

For better, for worse: A case study of Apple's iPhone tracing the role of self-brand connection among smartphone users

MASTER THESIS

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Preface

We would like to thank our supervisor for the continuous support and cooperation during the master thesis period.

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Executive summary

Through the rise of the smartphone phenomenon, consumers are ever looking towards the brand that changed the game. Apple has introduced the concept of the smartphone and has created an entire market with huge potential because of the ever increasing benefits of a new phone every year.

When out shopping for a new smartphone, most consumers simply choose the brand with the model that has the attributes that they require. However, the authors of this project have observed a special scenario where something unique occurs – the consumers of Apple's iPhone have a special loyalty towards the brand, compared to that of other brands.

This research paper seeks to understand the relationship between the consumers of Apple's iPhone, and what is different to the consumers of other brands. With a research question of, the role of a self-brand connection in relation to the brand and consumer, the authors aim to grasp how the identity of the consumers relates to the identity of the brand and to understand this relationship.

This problem will be addressed with a questionnaire made by the authors and certain hypotheses will be used to test if there is any evidence of the assumption that iPhone consumers have a special relationship compared to those of other brands.

It was found that most of Apple's consumers do in fact possess a self-brand connection and that this group is also targetable by other brands if they follow two important determinants. A relatable brand vision, and as few products as possible.

Content

1.	Introduction	5
	Rising need of self-expression among consumers.....	6
	Importance of self-brand connections for companies	6
	Downside of the self-brand connection.....	7
	Choosing the smartphone industry	8
1.1	Problem formulation.....	8
1.2	Choice of Apple's iPhone – the one and only among smartphones?	8
2.	Literature review.....	10
2.1	Brand loyalty	11
2.2	Brand attachment	11
2.3	Brand love.....	12
2.4	Self-concept.....	13
2.5	Self-image congruence.....	15
2.6	Self-brand connections	16
2.7	Measurements and constructs.....	17
3.	Methodology.....	19
3.1	Ontology	20
3.2	Epistemology.....	22
3.3	Human nature	22
3.4	Methodology.....	23
	3.4.1 Paradigm and its definition	23
	3.4.2 Paradigm classification	24
	3.4.3 FISI classification.....	24
3.5	Research design.....	26
3.6	Method of data collection	27
3.7	Questionnaire.....	28
3.8	The process of cleaning and coding the data	31
3.9	Reliability and validity.....	33
	3.9.1 Validity.....	33
	3.9.2 Reliability.....	33
3.10	Sampling.....	35
4.	Analysis	36
4.1	Demographics	36
4.2	Typology of smartphone users extracted from factor analysis	39
	Exploratory Factor Analysis	39

4.3	Generating and testing hypotheses	44
4.3.1	Research question (1): Is there a difference in a level of brand love between iPhone users and other brands' users?	44
4.3.2	Research question (2): Is there a relationship between socio- demographic factors and the level of SBC?	56
5.	Discussion	61
	Thoughts on Apple's iPhone and the ability to acquire SBC's.....	63
	To drive SBCs	64
6.	Research limitations.....	66
7.	Conclusion.....	67
8.	References.....	68
9.	Appendix.....	71
9.1	Questionnaire.....	71
9.2	Codebook	79

1. Introduction

Companies will always face the risk of decreased sales and/or not gaining any sales at all. Different things can impact a brand of a company or its product and thus the sales. Therefore, a company must be assertive on how their brand is portrayed to consumers. The brand of a company is most of the time the most valued asset – the brand binds the values that the company send its customers through its message and hence it tells the story of what the company is and how it operates.

There are certain factors that can limit the sales of a product that the company cannot control - be it natural disasters, price increase of raw ingredients or something else - however the goal is always to sell products. This is not always possible if the price increases, because even though a consumer is aware of it and is a repeat purchaser of a certain brand - he/she might not prefer it if the price increases (Kotler, Armstrong, Saunders, and Wong, 1996, as cited in Pinson and Brodahl, 2014).

Therefore it is important to distinguish between habitual purchasing and brand loyalty - a repeat purchasers choose a brand because they know it, however if the price increases they will more than likely choose a different brand. A brand loyal customer is a customer that chooses a particular brand, even though the price might increase or is higher than that of a competing product - this is because the customer *likes* it more - how this liking and brand loyalty is built is of particular interest. An example of this is the use of shampoo. Most shampoo companies do not associate with a certain lifestyle and simply portray most the same thing companies between. Therefore, if some consumers are frequent user of Head & Shoulders shampoo, it is because they know the brand but have no other reason to buy it other than that they like the product. However, if the price of a bottle of the shampoo suddenly increases, it is most likely that the consumer will suddenly choose to try other shampoos and buy this new brand's product from then on. This is an example of the difference between brand awareness and brand loyalty – within brand awareness customers choose certain brand's product because they know the quality of the brand – within brand loyalty customers choose the same brand even though competing companies might be superior to the price.

Rising need of self-expression among consumers

People increasingly tend to purchase products not just because of the product itself but in order to communicate about themselves - to express the identity that they want or have. There is therefore a distinction between their current identity and their desired identity respectively. Self-identity and self-concept can be defined as cognizance of oneself affected by various influences such as “*role identities, personal attributes, relationships, fantasies, possessions and other symbols that individuals use for the purpose of self-creation and self-understanding*” (Schouten, 1991, as cited in Jamal and Goode, 2001). The self-identities are not just be the ways individuals perceive themselves; it encompasses an ideal self, a social self - how an individual thinks and wants others to perceive himself/herself (Jamal and Goode, 2001). These kinds of self-identities therefore play a big role in repeat purchasing of a product; the consumer chooses the brand whose image corresponds to his/her self-identity.

Importance of self-brand connections for companies

Companies spend huge amounts of money in a bid to attract potential customers and make them loyal towards their brand. The reason for such effort is that if the customers are in a positive relationship with the brand, the company experiences not only repeat purchases of its products, but the satisfied customers also help to spread their good experience by positive word of mouth, henceforth WOM (Kwon, 2015). Furthermore, a positive relationship ensures more customers willing to spend more money for a product than may have the same or lower performance than the competition brand (Kwon, 2015). An example of this is the purchase of Beats by Dre headphones - customers are more likely to buy them because they portray their identity, even though there are superior products at a lower price. As a consequence of establishing positive relationships towards the brand, the number of brand loyal customers rises. This relationship is caused by making self-brand connections between the brand and the customer's self-identity. The more the brand represents the customer's self-identity, the stronger relationship is being built (Kwon, 2015). The self-brand connection is born when brand associations help to create and define consumer's self-identity (Sicilia, 2015). Establishing a self-brand connection, henceforth named SBC, must therefore be one of the most important goals for the company that seeks to have brand loyal customers. SBC is an indicator of how much the brand is “enrooted” in the customer's self-concept – so it is in every company's

interest to evoke SBCs in consumers so they establish positive and strong relationships towards the brand and therefore repeat their purchases and spread positive WOM as a desired consequence. (Kwon, 2015).

In order for a product to invoke a SBC, the product must be something that can be used or shown in an external way. Therefore, for a brand to have a SBC it must be something that can either be shown or told to one's peers to attain the effects of positive WOM. An example of this is the current popularity of mobile phones – the functions of a phone are no longer as significant as before; nowadays, the aesthetics, brand, and the typical lifestyle of a user are of greater importance. In general, almost all brands can establish a SBC, but it has its catch: the company must give the customer a reason to invoke a connection. To transcend this barrier, the brand must be associated with something that the customers can relate to their or their peers' lifestyle. Therefore a product that seemingly might not be able to cause a SBC can indeed establish this connection.

Downside of the self-brand connection

The SBC is not permanent; it is always in change and must be therefore maintained. If the SBC is not maintained, it will slowly fade into nothing - there must exist a reason for the consumers to use a brand's product or talk about it. An SBC is an important connection that should always be taken care of – however there can be times where something is done that results in an unfortunate reaction.

There are different kinds of scandals be it an internal scandal or a failure of a product. An example of an internal scandal, is the CO₂ scandal of VW of 2015 – here, top executives had kept it secret that certain diesel engines had a larger output of CO₂ than what was allowed by the US. VW had been installing software in their low emission diesel engines, destined for the US, in order to keep it secret that the engines could not produce the required output while simultaneously keeping a low CO₂ output. They therefore installed the software to cheat emission tests when conducted.

When this was noticed, a storm of mistrust and questions went to the whole VW Group – with the result of the CEO resigning. What this scandal did is on multiple levels, where an SBC was broken with the result of a decrease in sales. The sales in the US fell by 15 % in the second month after the scandal (Geiger, 2015). What this shows is that when a scandal arises, people take notice and it spreads

through WOM, the news and different sources. Therefore it is of great importance to ensure a scandal does not happen.

Choosing the smartphone industry

For this specific area of invoking a self-brand connection, many product categories are available – however, few of them have the potential for big sales numbers and are something that almost everyone uses. The authors believe that choosing a product that is used by many, but is also expensive, so the consumers evaluate their choice carefully – is important. The choice of product category therefore lies on the smartphone market. Total year on end sales of smartphones in 2015 were 1.4 billion (IDC, 2016) and most people buy a new phone every few years, so the potential is huge.

1.1 Problem formulation

Companies spend a lot of resources on their products, branding strategies and execution trying to outcompete their competitors and get brand loyal customers. Consumers evaluate different brands, products and subconsciously or intentionally construct their self-identities by using or endorsing branded products in their lifestyle. The purpose of this project is to investigate the relationship between the brand and the customer by answering following problem formulation and sub questions:

What is the role of a self-brand connection in the relationship between the brand and the customer?

- 1) What are the attributes that influence the self-congruity between the brand and the consumer?
- 2) Who is the typical consumer having SBC?
- 3) Why is SBC important for the company?

1.2 Choice of Apple's iPhone – the one and only among smartphones?

Apple Inc. is a pioneer of product hype. With the advent of the Apple Keynote, Steve jobs has promoted products in an extraordinary manner – by

delivering the right amount of information to make the consumers want more. When a new iPhone arrives in stores, people line up in long queues, sometimes days in advance – however, the uniqueness of Apple’s iPhone does not lie in the functions of the phone, which are just as good as the competitors. Apple’s iPhone is unique in a sense that the competitors cannot achieve the same level of hype coming from the consumers.

The authors of this report believe, through day to day observations, that the things that make an iPhone unique are the simplicity of it – either the operating system, the connections to other devices or the design and functionality. Apple does not make a product with quality any less than what the best of the competitors – they do not make mid-level phones nor cheap phones, no compromise. When comparing the current flagship Samsung smartphone to that of Apple, there really is not much difference in the functions, yet somehow most people prefer the iPhone.

An iPhone is arguably one of the prettiest and nicest made smartphones on the market – even if some might disagree on this matter, no one can deny that the phones are made to the highest specifications with the best materials available.

Apple has through most of its life, from start-up to multinational corporation, had the slogan, *Think different*. This is an appeal to the ideal self of the consumers – an appeal to be unique, just like their products. This can also be seen in their infamous 1984 superbowl commercial ¹ where they show an ambiguous message of conformity and being different to the mass. This can also be seen in the later commercials, the “i’m a pc, i’m a mc²” where they featured two people, one dressed as a boring guy in a suit, the other in hip clothes and a cool attitude. This is the same scenario, where Apple wants their customers to be different.

The customers of Apple do indeed feel different than the rest. There exists an obvious love towards the products and the people who own them – the great products, different look and simplicity of use make their customers feel like they are unique. The customers are unique in the sense that they have something not everyone can afford that is different in looks and function.

Many can speculate as to why Apple can achieve this hype – however any guess is as good as another, before a thorough analysis of the consumers can be conducted.

¹ Youtube.com – Search: “apple 1984”

² Youtube.com – Search: “i’m a pc i’m a mac”

These are the effects of consumers having a special connection towards a particular brand. Therefore, the authors have chosen Apple's iPhone as a case of study because of the particular effect that they have on the consumers.

Therefore Apple's iPhone is the topic of our discussion and research – because the consumers feel unique, because the company wants them to feel unique. The same cannot be said for Samsung – even though a flagship Samsung can be of the same quality and price as an iPhone, its customers do not feel as though they are unique – the company does not make commercials that send the message of differencing from the masse.

2. Literature review

In order to construct a literature review, the authors must establish what the necessary grounds of the review are. The first part of the review is to make it clear what is going to be reviewed.

In this review, the authors will be writing about the general topic of brand love. However, there exists a need to narrow the search of evidence. For this, the group has found the following terms and keywords in order to gain the necessary knowledge: *brand love, brand loyalty, brand attachment, brand experience, brand preference, brand connection, self-concept, self-congruity, self-brand connection.*

With these keywords in mind, we will primarily be looking after published articles through AUB, Aalborg University's book search tool, Google and Google scholar.

Our information searching was based on efficient skimming of articles based on the appropriate keyword - the article headlines and subtext were read through to view their contents based on this. If an article had words or meanings that was deemed unnecessary to the project, they were rejected - however, articles that were relevant but thought contrary to the views of the researcher, were included. The rejected articles included the use of the keyword in an irrelevant context of this report. Based on the length of this report it was thought necessary to have at least 2-4 articles on each keyword.

The authors of this report think that information seeking was well rounded and included most of what was necessary to conduct a literature review. Through the portals named above, it was possible to find many articles that would fit the review. It was thought necessary to include a literature review in this report, because it will help the authors, as well as the readers, with gaining an educated basis of knowledge on the topic at hand. In the next section the review will be conducted where the relevant articles will be introduced within the appropriate issue.

2.1 Brand loyalty

Brand loyalty is a phenomenon that many companies seek in order to keep customers as repeat purchasers. However, the term is widely defined and has many researching what the term is and what effects manage the loyalty. According to Romaniuk and Nenycz-Thiel (2013), two main components materialize into loyalty. Buying frequency, which entitles to buying the brand more frequently than others, and category requirements, which is the act of buying a larger share of different categories than to that of the competitors. (Romaniuk and Nenycz-Thiel, 2013).

However, the act of loyalty alone does not create a sustainable brand, but is an important proponent of the process. Schultz and Block (2015) talk of the brand loyalty as a necessary part of creating repeat customers. They believe that organic growth comes from a development of customers who advocate for the brand through friends, relatives and people alike. This type of support is becoming increasingly important as a result of social media. Though, there are different opinions on how this advocacy occurs, Schultz and Block argue that sustainable brand growth is the product of brand loyalty and is a result of loyal customers who show other people why, they enjoy the brand that they own. (Schultz and Block, 2015).

A brand with a strong identity is a brand that satisfies a customer's symbolic before and more than it satisfies the functional needs. Furthermore, a brand that has a strong identity is a brand that has a stronger perception of value. (He, Li and Harris, 2012)

2.2 Brand attachment

The term brand attachment has an accepted definition of, *“having positive feelings of affection, passion, and connection for a brand”* (Yao, Chen and Xu, 2015,

pp.3) according to most scholars. Yao, Chen and Xu (2015) suggest that when a consumer is attached to a brand, the connection becomes one, where the self and the brand become one with cognitive links defined. They talk of this connection as an emotional self-brand connection and as a strong indicator purchase intention, brand loyalty and purchase share. They argue that brand personality is a determining factor in establishing brand attachment, where one's image and / or personality matches that of the brand. The more the two matches up, the stronger the potential bond is. (Yao, Chen and Xu, 2015)

Malär et al. (2011) argue that today's biggest issues in marketing is creating emotional brand attachment and says the way to obtain it is to match the brand personality towards that of the consumer. However, the important question is what consumer's personality to match, the current or the ideal self. They conclude that the actual self has the strongest impact when targeting.

2.3 Brand love

Brand love is a referral towards a consumers love for brands and a branded product. However, when established, brand love is a powerful indicator of the presence of brand loyalty, word-of-mouth and resistance towards negative brand influence (Rauschnabel and Ahuvia, 2014).

Brand love is the product of many factors, where one of them is brand attachment – furthermore brand love is greater for brands that are self-expressive and thus help the consumer define their self-identity. (Loureiro, Ruediger & Demetris, 2012)

Unal and Aydin (2013) argue that for consumers to be emotionally loyal and emotionally attached to a brand that is they believe the brand serves them best. They argue that many consumers shop around every time they need a new product; however this is not what most companies want – therefore brand love is important, since it drives attachment. They argue that the satisfaction of product is not enough to illicit brand love – there must exist an emotional bond between the consumer and the brand. They conclude that various factors result in the bond and these are, variety seeking, social self, and brand image (Unal and Aydin, 2013). If a brand image is positive and it reflects the current and ideal self of the consumer, a bond can arise, much like a love affair.

2.4 Self-concept

Understanding a term “self-concept³” and its role in consumer’s purchase behaviour is essential before further immersion in the research problem of the project. It deals with how an individual perceives himself/herself (Graeff, 1996). Rosenberg claims that the self-concept signifies individual’s conception of himself/herself as if it was an object (as cited in Jamal and Goode, 2001). Self-identity may be influenced by two main motives according to Epstein; self-esteem is a motivation for developing further the individual’s self-concept, on the contrary, self-consistency has an opposite effect in terms of behaving to keep the perception of oneself as it is (as cited in Sirgy, 1982).

Recent research shows a shift from a traditional approach operating with only one individual’s self to assumptions working with multiple selves, e.g. the good- vs. the bad-self, the hoped-for-self vs. the feared-self, and also the ideal- and possible-self (Markus and Kunda, 1986). Parker (2009) summarizes different authors’ (Aaker, 1999; Gould, 1991; Graeff, 1996; Sirgy, 1982, 1986; Sutherland et al., 2004) approaches to the self from two points of view; either as the “real/actual-self”, referring to the current state of self-perception, and the “ideal-self” which reflects the dreamt-of-self that the individual considers as ideal. Many authors extend this conception by incorporating the “social-self” which reflects the feelings of an individual about how others perceive him/her, and “ideal social-self”, which portrays an individual’s desire of how he would like to be perceived by others (Schiffman, 2012).

Despite the then marketing beliefs assuming that consumers do not feel the difference among brands when it comes to a certain product, a research conducted by Mitchell (1986) showed the very opposite (Mitchell, 1986). Recently, there is a rising trend of buying products not just for the utility value of the product itself, but principally for the communication and expression element it provides in a form of a symbolic meaning of the brand (Salzer Mörling, M., Salzermörling, M. and Strannegård, L., 2004). According to Tucker (1957), “...consumers can be defined in terms of either the products they acquire or use, or in terms of the meanings products have for them or their attitudes towards products.” (Tucker, 1957, as cited in Sirgy,

³ Terms „self-image“, “self-construal” and „self-identity” are considered as synonyms to „self-concept“ in this project.

1982). Consumers then build and express their selves by choosing a certain brand (Schembri, S., Merrilees, B. and Kristiansen, S., 2010).

There are certain conditions that allow the consumer to express him/her self-concept through a brand choice. Mocanu (2013) distinguishes three attributes that the product should have to allow the consumer to identify with the brand; first, it is the product's visibility while using it - that should ensure that it can be communicated further. Also, high variability plays a role – the product should not be available to every consumer who would use it the same way, as it loses its differentiation attribute. Personalizability should be also at a high level as it implies certain stereotypical image that the consumer can identify with.

As stated in Escalas and Bettman (2005), having a product in ownership may satisfy consumers' need of creating and expressing their identity, constructing self-concept and highlighting their differentiation from the others. This need of creating one's self-identity is one of the motivations and reasons for the purchase (Escallas and Bettman, 2005), whether the purchase of a certain product represents the current self or tries to express the ideal self.

Possession of a product is in many cases likely a possession of a brand; consumers then use brand choices to create and express their self-identities (Escallas and Bettman, 2005). Brand may represent a symbol that can help to create the self-concept of the consumer (Levy, 1959, as cited in Escallas and Bettman, 2005). The choice of the brand or a product is not just a matter of a consumer expressing the self-concept to himself/herself (Jamal and Goode, 2001); it also depends on how the image or personality of the brand and the consumer's self-image or personality correspond to each other (Escallas and Bettman, 2005; Jamal, and Goode, 2001). Consumers are likely to prefer brands and product that resemble their self-concept (Jamal and Goode, 2001). The need to express consumers' own selves impels them to go and buy products that match them (Sirgy, 1986. as cited in Kressmann et al., 2006). Product is not considered just a physical object or service in the eyes of the consumer; its image is influenced also by the level of the product's price, way of promotion or how the product is packaged (Sirgy, 1982). All these factors play a role in the self-concept matching process of the consumer when assessing the product.

2.5 Self-image congruence

Self-congruity has a big importance within consumer behaviour; it influences the motivations for purchase and helps to build loyalty towards the brand (Kressmann et al., 2006). Similarly, Hosany and Martin (2011) state that understanding the process of self-image congruence plays a role in clarifying and forecasting of consumer behaviour. Self-image congruence⁴ is a process of matching a consumers' self-concept and the user image of a certain product, brand, store, etc. (Kressmann et al., 2006). One can understand the term “user image” as a brand’s personality which portrays its typical customer; consumers then trying to fit the brand-user image into their self-concept (whether it is their current-self, ideal-self or any other kind) (Kressmann et al., 2006).

The process of matching the brand image with consumers’ self-concepts creates positive consumer reactions especially in the case of brands that are expressing their value (Aaker, 1997, and Sirgy, 1982, as cited in Rodriguez, Bosnjak and Sirgy, 2011). The existence of self-congruity in the relationship between the brand and the consumer generates competitive advantage and brand value, “*evident in Apple iPhone's strong market position relative to more functional Android smartphones that lack the identity-expressive benefits Apple's young, cool brand personality offers*” (Aaker, 1997, Mantell, 2009 and Miles, 2010 as cited in Rodriguez, Bosnjak and Sirgy, 2011, pp.1).

Consumers have a need for self-respect and cohesive self, which drives the self-congruity; this need is covered more, if the match of brand image and consumer's ideal self is stronger, because it makes the consumers more self-confident as it hides inequalities between their current and dreamt-of selves (Rosenberg, 1979, as cited in Kressmann et al., 2006).

Not only to get higher level of self-esteem, but also to feel consistent about actual self – that is also a need that consumers try to cover. Consumers are convicted about “*their own identities, values, lifestyles, preferences, and habits*” and they try to defend them, because any danger to their beliefs would mean psychological problems (Kressmann et al., 2006, pp. 3).

⁴ “Self-image congruence”, “self-congruence”, “self-congruity”, and “image congruence” are used interchangeably in this project.

2.6 Self-brand connections

Self-congruity is basically a process of linking the brand image with consumer's self-concept by creating a self-brand connection. The connection between a particular brand and a consumer is created when a consumer uses the brand associations to develop or express his/her self-identity (Escalas and Bettman, 2005). The self-brand connection describes how much is a brand embedded in a consumer's self-concept (Escalas and Bettman, 2003, as cited in Escalas and Bettman, 2005). To make the self-brand connection possible, the consumers have to perceive brand associations close to their selves (e.g. "*user profile, personality traits, reference groups, personal experience*") and have them also incorporated in any kind of their self-concept (actual-self, ideal-self...); and be able to compare both the brand and self-image and decide whether the match between them occurs (Chaplin and John, 2005).

The connection can be created with any brand, but the strength of the bond is what is important; and the more specific user image the brand represents and communicates, the stronger the connection can be, because it can be easily integrated to the self-concept (or the other way, when the stereotypical image of a brand's user is inconsistent with the self-image of a consumer and leads to refusal of the brand) (Escalas and Bettman, 2005).

2.7 Measurements and constructs

This subchapter aims to collect different empirical studies from various authors in the similar problem area of this project to see what has been done so far in investigation of self-brand connections.

Dwivedi (2014) researched the self-brand connection in a position of one of the key players regarding the consumer-brand relationship in service-based brands. A quantitative study involving large sample of mobile and internet service consumers in India revealed that positive post-purchase evaluations based on consumer satisfaction and perceived value lead to implementing the brand into their self-concepts, which implies establishing self-brand connection to the brand. This connection ensures deeper relationship between the consumer and the brand, resulting not only in repeat purchasing and brand loyalty, but also serving as a competitive advantage.

Chaplin and John (2005) dealt with self-concept and self-brand connections issues among children and adolescents. The qualitative research included three studies showing that consumers start to incorporate brands into their self-concept within their middle childhood and early adolescence. The number of self-brand connections rises in connection with age.

Different authors examined the role of self-image congruity in consumer-brand relationship. Graeff (1996) focused on a role of promotional message as a mediator of self-image congruity in consumer's brand evaluation. The sample consisting of 100 participants showed that if the brand's advertising uses promotional message that makes consumers think about their self-images, these thoughts are then a good prediction tool of attitudes towards the brand. If the advertising focuses more on product quality, consumers' thoughts about self-image do not influence the attitude. This result may become a great tool for the brand as it shows that focusing on consumers' self-images influences the attitude towards the brand.

The study of authors Jamal and Goode (2001) examined the impact of self-image congruence on consumer brand preference and satisfaction in jewelry industry in the UK. The results of this quantitative research showed that self-image congruence can strongly predict brand preferences and plays a certain role also in consumer satisfaction. The higher the congruity was, the more the consumers preferred the brand and the more they were satisfied with the brand. Similarly, Kressmann et al. (2006) focused on testing how different levels of self-image congruence influence the brand loyalty. The quantitative survey involved 600 car owners and showed a similar

result as the research provided by Jamal and Goode (2001); that is self-congruity serves as a prediction tool regarding the brand loyalty.

3. Methodology

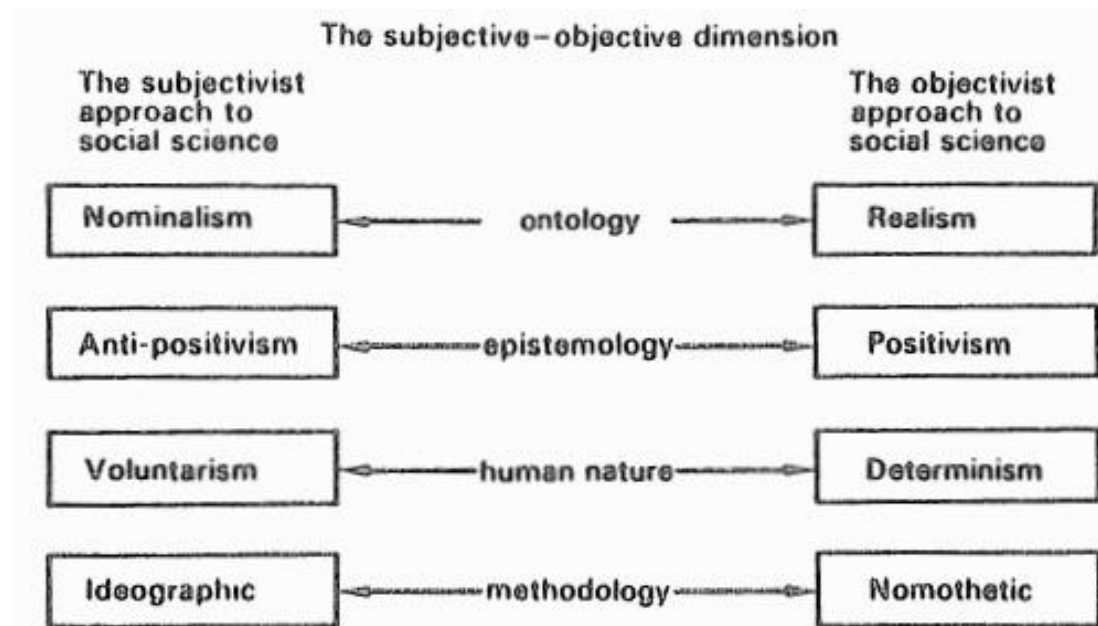
Methodology is the grounds of how knowledge is created and how it can be gained anew. It helps with the understanding of the worldview that is the basis of this report and how the research will be done. The first part will be used as a description of the worldview of the authors of this report.

The worldview is a portrayal how people think things work and how people know that they work. This is called the *Ultimate presumptions*. It is therefore very important to have a discussion of how the authors of this report, look at different things within the aforementioned problem formulation. Therefore, this project will be looking into a relatively looking, narrow area of marketing – more specifically, the *self-brand connection*. Consequently, the discussion will look into what is understood within a *brand*, a *self-concept* and a *self-brand connection*. Having a discussion of these critical aspects of this project is imperative to the knowledge perception and thus knowledge creation.

The discussion has four parts; the first is the *ontological* discussion that is a philosophical discussion if both the reader and the authors see reality in the same way. The second is the *epistemological* discussion that is a discussion of the knowledge possessed by the authors and how it is known that it is the truth. The third is the *human nature & environment* description, which shows the connection between humans and their environment. The fourth and last is the methodology that describes the process the authors have for this project. This discussion is done chronologically, because each level has an impact on the next and thus the methodological process of this project. (Burrell and Morgan, 1979)

This process of chronology can be seen in the following diagram:

Fig. 1 – The subjective & objective dimension (Burrell and Morgan, 1979, p. 3)



It can be seen in the above diagram how each level of ontology, epistemology, human & nature and methodology moves onto, and determines the next. The choice of paradigm will be shown later in this chapter. The paradigm is a classification within the social science and the FISCI classification will be used – later an in depth view of this classification and the comparative classifications will be done.

3.1 Ontology

Ontology is the description of the nature of seeking knowledge by the authors of knowledge creation – to understand, “*that which is known*” and “*reality*” (Kuada, 2010, pp.36)

The authors are interested in the concepts of a *brand*, a *self-concept* and a *self-brand connection*. However, to get a reflective understanding of the concepts, it was deemed necessary to generate some questions to better understand. The questions are as following: What is a brand, how is a brand created – what is a self-concept, is it conscious or subconscious – what is a self-brand connection.

To start with answering the first question, what is a brand, it is necessary to look into what the nature of a brand is. A brand is the essence of a company – it is the image of a company – both inward but more importantly is it the outward image of a

company and its products. The brand therefore directly represents what the company stands for and is the soul of the brand. The brand is the collective efforts of the company and thus shows what they stand for, what they provide and how they provide it. In order to thoroughly describe what a brand is, more time is needed – it can however be boiled down to: what describes the outward image of a company.

A brand is an intangible asset that can be both maintained, worsened but not valued in the same way normal assets can. However, a brand can be compared to another, in order to show the value of the brand, but only in this instance.

Furthermore, a brand is what differentiates a product of one company from another – even though the product may be virtually the same. Therefore, the brand is what the consumers establish a connection to, in order to process their thoughts of why they should choose it over a seemingly same product.

A brand is created through uniqueness – a differentiation of an equal product to another. It can be created through “high profile” product placement – e.g. music videos and the use of a product by a star. By doing this, the product and thus the brand – utilizes the “idol” stage of a musician and makes the idolizers want to be like their idol – in doing so, are buying the product – and thus strengthening the brand of the product.

Another way of building a brand is simply by creating superior products. Products and their use speak for themselves – if a product is of more use in the same area, people are more likely to buy it – and thus follows the word of mouth and general knowledge of the product, to increase the attractiveness. Another way of creating a brand is through personalizing a product – in a way that makes the consumer want it – because it represents them.

The second question, what is a self-concept must be understood in two parts – the first is the understanding of self. One’s self is everything that comprises the individual human being. The second part, a concept, is a representation of what is and what is going to be, both realistically and hypothetically. So in a connected understanding – it is to be understood as the perception of one’s self, how people see themselves. It is the understanding of how we see ourselves. The self-concept is also the perception in different levels – it is how we view our selves – it is how we view others and how others perceive us. The self-concept is a conscious effort to understand one’s self.

A self-brand connection – is a process of connecting one's own personality or perception, with that of a brand or a product.

3.2 Epistemology

Epistemology discerns the differences between the subjective- and objectiveness of knowledge. It assesses the subjective or objective aspects of the knowledge a brand, a self-concept and a self-brand connection. Epistemology is set to describe the nature of knowledge and “*how we know what we know*”, which is what the authors sees as the “truth” (Kuada, 2010). To fully understand how the earlier described ontology is known as the truth, the epistemology will describe. How people within our society understand it and the knowledge within it is an important consideration. One thing being taught as an objective truth in one part of the world might be seen as a subjective truth in another. This is because culture assists in knowledge creation and by effect how it is known that it is the truth. (Burrell & Morgan, 1979).

It is therefore important to look into how the authors know that the formerly described brand, self-concept and self-brand connection are the truth.

We know that it is our objective truth because it is what we are exposed to, in the form of literature, word of mouth and the collective knowledge of the society. Even though it is seen as a subjective truth, when seen externally to our society, the same truth might be reached externally – however described differently. We as a society have described what we see to with respect and envy as a brand – and it can therefore be said that this has always existed.

The self-concept can be seen as the truth because, although the description of the process of understanding one's self is subjective, the act of doing it is objective. For the self-brand connection, we see as an objective truth within a subjective reality. This is mostly the same situation as with the brand – where externally the same situation could easily arise however the description would be different. The situation of respecting or admiring something and either wanting it or wanting to be like it has always existed.

3.3 Human nature

The human nature is a description of the connection between humans and the environment that they are in. The effects of the environment on the actions of the

individuals inside of it has been the topic of many research papers – because the environment is an external factor. The description seeks to understand if the authors see the environment externally or if the people and the environment mutually determine each other. (Kuada, 2010)

The understanding of the aforementioned aspects have been characterized by the collective environment for the authors – because the thoughts of an individual is highly dependent on collective experience of a society. It can therefore be said that it is understood as an objective truth. However if people, external to our environment, got asked the same question, they would most likely have different answers – and this is due to the fact that we have, within our society, defined what we see as the truth – even though the same experience can be seen externally. We have subjectively defined and described an objective phenomenon – a phenomenon that will persist even without the knowledge we possess – however the definition will most likely be different.

3.4 Methodology

The methodology is the outline that positions the knowledge creation in this project into the targeted direction and to do this, specific methods must be used.

In the methodology, there are the nomothetic and the idiographic approaches, respectively regarding the objective and subjective dimensions. The nomothetic method is based on surveys and a systematic flow, where the idiographic method views reality as ideas and symbols, which lays importance on life and that the researcher gets a real view of a situation. (Kuada, 2010)

This therefore naturally leads the authors in the nomothetic direction, which is based on a rigid system of analysis using surveys. In this project, it is necessary to gather information, regarding consumer's preference towards brands to research what specific mechanics make a consumer loyal.

3.4.1 Paradigm and its definition

The paradigm is the collection knowledge, which forms how an experience is observed. It is a definition of the thought process of the authors, in order to show the reader how the authors think.

3.4.2 Paradigm classification

Within the objectivist – subjectivist approaches, there exists four paradigm classes. These are the RRIF classification from Burrell and Morgan. The classification consists of four paradigms, which are the, radical humanist, radical structuralist, the interpretive and the functionalist paradigms. The paradigms border in a share of characteristics however differ enough in order to classify as four different paradigms. (Kuada, 2010)

The second is the Morgan and Smircich, which consist of six groups with extreme objectivism and extreme subjectivism. The objectivist approach looks at reality as a real situation outside of the influence of the individual. The subjectivist looks at reality as a portrayal of the individual and views objectivist as an illusion. (Kuada, 2010)

The third is Arbnor and Bjerke, which sees the paradigm as the connection between the ultimate presumption and the methodological approach. This classification has three approaches; the analytical, the systems and the actors approach. They, respectively, see reality as an objective view free from the view where the sum off every part equals the truth – objectively they see the individual parts of system – and view reality as a construct from the experience of individuals. (Kuada, 2010)

With the abovementioned paradigm directions and considerations, the next paragraph will detail the chosen paradigm and why it is the case.

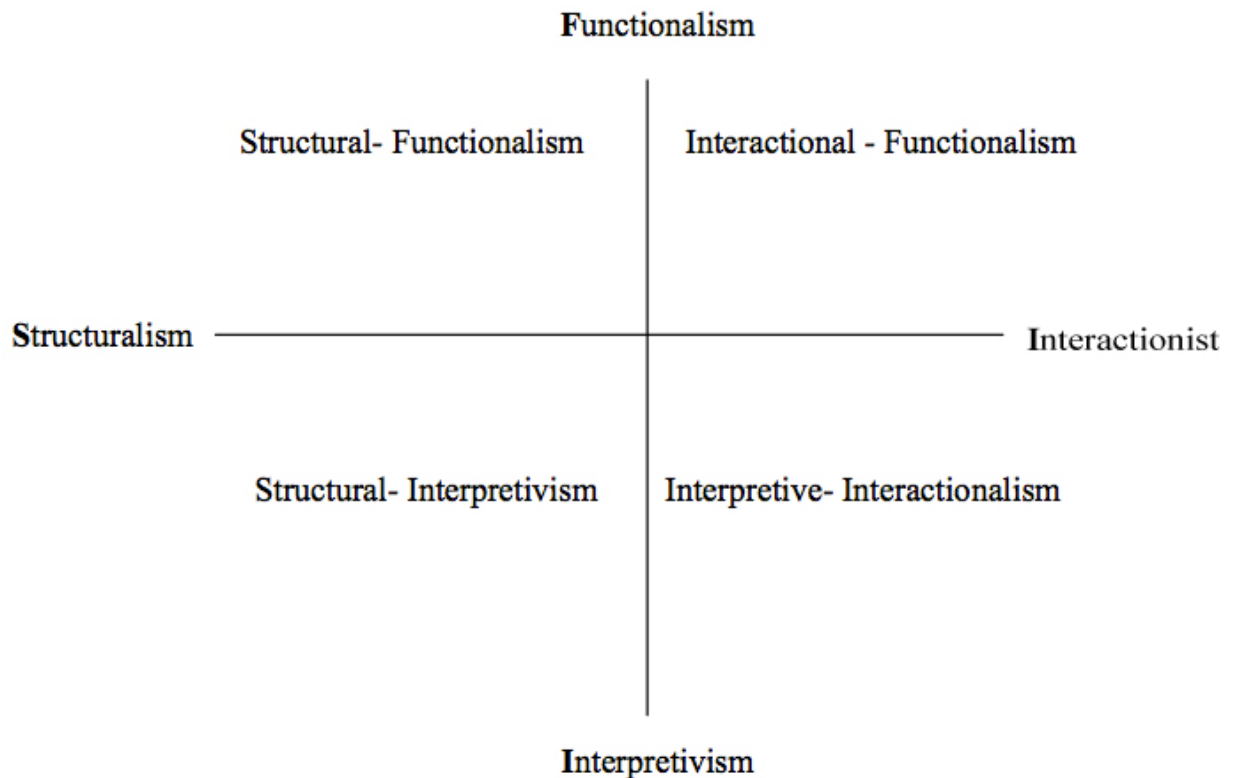
3.4.3 FISI classification

The FISI classification is the chosen paradigm because the authors consider it the most appropriate and useful with the problem formulation and how it is considered necessary to acquire the required knowledge.

In this paradigm, the study of social existences as functions, interactions and structures is important (Kuada, 2010).

To continue with the description of the paradigm, a figure of the paradigm is presented below.

Fig. 2 – The FISI classification (Kuada, 2010)



Structuralism views the human society as a complex system with connected parts and focus on the whole rather than the singular.

Functionalism is a positivist epistemology and uses an objectivist or positivist research.

Interactionist views how different people perceived each other with their experiences.

Interpretivism uses the importance of understanding a situation and experience of people. (Kuada, 2010)

In-between each of these paradigms, combinations exist, as can be seen in the figure.

Structural-Interpretivism see the world as organized by relationship structures, where the frame of reference will change depending on the view.

Structural-Functionalism surpasses the epistemological perspectives and views society above the individual view.

Interaction-Functionalism sees the different roles of society as defining the collective system and its history is mirrored in the future.

Interpretive-Interactionalist views a collective as each individual roll defining the view, and their collective experiences. (Kuada, 2010)

The chosen paradigm for this project is a combination paradigm, in order to view an understanding from more than one point of view. The paradigm is the Interaction-Functionalism chosen in order for the authors to define how the consumers within one group establish a preference towards a brand.

For the authors of this report, it is important to understand how a segment establishes a loyal preference towards a brand and how this preference is reflected now as well as in the future.

3.5 Research design

To further proceed with investigation of the problem formulation and conduct a related research, it is necessary to lay the foundations of the intended research process. The work of answering research questions consists of different stages of actions set in concrete sequence, as one stage is dependent on another. The initial objective primarily aiming to investigate the role of self-brand connection in brand-customer relationship was determined and an appropriate methodological approach was chosen to explain the background of the way of carrying out the research and collecting necessary knowledge.

When choosing a suitable research design, a researcher should naturally consider the approach to the research problem. If the research area has not been properly explored yet and a researcher wants to decide on research priorities, *exploratory design* is being used (Sarstedt and Mooi, 2014). Gaining proper knowledge background enables to get a deep insight into the research area and helps to identify the research gap that the authors then try to fill. In this project, the tool of exploratory literature review is used. Reading relevant literature and its ensuing critical review gives a detailed overview of research area and spots gaps and opportunities for further research. Literature review is diffused by empirical research which shows what other researchers investigated within the same field. Having a good grasp of the research area is the alpha and omega of precisely defined problem statement and gives birth to hypotheses later.

With exploratory research as a basis, *descriptive research* is being conducted. This type of research enables to describe and answer questions about a single variable or relationships between different variables (Sarstedt and Mooi, 2014). It helps to segment the market and examines marketing performance of a brand (Sarstedt and Mooi, 2014), in our case e.g. brand loyalty.

When deciding which type of research design to follow, descriptive and exploratory research styles were chosen. Both styles use literature review, empirical studies and other relevant data as a source of secondary data and a survey in a form of questionnaire as a source of primary data in this project. Quantitative primary research is used as a tool from exploratory and descriptive research view in this project to explain how self-brand connection arises and how can brand influence this process within the smartphone industry.

3.6 Method of data collection

Relevant data are the basis of a successful project. Gathering proper insights into the research problem and getting the right answers to determined hypotheses requires precisely designed research plan. This chapter presents different types of data and explains chosen methods of data collection.

As for collecting the relevant data, researches may use secondary or primary data. The basic explanation of the difference between these two types is that primary data are collected by a researcher in relation to specific problem, whereas secondary data are the data collected by other researches for other purposes, used to answer different problem than it was examined for (Sarstedt and Mooi, 2014). Because of easier and faster access to relevant information, authors chose to use secondary data in the beginning of the research process. These data are used in the literature review and on their basis, research gap was identified and led to formulating the research problem. Secondary data can be used in a form of internal (data used for other purposes, collected by the same researcher), external (data collected by other researches), or mix of these two (Sarstedt and Mooi, 2014). The authors of this project used external secondary data, as they conducted no relevant previous research. Sarstedt and Mooi (2014) state that secondary data represent fast, easy and often budget-friendlier way of obtaining desired information that can cover larger sample sizes, however, lacking control over the collection process gives limited picture

regarding the data quality and opens a possibility of hidden errors and out of date information.

The authors decided to conduct primary data research in the project to overcome some of the negative sides of using already existing data and to accomplish more relevant and accurate results that only primary data can provide. Sarstedt and Mooi (2014) assess primary data as usually more recent and able to address specific problem due to control of the researcher over the data collection, however, these data are much more difficult, time-demanding and often expensive to collect.

Both primary and secondary data can be either quantitative or qualitative. Quantitative data represent values, whereas qualitative data can be expressed in more ways, such as words, pictures or audio (Sarstedt and Mooi, 2014). As the qualitative data are not showing a precise result right after collection, it is very important to interpret them correctly (Sarstedt and Mooi, 2014).

Primary data research may be conducted either by observing, e.g. behaviour of the consumers, or direct asking e.g. by interviews, surveys, focus groups etc., alternatively by combining both approaches (Sarstedt and Mooi, 2014). As observations cannot provide answers to many questions and are basically just a tool to see what is happening rather than why is it happening (Sarstedt and Mooi, 2014), the authors decided to use the direct-asking form of collecting primary data which better suits the needs of the research. A questionnaire is suitable because of the objective nature of it – there does not exist the influential nature of an interviewer. A questionnaire is a practical approach towards seeking knowledge – it is possible to acquire larger amounts of information compared to a normal interview. The results are easy to compare and quantify – they can be used to propose a connection towards a particular trait.

3.7 Questionnaire

Quantitative research in a form of a questionnaire is used as a tool in exploratory research design in this project to explain how self-brand connection arises and how can brand influence this process. The quantitative type of research provides advantages in a form of reliability and objectivity, possibility to confirm/disprove hypotheses, simplification of using statistics when processing the data and investigation various relationship between chosen variables (Introduction to research, 2016).

The online questionnaire was chosen on the ground of the opportunity to reach wide masses of respondents with different demographics, purchasing behavior, attitudes to the brands etc., which makes the sample diverse and not narrowly focused (see in Appendix). Furthermore, the online form of the questionnaire using a specialized website called SurveyXact makes the research process time and cost effective as the collected data can be processed and analyzed immediately using a tool on the website or any other statistical PC software afterwards.

The questionnaire is divided into three main parts as every part investigates different matters. The first part of the questionnaire serves as a short introduction to the topic of the survey for the respondent and using easy questions, it tries to search for the reasons behind any connections between smartphone brands and its users. It asks for a current and past smartphone brands and motivations behind the purchase of the current one. Next section looks into customer's possible comparison with competing brands when purchasing the current brand. Third part goes into depth when trying to access the strength of the bond between the current brand and the customer and tries to find out whether there is any self-brand connection. It also involves questions related to brand loyalty and emotional attachment. The final part of the questionnaire covers demographic questions.

The questionnaire is partly made of questions found in literature and questions established by the authors in an understanding of the perspective of current questions. The questions that were from the found literature were read through, understood and then pick to support the process of the project. The questions were carefully selected in order to make sure that the people questioned were not influenced by the direction of how the questionnaire is to be analyzed. The questions were vague enough, to not show the people taking it the direction and use, but precise enough to be able to analyze. The next paragraph will detail the questions that were made by the authors and will tell how they fit into the questionnaire.

As mentioned earlier, the questionnaire was divided into four parts. The first and second part, the consumer's connection and view to the product, were entirely made by the authors. To establish an analyzable ground, of a consumer's connection towards a specific brand it was necessary to gather information regarding their current phone. The first 5 questions were in the first and second part and consisted of, their current phone, their last purchased phones in the last 3-5 years, their motivation of purchase for their current phone, if they compared their current phone to others before

purchase and if they would still buy their current phone if a cheaper or equal alternative exists.

The questions were made to establish a process that we can measure their responses on, regarding the questions in the second part. It is necessary to see which brand of smartphone they previously had and if they would buy another phone given the circumstances, to see if the consumer specifically has a connection towards a particular brand. This can be hinted if a consumer has had the same brand during a longer period and still would buy the same brand.

The third part consists of questions gathered through literature and questions added by the authors. The questions taken from literature were the *grounds* of how the questionnaire was made. They were seen as consistent and appropriate since they previously have been used towards measuring a, somewhat similar question regarding a consumer's connection towards a brand. The following questions, were made entirely by the authors to accentuate the questionnaire in the direction needed for the project:

- My current brand is the best on the market
- This brand makes me feel unique
- This brand makes me feel like I'm part of something
- I feel I contribute to a better future with this brand
- My brand has the best user experience

These questions were added into the literature in order point the questioned ones into the direction wanted without pointing. It was thought that the questions from the literature already had a grasp of the information needed, however the questions were added to fully acquire the needed data. The remaining questions were taken from Loureiro, Ruediger & Demetris (2012).

The last part is as the first and second part, made entirely by the authors and is a pure demographics part. Demographics were deemed important because it was thought interesting to see if some people, more than others, regarded their ideal self as more important and how others view them. This is interesting because it helps the authors in seeing a possible suggesting for a more efficient target group, more willingly to establish connection towards a brand, if the right circumstances arise. The very last question is not regarding demographics but their will to consume the same brand – or different – given a free choice, and was put here to catch the person *off*

guard so to speak, in order to not let this question influence their answers throughout the questionnaire.

The reason for dividing the questionnaire into four parts, were to establish a ground towards something that could give a hint of a connection towards a brand. The parts were connection to a brand, view on the products, view on the brand and demographics. These parts were thought to accentuate the process of having an unprepared consumer answering the questions.

The first part is to establish their current brand, which is the essence in the process of seeing if they have a connection towards the particular brand. The second is their view on their current brand (product) towards competing brands (products), of how they consumed their current brand and if they compared it. This was made to *see* if they had in fact compared their current phone with others and is to be compared with the next questions, to see if they actually thought their current product is superior and thus if a consistency exists. The third was a matrix of questions to see their opinion towards many different subjects and will be used to compare the different opinions of the questioned. The last and fourth was, as described earlier, made to see if the people who were seen as having a connection were part of a significant group of society, in order to more precisely target a marketing campaign.

3.8 The process of cleaning and coding the data

Once the primary data research is finished, the next step in the whole research process is to conduct a proper analysis. Before a researcher can analyze the data, it is necessary to take some preparatory actions to adjust the raw dataset so it is possible to analyze them in a relevant statistical software afterwards.

The first step is to clean the data from possible errors; in this project, the authors can deal with missing answers in the questionnaire, outliers or series of answers that do not seem to be very trustworthy (Sarstedt and Mooi, 2014).

In relation to missing data, there can be the whole questionnaire missing because a respondent only opened it; or one or more questions that are left unanswered so the questionnaire is considered partly answered. The authors decided to exclude these types of missing data from the data analysis so only completely answered questionnaires would remain.

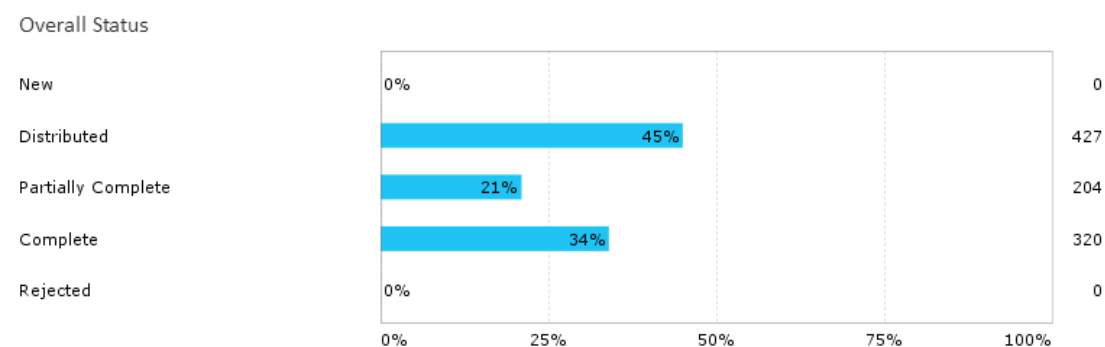
Outliers is another type of error that can appear in the collected data. It is considered as a value that is completely different from all the other's respondents'

answers in the same question or a very rare combination of variables, which can be an error and influence the whole survey (Sarstedt and Mooi, 2014).

There can be answers that do not seem to look very credible and should not remain for further analysis. Sarstedt and Mooi (2014) describe them as “suspicious response patterns” which cover answers such as only 5s on 5-point scale or when the respondent answers inconsistently - e.g. he grades his/her smartphone brand both as the best and the worst in two similar questions.

After taking all possible errors into consideration, the number of respondents in the cleaned dataset stabilized at the initial number of 320. The overview of the numbers of collected questionnaires can be seen in the following graph; from the total number of 951 collected answers, 45% of questionnaires was only opened, 21% was partially completed and 34% was completely filled in.

Fig. 3: Overview of collected responses



To correctly and easier conduct certain types of analyses, it is necessary to transform some types of data. In this project’s questionnaire, there is a lot of questions that are answered by Likert scale, which means that the answer consists of a word- or number-based scale expressing an intensity of the respondent’s opinion on something (e.g. a statement “I like this brand” can be answered by using the number scale from 1, which means “very much disagree” to 5, meaning very much agree”). Sarstedt and Mooi (2014) term this type of question as construct, which denotes a series of questions asking similar items to get a unified answers on certain phenomenon, e.g. brand loyalty; and to be able to measure the strength of respondent's loyalty toward the brand, the average of these statements has to be counted.

As the last step of data preparation, a codebook was created. Codebook simplifies the whole data analysis process because it transforms all values to numbers and therefore it is easy to work with in a statistical software. The codebook can be found in an appendix.

3.9 Reliability and validity

Every researcher should consider reliability and validity questions before conducting a market research. It is very important to pay attention to this issue as it shows if the measured items truly represent what the researcher originally intended to measure and avoid measurement errors.

3.9.1 Validity

In order to find out whether the desired measurement is actually valid, it is necessary to take certain issues into consideration. The research validity of a questionnaire can be divided into different levels: one for the questionnaire and one for the surveyed subset. For the questionnaire, the validity can be assessed through how it is viewed by the people being surveyed. Is it obvious what the meaning of the questionnaire is? If so, the surveyed might be influenced in the direction wanted by the authors, which is not ideal. Therefore the questionnaire is considered valid because it has been developed with enough vagueness that the research purpose is not evident while still managing to be precise enough to conduct research on. Regarding the subset used, it is also seen as valid because of the nature of the research – because the research purpose is to look at a consumer's ability to connect to a brand.

3.9.2 Reliability

There are three issues that should be taken into consideration to assess the reliability of a measure; its stability, internal consistency reliability and inter-rater reliability (Sarstedt and Mooi, 2014).

Stability of the measurement is necessary to see whether or not the answers of the respondents would be the same if the same questions were asked at a later point in time. For this questionnaire, the assumption is that it will be the same. The authors of the report have shared the questionnaire through Facebook, and shared through on different groups – if the assumption is that it will be shared the same place, it will most likely give the same results. The reliability of the answers is also seen as good,

because of the aforementioned validity of the questionnaire – because it has been made vague enough to not give hints of the purpose, but enough to conduct research on. Therefore the reliability is seen as sufficient even though there is certain probability that because self-brand connections do not exist forever, the answers would be different over longer period of time.

By *internal consistency reliability*, it is called a set of a few or more questions that are trying to measure the same thing; in our questionnaire, it is the whole middle part, evaluating e.g. brand trust, brand loyalty, self-brand connection etc. by asking on assessment of statements such as “This brand is the best on the market.” or “I feel I contribute to a better future with this brand.”. This type of reliability is most commonly assessed by counting Cronbach’s Alpha that has the ability to reveal if these questions are consistent. In this project, there are six concepts of which we have computed the reliability with the help of Cronbach’s Alpha. The results for each concept can be seen in the following table and show that every single measured concept consists of highly related statements and the high scores of Cronbach’s Alpha indicate that this data is very reliable.

Tab. 1: Test of reliability

Concept	Cronbach’s Alpha	N of items
Self-identity	,925	8
Brand love	,892	5
Brand attachment	,890	3
Brand commitment	,835	3
Brand trust	,859	2
Brand loyalty	,888	5

Inter-rater reliability is important to keep because it may be affected by the researches themselves, if any inconsistencies among their views on the questionnaire, e.g. in wording. Therefore, the questionnaire was handled to a few different people to test the concept and find out if they understand the questions in the same way as the researchers.

For the validity and reliability of the subset used, it is also important to ensure that it is representative of the population and that the data can be used to draw a conclusion from.

3.10 Sampling

Sampling is the process of including a subset of a given population. Therefore, when conducting primary research, it is almost always done by surveying a subset of a population. It is therefore important to understand the difference between a subset and a population. A population is the whole part of what is to be researched – whereas the subset is a part of the population that will be surveyed – however both parts have a common variable. This can be illustrated like this: the population can be, people who own a bicycle – but the subset cannot be the whole population, simply because too many people in the population exist – therefore the subset are few people that have the same variable in common (bicycle in this example), however the subset is people surveyed from different parts of where the population exists.

This means that for the whole population, only a part (the subset) is surveyed, in order to draw conclusions for the whole population.

For this project, however, the population needs to be defined, as well as the subset that is to be surveyed. The population is people who own a smartphone – this is, however, a very big population, so in order to give a generalized view on the population, a subset must be surveyed – which then can be used to draw a conclusion from.

4. Analysis

The data analysis is based on the problem formulation of the project: *What is the role of a self-brand connection in the relationship between the brand and the customer?* By using various techniques and tools to analyze the collected data from the questionnaire, the authors aim to answer the problem formulation and its sub-questions. The emphasis is put on description of demographic factors, finding out the common traits of smartphone users and analyzing various components of brand love within demographic factors and users of different brands using statistical tests.

4.1 Demographics

With a total of 320 respondents, ranging across different countries, ages and occupation, it is possible to describe the size of each group, in order to use this data on a comparatively basis.

The first group to describe is the gender makeup. Of all respondents, 81 % were female with a total of 259 and the rest, 61 were males. It is not possible to give a definitive answer as to why the female group is substantially larger than the male, whoever it is possible to speculate why. The authors of the report believe that women are more prone to *helping* other people and are therefore more willing to use their time on a questionnaire.

Tab. 2: Current smartphone brand vs. Gender Crosstabulation

Count		@10.Gender		Total
		Female	Male	
@1.What is your current smartphone brand? Choose one	Acer	3	0	3
	HTC	4	2	6
	Huawei	28	4	32
	iPhone	100	25	125
	LG	8	3	11
	Microsoft / Nokia	11	5	16
	Other	40	6	46
	Samsung	52	12	64
	Sony	13	4	17
Total		259	61	320

The next group is the age brackets. 14 % (45) of the total were part of the 18 and under group. 69 % (221) of the respondents were part of the 19-26 bracket. 11 % (36) were part of the 27-33 bracket. 2 % (7) were part of the 34-44 bracket. 3 % (11) were part of the 45-64 bracket. None were part of the last age bracket of 65 and up. Again, it is possible to see that one group is overrepresented and a possible answer is that the 19-26 age bracket is simply the biggest user of social media, which was the only source of respondents.

Tab. 3: Current smartphone brand vs. Age Crosstabulation

Count

		@9.What is your age					Total
		18 and under	19 - 26	27 - 33	34 - 44	45 - 64	
@1.What is your current smartphone brand Choose one	Acer	0	2	0	1	0	3
	HTC	0	4	1	1	0	6
	Huawei	9	20	3	0	0	32
	iPhone	18	82	16	3	6	125
	LG	0	9	2	0	0	11
	Microsoft / Nokia	0	16	0	0	0	16
	Other	5	36	4	1	0	46
	Samsung	12	40	8	1	3	64
	Sony	1	12	2	0	2	17
Total		45	221	36	7	11	320

The second last group is the civil status. 43 % (139) of the respondents were single. 51 % (163) of the total were in a relationship. The last 6 % (18) were married. The last demographic group is the occupation. 5 % (17) were self-employed. 25 % (81) were employed through normal work. 67 % (215) were students. 1 % (4) was unemployed. 1 % (3) was retired.

Tab. 4: Current smartphone brand vs. Occupation Crosstabulation

Count

		@8.Occupation					Total
		Employed	Retired	Self-employed	Student	Unemployed	
@1.What is your current smartphone brand Choose one	Acer	1	0	1	1	0	3
	HTC	3	0	0	3	0	6
	Huawei	5	0	1	26	0	32
	iPhone	40	1	7	76	1	125
	LG	1	0	0	10	0	11
	Microsoft /	3	0	2	11	0	16
	Nokia						
	Other	9	1	3	30	3	46
	Samsung	14	1	3	46	0	64
	Sony	5	0	0	12	0	17
Total		81	3	17	215	4	320

However, since the topic of interest in this report, is consumer's attitude towards different brands, it is also important to depict what brands the majority groups belong to.

The biggest brands, in order, are: iPhone (39%), Samsung (20 %), Huawei (10 %), Microsoft & Sony (5 % each), LG (3 %), HTC (2 %), Acer (1 %) – furthermore there is a significant group with many unknown brands and cheap Chinese models with 14 %.

The biggest group of iPhone with 39 % is composed of 125 people with 100 of them being females – this is an 80 % share of the group. The age brackets of the same group consists of 18 (14,4 %) in the 18 and under category, 82 (62,6 %) in the 19 to 26 category, 16 (12,8 %) in the 27-33 category, 3 (2,4 %) in the 34-44 category and 6 (4,8 %) in the 45-65 category. Again, it is evident which group is the most dominant, with the bulk of the respondents. Regarding the occupation, 40 (32 %) of the total 125 were employed, 1 (0,8 %) was retired, 7 (5,6 %) were self-employed, 76 (60,8 %) were students and 1 (0,8 %) was unemployed. The last group, with regards to marital

status were divided between, 56 (44,8 %) were in a relationship, 10 (8 %) and lastly 59 (47,2 %) were single. With this division, there is no clear dominant group with an almost equal divide between relationship and single.

From this short display of the demographics it is obvious to show that the most frequent consumers within our questionnaire is a female within the age of 19 to 26, is a student and is just as likely to be in a relationship as well as to be single. These figures will make it possible to segment the different groups in order to define a relationship, if present.

4.2 Typology of smartphone users extracted from factor analysis

This subchapter is focused on analyzing the middle section of the questionnaire. Respondents were supposed to rate various statements using a Likert scale according to their degree of agreement. It would be interesting to see if any patterns of behavior occurred while answering these questions; it is however difficult to analyze the statements individually. Therefore, a factor analysis became a suitable option to discover any traits of users that could tell us more about possible types of smartphone users.

Exploratory Factor Analysis

This type of analysis is not used to test hypotheses; it is rather a descriptive tool in statistics. Factor analysis is used when there is a large amount of variables that are difficult to analyze. It helps to reduce this amount by grouping various variables with strong inter-correlations together and by this to create new variables (factors; components). These new factors therefore contain variables that explain certain common trait of respondents. As the variables have values measured on a scale, they are a suitable type of variable for this analysis. The factor analysis was conducted in SPSS software as a principal component analysis.

To get a proper and correct output from factor analysis, it is a necessity to meet some conditions before going further. First, the data have to be measured on at least 5-point scale while having each step between two points on the scale in the same size. Secondly, the size of the sample matters – where 320 respondents seem to be a satisfactory number as it is at least ten times greater than the number of variables used for the analysis. Last, but not least, there has to be an independence of observations, which means that the data contain only observations that do not influence each other.

All these three conditions were met in this project. The last assumption is that variables have to be correlated enough. (Sarstedt and Mooi, 2014).

Before starting the analysis itself, we need to test the last assumption of high correlation among variables. This is done by the Kaiser-Meyer-Olkin and Bartlett's test of sphericity (see next table). The result of this test should lead to rejecting the null hypothesis that the correlation matrix is a diagonal matrix in the population (Sarstedt and Mooi, 2014); which can be confirmed because the significance level is ,000. The KMO measure of sampling adequacy is ,959 which means that adequacy of the correlations is very high and the factor analysis can be conducted.

Tab. 5: KMO and Bartlett's Test

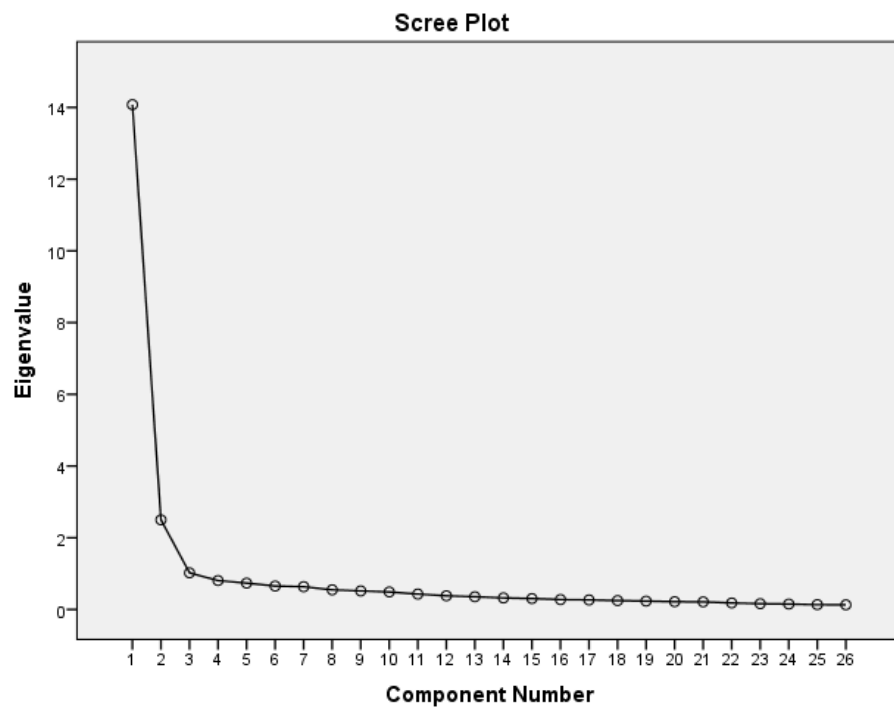
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		,959
Bartlett's Test of Sphericity	Approx. Chi-Square	7094,211
	df	325
	Sig.	,000

After starting the analysis in SPSS, three components in total were extracted as they fulfil the condition of Eigenvalue greater than 1 (chosen before running the analysis as commonly used value). In the next table, we can see Eigenvalues of each factor and its percentage of variance.

Tab. 6: Total Variance Explained									
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	14,077	54,141	54,141	14,077	54,141	54,141	7,651	29,428	29,428
2	2,500	9,616	63,758	2,500	9,616	63,758	7,062	27,162	56,590
3	1,022	3,932	67,689	1,022	3,932	67,689	2,886	11,099	67,689

To choose the right number of factors, we also need to look at the scree plot in the next graph. According to the curve in the scree plot, it is clear that only two factors (number 1 and 2) differ significantly from the others and are therefore able to provide with solid information.

Fig. 4: Scree Plot



To finally decide which components should be extracted from the analysis, an examination of factor loadings follows. Following table displays variables and their loadings. Any loading greater than 0,5 is considered as significant and shows the strength of the relationship between the variable and the component. The loadings are arranged according to the strength of correlations in the rotated component matrix and therefore we can see which variables are contained in which component, which simplifies the interpretation of the output. The final decision was to choose Component 1 and Component 2 as the result of the factor analysis.

Tab. 7: Rotated Component Matrix^a

	Component		
	1	2	3
@6t.Thisbrandistrustworthy	,799		
@6r.Iwanttocontinuemyrelationshipwiththisbrand	,779		
@6s.Thisbrandisreliableanddependable	,776		
@6u.NexttimeIwilldefinitelybuythesamebrandagain	,771		,361
@6v.IfIhaveaproblemwithmysmartphoneeg.stolenIwill	,769		,403
@6x.Irecommendmybrandtootherpeople	,767		
@6w.IfIgotanysmartphoneforfree.Iwouldchoosemycurrent	,671		,473
@6e.Thisisawond	,665	,504	
@6z.bestuserexperience	,658	,331	,356
@6q.Ihavealotoffaithinthefutureofthisbrand	,646	,406	
@6a.bestonthemarket	,631		
@6p.Thebrandsuitsmewell	,575	,391	,365
@6j.ThisbrandsymbolizeswhatkindofpersonIwouldliketobe		,773	,366
@6i.Thisbrandreflectsmypersonality		,768	,325
@6c.ThisbrandmakesmefeellikeImpartofsomething		,763	
@6b.Thisbrandmakesmefeelunique		,741	
@6h.Icanidentifymyselfwiththebrand	,348	,725	
@6d.IfeelIcontributetoabetterfuturewiththisbrand		,725	
@6k.Thisbrandcontributestomyimage		,706	,387
@6l.Thisbrandhasapositiveimpactonwhatothersthinkofme		,688	,345
@6g.Iampassionate	,447	,664	
@6f.Thisveryhappy	,575	,620	
@6y.Italktootherpeopleaboutmybrand	,449	,517	
@6n.IfeellikedonhavewhatIwantifIdonhavethissma		,450	,719
@6m.Noootherbrandcantaketheplaceofthisbrand	,424	,399	,602
@6o.Imveryattachedtothisbrand	,398	,492	,580

Component 1 is made of 11 variables and was named “**Faithful user**“. For this type of smartphone consumer, statements related to brand trust and loyalty are important. These consumers value if their brand gives them a trustworthy impression. They appreciate reliability and dependability of their brand, they are satisfied with the user experience and they think that the brand is wonderful. Therefore they are loyal to it and because they believe that the brand will not be of worse quality in the future, they want to purchase products from this brand again.

The component contains following statements arranged according to their significance:

1. This brand is trustworthy.
2. I want to continue my relationship with this brand.
3. This brand is reliable and dependable.
4. Next time I will definitely buy the same brand again.
5. If I have a problem with my smartphone (eg. stolen), I will definitely buy the same brand again.
6. If I got any smartphone for free, I would choose my current brand.
7. This is a wonderful brand.
8. My brand has the best user experience.
9. I have a lot of faith in the future of this brand.
10. This brand is the best on the market.
11. This brand suits me well.

Component 2 also consists of 11 variables and it was given a label “**Self-congruent user**“. Consumers that have traits from the second factor are highly focused on their image. They like to express their self-identity by using their brand, because it reflects their personality and contributes to their image. They identify with the brand, it makes them feel unique and like a part of certain group.

This factor consists of following statements, arranged from the most to the least significant one:

1. This brand symbolizes what kind of person I would like to be.
2. This brand reflects my personality.
3. This brand makes me feel like I’m a part of something.
4. This brand makes me feel unique.
5. I can identify myself with the brand.

6. I feel I contribute to a better future with this brand.
7. This brand contributes to my image.
8. This brand has a positive impact on what others think of me.
9. I am passionate with this brand.
10. This brand makes me very happy.
11. I talk to other people about my brand.

4.3 Generating and testing hypotheses

With the help of statistical tests, the researchers will try to approach the research problem by answering two main research questions focusing on demographics and iPhone users. Each of the questions consists of various number of sub-hypotheses that are tested by usage of different statistical tests with results presented in the end.

4.3.1 Research question (1): Is there a difference in a level of brand love between iPhone users and other brands' users?

H^A: iPhone users are more willing to buy the same brand again.

The first thing to measure, if iPhone customers are more willing to buy a new smartphone of the same brand, is to make a cross tabulation of their current smartphone brand and their willingness to buy the same brand again, on the Likert scale. Furthermore, to validate the results of the cross tabulation the means of the answers, regarding self-identity, will be calculated. For the first test, the cross tabulation, a table was drawn up with, the consumers' willingness to buy the same smartphone again, on the row, and the consumers' current phone on the column.

Tab. 8: Current smartphone brand vs. I will buy the same brand again Crosstabulation

		@6u.Nexttimelwilldefinitelybuythesamebrandagain					Total
		1	2	3	4	5	
@1.What is your current smartphone brand	Acer	0	0	1(33%)	1(33%)	1(33%)	3
	HTC	1(16,6%)	1(16,6%)	2(33%)	2(33%)	0	6
	Huawei	2(6,25%)	5(15,6%)	13(40,6%)	6(18,7%)	6(18,7%)	32
	iPhone	3(2,4%)	12(9,6%)	17(13,6%)	26(20,8%)	67(53,6%)	125
	LG	3(27,3%)	2(18,2%)	4(36,6%)	2(18,2%)	0	11
	Microsoft / Nokia	0	2(12,5%)	7(43,7%)	6(37,5%)	1(6,2%)	16
	Other	8	3(6,5%)	17(37%)	10(21,7%)	8(18%)	46
	Samsung	4(6,2%)	12(18,7%)	27(42,1%)	12(18,7%)	9(14%)	64
	Sony	1(5,8%)	2(11,7%)	6(35,3%)	4(23,5%)	4(23,5%)	17
Total		22	39	94	69	96	320

On the left side, the table shows the different brands the consumers currently possess, and the consumers' willingness, on a 1-5 points Likert scale, to buy the same brand again – the table shows how many consumers there are in each level of the scale. After each number, a parenthesis with the corresponding percentage of the total, is shown.

If we look at the brands in a chronological order, and start with Acer, we can see that with the only three respondents it is not quite possible to say anything definitive; however there is evidence of these respondents being positive towards their current brand. For the next brand, HTC, there are also very few respondents, but here a different picture is shown. Most are not or indifferently willing to buy the same brand again, however 33% are most likely going to. Huawei also shows a tendency towards wanting the same brand again although with most of the consumers being indifferent towards not wanting to buy it or buy it. iPhone consumers are the more unique ones with only 12 % not wanting to buy the same brand again. A clear picture is shown with more than 70 % of the respondents wanting to buy the same brand again, and only 13 % not sure whether to buy it again or another brand. LG customers are on the other side of the spectrum with more than 45 % not wanting to buy the same brand again, 36 % being indifferent towards it and only 18% most likely to buy it again. Microsoft / Nokia's customers are on the fence of being indifferent with 43 %, 12 % not wanting to buy it and more than 43 % say that they want to buy it again – however with the huge group being indifferent, no clear picture is shown. Samsung

also has a big group of consumers being indifferent towards buying or not buying it with more than 42 %. Almost 25 % say they are not willing to buy the same brand again, but more than 33 % say they are willing to buy it again, with a little skew towards most likely. Sony also has a big group not sure whether to buy or not to of 35 %, with 17 % not wanting to buy it again and 47 % say they want to buy the same brand.

The cross tabulation gives a clear view of which consumers are more willing to buy the same brand again, with a lead from iPhone with more than 70 % wanting the same brand as their current one. However, to be able to conclude correctly from these results, it is necessary to test if there is any statistically significant difference within the data.

For this, one-way ANOVA will be used. The null hypothesis was determined:
 H_0 : There is no difference of iPhone and other brands' users of smartphones in willingness to buy the same brand again.

H_1 : There is a significant difference of iPhone and other brands' users of smartphones in willingness to buy the same brand again.

As some of the groups intended to be tested were of too small sample size, they were grouped together under the value "Other" as in the previous cases. The Shapiro-Wilk test of normality has to be done first. The result showed that each group showed significance under ,05 except Sony with sig. = ,102. We decided to proceed further as ANOVA is robust to some violations of normal distributions if the sample size is big enough (at least around 20 in each group).

The homogeneity of variances test showed sig. = ,640 which is greater than ,05 and therefore this assumption has not been violated and analysis can continue.

Tab. 9: Test of Homogeneity of Variances

@6u.Nexttimelwilldefinitelybuythesamebrandagain

Levene Statistic	df1	df2	Sig.
,678	5	314	,640

ANOVA table shows significance of ,000, therefore the null hypothesis can be rejected and we can state that there is a significant difference.

Tab. 11: ANOVA

@6u.Nexttimelwilldefinitelybuythesamebrandagain

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	72,544	5	14,509	11,154	,000
Within Groups	408,443	314	1,301		
Total	480,988	319			

Post hoc comparisons with Tukey test were conducted to see where the significant difference between means of the chosen variable occurs. The test revealed that there is statistically significant difference between iPhone and Huawei, iPhone and Samsung and iPhone and Other.

Tab.12: Multiple Comparisons

Dependent Variable: @6u.Nexttimelwilldefinitelybuythesamebrandagain

Tukey HSD

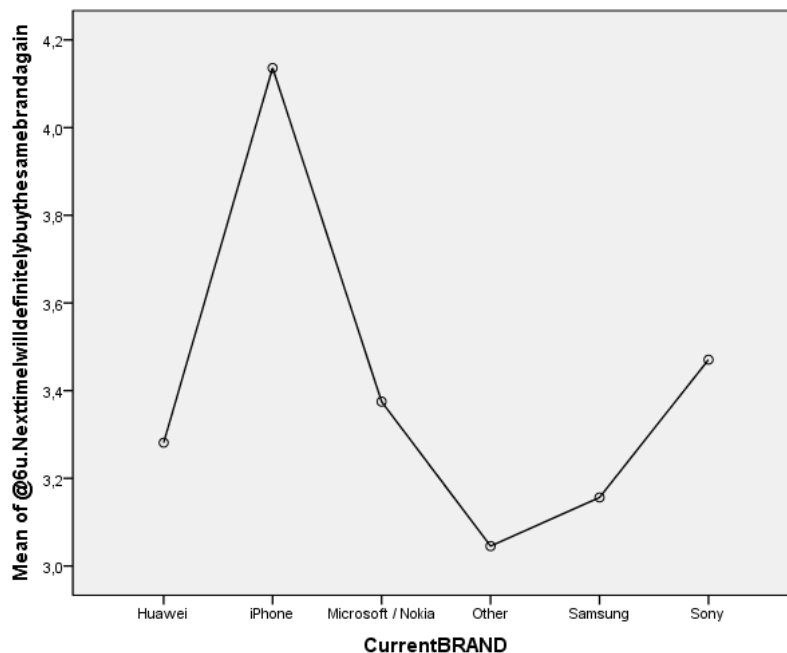
(I) CurrentBRAND	(J) CurrentBRAND	Mean Difference (I- J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Huawei	iPhone	-,855 [*]	,226	,003	-1,50	-,21
	Microsoft / Nokia	-,094	,349	1,000	-1,10	,91
	Other	,236	,246	,930	-,47	,94
	Samsung	,125	,247	,996	-,58	,83
	Sony	-,189	,342	,994	-1,17	,79
iPhone	Huawei	,855 [*]	,226	,003	,21	1,50
	Microsoft / Nokia	,761	,303	,123	-,11	1,63
	Other	1,091 [*]	,174	,000	,59	1,59
	Samsung	,980 [*]	,175	,000	,48	1,48
	Sony	,665	,295	,215	-,18	1,51
Microsoft / Nokia	Huawei	,094	,349	1,000	-,91	1,10
	iPhone	-,761	,303	,123	-1,63	,11
	Other	,330	,318	,905	-,58	1,24
	Samsung	,219	,319	,983	-,70	1,13
	Sony	-,096	,397	1,000	-1,23	1,04
Other	Huawei	-,236	,246	,930	-,94	,47
	iPhone	-1,091 [*]	,174	,000	-1,59	-,59
	Microsoft / Nokia	-,330	,318	,905	-1,24	,58
	Samsung	-,111	,200	,994	-,68	,46
	Sony	-,425	,310	,745	-1,31	,46
Samsung	Huawei	-,125	,247	,996	-,83	,58

	iPhone	-,980*	,175	,000	-1,48	-,48
	Microsoft / Nokia	-,219	,319	,983	-1,13	,70
	Other	,111	,200	,994	-,46	,68
	Sony	-,314	,311	,914	-1,21	,58
Sony	Huawei	,189	,342	,994	-,79	1,17
	iPhone	-,665	,295	,215	-1,51	,18
	Microsoft / Nokia	,096	,397	1,000	-1,04	1,23
	Other	,425	,310	,745	-,46	1,31
	Samsung	,314	,311	,914	-,58	1,21

*. The mean difference is significant at the 0.05 level.

By comparing the means of the significantly different groups by looking at the mean plot, we can see that iPhone users are without doubt the most willing ones to buy their brand again according to the mean of their scores. By rejecting the null hypothesis and failing to reject the alternative hypothesis, we can state that there is a significant difference of iPhone and other brands' users of smartphones in willingness to buy the same brand again and after comparison of their means, we conclude that **iPhone users are more willing to buy their brand again than Huawei users, Samsung users and users of the brands in the column "Other"**.

Fig. 6: Means of Samebrandagain



H^B: iPhone users have higher score of self-identity related statements than other brands' users.

This hypothesis seeks to confirm an assumption that users of iPhone hold a better score on self-identity related statements in the questionnaire than owners of other smartphones. According to descriptive statistics of the questionnaire results, two biggest groups of smartphone users are iPhone (39%) and Samsung (20%) owners. These two brands also have superiority in numbers regarding respondents' preferred brand if they had a free choice (55% and 16%). Therefore, we assume that iPhone's and Samsung's unequivocal triumph in these questions may denote certain amount of self-brand connections of only these brands' users and the following analysis will provide with information about which brand users have more self-brand connections.

The strength of self-brand connection between the user and his/her brand is measured by assessing an overall ratio of a variable related to self-identity. This variable was created as a transformation of eight different variables into a single one and was counted as a mean of values of variables concerning statements examining a self-identity towards user's current smartphone brand. These statements are namely:

1. I can identify myself with the brand.
2. This brand reflects my personality.
3. This brand symbolizes what kind of person I would like to be.
4. This brand contributes to my image.
5. This brand has a positive impact on what others think of me.
6. This brand makes me feel unique.
7. This brand makes me feel like I'm part of something.
8. I feel I contribute to a better future with this brand.

To examine the difference between iPhone and other brands' users, the aim is to compare means of the chosen variable (self-identity) with users of these smartphone brands. Therefore a one-way analysis of variance (ANOVA) was chosen to be used to give the researches a wider picture of the situation. The next table shows basic frequencies to give an overview of analyzed data.

Tab.13: CurrentBRAND

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Huawei	32	10,0	10,0	10,0
	iPhone	125	39,1	39,1	49,1
	Microsoft / Nokia	16	5,0	5,0	54,1
	Other	66	20,6	20,6	74,7
	Samsung	64	20,0	20,0	94,7
	Sony	17	5,3	5,3	100,0
	Total	320	100,0	100,0	

First, a test of normality was conducted to see if there is a normal distribution of data regarding the dependent variable. The dependent variable consisted of 9 groups, where there were a few groups with low sample size (LG with n=11, Acer with n=3 and HTC with n=6) which were moved into the group “Other” so each group had sufficiently big sample size at least around n=20. The Shapiro-Wilk test showed p-values of self-identity in each group greater than 0,05 except iPhone and Samsung. Sig. greater than 0,05 means that self-identity scores are normally distributed for smartphone users and we can proceed further with ANOVA, whereas sig. lower than this value is considered not normally distributed. Normal distribution of data is one of the assumptions of running ANOVA analysis, but the final decision of proceeding or not depends on the researchers; especially in this situation, when one cannot expect perfectly normally distributed data when Likert scale containing ordinal data is used; moreover, ANOVA is quite resistant to a few deviations. The authors therefore decided to proceed with analysis even if the distribution of data is not perfectly normal.

Tab.14: Tests of Normality

	CurrentBRAND	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
selfidentityMEAN	Huawei	,085	32	,200 [*]	,967	32	,424
	iPhone	,060	125	,200 [*]	,970	125	,007
	Microsoft / Nokia	,116	16	,200 [*]	,979	16	,952
	Other	,104	66	,076	,957	66	,024
	Samsung	,119	64	,025	,938	64	,003
	Sony	,199	17	,072	,872	17	,024

A null and alternative hypothesis was determined to be tested:

H₀: There is no difference in self-identity scores of smartphone users of iPhone and other brands' users.

H₁: There is significant difference in self-identity scores of smartphone users of iPhone and other brands' users.

The Levene's test was used to find out whether there is a homogeneity of variances within the dependent variable as it is another assumption for ANOVA. The test showed statistically significant difference of ,291 which is greater than p-value of 0,05. Therefore the homogeneity was not violated and the analysis can proceed further.

Tab. 15: Test of Homogeneity of Variances

selfidentityMEAN

Levene Statistic	df1	df2	Sig.
1,238	5	314	,291

The last assumptions for running ANOVA was also satisfied: the observations are independent. The next step in the one-way ANOVA is a decision whether to fail to reject the null hypothesis or not. The ANOVA table shows p-value = ,000, which is smaller than 0,05. This result means that the null hypothesis can be rejected because ANOVA is significant. We accept the alternative hypothesis and state that there is a significant difference in self-identity scores among smartphone users.

Tab.16: ANOVA

selfidentityMEAN

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	32,849	5	6,570	6,213	,000
Within Groups	332,058	314	1,058		
Total	364,907	319			

To evaluate the differences among the groups, post hoc comparisons including Tukey Honest Signification Difference Test were conducted. In these comparisons, a significant difference between means of scores of self-identity related statements was detected *only* between iPhone and Samsung users.

Tab. 17: Multiple Comparisons

Dependent Variable: selfidentityMEAN

Tukey HSD

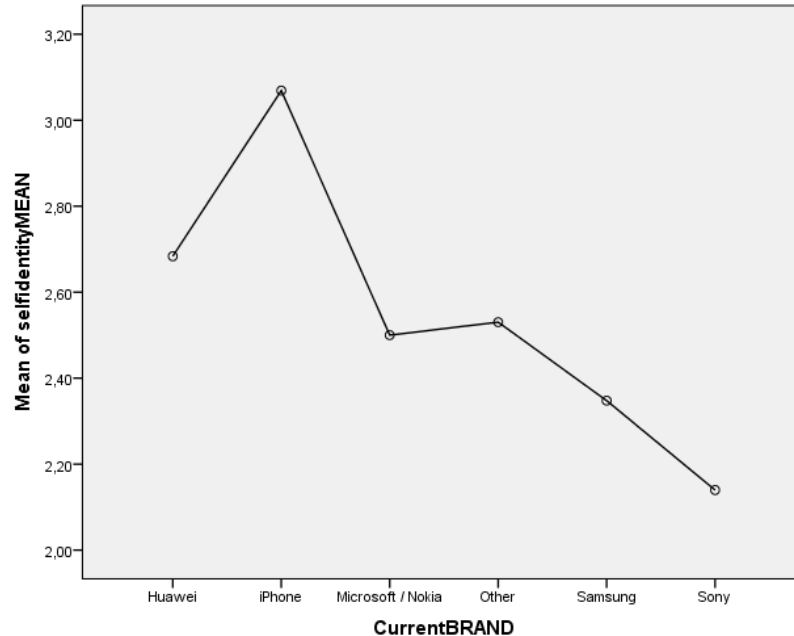
(I)	(J)	Mean Difference (I- J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
CurrentBRAND	iPhone	-,38541	,20373	,409	-,9696	,1988
	Microsoft / Nokia	,18359	,31487	,992	-,7193	1,0864
	Other	,15329	,22152	,983	-,4819	,7885
	Samsung	,33594	,22264	,659	-,3025	,9744
	Sony	,54389	,30863	,492	-,3411	1,4289
iPhone	Huawei	,38541	,20373	,409	-,1988	,9696
	Microsoft / Nokia	,56900	,27305	,298	-,2139	1,3519
	Other	,53870*	,15647	,009	,0900	,9874
	Samsung	,72134*	,15806	,000	,2681	1,1746
	Sony	,92929*	,26583	,007	,1670	1,6915
Microsoft / Nokia	Huawei	-,18359	,31487	,992	-1,0864	,7193
	iPhone	-,56900	,27305	,298	-1,3519	,2139
	Other	-,03030	,28656	1,000	-,8520	,7914
	Samsung	,15234	,28743	,995	-,6718	,9765
	Sony	,36029	,35819	,916	-,6668	1,3874
Other	Huawei	-,15329	,22152	,983	-,7885	,4819
	iPhone	-,53870*	,15647	,009	-,9874	-,0900
	Microsoft / Nokia	,03030	,28656	1,000	-,7914	,8520
	Samsung	,18265	,18041	,914	-,3347	,6999
	Sony	,39060	,27969	,729	-,4114	1,1926
Samsung	Huawei	-,33594	,22264	,659	-,9744	,3025
	iPhone	-,72134*	,15806	,000	-1,1746	-,2681
	Microsoft / Nokia	-,15234	,28743	,995	-,9765	,6718
	Other	-,18265	,18041	,914	-,6999	,3347
	Sony	,20795	,28059	,977	-,5966	1,0125
Sony	Huawei	-,54389	,30863	,492	-1,4289	,3411
	iPhone	-,92929*	,26583	,007	-1,6915	-,1670
	Microsoft / Nokia	-,36029	,35819	,916	-1,3874	,6668
	Other	-,39060	,27969	,729	-1,1926	,4114
	Samsung	-,20795	,28059	,977	-1,0125	,5966

*. The mean difference is significant at the 0.05 level.

Next graph shows means of self-identity scores among users of different brands. As there is a significant difference only between iPhone and Samsung users,

we compare means of scores of only these brands. It is clear than iPhone users have much higher means than Samsung users.

Fig. 7: Means of selfidentityMEAN



To conclude, the alternative hypothesis H_1 was failed to reject and therefore we can say that there is a significant difference between iPhone and Samsung users in their self-identity scores and by comparing their means, we can state that **iPhone users have higher score of self-identity related statements than Samsung users.**

H^C : iPhone users have higher score of brand loyalty related statements than other brands' users.

To find out if there is any difference between users of different smartphone brands in their brand loyalty scores, one-way ANOVA will be used to analyze the data. First, a new variable “brand loyalty” is created by computing means of all brand loyalty related statements. This variable is consisted of following statements:

1. Next time I will definitely buy the same brand again.
2. If I have a problem with my smartphone (eg. stolen), I will definitely buy the same brand again.
3. If I got any smartphone for free. I would choose my current brand.
4. I recommend my brand to other people.
5. I talk to other people about my brand.

The null and alternative hypotheses were created:

H₀: There is no difference between users of iPhone and other smartphone brands in their brand loyalty scores.

H₁: There is a significant difference between users of iPhone and other smartphone brands in their brand loyalty scores.

The following table shows basic frequencies of the chosen variables.

Tab. 18: Case Processing Summary

	CurrentBRAND	Cases					
		Valid		Missing		Total	
		N	Percent	N	Percent	N	Percent
brandLOYALTY	Huawei	32	100,0%	0	0,0%	32	100,0%
	iPhone	125	100,0%	0	0,0%	125	100,0%
	Microsoft / Nokia	16	100,0%	0	0,0%	16	100,0%
	Other	66	100,0%	0	0,0%	66	100,0%
	Samsung	64	100,0%	0	0,0%	64	100,0%
	Sony	17	100,0%	0	0,0%	17	100,0%

The Shapiro-Wilk test of normality was conducted and the result showed significance greater than ,05 in every case except iPhone (,000) and Sony (,004). The Levene's test has significance greater than ,05 which means that the homogeneity of variances was not violated.

Tab. 19: Test of Homogeneity of Variances

brandLOYALTY

Levene Statistic	df1	df2	Sig.
1,674	5	314	,141

By looking at ANOVA table with significance of ,000, the null hypothesis can be rejected and therefore we can claim that **there is a statistically significant difference between users of iPhone and other smartphone brands in their brand loyalty scores.**

To see where exactly the difference lies, the post hoc tests including Tukey's test were conducted. In the next table, the significant places are marked yellow.

Tab. 20: Multiple Comparisons

Dependent Variable: brandLOYALTY

Tukey HSD

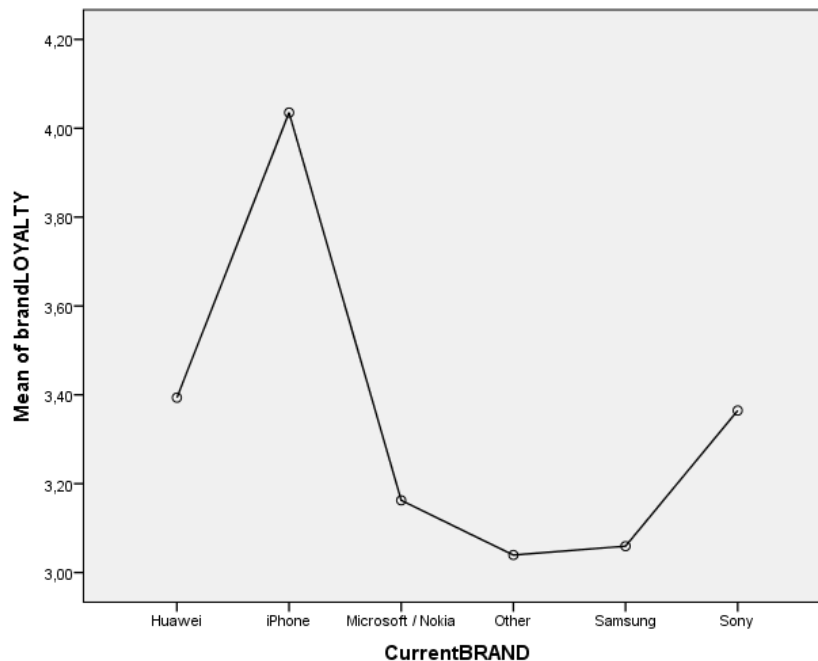
(I) CurrentBRAND	(J) CurrentBRAND	Mean Difference (I- J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Huawei	iPhone	-,64145*	,20376	,022	-1,2257	-,0572
	Microsoft / Nokia	,23125	,31491	,978	-,6717	1,1342
	Other	,35436	,22155	,600	-,2809	,9896
	Samsung	,33438	,22268	,664	-,3041	,9729
	Sony	,02904	,30868	1,000	-,8561	,9141
iPhone	Huawei	,64145*	,20376	,022	,0572	1,2257
	Microsoft / Nokia	,87270*	,27309	,019	,0897	1,6557
	Other	,99581*	,15649	,000	,5471	1,4445
	Samsung	,97583*	,15808	,000	,5225	1,4291
	Sony	,67049	,26587	,121	-,0919	1,4328
Microsoft / Nokia	Huawei	-,23125	,31491	,978	-1,1342	,6717
	iPhone	-,87270*	,27309	,019	-1,6557	-,0897
	Other	,12311	,28660	,998	-,6987	,9449
	Samsung	,10312	,28747	,999	-,7212	,9274
	Sony	-,20221	,35824	,993	-1,2294	,8250
Other	Huawei	-,35436	,22155	,600	-,9896	,2809
	iPhone	-,99581*	,15649	,000	-1,4445	-,5471
	Microsoft / Nokia	-,12311	,28660	,998	-,9449	,6987
	Samsung	-,01998	,18043	1,000	-,5374	,4974
	Sony	-,32531	,27973	,854	-1,1274	,4768
Samsung	Huawei	-,33438	,22268	,664	-,9729	,3041
	iPhone	-,97583*	,15808	,000	-1,4291	-,5225
	Microsoft / Nokia	-,10312	,28747	,999	-,9274	,7212
	Other	,01998	,18043	1,000	-,4974	,5374
	Sony	-,30533	,28063	,886	-1,1100	,4993
Sony	Huawei	-,02904	,30868	1,000	-,9141	,8561
	iPhone	-,67049	,26587	,121	-1,4328	,0919
	Microsoft / Nokia	,20221	,35824	,993	-,8250	1,2294
	Other	,32531	,27973	,854	-,4768	1,1274
	Samsung	,30533	,28063	,886	-,4993	1,1100

*. The mean difference is significant at the 0.05 level.

From the table, it is clear that **there is a statistically significant difference between iPhone and Smasung users and between iPhone and “Other” users.** By

comparing means of these groups, we can see that we can confirm our original hypothesis that **iPhone users have higher score of brand loyalty related statements than other brands' users.**

Fig. 8: Means of brandLOYALTY



4.3.2 Research question (2): Is there a relationship between socio-demographic factors and the level of SBC?

In this section, the aim is to test whether different socio-demographic factors have an effect on having a self-brand connection. Three sub-hypotheses are laid and tested to help with answering this question.

H^A: There is no statistically significant difference in the mean self-identity scores for female and male smartphone users.

For testing this hypotheses, independent samples t-test is suitable to use as we compare means of two independent groups. The independent variable is gender (with two groups: female, male) and the dependent variable is self-identity mean score. In the next table, there are basic group statistics including N, means, standard deviation and std. error mean.

Tab. 21: Group Statistics

	@10.Gender	N	Mean	Std. Deviation	Std. Error Mean
selfidentityMEAN	Female	259	2,7143	1,08942	,06769
	Male	61	2,6250	,98584	,12622

In the second table, Leven's test for equality of variances shows if the variance of scores of the two groups is the same. Its significance value is greater than alpha level ,005 and therefore the assumption of variance is not violated. The t-test result reveals that we cannot reject the null hypothesis. **There is not a significant difference for mean scores of self-identity related statements, between females and males** because significance of t-test is greater than alpha level.

Tab. 22: Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
selfidentityMEAN	Equal variances assumed	3,019	,083	,586	318	,558	,08929	,15237	-,21050	,38907
	Equal variances not assumed			,623	97,599	,534	,08929	,14323	-,19496	,37353

H^B: There is no statistically significant difference in the mean self-identity scores for smartphone users under and over 26 years.

This hypothesis will be tested the same way as the previous one; by independent samples t-test due to comparing means of only two groups. The following table shows basic group statistics.

Tab. 23: Group Statistics

	Age Group	N	Mean	Std. Deviation	Std. Error Mean
selfidentityMEAN	1,00	266	2,7632	1,06529	,06532
	2,00	54	2,3727	1,04003	,14153

The Levene's test revealed that homogeneity of variances was not validated as significance is greater than ,05. The t-test itself has significance of 0,14 which is below the alpha level of ,05 and therefore we can reject the null hypothesis that there is no statistically significant difference in the mean self-identity scores for smartphone users under and over 26 years.

Tab. 24: Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
selfidentityMEAN	Equal variances assumed	,003	,953	2,465	318	,014	,39047	,15838	,07887	,70208
	Equal variances not assumed			2,505	77,280	,014	,39047	,15588	,08010	,70084

Because t-test showed that **there is a statistically significant difference in the mean self-identity scores for smartphone users under and over 26 years**. It however does not show the effect size, therefore Cohen's d has to be computed. The effect size is computed by $t^2 / (df^{0,5}) = 2,465^2 / (318^{0,5}) = 0,28$, which means that the effect is relatively small.

By comparing the means, we can conclude that **smartphone users under 26 are more prone to establish self-brand connection with their brand**.

H^C: There is no statistically significant difference in the mean self-identity scores for employed, self-employed and student smartphone users.

Finding a significant difference among all groups of Occupation variable, comparison of the means of the self-identity variable is necessary. Because we compare more than two groups, one-way analysis of variance (ANOVA) will be applied. The following table provides an overview of frequencies.

Tab. 25: Case Processing Summary

	OccupNUM	Cases					
		Valid		Missing		Total	
		N	Percent	N	Percent	N	Percent
selfidentityMEAN	Employed	81	100,0%	0	0,0%	81	100,0%
	Retired	3	100,0%	0	0,0%	3	100,0%
	Self-employed	17	100,0%	0	0,0%	17	100,0%
	Student	215	100,0%	0	0,0%	215	100,0%
	Unemployed	4	100,0%	0	0,0%	4	100,0%

The null hypothesis and alternative hypothesis were created:

H₀: There is no statistically significant difference in the mean self-identity scores for employed, self-employed and student smartphone users.

H₁: There is a significant difference in the mean self-identity scores for employed, self-employed and student smartphone users.

First of all, the Shapiro-Wilk test of normality was conducted. The result showed that each group showed significance under ,05 except Self-employed with sig. = ,000. The authors decided to proceed further as ANOVA can handle some violations of normal distributions if the sample size is big enough (at least around 20 in each group). The groups “Retired” and “Unemployed” were not taken further into consideration as the sample size is too small to be analyzed by ANOVA.

Tab. 26: Tests of Normality

	OccupNUM	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
selfidentityMEAN	Employed	,090	81	,164	,955	81	,007
	Retired	,204	3	.	,993	3	,843
	Self-employed	,161	17	,200 [*]	,910	17	,098
	Student	,061	215	,051	,973	215	,000
	Unemployed	,265	4	.	,953	4	,735

The Levene's test showed sig. = ,315 which is greater than ,05 and therefore the assumption of homogeneity of variances has not been violated.

Tab. 27: Test of Homogeneity of Variances

selfidentityMEAN

Levene Statistic	df1	df2	Sig.
1,189	4	315	,315

Tab. 28: ANOVA

selfidentityMEAN

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1,418	4	,354	,307	,873
Within Groups	363,489	315	1,154		
Total	364,907	319			

The ANOVA table shows significance of ,873, which is greater than alpha value of ,05. Therefore, we accept our null hypothesis that there is **no significant difference in mean self-identity scores between employed, self-employed and student users of smartphone.**

5. Discussion

From the data and tests of hypotheses, it is evident that iPhone consumers have a special relationship towards the brand – this was also evident before the advent of this report – however it is now possible to say which specific mechanics influence the self-brand connection of consumers towards a brand. Thus it is possible to suggest what other brands can do to increase the loyalty of their consumers – however, at first it is necessary to understand these mechanics.

From the tested hypotheses of the last chapter, it has been made possible to differentiate on the consumers to evaluate who is more prone to accepting and establishing a self-brand connection towards a brand. The authors believed, when the thoughts for the research paper were being developed, that most iPhone users had an SBC – this has been proved from the analyses of the questionnaire. The first hypothesis stated that iPhone users were more willing to buy the same brand again – and it was given through the questionnaire that they were more likely than those of Huawei, Samsung and the “Other” users. This gives evidence that the Apple is better at acquiring customers, but also keeping them – they have obtained loyal customers – however, a question of whether this loyalty is in fact a self-brand connection, will be discussed later.

The $H^B(1)$ stated that iPhone users have higher scores in the self-identity related statements and was accepted. However, before anything can be concluded from this, it is important to look at what the statements were:

- *I can identify myself with the brand.*

The consumers can directly relate to what the brand stands for, the design, the exclusivity etc. – everything that defines the company.

- *This brand reflects my personality.*

This is one of the most important indicators of an SBC, since it, in essence, describes specifically what are the requirements of the connection.

- *This brand symbolizes what kind of person I would like to be.*

Even though this statement is not a determinant of the connection, it is an important one that helps with defining the mutually beneficial relationship.

- *This brand contributes to my image.*

This statement helps determine if a consumer thinks that it is important what others think of the brand, which is the self-congruence of the consumer.

- *This brand has a positive impact on what others think of me.*

This is the same as the above, where the consumers believe that having a sought after product, enables them to be respected.

- *This brand makes me feel unique.*

Uniqueness is a special condition that consumers can feel when they possess an item that they feel is of a high value.

- *This brand makes me feel like I'm part of something.*

The consumers believe that they are part of a unique group.

- *I feel I contribute to a better future with this brand.*

They feel connected to the brand.

All these statements directly relate to the personality of the consumers, both current and ideal self. They state their opinion on the personality of themselves but also the personality of the brand.

As was described in the literature review, the most important aspect when establishing an SBC was mutually defining personalities – the brand's personality must match with that of the consumer. Therefore it is possible to see that iPhone users have an SBC as a group and that other brands' consumers do not. That is not to say that there might be individuals in the other groups that have an SBC, however the groups as a whole, do not.

The $H^C(1)$ stated that, much like $H^b(1)$, that iPhone users scored higher in statements related to loyalty. This hypothesis was also accepted because the mean scores analysis of iPhone users was higher than that of the others. The statements related to loyalty were:

- Next time I will definitely buy the same brand again
- If I have a problem with my smartphone (eg. stolen), I will definitely buy the same brand again
- If I got any smartphone for free. I would choose my current brand.
- I recommend my brand to other people.
- I talk to other people about my brand.

These statements are pretty self explanatory; however they still show a picture of the clearly loyal customers of Apple's iPhone. Customers that are more willing to buy

the same brand again, that appreciate the brand and talk about it to their peers. In general they are very loyal customers that any company seeks to obtain.

The first three hypotheses were in relation towards the consumers of individual brands and their relation to the statements. However the next three are different since they include the demographics of the questionnaire group.

The $H^A(2)$ states that there is a significant difference of female and male scores regarding self-identity statements – however this hypothesis was rejected.

The $H^B(2)$ states that there is no difference between the mean self-identity scores of the people questionnaire either under or over 26 years of age. This hypothesis was rejected and the results show that there is a significant difference between those above and below 26. It stated that the people under 26 were more susceptible towards establishing an SBC.

The $H^C(2)$ states that there is no difference between the mean scores of self-identity for the employed, self-employed and students. This hypothesis was accepted since there was no difference towards this.

With these tested hypotheses in mind, it is evident that the iPhone users have an SBC almost entirely as one group. As was written in the literature review, for a consumer to have a self-brand connection, many antecedents must be there for it to be established. With mean scores higher in self-identity and loyalty, which are the important qualifications for a self-brand connection, iPhone consumers have established a self-brand connection as a group. The authors cannot deny that consumers of other brands also most likely have an SBC, however the uniqueness in this case comes from the whole group possessing an SBC and not scattered individuals.

However, what is not clear is what Apple does with the iPhone that other brands do not. Apple's iPhone is not better on a functional or performance level – therefore the determinant that makes Apple a clear market leader in terms of loyal customers must be something else.

Thoughts on Apple's iPhone and the ability to acquire SBC's

The unique position of Apple brings telling evidence of the existence of SBC's. However, it is impossible to ask questions regarding what determines it or why they have positive thoughts on the statements, without influencing the

interviewee. It is therefore necessary to look at the statements and compare them to Apple.

Beginning with the self-identity related statements shown before, the most important terms from them are: identity with the brands, reflect personality, ideal-self and current-self.

Being able to identify with a brand is an important but hard-to-obtain benefit. The authors believe that the consumers can identify with Apple because of their long history with the “think different” campaigns and generally just being what the others are not, but in a unique and good way. Apple’s most important vision was to bring computers to the masses – computers everyone knew how to use. This vision has gradually moved to now include, beginning to make computers – and phones – a great experience.

This identification is part of the personality reflection of both Apple and the consumers. Because of Apple’s unique history in their claim to “think different” but also being different, consumers are able to bond with this. Most people have an ever increasing will to be better, which is what Apple portrays to everyone – therefore Apple’s personality is not only able to bond with the current self of the consumers, but with the ideal self.

Another point that also determines the personality of Apple is their strive for the best – when a new iPhone comes out every year, it is always the best on the market, for a time until other brand sends out its flagship device – the point, however, is that Apple only makes one device – the best they can and that can be made. There are no mid-tier or low-tier phones sold under the iPhone brand – as this would most likely change their personality from being the best you can be. This cannot be said for other brands, which make equally attractive, functional and competitive flagship phones, but also make mid-tier phones.

In short, the reason for Apple’s dominant position in terms of acquiring SBC’s is their strive to be the best, and nothing but the best.

To drive SBCs

With the antecedents of an optimal self-brand connection laid out in the former chapter, it is possible to give a recommendation for other brands on driving an SBC.

The general consensus from the authors is that in order for a SBC to arise, as described in the literature, a brand must be streamlined. The following things are essential in establishing a promotable and bondable brand personality:

- Relatable vision – one that the consumers can agree to or find admirable, like Apple’s “think different” or the quest of giving everyone the best experience, not matter what.
- Few products – in order to really cement the ideal of “the best” it is not possible to have more than very few product, unless we are talking different categories like 4” vs. 6” smartphone, which have vastly different users.

However, the brand personality is only part of the process of driving an SBC – to make it easier towards establishing the connection. A statistical examination of the demographics of the questionnaire was also analyzed in order to acquire knowledge on the “typical” “SBC consumer”. From the analysis it can be seen that there is no significance in the difference of female or male consumers with an SBC – and there was also no difference in employed, self-employed or students – however, it was possible to see a difference in the age, where consumers below 26 years were more inclined to establish an SBC.

It is assumed that this is a big part of the targetable group, because we see such huge loyalty of the iPhone users in the questionnaire and thus assume that the “typical” consumer that can make an SBC is in this category.

It is therefore possible to see that the optimal target group are the consumers below the age of 26 – so when considering what attributes that will fit the brand personality, it is important to take this into account.

6. Research limitations

There are potential weak points of this project that the authors would like to mention. Some of them are out the researchers' reach of influence, whereas some could be improved if better conditions of the study were present. One way or the other, it is important to mention all of these factors that could be a limitation of this research and therefore endanger the reliability of the results.

When conducting the primary research, there are limitations in relation to the geographical scope. The survey did not affect all countries, it was mostly oriented to European countries because of knowledge of the environment and difficulty to spread the questionnaire to more distant countries in a short period of time. Therefore, the respondents do not represent the entire population. Time is the next limitation; the project had a limited scope of time to be worked on. The limitation lies also in the type of survey; the questionnaire is just one way how to come to results, there are also other types of research that could be used, such as qualitative one using e.g. an interview.

The analysis of the collected data was conducted mostly by a help of a statistical test. There lies another limitation; the particular tests chosen to study certain phenomenon may not reveal the same results as a different test could.

Another limitation is contained in the used case study. Choosing a particular product such as Apple's iPhone as a benchmark for the further analysis may not represent the problem as a whole; it just shows an example of how a certain phenomenon occurs and cannot be simply generalized.

7. Conclusion

The purpose of this research paper was to analyze the role and affects of a self-brand connection between a consumer and a particular brand – with Apple's iPhone as the main brand of which others were measured. Furthermore it was sought to understand what influences the self-congruity between the consumer and a brand – who a typical consumer with an SBC is and why it is important to seek these SBC's

Throughout this report it has been evident that the most of the consumers that acquire an iPhone will most like keep the same brand, for when they need a new phone, as opposed to most other brands. It was found that this is because of the unique brand personality of Apple and their compelling quest of being the best. They are unique because they have very few products and those that they have are made with the best materials and quality – whereas other brands also have mid and low-tier phones. Having lower tiered phones does not send the same unique message and would even confuse some consumers in believing that a cheap phone is equivalent of the iPhone, which isn't the case.

The necessity of acquiring SBC's is because of the loyalty and stable sales over longer periods – without having consumers shopping around for the best current product – brands can make the best of their ability for the specific customers with an SBC.

Other brands have the possibility of acquiring the same group of consumers that were seen as the most susceptible towards establishing an SBC with the two important antecedents of an SBC.

- A relatable vision
- Few products

The group, which was found as the most susceptible, were the consumers below 26 years of age with no other defining factor – and is therefore also a defining factor when deciding on a relatable vision for a brand.

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9. Appendix

9.1 Questionnaire

Smartphone brand questionnaire

In this questionnaire we would like you to answer some short questions regarding your brand consumption, as well as your relationship with the brand. The questionnaire takes just 5 minutes and we thank you for your time.

Connection to brands

1. What is your current smartphone brand? (Choose one)

- (1) ☐ Samsung
- (3) ☐ LG
- (4) ☐ iPhone
- (5) ☐ Microsoft / Nokia
- (6) ☐ Acer
- (7) ☐ HTC
- (8) ☐ Huawei
- (10) ☐ Sony
- (9) ☐ Other _____

2. Which three to four brands have you consumed within the 3-5 years? (Multiple choice)

- (1) ☐ Samsung
- (6) ☐ LG
- (2) ☐ iPhone
- (3) ☐ Microsoft / Nokia
- (7) ☐ Acer
- (4) ☐ HTC
- (5) ☐ Huawei
- (8) ☐ Sony
- (9) ☐ Other _____

3. What motivated you in the consumption of your current smartphone brand?

(Multiple choice)

- (1) ☐ Wanted to try it out
- (3) ☐ Recommended by peers
- (4) ☐ Advertising
- (5) ☐ Satisfied with former product
- (6) ☐ Like what the brand stands for
- (7) ☐ Best value for the money
- (8) ☐ I like the design
- (9) ☐ The user interface is easy to navigate
- (10) ☐ Better features (eg. camera)
- (11) ☐ Lowest price
- (12) ☐ Most exclusive
- (13) ☐ It was a gift

View on the products

4. Did you compare the products of your current brand to other products before your consumption?

- (1) ☐ Yes
- (2) ☐ No

5. Would you still buy the product of your particular brand – even though a competing product is equal or even better?

- (1) ☐ Yes
- (2) ☐ No

View on the brand

On a scale of 1 to 5, to what extent do you agree with the following statements regarding your current smartphone brand? (1 = "disagree very much" and 5 = "agree very much")

6a. My current brand is the best on the market.

1	2	3	4	5
(1) <input type="checkbox"/>	(7) <input type="checkbox"/>	(8) <input type="checkbox"/>	(9) <input type="checkbox"/>	(10) <input type="checkbox"/>

6b. This brand makes me feel unique.

1	2	3	4	5
(1) <input type="checkbox"/>	(2) <input type="checkbox"/>	(3) <input type="checkbox"/>	(4) <input type="checkbox"/>	(5) <input type="checkbox"/>

6c. This brand makes me feel like I'm part of something.

1	2	3	4	5
(1) <input type="checkbox"/>	(2) <input type="checkbox"/>	(3) <input type="checkbox"/>	(4) <input type="checkbox"/>	(5) <input type="checkbox"/>

6d. I feel I contribute to a better future with this brand.

1	2	3	4	5
(1) <input type="checkbox"/>	(2) <input type="checkbox"/>	(3) <input type="checkbox"/>	(4) <input type="checkbox"/>	(5) <input type="checkbox"/>

6e. This is a wonderful brand.

1	2	3	4	5
(1) <input type="checkbox"/>	(2) <input type="checkbox"/>	(3) <input type="checkbox"/>	(4) <input type="checkbox"/>	(5) <input type="checkbox"/>

6f. This brand makes me very happy.

1

2

3

4

5

(1) ☐

(2) ☐

(3) ☐

(4) ☐

(5) ☐

6g. I am passionate about this brand.

1

2

3

4

5

(1) ☐

(2) ☐

(3) ☐

(4) ☐

(5) ☐

6h. I can identify myself with the brand.

1

2

3

4

5

(1) ☐

(2) ☐

(3) ☐

(4) ☐

(5) ☐

6i. This brand reflects my personality.

1

2

3

4

5

(1) ☐

(2) ☐

(3) ☐

(4) ☐

(5) ☐

6j. This brand symbolizes what kind of person I would like to be.

1

2

3

4

5

(1) ☐

(2) ☐

(3) ☐

(4) ☐

(5) ☐

6k. This brand contributes to my image.

1

2

3

4

5

(1) ☐

(2) ☐

(3) ☐

(4) ☐

(5) ☐

6l. This brand has a positive impact on what others think of me.

1	2	3	4	5
(1) <input type="checkbox"/>	(2) <input type="checkbox"/>	(3) <input type="checkbox"/>	(4) <input type="checkbox"/>	(5) <input type="checkbox"/>

6m. No other brand can take the place of this brand.

1	2	3	4	5
(1) <input type="checkbox"/>	(2) <input type="checkbox"/>	(3) <input type="checkbox"/>	(4) <input type="checkbox"/>	(5) <input type="checkbox"/>

6n. I feel like don't have what I want, if I don't have this smartphone brand.

1	2	3	4	5
(1) <input type="checkbox"/>	(2) <input type="checkbox"/>	(3) <input type="checkbox"/>	(4) <input type="checkbox"/>	(5) <input type="checkbox"/>

6o. I'm very attached to this brand.

1	2	3	4	5
(1) <input type="checkbox"/>	(2) <input type="checkbox"/>	(3) <input type="checkbox"/>	(4) <input type="checkbox"/>	(5) <input type="checkbox"/>

6p. The brand suits me well.

1	2	3	4	5
(1) <input type="checkbox"/>	(2) <input type="checkbox"/>	(3) <input type="checkbox"/>	(4) <input type="checkbox"/>	(5) <input type="checkbox"/>

6q. I have a lot of faith in the future of this brand.

1	2	3	4	5
(1) <input type="checkbox"/>	(2) <input type="checkbox"/>	(3) <input type="checkbox"/>	(4) <input type="checkbox"/>	(5) <input type="checkbox"/>

6r. I want to continue my relationship with this brand.

1	2	3	4	5
(1) <input type="checkbox"/>	(2) <input type="checkbox"/>	(3) <input type="checkbox"/>	(4) <input type="checkbox"/>	(5) <input type="checkbox"/>

6s. This brand is reliable and dependable.

1	2	3	4	5
(1) <input type="checkbox"/>	(2) <input type="checkbox"/>	(3) <input type="checkbox"/>	(4) <input type="checkbox"/>	(5) <input type="checkbox"/>

6t. This brand is trustworthy.

1	2	3	4	5
(1) <input type="checkbox"/>	(2) <input type="checkbox"/>	(3) <input type="checkbox"/>	(4) <input type="checkbox"/>	(5) <input type="checkbox"/>

6u. Next time I will definitely buy the same brand again.

1	2	3	4	5
(1) <input type="checkbox"/>	(2) <input type="checkbox"/>	(3) <input type="checkbox"/>	(4) <input type="checkbox"/>	(5) <input type="checkbox"/>

6v. If I have a problem with my smartphone (eg. stolen), I will definitely buy the same brand again.

1	2	3	4	5
(1) <input type="checkbox"/>	(2) <input type="checkbox"/>	(3) <input type="checkbox"/>	(4) <input type="checkbox"/>	(5) <input type="checkbox"/>

6w. If I got any smartphone for free. I would choose my current brand.

1	2	3	4	5
(1) <input type="checkbox"/>	(2) <input type="checkbox"/>	(3) <input type="checkbox"/>	(4) <input type="checkbox"/>	(5) <input type="checkbox"/>

6x. I recommend my brand to other people.

1	2	3	4	5
(1) <input type="checkbox"/>	(2) <input type="checkbox"/>	(3) <input type="checkbox"/>	(4) <input type="checkbox"/>	(5) <input type="checkbox"/>

6y. I talk to other people about my brand.

1	2	3	4	5
(1) <input type="checkbox"/>	(2) <input type="checkbox"/>	(3) <input type="checkbox"/>	(4) <input type="checkbox"/>	(5) <input type="checkbox"/>

6z. My brand has the best user experience.

1	2	3	4	5
(1) <input type="checkbox"/>	(3) <input type="checkbox"/>	(4) <input type="checkbox"/>	(2) <input type="checkbox"/>	(5) <input type="checkbox"/>

Demographics

In this part, we would like you to answer the questions regarding you as a person.

7. What is your nationality (DK, DE, GB, SWE, etc)

8. Occupation

- (1) ☐ Self-employed
- (2) ☐ Employed
- (3) ☐ Student
- (4) ☐ Unemployed
- (5) ☐ Retired

9. What is your age?

- (1) ☐ 18 and under
- (2) ☐ 19 - 26
- (3) ☐ 27 - 33
- (4) ☐ 34 - 44
- (5) ☐ 45 - 64
- (6) ☐ 65 and up

10. Gender

- (1) ☐ Male
- (2) ☐ Female

11. Civil status

- (1) ☐ Single
- (2) ☐ In relationship
- (3) ☐ Married

12. Which one of the following brands would you prefer if you had a free choice?

(Choose one)

- (1) ☐ Samsung
- (3) ☐ LG
- (4) ☐ iPhone
- (5) ☐ Microsoft / Nokia
- (6) ☐ Acer
- (7) ☐ HTC
- (8) ☐ Huawei
- (9) ☐ Sony
- (2) ☐ Other _____

9.2 Codebook

Grouping (sections)	Variables	Responses	Code
Connection to brands	Current brand (curBRAND)	Samsung	1
		LG	2
		iPhone	3
		Microsoft/Nokia	4
		Acer	5
		HTC	6
		Huawei	7
		Sony	8
	Other current brand (othercurBRAND)	Other	1
	Last brand (lastBRAND)	Samsung	1
		LG	2
		iPhone	3
		Microsoft/Nokia	4
		Acer	5
		HTC	6
		Huawei	7
		Sony	8
		Other	9
	Motivation (MOTIV)	Wanted to try it out	1
		Recommended by peers	2
		Advertising	3
		Satisfied with former product	4
		Like what the brand stands for	5
		Best value for the money	6
		I like the design	7
		The user interface is easy to navigate	8
		Better features (eg. camera)	9
		Lowest price	10
		Most exclusive	11
		It was a gift	12
	Free choice brand (freeBRAND)	Samsung	1
		LG	2
		iPhone	3
		Microsoft/Nokia	4
		Acer	5
		HTC	6
		Huawei	7

		Sony	8
		Other	9
<i>View on the products</i>	Comparison before purchase (COMPAR)	Yes	1
		No	2
	Still buying the product (stillBUY)	Yes	1
		No	2
<i>Brand love</i>	love1 – love5 (questions 1 to 5 have the same coding)	1	1
		2	2
		3	3
		4	4
		5	5
<i>Self-identity</i>	ident1 – ident8 (questions 1 to 8 have the same coding)	1	1
		2	2
		3	3
		4	4
		5	5
<i>Brand attachment</i>	attach1- attach3 (questions 1 to 3 have the same coding)	1	1
		2	2
		3	3
		4	4
		5	5
<i>Brand commitment</i>	commit1 – commit3 (questions 1 to 3 have the same coding)	1	1
		2	2
		3	3
		4	4
		5	5
<i>Brand trust</i>	trust1 – trust2 (questions 1 and 2 have the same coding)	1	1
		2	2
		3	3
		4	4
		5	5
<i>Brand loyalty</i>	loyal1 – loyal5 (questions 1 to 5 have the same coding)	1	1

		2	2
		3	3
		4	4
		5	5
Demographics	Nationality (NATION)	text	
	Occupation (OCCUP)	Self-employed	1
		Employed	2
		Student	3
		Unemployed	4
		Retired	5
	Age (AGE)	18 and under	1
		19 - 26	2
		27 - 33	3
		34 - 44	4
		45 - 64	5
		65 and up	6
	Gender (GENDER)	Male	0
		Female	1
	Civil status (CIVILSTAT)	Single	1
		In relationship	2
		Married	3

Grouping of the statements

Brand love

1. This is a wonderful brand. love1
2. This brand makes me very happy. love2
3. I am passionate about this brand. love3
4. My current brand is the best on the market. love4
5. My brand has the best user experience. love5

Self-identity

1. I can identify myself with the brand. ident1
2. This brand reflects my personality. ident2
3. This brand symbolizes what kind of person I would like to be. ident3
4. This brand contributes to my image. ident4
5. This brand has a positive impact on what others think of me. ident5
6. This brand makes me feel unique. ident6
7. This brand makes me feel like I'm part of something. ident7
8. I feel I contribute to a better future with this brand. ident8

Brand attachment

1. No other brand can take the place of this brand. attach1
2. I feel like don't have what I want, if I don't have this smartphone brand.
attach2
3. I'm very attached to this brand. attach3

Commitment

1. The brand suits me well. commit1
2. I have a lot of faith in the future of this brand. commit2
3. I want to continue my relationship with this brand. commit3

Brand trust

1. This brand is reliable and dependable. trust1
2. This brand is trustworthy. trust2

Brand loyalty

- 10. Next time I will definitely buy the same brand again. loyal1
- 11. If I have a problem with my smartphone (eg. stolen), I will definitely buy the same brand again. loyal2
- 12. If I got any smartphone for free. I would choose my current brand. loyal3
- 13. I recommend my brand to other people. loyal4
- 14. I talk to other people about my brand. loyal5