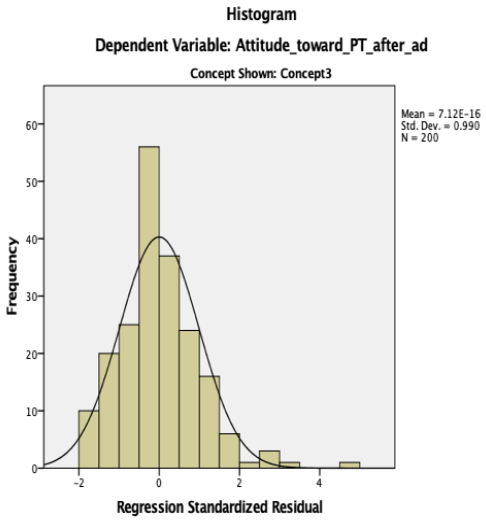

Appendix C19: Histogram - Attitude towards PT after ad (Green Brand)



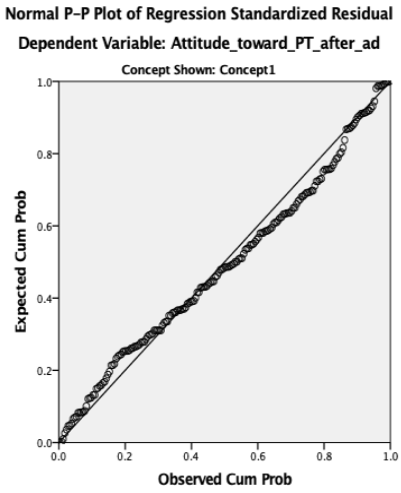

Appendix C20: Histogram - Attitude towards PT after ad (Love Brand)



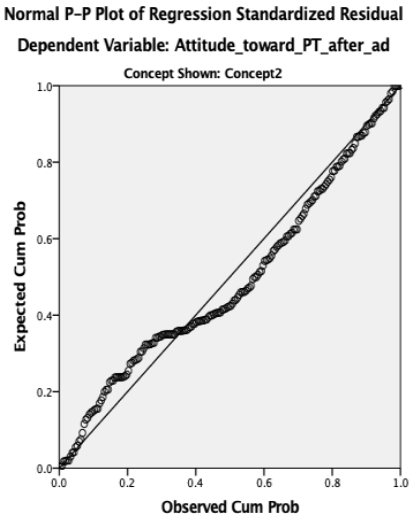
Appendix C21: Histogram - Attitude towards PT after ad (Technology Brand)



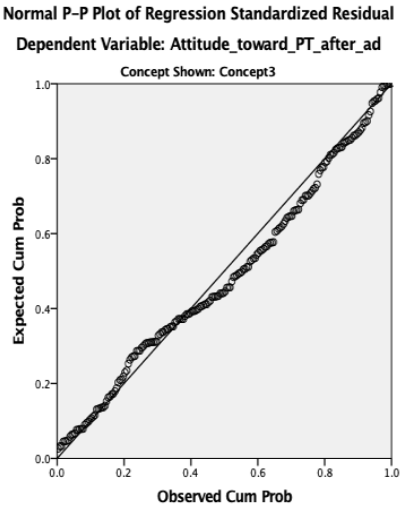

Appendix C22: Normal P-P Plot - Attitude towards PT after ad (Green Brand)



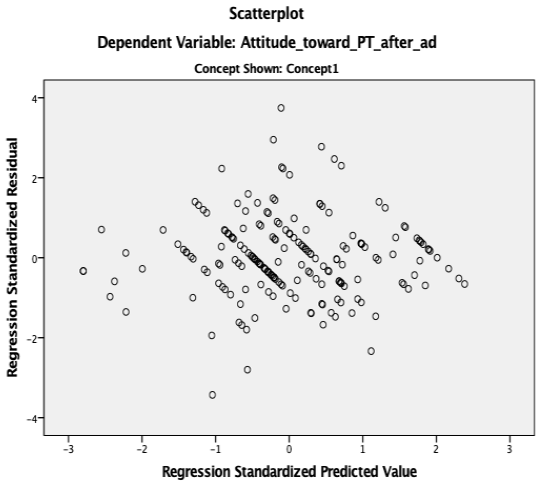

Appendix C23: Normal P-P Plot - Attitude towards PT after ad (Love Brand)



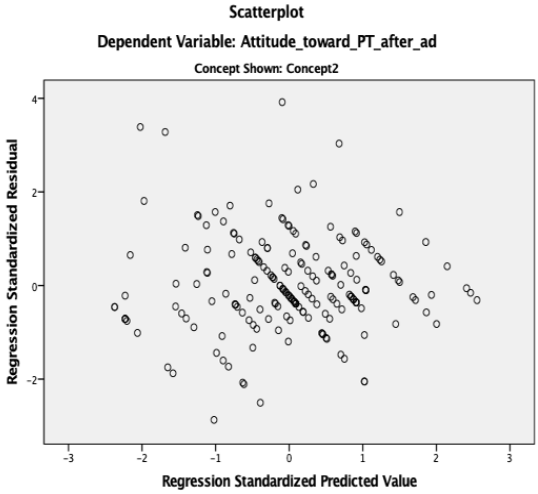
Appendix C24: Normal P-P Plot - Attitude towards PT after ad (Technology Brand)



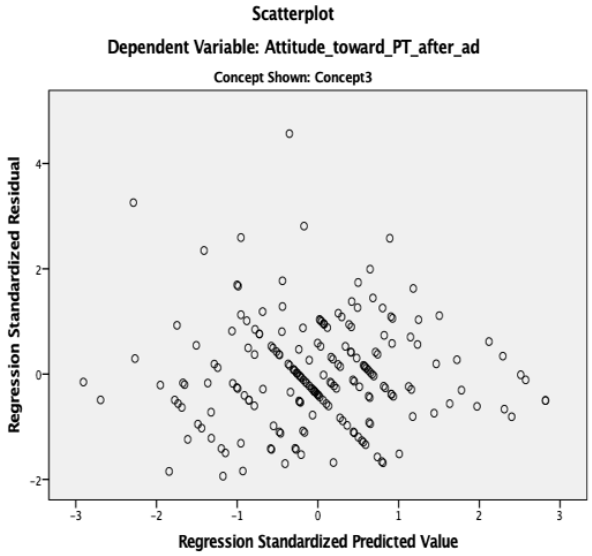

Appendix C25: Scatterplot - Attitude towards PT after ad (Green Brand)




Appendix C26: Scatterplot - Attitude towards PT after ad (Love Brand)



Appendix C27: Scatterplot - Attitude towards PT after ad (Technology Brand**)**



# Appendix D: ANOVA

## Test of Normality for ANOVA

**Tests of Normality**

| | | Kolmogorov-Smirnov[a] | | | Shapiro-Wilk | | |
|---|---|---|---|---|---|---|---|
| | Concept Shown | Statistic | df | Sig. | Statistic | df | Sig. |
| Attitude_toward_PT_after_ad | Concept1 | .130 | 200 | .000 | .955 | 200 | .000 |
| | Concept2 | .171 | 200 | .000 | .953 | 200 | .000 |
| | Concept3 | .152 | 200 | .000 | .971 | 200 | .000 |
| Brand_fit | Concept1 | .076 | 200 | .007 | .982 | 200 | .010 |
| | Concept2 | .073 | 200 | .012 | .980 | 200 | .006 |
| | Concept3 | .092 | 200 | .000 | .980 | 200 | .006 |
| Self_brand_connection | Concept1 | .103 | 200 | .000 | .969 | 200 | .000 |
| | Concept2 | .094 | 200 | .000 | .957 | 200 | .000 |
| | Concept3 | .091 | 200 | .000 | .965 | 200 | .000 |
| Intention_use | Concept1 | .099 | 200 | .000 | .963 | 200 | .000 |
| | Concept2 | .081 | 200 | .003 | .972 | 200 | .000 |
| | Concept3 | .099 | 200 | .000 | .974 | 200 | .001 |
| Recommendation | Concept1 | .148 | 200 | .000 | .956 | 200 | .000 |
| | Concept2 | .168 | 200 | .000 | .948 | 200 | .000 |
| | Concept3 | .138 | 200 | .000 | .961 | 200 | .000 |
| Attitude_towards_brand | Concept1 | .151 | 200 | .000 | .953 | 200 | .000 |
| | Concept2 | .144 | 200 | .000 | .961 | 200 | .000 |
| | Concept3 | .182 | 200 | .000 | .943 | 200 | .000 |
| Attitude_towards_ad | Concept1 | .110 | 200 | .000 | .981 | 200 | .010 |
| | Concept2 | .120 | 200 | .000 | .985 | 200 | .029 |
| | Concept3 | .122 | 200 | .000 | .985 | 200 | .028 |

a. Lilliefors Significance Correction