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Adoption of Green Products

A study of drivers influencing consumers' intentions to adopt green products

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Master thesis, Marketing and Brand Management

NORWEGIAN SCHOOL OF ECONOMICS

Executive Summary

In light of the raising concern about environmental issues, consumers and the society are increasingly emphasising the importance of green innovations. However, actual sales of green products do not reflect consumers' sentiments. Thus, there is an unexploited market potential for green products. Consequently, to influence consumers to choose greener alternatives, and thereby increasing sales of green products, we need information about consumers' decision making processes in relation to green behavior. This can in turn contribute to maintain a greener society.

The purpose of this paper was therefore to explore important drivers for consumers' intentions to adopt green products. More specifically, we employed an extended version of the Theory of Planned Behavior model, studying the effects of green product beliefs, attitude, social norm, perceived behavioral control and brand equity on consumers' intentions to adopt green products. Additionally, we investigated if attitude and brand equity mediated the effect between green product beliefs and intention. Lastly, we explored if there could be any differences in consumers' drivers for choosing green products depending on the degree of product involvement.

To collect the necessary data, we applied a questionnaire research within a cross-sectional design (N=387), that we further analysed using SPSS 25 and Mplus 7.4. The results show that attitude, social norm, perceived behavioral control and brand equity are important factors to influence consumers' intention to adopt green products. Additionally, green product beliefs were found to be important for predicting consumers' intentions as they indirectly affect intention through attitude.

Keywords: Drivers to Adoption, Environmentally Friendliness, Green Brand Equity, Green Hand Soap, Green Mobile, Green Product Beliefs, Green Products, Theory of Planned Behavior (TPB)

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Sustainability, brand management and consumer behavior are topics that we find highly interesting and important. We are therefore grateful for the opportunity this master's thesis has given us to immerse ourselves in these particular themes. Studying these topics have been gratifying, interesting and very educational.

We acknowledge that without help from several individuals, this thesis would not be a reality. We wish to specially highlight our gratitude to Professor Herbjørn Nysveen for supervising us. His drive, expertise and guidance have inspired-, challenged- and motivated us during this process. In addition, we would like to thank Arild Schanke for his helpful advises regarding Qualtrics, as well as Maj-Brit Iden from the administration at NHH for providing us e-mail addresses to all the Norwegian NHH-students. We also want to thank the NHH-students for their time and effort to participate in our pre-tests and our final questionnaire. Lastly, we wish to thank each other, friends and family for the encouragements throughout the process.

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Maiken Spjeld Sørensen and Marit Voll

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1 Introduction

1.1 Background

Consumers are increasingly concerned about the environment (Hartmann & Apaolaza-Ibáñez, 2012; Husted, Russo, Meza, & Tilleman, 2014; Laroche, Bergeron, & Barbaro-Forleo, 2001; Saad, 2009; Thøgersen & Zhou, 2012), and environmental-friendliness has become a trend in various social surroundings (Euromonitor International, 2012; Olsen, Slotegraaf, & Chandukala, 2014; Umweltbundesamt, 2014). As many as 82 per cent of American consumers have stated that they intend to act in a more environmentally friendly manner (Williams, 2011), and consumers worldwide state a willingness to pay more for green products (Euromonitor International, 2012; Nielsen, 2015). The increased interest in sustainability has created a huge market potential for businesses and has led to more firms investing substantial resources to develop and offering environmentally friendly products and services (Ayadi & Lapeyre, 2016; Gleim, Smith, Andrews, & Cronin, 2013; Nidumolu, Prahalad, & Rangaswami, 2009 as referred in Huang, Yang, & Wang, 2014). Consequently, sustainability has become an important business goal (Centre for sustainability and excellence, 2017; Davis-Peccoud, Seemann, Jongeneel, & Martins, 2018; Raska & Shaw, 2012).

Trends in consumption, government policy and costs, all point towards a future with expanding green business opportunities (Sena, 2018). From a study conducted by Unilever (2017), there is an estimated EUR 966 billion opportunity for companies that partake environmentally friendly behavior, especially if it is communicated sufficiently. In addition, research reveal that firms with a green orientation have potential to achieve greater financial gains and market shares (Menguc & Ozanne, 2005; Nielsen, 2015), greater level of employee commitment (Maignan & Ferrell, 2001), and increased customer satisfaction (Luo & Bhattacharya, 2006), that in turn lead to higher business performances (Pujari, Wright, & Peattie, 2003). Moreover, Montague and Mukherjee (2010) states that companies' green efforts can lead to an enhanced brand image which can lead to increased profits and customer loyalty. Thus, the partial benefits of implementing a green orientation for businesses are noted.

Even though the trend of sustainable consumption indicates a high demand for green brands and products, the current market share for these products remains fairly low (Barbarossa & Pastore, 2015; Umweltbundesamt, 2014), and organizations are currently reaching a minority of potential consumers (Gleim et al., 2013). Mahoney (2011) found that only 16 per cent of

consumers that express environmental concerns actually act likewise. Additionally, consumers continue to partake behaviors that are harmful to the environment. This can be reflected by a doubling in consumption of clothing and accessories the last few years (Ditlev-Simonsen, 2017), consumers travelling significantly more (Schlossberg, 2017), and a stated estimate that there will be more plastic than fish in the ocean by 2050 because of consumers' high plastic-consumption (Kaplan, 2016). Hence, there is a gap between consumers stated importance of protecting the environment and their actual preferences and behaviors. This phenomenon reveals that there are barriers for adopting green products and services (Cohn & Vaccaro, 2013; Moser, 2015; Schill & Shaw, 2016). Consequently, policy makers and marketers call for future research about consumers' decision making processes that leads them to purchase environmentally friendly products (Barbarossa & De Pelsmacker, 2016).

To better understand green product adoption it requires a deeper understanding of consumers' underlying needs and drivers for choice (Ajzen, 1991; Bendixen, 2011), as well as obstacles for adopting green products and brands (Cronin, Smith, Gleim, Ramirez, & Martinez, 2011; Laroche et al., 2001; Prothero et al., 2011 as reffered in Barbarossa & Pastore, 2015). By understanding these factors it can increase the likelihood for consumers adopting green products, which in turn will lead to spreading green alternatives in the market (Skippon & Garwood, 2011). This insight will therefore be valuable both for businesses reasons and for the sake of our planet.

1.2 Purpose

The purpose of this study is to investigate consumers' driving forces for adopting green products. We will apply Ajzen's Theory of Planned Behavior (TPB) as the conceptual framework of this research, as this is found to represent a reliable and predictive model for this purpose (Ajzen, 1991; Kalafatis, Pollard, East, & Tsogas, 1999). The TPB model suggests that consumers' attitudes towards the behavior, social norms and perceived behavioral control can predict their behavioral intentions (Ajzen, 1991). Thus, we seek to identify the importance of these factors as drivers in relation to behavioral intentions in the context of green product adoption.

Although the TPB model is expected to be a useful model for predicting behavioral intentions, other intention models and studies have identified additional important drivers. Firstly, beliefs

are found to directly affect consumers' behavioral intentions (e.g. Bagozzi, 1982; Davis, Bagozzi, & Warshaw, 1989; Nysveen, Pedersen, & Thorbjørnsen, 2005). Additionally, some studies have identified that various green product beliefs influence consumers' intentions to adopt green products (e.g. Lu, Bock, & Joseph, 2013; Schuitema & Groot, 2015).

Secondly, brand equity is expected to have significant influences on consumers' brand preferences and purchase intentions (e.g. Chernatony, Harris, & Christodoulides, 2004; Cobb-Walgren, Ruble, & Donthu, 1995; Huang, Wang, Tseng, & Wang, 2011; Moradi & Zarei, 2011; Myers, 2003). This effect is also revealed in a green study by Akturan (2018), who identified that green brand equity influences consumers' intentions to adopt green products. Consequently, we will extend the TPB model by including the direct effect of brand equity and intention. This leads to our first research question:

> *RQ1: Does green product beliefs, attitude towards adopting green products, social norms, perceived behavioral control and brand equity influence consumers' intentions to adopt green products?*

In addition to the anticipated direct effects discussed above, the TPB model assume a mediating effect of beliefs' influence on intention through attitude (Ajzen, 1991). This assumption is also well established in the Theory of Reasoned Action (TRA) and the Technology Acceptance Model (TAM) (Davis, 1986; Fishbein & Ajzen, 1975), and is empirically revealed in several studies (e.g. Davis et al., 1989; Lin & Lu, 2000; Nysveen et al., 2005; Venkatesh & Davis, 2000). Furthermore, branding theory suggests that product beliefs can influence brand equity. This because product beliefs can represent strong, favorable and unique brand associations which is the basis for brand equity (Keller, 1993, 2013). Consequently, we want to investigate if the effect of green product beliefs on intention is mediated through attitude and brand equity, leading to our second research question:

> *RQ2a: Is the influence of green product beliefs on consumers' intention to adopt green products mediated through attitude towards adopting green products?*

> *RQ2b: Is the influence of green product beliefs on consumers' intention to adopt green products mediated through brand equity?*

Hoyer, MacInnis and Pieters (2013) further argue that the level of product involvement can affect consumers' effort in information search, whereas product involvement reflects consumers perceived relevance and importance of a product (Clarke & Belk, 1979; Mittal & Lee, 1989; Quester & Lin Lim, 2003; Zaichkowsky, 1985b). When consumers use more effort to gather and elaborate information, it is reason to believe that they will develop stronger and a larger amount of beliefs. Moreover, consumers' perceived importance of a product may influence their evaluation of different product features, thus affect perceived importance of green product beliefs. This indicates that the centrality and importance for green beliefs to directly and indirectly predict intention might vary depending on the level of product involvement. Therefore, it would be interesting to explore if product involvement influences the strength of the anticipated effects of green product beliefs on attitude, brand equity and intention to adopt green products. This leads to our third research question:

> *RQ3: Does the influence of green product beliefs on attitude towards adopting green products, brand equity and intention to adopt green products vary for different levels of product involvement?*

To explore product involvement, we have included *hand soap* and *mobile* to represent respectively a low- and a high involvement product in our study. The reasoning for this choice is discussed in chapter 4.2.2 *Pre-test of product involvement.*

1.3 Research Model

Based on our research questions, we have developed the research model as illustrated in Figure 1. The proposed conceptual model for our study is based on Ajzen's TPB model. Incorporating two additional factors, namely green product beliefs and brand equity, our research model is an extension of the original TPB model. In accordance with the TPB model, attitude, social norm and perceived behavioral control is expected to influence consumers' intentions. In addition, our model posits that green product beliefs and brand equity directly influence consumers' intention to adopt green products. Furthermore, our model proposes that beliefs' influence on intention is mediated through attitude and brand equity. Moreover, as we believe there can be differences in beliefs' influence on attitude, brand equity and intention, depending on the degree of product involvement, we will explore if there exist differences in our model depending on level of involvement[1].

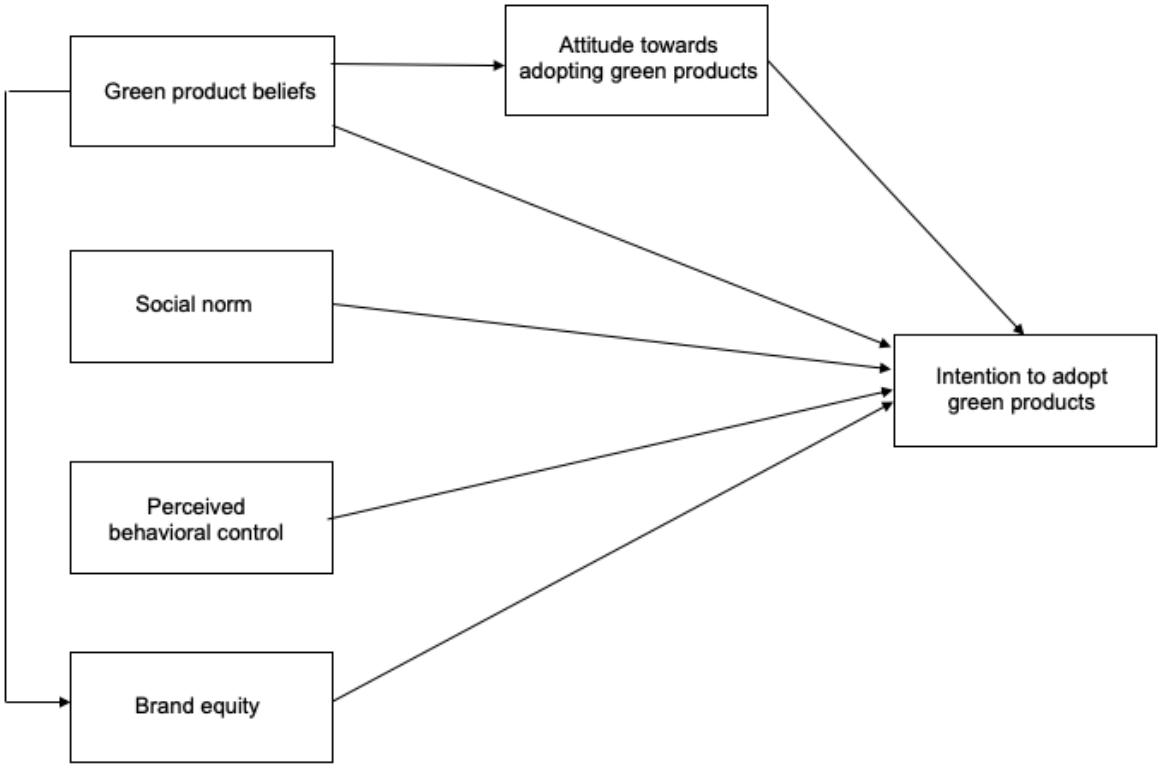


Figure 1: *Our research model*

[1] In the presented research model (Figure 1), product involvement is not illustrated as we will investigate this factor with an exploratory approach.

1.4 Contribution

1.4.1 Theoretical Contribution

By reviewing existing literature related to green adoption, we identified a gap in the literature related to the potential direct effect of green product beliefs on intention to adopt green products (cf. Appendix A). Our study can therefore provide new valuable insight by examining this direct effect. Additionally, Huang, Yan, & Wang, (2014) encourage future research to investigate brand equity's influence on intention to adopt green products. Although Akturan (2018) found an effect for this relationship, this finding was limited because the study only included tissue papers and refrigerators. Further investigation including new products is therefore requested to provide evidence to brand equity's influence on green product adoption (Akturan, 2018). Thus, our paper can contribute by investigating the effect of brand equity on intention to adopt green products by including two different products than those used by Akturan (2018), specifically *hand soap* and *mobile*. Providing answer to RQ1 can therefore contribute with several theoretical findings.

Moreover, former research has not included brand equity as a mediator in the TPB model (cf. Appendix A (i)). Consequently, our study can contribute to a better understanding of how the relationship between green product beliefs and intention to adopt green products might be mediated through brand equity, as presented in RQ2b.

Additionally, Hsu, Chang, & Yansritakul (2017) states a need for future investigation of product involvement's impact on the relationship between intention and its antecedent. Exploring the possible differences between *hand soap* and *mobile* in our model as exhibited in RQ3, can thereby contribute by providing indications if the importance of beliefs for predicting intention depending on the level of product involvement.

Furthermore, several studies states that consumers show different attitudes towards adopting green products depending on the type of product (e.g. Auger, Devinney, Louviere, & Burke, 2010; Davies, Lee, & Ahonkhai, 2012; Luchs, Naylor, Irwin, & Raghunathan, 2010). *Hand soap* and *mobile* are two underresearched products in relation to green adoption (cf. Appendix A). By comparing and investigating *hand soap* and *mobile*, this study can contribute to generalize previous findings.

1.4.2 Methodologic Contribution

To investigate the potential effects of green product beliefs, we conducted an extensive literature review of relevant literature (cf. Appendix B). This revealed that there are different terms and items used to measure this construct. Consequently, green product beliefs is a diverse term and the current literature lacks well-established measurement items. Thus, we intend to assemble relevant items from various sources that we believe can measure green product beliefs. By doing this, our study can contribute by structuring a construct that can capture various essential aspects concerning green product beliefs.

In addition, Barbarossa et al. (2015) reveals that attitude formation towards green products varies across different countries. This implies that predictors for consumers' intentions to adopt green products may vary for different cultures. Appendix A (i) shows that only one study have investigated Norwegian consumers' intention to adopt green products (Olson, 2013). Subsequently, our study investigate other products and predictor variables for Norwegian consumers' intentions than Olson (2013) (cf. Appendix A). Applying a Norwegian sample in our study can therefore contribute by providing an extended understanding of Norwegian consumers' intentions to adopt green products.

1.4.3 Managerial Contribution

Consumers' decision making processes of green products are complex, and more research is necessary to reach the potential for businesses in the market of green products. Our paper aims to provide policy makers and marketers with insight on consumers' decision making processes. By investigating whether green product beliefs, attitude towards adopting green products, social norms, perceived behavioral control and brand equity directly affect consumers' intentions to adopt green products, our paper can reveal new drivers for choice and strengthen previous findings. This insight can improve managers' understanding of consumers' intentions and advise them how to stimulate choice. Subsequently, this study can provide essential information for utilizing green marketing strategies (Barbarossa & De Pelsmacker, 2016).

Moreover, by including brand equity in the TPB model, we intend to identify the effect of green product beliefs on a firm's brand equity, and thereby guide policy makers in green branding decisions. Additionally, by exploring if the drivers for adopting green products varies for different product categories and level of product involvement, this can provide managers with

a nuanced understanding of how green product beliefs influences attitude, brand equity and intentions. Thus, our paper can contribute with valuable insight for increasing the likelihood for managers developing preferable green brands and products (Bendixen, 2011).

1.5 Outline

In the following chapter, we will define relevant green terms to clarify the meaning inflicted in them. We will also assess the market for green products to identify trends and challenges within this market. This will include an assessment of the Norwegian market for green products, in addition to the market for hand soap and mobiles as this study investigate Norwegian consumers and these products in particular. Further, we will review relevant literature in chapter 3 to form the basis for developing our research model. The literature review aims to enhance the understanding of consumers' intentions to adopt green products by assessing consumer behavior and branding theories, as well as relevant research. Subsequently, we will present our research model with its corresponding hypotheses. In chapter 4 follows a detailed description of the methodology applied for our empirical study and validation of the measures used in our study. We then present the study's findings in chapter 5. Lastly, chapter 6 will constitute a conclusion, discussion of implications and limitations of our study, as well as suggestions for future research.

2 Green products

2.1 Definitions

The term "green" is typically used interchangeably with environmentally friendly, sustainable and eco-friendly. Sustainable development means *meeting the needs of the present without compromising the ability of future generations to meet their own needs* (United Nations, 1987). This term is broad, and include environmental protection as well as social development (United Nations, 2005, 2015). Further, the Centre for Sustainability and Excellence (CSE), as referred in Khalamayzer (2016) [2], divides sustainability practices into six focus areas. One of the areas is environmentally friendliness, which in this approach involves facility and product operations, sustainable materials and carbon reduction (CSE as referred in Khalamayzer, 2016).

We will limit this paper to only assess the environmental perspective of sustainability. Consequently, the term "green" will be used simply to indicate environmentally friendliness. Thus, we will define a "green product" as one that is produced with concern for the physical environment (Shrum, McCarty, & Lowrey, 1995). Furthermore, we will define "green behavior" as *actions that reduce the impact on the environment* (Wolfe & Shanklin, 2001, p. 209 as referred in Kim, Lee, & Fairhurst, 2017). Lastly, we define a "green consumer" as *anyone whose purchase behavior is influenced by environmental concerns* (Shrum et al., 1995, p. 72). Nevertheless, when referring to previous research that have used other terms, e.g. sustainability, we will refer to the terms used in those studies.

2.2 The Market for Green Products

The interest in sustainability is expanding worldwide, and environmental issues has become a priority in society (Jansson, Marell, & Nordlund, 2010; Nielsen, 2015). Government and companies are globally increasingly contributing to a greener world, guided by the 2015 Paris Climate Agreement and UN Sustainable Development Goals (Bisang, 2018).

Additionally, consumers are more than ever aware of their environmental impact in purchasing decisions (Umweltbundesamt, 2014). Deloitte (2017) revealed that 46 per cent of Norwegian

[2] Khalamayzer refers to a CSE report: «Sustainability Trends in Silicon Valley». However, the report is not accessible, so it cannot be found in our reference list. URL: https://cse-net.org/article/859/cse-announces-surprising-findings-corporate-sustainability-silicon-valley.

millennials consider climate change or protecting the environment as top one issues of greatest personal concerns. Subsequently, 92 per cent of Americans aged 13-19 say they care about environmental issues, and 89 per cent of them state that they are worried about the health of the planet (Cone Communications, 2017). BBC (2008) further revealed that 45 per cent of consumers around the world believe the most important factor for reducing climate change is ordinary citizens changing their behavior. Lastly, Cone Communications (2017) found that 97 per cent of the general population want to engage in sustainability effort by purchasing products with environmental or social benefits. These statistics reflects that many consumers seem to engage in sustainable behaviors. However, the reality is that many consumers' still do not adopt green alternatives (Ditlev-Simonsen, 2017).

According to Joshi and Rahman (2015) the gap between consumers' sentiments and actions could be explained by the fact that green products often means paying premium prices. Consequently, mainly consumers with higher financial resources will adopt green products, and those with less money will rather choose cheaper alternatives (Joshi & Rahman, 2015; OECD, 2008). On the contrary, Nielsen (2015) found that those earning less than $20,000 yearly were actually five per cent more willing to pay for products from companies committed to social or environmental impacts, as compared to those earning more than $50,000. Nevertheless, the increased focus on green consumption is likely to enhance consumers' awareness of environmental issues over time, consequently leading to perceived personal pressure to choose green alternatives (Euromonitor International, 2012).

Furthermore, a global study by Euromonitor International (2012) revealed that almost 70 per cent of the international participants said they were willing to pay more for a green product, compared to the same product without green features. Likewise, as illustrated in Figure 2, Nielsen (2015) found that 66 per cent of consumers globally are willing to pay more for green products, compared to 55 per cent in 2014 and 50 per cent in 2013. Hence, the trend in green consumption is clearly heading in the right direction.

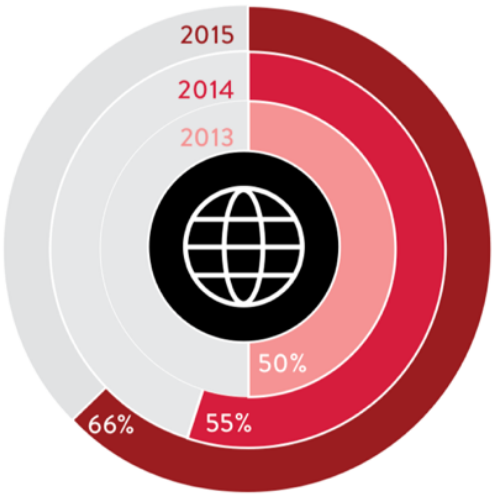


Figure 2: *Willingness to pay more for sustainable goods. Source: Nielsen (2015)*

Moreover, green products have gained high social status and are increasingly popular in conventional markets (Umweltbundesamt, 2014). Consequently, the market for sustainable goods continue to expand. Additionally, statistics from 2014[3] shows that sales of consumer goods from brands with a demonstrated commitment to sustainability have grown more than four per cent globally, while those without grew less than one per cent (Nielsen, 2015). Umweltbundesamt (2014) also revealed that almost EUR 46 billion was spent on green products in Germany, which represents a year-on-year increase of almost 27 per cent from 2011 to 2012[4]. This underlines the market potential for green innovations. Nevertheless, the increase in sales of green products are overall too low to be consistent with consumers' reported attitudes.

Figure 3 is further illustrating a high difference in sales growth and market share for different green product categories in Germany from 2011 until 2012. More specifically, the figure reveals that while sales of organic food and sustainable investment products are growing, the market share in the category for these green products still remains fairly low. Additionally, the market for hybrid, electrical vehicles and carsharing is marginal, despite the increased expansion of these products. On the contrary, green products within the category of household

[3] Data collected across 1300+ brands in 13 categories in an average of 13 countries. Source: Nielsen (2015).
[4] Data source: Calculation on the basis of 2011 and 2012 market data including four categories (food, homes and living, mobility, other consumer goods). Source: Umweltbundesamt (2014).

appliance, paper, MSC-products[5] and lightning have recached a high market share between 40-60 per cent and continue to grow rapidly. Moreover, products such as green electricity has around 50 per cent sales growth and a market share of almost 15 per cent. However, only a few green products has successfully entered the mass market, and many green products still occupy niches (Umweltbundesamt, 2014). The difference in the different product categories reflects a need for distinguishing between categories when studying green consumer behavior.

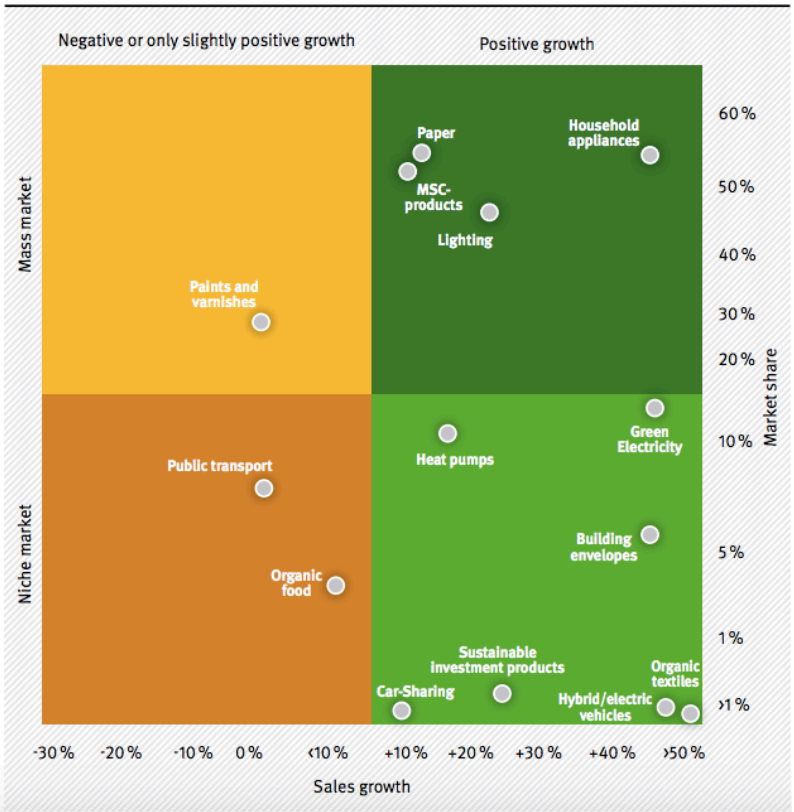


Figure 3: *Market shares for different product categories. Source: Umweltbundesam (2014)*

As environmental issues continue to arise, an understanding of the multiple factors leading consumers to adopt green products have never been more important for both environmental and business reasons. The environmental argument is rooted in the need for reducing negative environmental footprints for the sake of our planet, as several environmental problems are directly or indirectly related to consumption of goods and services (Umweltbundesamt, 2014). From a business perspective, consumers must adopt greener behaviors in order for companies to develop greener products more effectively. Accordingly, to exploit the potential for green

[5] Marine Stewardship Council (MSC): An independent, charitable organisation that supports sustainable fishing from the retail and demand side. MSC-products are products from sustainable fisheries. Source: Umweltbundesamt (2014).

products and transform consumers sentiments into green actions, organizations need to know if their green products and marketing efforts actually meet consumers' needs (Nielsen, 2015).

Some studies have been conducted with the purpose of revealing consumers' drivers for adopting green products. A report by Nielsen (2015) [6] reveals that brand trust or reputation, health and wellness benefits, and products made from fresh, natural or organic ingredients are key purchasing drivers for choosing green consumable products globally, as shown in Figure 4. Moreover, the report shows that 45 per cent of global respondents were influenced in their purchase intent by the fact that the product was sold by a company known for being environmentally friendly. Subsequently, for those willing to pay more for green products, the importance of this factor were 58 per cent, as illustrated in Figure 4 (Nielsen, 2015). This finding indicates that brand equity is important in the adoption of green products. TV ads also had a significant influence on consumers' intention to purchase a green product globally, respectively 34 per cent, thus underlines the power of developing suitable communication strategies.

	GLOBAL RESPONDENTS	THOSE WILLING TO PAY MORE
The products are made by a brand/company that I trust	62%	72%
The product is known for its health & wellness benefits	59%	70%
The product is made from fresh, natural and/or organic ingredients	57%	69%
The product is from a company known for being environmentally friendly*	45%	58%
The product is from a company known for its commitment to social value*	43%	56%
The product's packaging is environmentally friendly	41%	53%
The product is from a company known for its commitment to my community	41%	53%
I saw an ad on television about the social and/or environmental good the product's company is doing	34%	45%

*For those willing to pay extra, the importance of these factors increased the most

Figure 4: *Top sustainability purchasing drivers for global respondents vs. those willing to pay more*

2.2.1 The Norwegian Market for Green Products

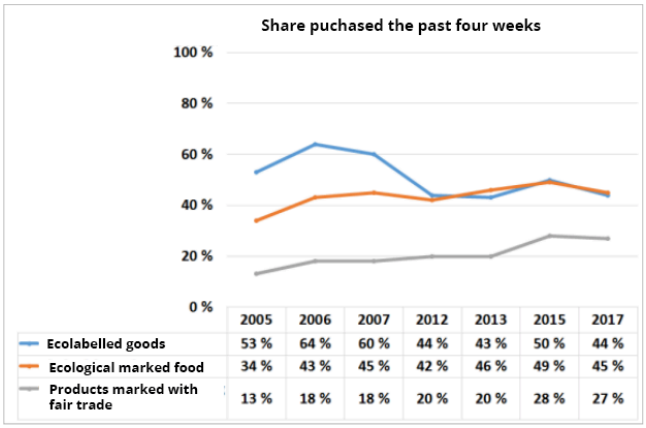
Norway is among countries signalling a strong ambition for shifting to an environmentally friendly society (Aamodt, Narbel, Anisdahl, & Heggenes, 2016). In 2017, the Norwegian government announced that they would hand out NOK 100 million to new projects concerning environmentally friendly technology. Their goal is to increase Norwegian companies' creation and sales of sustainable solutions to maintain a green society and enhance business

[6] Data collection of 30,000 consumers in 60 countries across the globe. Source: Nielsen (2015).

opportunities (Regjeringen, 2017). By taking a proactive role in implementing the green shift, Oslo has been named the European Green Capital of 2019 (Zondag & Archer, 2017). This implies that there will be a positive trend for green alternatives and an increasingly high focus on green consumption in the Norwegian marketplace.

To maintain a green society in Norway it is essential that Norwegian consumers engage in sustainable actions and green consumption (Lavik & Borgeraas, 2014; OECD, 2008). There are some indications that Norwegian consumers participate in the green shift. For instance, electrical cars accounted for 50 per cent of new registered cars in 2018 (Wærstad, 2018). Furthermore, a SIFO-survey on Norwegian consumption trends in 2017[7], revealed that 45 per cent claimed that they had purchased ecological food in 2017 within the last four weeks, as shown in Table 5. The table further reveals that 34 per cent answered the same in 2005, reflecting a small increase for ecological food (Lavik & Borgeraas, 2017).

Moreover, Table 5 illustrates that 44 per cent purchased ecolabelled goods in 2017. However, this percentage was 53 in 2005, suggesting a negative trend for such goods. Lastly, an interesting finding of this survey was that consumers answering "I don't know" on the questions regarding purchasing ecological and ecolabelled food the last four weeks, increased from 5 to 33 per cent (ecological food) and 3 to 17 per cent (ecolabelled food) in the period of 2005 to 2017 (Lavik & Borgeraas, 2017). This indicates that consumers' lack consciousness about environmentally friendly attributes when purchasing such goods.



	2005	2006	2007	2012	2013	2015	2017
Ecolabelled goods	53 %	64 %	60 %	44 %	43 %	50 %	44 %
Ecological marked food	34 %	43 %	45 %	42 %	46 %	49 %	45 %
Products marked with fair trade	13 %	18 %	18 %	20 %	20 %	28 %	27 %

Figure 5: *Sustainable marked food purchased the past four weeks.*
Source: Lavik and Borgeraas (2017)

[7] This study included thee different labels: "Svanemerket" which is a Norwegian ecolabel, "Debio" which is a label for ecological food and "Fairtrade" which is an international labelling for fair commodity trade between the manufacturers in the south and importers in the north.

Although there might be some indications that Norwegian citizens partake environmentally friendly behavior, Norwegian household consumptions have increased by 338 per cent from 1958 to 2012 (Tangland, Heidenstrøm, & Vittersø, 2017). Additionally, Norway have the highest consumption volume per capita in Europe, whereas the personal consumption is 48 per cent higher than the average for today's 28 EU-countries (SSB, 2017). UN (2018) reports that if everyone on the planet consumed as much as the average Norwegian consumer, this would require 3.4 Earths to sustain them. The high consumption in Norway is reflected in, among other things, the 1.2 million tons increase of waste in Norwegian households from 1995 to 2014 (Tangland et al., 2017) and Norway being one of the countries with the highest CO2 emission rate relative to population (FN-sambandet, 2018).

2.2.2 Green Hand Soap and Mobile

As mentioned in chapter 1.2 *Purpose*, we have included *hand soap* and *mobile* in our study. Consequently, it is relevant to assess the market for these products to identify trends and challenges concerning these particular markets today.

Hand soap

Hand soap is a product used in consumers' everyday life. An article in VG (2002) reported that soap accounted for NOK 695 million in 2002, whereas this product constitute the second largest consumption within the product category of perfume, cosmetics and toiletries. In total this category accounted for 1.7 billion in 2007, which is the second largest spending of such products in Europe. This suggest a high purchasing power of soap and cosmetic products in Norway, in addition to Norwegians being considered as people that are careful with hygiene (VG, 2002).

Today, there exist a numerous of different brands offering hand soap in Norway, whereas some of these offer green alternatives introduced in recent time. For instance, Orkla launched a new series of environmentally friendly household cleaning products under the brand name "Klar" in 2017. This brand offers hand soaps with green attributes such as recycled packaging, natural ingrediencies and energy efficient productions (Klardag, n.d.), which seem to be common characteristics for green soap products. Seeing that the consumption of hand soap is remarkable high for Norwegian consumers this imply that sales of greener soap products can be an important contributor for reducing environmental footprints. Consequently, developing a

deeper understanding of green hand soaps can therefore contribute to increase the possibility for more brands introducing green soap products and thereby increase the likelihood for consumers contributing to the green shift by choosing greener soap alternatives.

Green Mobiles

Norwegians purchase a new mobile approximately every second year, and in 2014 the sales of mobiles in Norway constituted 2.1 million mobiles, whereas around 1.8 billion were sold globally (Lindahl, 2015). Although the market for green mobiles today is fairly low, the good news is that the increased focus in environmental consumption is likely to influence manufacturers' incentives to introduce greener phones. Environmentally friendly mobiles are characterized with green attributes such as less energy usage, efficient charging, recyclable materials, and environmental friendly production processes (TDG, 2018). Consequently, if more green mobiles are offered and purchased instead of non-green alternatives, this can contribute to reduce the negative impact on the environment by consumers' high consumption of mobiles. To our knowledge, only a few green mobiles containing such green attributes have successfully entered the market, whereas *Fairphone 2* is the green market leader (DW, 2016; Fairphone, n.d.; TDG, 2018). Thus, studying consumers' intentions to adopt green mobiles can be vital for the market success for such products.

2.3 Summary

From the discussion it is clear that there is a general positive trend for green products in the market. Government, companies and consumers are increasingly expressing their environmental concerns and their willingness to contribute to a greener world. The increased focus of green consumption has contributed to spreading green alternatives in the market. Nevertheless, sales and market share of green products vary depending on the product category, whereas many categories remain niches. Hence, there are still barriers to overcome, and there is clearly more potential in the green market. Consequently, we need more insight about consumers' driving forces for adopting green products and exploit this information to transform consumers' sentiments into green actions. Accordingly, this can contribute to the green shift by helping government and businesses to reach their sustainability goals.

Moreover, the discussion of the Norwegian market for green products underlines that Norwegian consumers' consumption is way too high to be sustainable. Although it is expected

to be a positive trend for green alternatives and an increasingly high focus on green consumption in the Norwegian marketplace, there are only a few examples of Norwegian consumers' taking an active role in contributing to the green shift today. This highlights the need to increase our understanding of Norwegian consumers' decision making processes towards adopting green products in particular.

Lastly, *hand soap* and *mobile* are two products expected to have impact on the environment due to the general high consumption of these products. This indicates that influencing consumers to choose greener alternatives of such products can be important for reducing environmental damage. Today there exist some green *hand soap* alternatives in the marketplace, whereas offerings for green *mobile* are limited. To spread such green alternatives in the marketplace and increase sales of these products can therefore be valuable to provide businesses insight about consumers' intention to adopt green *hand soap* and *mobile*.

3 Developing our Research Model

3.1 Method for Literature Review

To position our paper and develop our research model, we conducted a systematically review of existing research. We applied Google Scholar to search for studies using relevant terms, respectively "green" and "sustainability" combined with "adoption", "choice", "acceptance", "intention" and "attitude" within consumer-, customer- and marketing journals. This resulted in a total of 98 hits. However, we only included ABS[8]-listed studies to ensure credibility, leading to an exclusion of 65 studies. In addition, we excluded four studies with no access and seven studies we did not find relevant (e.g. studies investigating economic incentives and forced choice). Please see Appendix A (ii) for an overview of number of hits for the applied searches, and Appendix A (iii) for a complete list of included- and excluded studies. The resulting list of the considered relevant literature for our study constitute 22 studies and are presented in Appendix A (i).

3.1.1 Main Results of the Review

The studies presented in Appendix A (i) were further reviewed to obtain an overview of applicable and important independent- and dependent factors, research methods, products and countries used to study green adoption. The main features of these studies are listed with references in Appendix A (i) and are briefly described below.

Dependent variable

Appendix A (i) reveals that the majority of the relevant studies have applied intention to purchase or adopt green products as the dependent variable in their research, whereas few studies have used other dependent variables, such as attitude. This indicates that using intention when studying green adoption is a naturally factor to apply as the dependent variable in our study.

Antecedents

Based on the list of relevant literature, several studies have applied the TPB model, including attitude, social norm and perceived behavioral control as antecedents. Some studies have also included the underlying factor of TPB's attitude, namely beliefs. This reflects the usefulness

[8] Association of business schools

of this model when studying consumers' intentions to adopt green products. Additionally, studies have applied other factors to explain green adoption, indicating that other factors than the ones included in the TPB model might be important predictors. Specifically, green brand equity and factors related to brand equity such as green brand positioning, green brand knowledge, and green brand associations are examples of antecedents that have been used to predict purchase intentions. In addition, pro-environmental self-identity, brand credibility, greenwashing and habits are among factors that have been applied to predict consumers' purchase intentions.

Method

Our literature review reveals that different approaches have been used to collect data when investigating green adoption. Some studies have used experimental settings, others have conducted online questionnaires, and a few of the studies have used qualitative interviews to explore their research questions. However, most studies have applied survey to collect data, which reflects that survey is an appropriate choice to use when investigating consumer's intentions for green adoption.

Product

The different studies in our list of relevant literature have included various different product categories. Cars, apparel and food are product categories included in frequent studies. In addition, refrigerator, tissue papers, TV, mobile and skincare products are examples of products applied only once in studies of green adoption. Appendix A (i) shows that most studies only use one single product category in their study, whereas a few have included two products. Moreover, some studies have investigated green products in general and one study have included 22 different product categories. This suggest that when studying consumers' intentions to adopt green products it is common to only investigate one or two products, and that *hand soap* and *mobile* are two underresearched product categories.

Country

Several different countries have been investigated in different studies regarding green adoption. Except two studies comparing two different counties, all other studies investigate only one country. Of these, one study applies a Norwegian sample, indicating that more studies of Norwegian consumers could be necessary to enhance the understanding of green adoption in Norway.

3.2 The Theory of Planned Behavior (TPB)

As discussed in chapter 3.1.1 *Main results of the review*, the TPB model is likely to be a useful model to predict consumers' intentions for green adoption as many green studies have applied this framework (cf. Appendix A (i)). We will therefore investigate this model further to form the basis for our research model and to develop hypothesis.

TPB is an extension of the TRA, and has been one of the most influential theories in explaining and predicting a wide range of behaviors (Ajzen & Fishbein, 1980; Sheppard, Hartwick, & Warshaw, 1988). TPB is improving the TRA model by including perceived behavioral control as a factor, and thus dealing with the limitations of behaviors where consumers have incomplete control in TRA (Ajzen, 1991). Within the TPB framework, Ajzen (1991) argue that consumer's intention to behave in a certain way can be predicted from attitude towards a behavior, social norms and perceived behavioral control, and thereby account for a considerable variance in actual behavior. Further, the theory suggests that human behavior is a function of three kinds of salient beliefs relevant to the behavior. Attitude towards the behavior is assumed to be influenced by consumers' behavioral beliefs, while normative beliefs and control beliefs provides the basis for respectively subjective norm and behavioral control.

TPB is well supported by empirical evidence, and has been seen to provide robust estimates on consumers' intentions to purchase green products (Ajzen, 1991; East, 1997 as referred in Kalafatis et al., 1999). Intension to perform a behavior, e.g. adopting a green product, is thus likely to be predicted with high accuracy by applying the TPB model. We will therefore base our study on this theoretical framework and essential components of the TPB. More specifically, we will include intention to adopt green products, beliefs, attitude towards adopting green products, social norms and perceived behavioral control in our research model.

3.2.1 Intention to Adopt Green Products

Adoption of a product can be defined as when a consumer moves from a *cognitive state (being aware and informed) to the emotional state (liking and preference) and finally to the behavioral or conative state (deciding and purchasing)* (Business Dictionary, n.d.). Thus, when a consumer purchases a product, he/she adopts this product. This means that when we refer to

other studies that apply purchase intentions as the depended variable, this reflects consumers' intentions to adopt.

The TPB model rest on an underlying assumption that the best predictor for performing a behavior is the intention to do so. Intension indicate how much effort consumers are willing to exert in order to perform a behavior (Ajzen, 1991), and is usually a good predictor for revealing actual behavior (Ajzen & Madden, 1986; Hsu, Chang, & Yansritakul, 2017; Schifter & Ajzen, 1985). Conversely, other researchers have criticized the accuracy of explaining actual behavior by using intention (e.g. Weinstein, 2007 as referred in Glanz et al., 2015). However, intentions as measures in relation to behavioral performance is less cumbersome (Ajzen, 1991), and as discussed in chapter 3.1.1 *Main results of the review*, most studies have used consumers' intentions to investigate green adoption. In addition, Ajzen (1991) states that the stronger the intention to engage in a behavior, the more likely a consumer is to act accordingly. Consequently, by measuring factors influencing intention to adopt green products, this paper can enhance our understanding of consumers' intentions, thus increase the likelihood for revealing important drivers for adoption.

3.2.2 Green Product Beliefs

Beliefs can be defied as *the subjective probability of a relation between the object of the belief and some other object, value, concept, or attribute* (Fishbein & Ajzen, 1975, p. 131). Moreover, Schifferstein (2001, p. 73) states that product beliefs are consumers' perception of a product that is *stored in memory in the form of a network of associative knowledge*. Product beliefs can consist of ideas of what the product is, such as functional product attributes, as well as hedonic expectations of whether the consumer expect to like the product (Schifferstein, 2001).

Consumers can form product beliefs in different ways and from several sources. One important source of developing product beliefs are previous experiences with the product or products from the same product category. Product beliefs can also be formed by friends and family providing cognitive information to the consumer, called word-of-mouth (WOM). Additionally, they can be formed by a producer or a marketer in the form of advertising or packaging (Schifferstein, 2001). However, consumers have limited cognitive capacity, and only a limited number of beliefs can be activated and deliberately evaluated at once (Peter & Olson, 1996). The activated beliefs are called salient beliefs.

Even though the TPB model does not include a direct effect between product beliefs and intention to adopt, such effects are theoretically justified in other intention models such as the TAM (Bagozzi, 1982). Additionally, several studies have empirically justified this direct effect (e.g. Davis et al., 1989; Lin & Lu, 2000; Nysveen et al., 2005; Venkatesh & Davis, 2000). Furthermore, some studies have found that consumers' intention to adopt green products is influenced by various *green* product beliefs. Specifically, Lu, Bock, & Joseph (2013) found that several green attributes, such as recyclability or re-usability, biodegradableness, positive health effects, non-toxic ingredients or material and non-polluting and eco-friendly production methods positively influenced Millennials' intention to purchase green products. Similarly, positive effects between green beliefs and consumers' intentions have been identified in studies regarding organic cotton apparel and green moisturiser, that revealed respectively positive effects on the environment and low environmental impact (Kang, Kim, & Kin, 2013; Schuitema & Groot, 2015). Additionally, Nielsen's (2015) study identified that two key drivers for purchasing green products are the product's packaging being environmentally friendly and the product being made from fresh, natural and/or organic ingredients.

In general, beliefs about green production methods, recyclability, and general environmental impact seems to be elements included in many studies and the once identified as the most important to influence consumers' decision making processes of green products (cf. Appendix B). This indicates that if consumers have such green beliefs, it will positively influence their intention to adopt green products. Thus, we expect green product beliefs to have a positive effect on intention to adopt green products.

> *H1: Green product beliefs will positively influence consumers' intentions to adopt green products*

3.2.3 Attitude

Attitude refers to *the degree to which a person has a favorable or unfavourable evaluation or appraisal of the behavior in question* (Ajzen, 1991, p. 188). Thus, attitudes are general evaluations of objects, people or topics, and the term denotes an overall degree of favorability (Ajzen, 2001). When studying consumer behavior, attitude is one of the most important concepts (Peter & Olson, 1996). Several definitions of the term have been proposed, whereas

nearly all of them refer to consumers' overall evaluation of a concept. In our paper, we will define attitude as *a person's overall evaluation of a concept* (Peter & Olson, 1996, p. 157).

According to the TPB model, a consumer's evaluation of salient beliefs of a product will directly influence his/her overall attitudes towards adopting this product (Fishbein & Ajzen, 1975). This argument is well-established in Fishbein's multi-attribute model where the key proposition is that *the evaluations of salient beliefs cause overall attitude* (Peter & Olson, 1996, p. 167). In general, people tend to positively evaluate objects that are associated with "good" attributes and have negative perceptions of objects associated with "bad" characteristics. More specifically, Fishbein's model argue that attitude is a function of the strength and evaluation of the salient beliefs associated with an object (Peter & Olson, 1996). Consequently, an investigation of consumers underlying set of salient beliefs is necessary to understand consumers' attitudes towards adopting green products.

Subsequently, some green studies have revealed a positive relationship between green beliefs and attitude. In particular, Thøgersen and Zhou (2012) revealed that green product beliefs such as healthiness, pesticide residues and environmental friendliness were significant predictors of attitude towards purchasing organic food. This finding is also reflected in a study on green skincare products where the researchers recommend marketers to use green benefits in marketing strategies of green skincare product in order to influence consumer's attitude towards these products (Hsu et al., 2017). Moreover, Han, Hsu, & Sheu (2010) found in a green hotel study that behavioral beliefs, such as green hotels enabling a consumer to protect the environment, influence consumers' attitude positively. Lastly, Huang et al. (2014) identified that attitude was positively influenced by green brand image, such as that the brand's products are made of recyclable materials, and green positioning, including low fuel-usage and low air-polluting. These results can indicate that green product beliefs are likely to affect attitude positively.

Further, as discussed in chapter 2.2 *The market for green products*, consumers are in general concerned about the environment. Thus, it is likely that green products are associated with positive characteristics and thereby create positive attitudes towards such product. This, in addition to the discussion above, implies that green product beliefs will positively influence attitude towards adopting green products.

H2: Green product beliefs will positively influence attitude towards adopting green products

The TPB model assume that the more favorable the attitude towards the behavior, the stronger the consumers' intention to perform a behavior (Ajzen, 1991). Several studies support this statement, arguing that attitudes are valuable predictors of behavior (Bamberg & Möser, 2007; Mitchell & Olson, 1981; Pavlou & Fygenson, 2006; Tanner & Kast, 2003). Therefore, marketing researchers might use attitude as a measure to predict the likelihood for consumers to purchase a product.

Furthermore, studies in relation to green behavior have identified a positive relationship between attitude and intentions (e.g. Han et al., 2010; Hsu et al., 2017; Kalafatis et al., 1999; Ko & Jin, 2017; Lenne & Vandenbosch, 2017; Thøgersen & Zhou, 2012). For instance, Lenne & Vandenbosch (2017) found that attitudes towards buying sustainable apparel had significant and positive influences on intention to purchase green apparel.

Lastly, seeing that the vast majority worldwide want to engage in sustainability effort and purchase products with environmental or social benefits (Cone Communications, 2017), we expect consumers to have a general positive attitude towards adopting green products. This argument is also supported by previous research that have documented that consumers have positive attitudes towards green products (e.g. Tanner & Kast, 2003; Vermeir & Verbeke, 2006). Consequently, there is reason to believe that attitude towards adopting green products will have a positive influence on consumers' intention to adopt green products.

H3: Attitude towards adopting green products will positively influence consumers' intentions to adopt green products

Additionally, Hair, Black, Babin, Anderson, and Tatham (2006) suggest that there is an indirect effect when there is a sequence of two or more direct effects. Therefore, seeing that beliefs is expected to influence consumers' attitude, and that attitude further is expected to influence their intention to adopt, it is reason to believe that green product beliefs' influence on intention are mediated through attitudes. This mediating effect is well established in the TPB, TRA and TAM (Nysveen et al., 2005), whereas these theories suggest that the mediating effect are caused by a causal flow among beliefs, attitudes and intention. The logic behind this is that

consumers form beliefs when they get exposed to a green product, and these product beliefs will impact their attitudes towards adopting green products, that in turn will influence their intention to adopt green products.

Some green studies have also identified a significant positive influence of green beliefs on attitude in addition to a significant positive influence of attitude on intention (e.g. Han et al., 2010; Thøgersen & Zhou, 2012). This indicates that attitude might mediate the effect between green product beliefs and intention. Thus, in addition to the suggested direct effect of beliefs on intention, we expect an indirect effect of this relationship through attitude.

> *H4: Green product beliefs' influence on intention to adopt green products is mediated by attitude towards adopting green products*

3.2.4 Social norm

Social norm can be defined as *the perceived social pressure to perform or not to perform the behavior* (Ajzen, 1991, p.188). This means that a consumer's behavior is influenced by expectations or opinions from others. Social pressure to comply with a behavior can arise by how others behave or by WOM from friends, family, neighbours, and even strangers (Hoyer et al., 2013).

The Theory of Normative Conduct proposes that consumers rely on social norms to guide their behaviors (Cialdini, Reno, & Kallgren, 1990). Consumers often use social norms as guidelines to decide if a behavior is morally right or wrong, and whether it is beneficial to perform (Bamberg & Möser, 2007; Cialdini et al., 1990). However, the strength of social influence depends on the product characteristics, the individual consumer and the group to which a consumer belongs (Hoyer et al., 2013).

In the green context, several studies have identified social norm to be significantly important for green intentions. Firstly, a study on consumers' purchase intentions of green skincare products revealed a significant and positive effect of social norm (Hsu et al., 2017). Similarly, intention was found to be positively and significantly influenced by social norm in two studies on green apparel products (Ko & Jin, 2017; Lenne & Vandenbosch, 2017). Lastly, two green studies identified social norm to be an important determinant for intention to purchase respectively green household products and green products in general (Arli, Tan, Tjiptono, &

Yang, 2018; Sreen, Purbey, & Sadarangani, 2018). This indicates that social norm is an important driver for consumers' intention to adopt green products.

Moreover, as discussed in chapter 2.2 *The market for green products*, it is clear that environmental issues continue to arise around the world and that there is a positive trend for green consumption. Consequently, consumers are likely to perceive green behavior as the "right way" to behave. Additionally, choosing greener alternatives are presumably socially favorable as these actions can contribute positively to a greener environment. Social norm is therefore expected to positively influence consumers' intentions to adopt green products.

H5: Social norm will positively influence consumers' intentions to adopt green products

3.2.5 Perceived Behavioral Control

Perceived behavioral control refers to *the perceived ease or difficulty of performing the behavior* (Ajzen, 1991, p. 188). Behavioral control can reflect consumers' perceived effort needed to perform a behavior, and is assumed to express past experience with a behavior, as well as expected obstacles and barriers for performing this behavior (Ajzen, 1991). The performance of most behaviors is dependent on some degree of non-motivational factors such as availability of opportunities and resources, like time, money, skills and cooperation of others (Ajzen, 1985). Together, such factors indicate consumers' actual control over the behavior. Thus, a consumer should be able to perform a certain behavior if he/she has the required opportunities and resources to perform this behavior (Ajzen, 1991).

When studying consumers' intentions to adopt green products, studies have found that higher prices, lower availability, time and effort are barriers for adoption (Barbarossa & De Pelsmacker, 2016; Barbarossa & Pastore, 2015). This indicates that consumers' intentions to adopt green products will depend on their available resources to adopt such products. Several green studies have further revealed a positive relationship between behavioral control and purchase intentions of green products (e.g. Arli et al., 2018; Hsu et al., 2017; Ko & Jin, 2017; Lenne & Vandenbosch, 2017; Sreen et al., 2018; Thøgersen & Zhou, 2012).

Additionally, our discussion in chapter 2.2 *The market for green products* suggest that consumers' adoption of green products might be hindered by perceived higher prices for such products. This highlights the importance of perceived behavioral control in relation to

consumers' intentions of green adoption. Consequently, perceived behavioral control is expected to positively influence consumers' intentions to adopt green products.

H6: Perceived behavioral control will positively influence consumers' intentions to adopt green products

3.3 Brand Equity

Based on the discussion in 3.1.1 *Main results of the review,* brand equity can be relevant to include in an extended TPB model to increase the explanatory power of our research model. Therefore, we will investigate potential influences of brand equity on consumers' intentions to adopt green products.

A general definition of brand equity is *the "added value" with which a given brand endows a product* (Farquhar, 1989, p. 24). Similarly, Aaker (1991, p. 15) defined brand equity as *a set of symbol, that adds to or subtracts from the value provided by a product or service to a firm and/or to the firm's customers*. This implies that the value of a brand can be assessed from either a business-, trade- or a consumer perspective (Farquhar, 1989). The latter is often referred to as customer-based brand equity and is defined as *consumers' different response between a focal brand and an unbranded product when both have the same level of marketing stimuli and product attributes* (Yoo & Dothu, 2001, p.1). Because our paper aims to study consumer behavior, we will therefore assess customer-based brand equity.

According to several researchers, customer-based brand equity consist of four dimensions: brand loyalty, perceived quality, brand awareness, and brand image (Keller, 1993; Namkung & Jang, 2013; Yoo & Donthu, 2001; Aaker, 1991). Brand Loyalty is defined by Aaker (1991, p.39) as *the attachment that a customer has to a brand*. This involves consumers' tendency to purchase a brand as a primary choice (Oliver, 1997, as referred in Yoo & Dothu, 2001). Perceived quality is *the customer's judgement about a product or service's overall excellence or superiority* (Zeithaml, 1988, p. 3), and is therefore consumers' subjective evaluations rather than the objective truth. Brand awareness refers to *the strength of the brand node or trace in memory* (Keller, 1993, p. 3), implying how strongly consumers hold associations or impressions of a brand in their memory. Associations are further defined as *those specific attributes and benefits linked to the brand and its competitors* (Keller, 2013, p. 242). Moreover,

brand image is defined as *the set of associations linked to the brand that consumers hold in memory* (Keller, 1993, p. 2), meaning consumers' overall perception of the brand. Lastly, based on conventional branding theory, companies can achieve a strong customer-based brand equity if they aim towards making the brand salient in consumer's mind and provide the brand with associations that identify its product offering and distinguish it from its competitors (Keller, 2013).

According to Keller (1993), brand associations can involve consumers' beliefs about a product. The argument for this is that a product category can be characterized by a set of associations that include specific beliefs about a product within the category. These beliefs involve many of the product-related attributes for the specific brand. Consequently, because the brand is linked to the product category, beliefs about a product can be transformed to the brand. Thus, consumers' beliefs about a product can affect customer-based brand equity as they may reflect strong, favorable and unique associations. On the contrary, beliefs might be related to the objective reality of the product, hence not reflecting a brands' or products' underlying customer-based brand equity (Keller, 1993).

Nevertheless, as discussed in chapter 2.2 *The market for green products,* consumers are increasingly concerned about the environment, in addition to green products being the minority of offerings in most categories. Thus, there is reason to believe that if consumers have green beliefs about a product, it can affect the mother brands' brand equity positively. Subsequently, previous studies have found that green brand associations, which can involve green product beliefs, positively affect green brand equity (Akturan, 2018; Chen, 2010). Similarly, Namkung and Jang (2013) found that green practises such as energy efficiency, recycling and organic products, positively and significantly influenced brand equity. Thus, we expect consumers' green product beliefs to positively affect customer-based brand equity, hereafter referred to as brand equity.

H7: Green product beliefs will positively influence brand equity

Additionally, brand equity is found to positively affect future profits (Srivastava & Shocker, 1991), consumers' willingness to pay premium prices (Keller, 1993), sustainable competitive advantages (Bharadwaj, Varadarajan, & Fahy, 1993), and marketing success (Ambler, 1997). Additionally, there is a general consensus in branding literature that brand equity positively

influences consumers' brand preferences and purchase intentions (e.g. Chang & Liu, 2009; Chernatony et al., 2004; Cobb-Walgren et al., 1995; Huang et al., 2011; Moradi & Zarei, 2011; Myers, 2003). Thus, if a brand has high brand equity it is likely that this will increase the possibility for consumers' intending to adopt products from this brand.

Linking brand equity's influence on consumers' intentions to adopt green products, Akturan (2018) found that green brand equity positively affect Turkish consumers' purchase intentions of green refrigerators and green tissue papers. In addition, studies investigating green branding reveal that drivers related to brand equity, such as green brand knowledge, green trust and green perceived value, positively affects consumers' intentions for adopting green brands (Chen & Chang, 2012; Mohd Suki, 2016). This indicates that brand equity will have a significant and positive effect on consumers' intention to adopt green products.

> *H8: Brand equity will positively influence consumers' intentions to adopt green products*

As discussed above, green product beliefs are expected to influence brand equity, and brand equity is further anticipated to influence consumers' intentions to adopt green products. This suggest that there is a causal flow among beliefs, brand equity and intentions, indicating an indirect effect of green product beliefs' influence on intention, whereas brand equity function as a mediator (Hair et al., 2006). However, reviewing the relevant literature (cf. Appendix A(i)) this revealed that no other green studies have identified nor investigated this potential mediating effect. Regardless, seeing that green product beliefs can constitute brand associations that further can influence brand equity, and that brand equity in turn can influence intention, we propose that the effect of consumers' green beliefs on intention is mediated through brand equity.

> *H9: Green product beliefs' influence on intention to adopt green products is mediated by brand equity*

3.4 Product Involvement

As discussed in chapter 2.2 *The market for green products,* sales and market share of green products vary depending on the product category, reflecting the need for distinguishing

between categories when studying green consumer behavior. Thus, we find it relevant to review theory of involvement to identify its relevance to influence adoption of green products.

Involvement with a product or a purchase (hereafter referred to as product involvement) represent consumers' perceived relevance of the actual product category or the purchase decision (Clarke & Belk, 1979; Mittal & Lee, 1989; Quester & Lin Lim, 2003; Zaichkowsky, 1985b). Level of product involvement influence the amount of effort a consumer put into the decision making process (Clarke & Belk, 1979; Coşkun, Vocino, & Polonsky, 2017; Hoyer et al., 2013). High involvement products includes products within a product category that are more expensive, reflect more of consumer's self-identity and moral principles, and which involves a greater risk, e.g. financial and psychological risk (Barbarossa et al., 2015). This typically involves consumers ascribing more effort to gather information before a purchase, and are usually products that are important to the consumer (Akturan, 2018). Example of high involvement products are cars (Barbarossa et al., 2015; Barbarossa & De Pelsmacker, 2016) and refrigerators (Akturan, 2018).

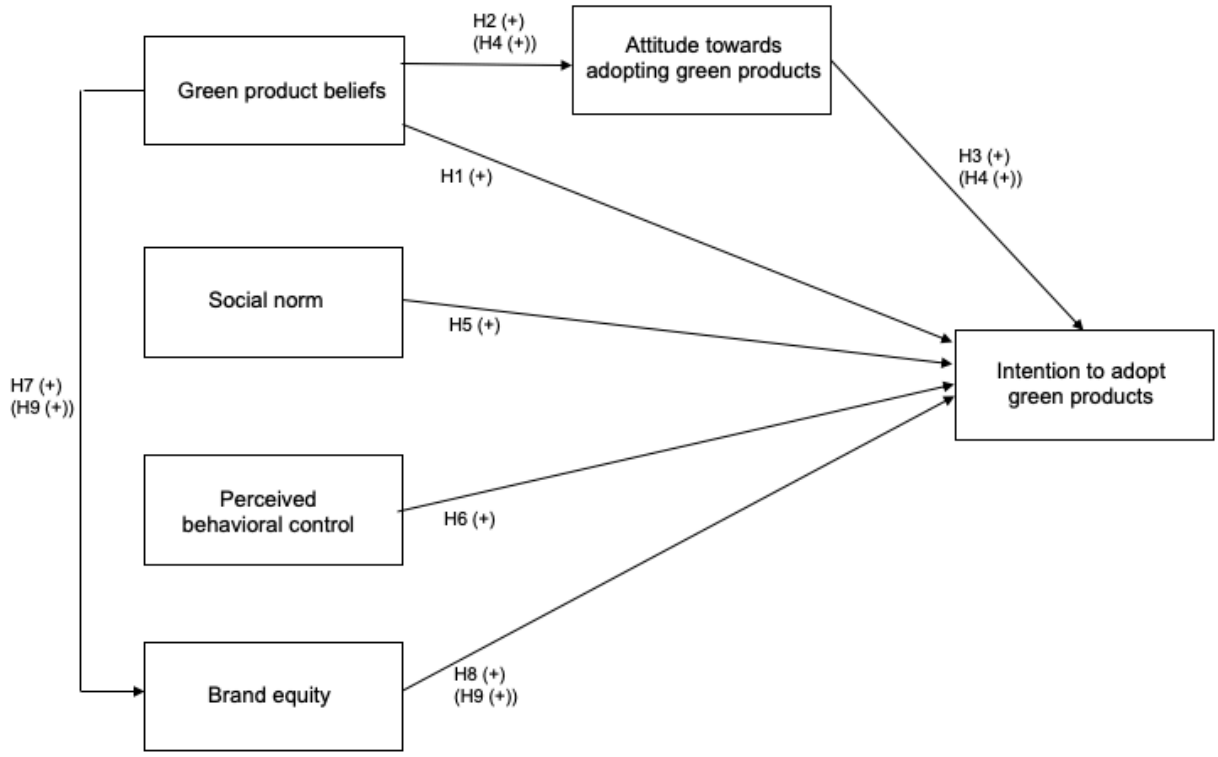
Conversely, low involvement products are products that do not have a substantial effect on a consumer's lifestyle, and which entail minimal effort and consideration by consumer prior to purchase. Purchases based on habits are therefore typical for low involvement products as it requires little effort to make the purchase decision (BusinessDictionary, n.d.). Consumers also tend to use heuristics, which is simple rules of thumb used to make judgements, WOM and/or social norms when making choices involving low involvement products to simplify the decision making process (Hoyer et al., 2013). These products are often purchased on a regular basis, such as paper products and detergents (Follows & Jobber, 2000), batteries (Coşkun et al., 2017), food and other groceries (Barbarossa et al., 2015; Luchs et al., 2010).

From the discussion above it is clear that consumers use different strategies in their decision making processes depending on whether the product is perceived as a high or low involvement product. As high involvement products often lead to increased effort in information search and product comparison (Ling-Yee, 1997; Zaichkowsky, 1985a), consumers are more likely to base their decisions on specific product beliefs. On the contrary, as consumers engage in less information search for low involvement products, decisions are often made out of habits, heuristics, social norms and/or WOM. Thus, we will explore if beliefs' influence on attitude, brand equity and intentions will vary depending on level of product involvement.

Proposition: The influence of green product beliefs on attitude towards adopting green products, brand equity and consumers' intentions to adopt green products is different for high- and low involvement products.

3.5 Research Model and Hypothesis

Our research model, with proposed effects of the relationship between the factors included, is presented in Figure 6. Based on propositions of the presented literature and theories, we have developed several hypotheses to answer our research questions. Firstly, we believe beliefs will positively influence intention to adopt (H1), as well as attitudes (H2) and brand equity (H6). Further, in accordance with the traditional TPB model, attitude (H3), social norms (H5) and perceived behavioral control (H6) are expected to positively influence intention to adopt. We further expect mediating effects of beliefs' influence on intention through respectively attitude (H4) and brand equity (H9). Lastly, we will explore if there are differences in beliefs' influence on attitude, brand equity and intention, depending on the level of product involvement.



Mediating hypothesis are marked in parenthesis.

Figure 6: *Research model and hypothesis*

4 Methodology

4.1 Research Design

The purpose of this master's thesis is to discover what drives consumers to adopt green products by investigating the effects of belief, attitude, social norm, behavioral control and brand equity on intention. Furthermore, we aim to identify if green product beliefs increase brand equity, and whether belief influence attitude. Lastly, we wish to explore whether these effects are different depending on the degree of product involvement.

In order to provide valid answers to the research questions outlined in chapter 1, choosing a suitable research design is desired. The research design will provide guidelines to collect and analyse data and helps us make reasonable choices for answering our research questions. Saunders, Lewis, and Thornhill (2009) further states that a suitable research design is one that both secure the necessary statistical measures and enable completion of the research within the desired timeframe.

4.1.1 Our Choice of Research Design

In our study, we have conducted an extensive literature review to develop certain expectations about consumers' intentions to adopt green products. More specifically, we have based our hypothesis on propositions of the well-established TPB framework by Ajzen (1991), combined with prior empirical findings, and consumer behavior- and branding literature. Thus, we have used a deductive approach, aiming to draw conclusions from general theoretical propositions to apply them in the context of green adoption (Research Methodology, n.d.; Saunders et al., 2009).

After developing our research model, collecting data is necessary to provide answers to our proposed hypothesis. As our paper is a master's thesis with a timeframe of four months, this puts constraints on both time and resources. Additionally, in this paper we intend to investigate consumers' intentions today, and not particularly measuring change over time. Therefore, a cross-sectional study was chosen for our data collection, as it gives us a "snapshot" of today's situation in a time efficient way (Saunders et al., 2009).

When conducting a cross-sectional study, a survey is often employed (Pallant, 2011). Furthermore, as discussed in chapter 2.1.1 *Main results of our review*, our literature review

reflects that survey is an appropriate design for investigating consumer's intentions to adopt green products. Thus, applying a survey in our study is a reasonable choice and will additionally enable us to compare our results with existing literature more accurately. Subsequently, using a survey gives us control over the research process and allows us to collect a large amount of data from our chosen population in a cost-efficient way (Saunders et al., 2009). Moreover, by using questionnaires, the data collected are easy to compare, interpret and understand (Jacobsen, 2000). Thus, we apply a questionnaire research within a cross-sectional design in this study.

4.1.3 Questionnaire Design

As discussed in chapter 2.2 *The market for green products*, the market share for many green products are fairly low, indicating that consumers have limited experience with green products and thus lack consciousness about green beliefs. To study the effect of green beliefs, variation in perceived greenness is essential, and respondents lacking experience of green beliefs could therefore be a potential problem for our study. Consequently, to ensure variation in respondents' perceived greenness, we developed scenarios where we manipulated green beliefs.

More specifically, we investigated *hand soap* and *mobile*, whereas each of the products were presented in three different scenarios, respectively a very-green-, a medium-green- and a low-green product story. Thus, our study constituted six different stories (cf. Appendix C), applied in a 3 x 2 factorial between-subject design as illustrated in Table 1. When distributing the survey, participants were randomly assigned to one of the six stories. The nature of the questionnaire therefore resembles a scenario-based experiment. This is also a common approach when studying consumers' intentions (e.g. Namkung & Jang, 2013; Nysveen & Pedersen, 2016), which reflects the usefulness of applying this design in our study.

	Very-green scenario	**Medium-green scenario**	**Low-green scenario**
Low involvement product (hand soap)	Very-green hand soap (1)	Medium-green hand soap (2)	Low-green hand soap (3)
High involvement product (mobile)	Very-green mobile (4)	Medium-green mobile (5)	Low-green mobile (6)

Table 1: *3x2 Factorial between-subject design matrix*

Additionally, the participants were told to think of the last time they purchased a *hand soap/mobile* and imagine that the actual brand had launched a new *hand soap/mobile*. The combination of the scenario and the real experience of their last purchase facilitated for the participants to imagine their perceptions of a product with green attributes from a familiar brand. This enabled us to study the effect of green product beliefs.

The product scenarios were developed based on green attributes highlighted as important for green choices and perceived greenness in previous research (cf. Appendix B). As discussed in chapter 3.2.2 *Green product beliefs*, important green attributes were attributes such as recyclable or re-usable material, eco-friendly production methods, natural ingredients and production using energy-efficient equipment. Consequently, we provided the respondents with information regarding all of these attributes in the scenarios but varied the attributes' degree of greenness.

Particularly, as we intended to receive high scores on green product beliefs through the very-green scenario, we highlighted all the attributes as very green. In the medium-green scenario, we intended to achieve medium scores on the belief items and therefore reduced the greenness of the same attributes, such as that the product was recyclable but not re-usable. To ensure low scores on the belief items for the low-green scenario, we presented the product without green features and underlined the non-greenness of the attributes, such as that the production was not energy-efficient. The underlining of non-green attributes was also applied by Namkung and Jang (2013), that studied consumers' effects of green practices on brand equity formation.

Additionally, to enable comparison between high and low involvement products, the stories for the corresponding scenarios must be perceived as relatively similar across *hand soap* and *mobile* (Hair et al., 2006). However, seeing that *hand soap* and *mobile* are two distinct products, we found it necessary to adjust the stories to fit the corresponding product category. Regardless, we aimed to construct the stories adequately similar between the two products for all three scenarios (cf. Appendix C).

Furthermore, in addition to green attributes, we included information about common characteristics for the two products in all three scenarios. For instance, we described that the *hand soap* came in a container with a small etiquette in front, and that the *mobile* included headphones and a charger. In addition, we provided information about attributes assumed to be

vital when purchasing these products, respectively fragrant soap and stylish mobile design. Lastly, we ensured that the product description was in accordance with typical green attributes for *hand soap* and *mobile*, as presented in chapter 1.2.2 *Green hand soap and mobile*. By doing so, we intended to increase the scenario realism by portraying a more credible product and increasing the possibility for respondents to familiarise themselves in a real purchase situation. The six complete stories can be found in Appendix C.

4.2 Pre-test

4.2.1 Pre-test of Scenarios

Before distributing the survey, it was essential to pre-test if the three scenario conditions for both *hand soap* and *mobile* was perceived as intended. Firstly, we asked 24 Norwegian students at the Norwegian School of Economics (NHH) to rate the belief items after reading *one* of the six stories. Thus, we applied a between-subject design to ensure that the respondents' ratings where not influenced by the other stories. The results are presented in Appendix D and revealed that the low-green and very-green scenarios was perceived as intended for both products, with average values of respectively 2 and 6.25 for *hand soap* and 1.9 and 5.9 for *mobile*. However, the medium-green scenario was perceived as greener than intended (respectively 4.9 and 4.6). Consequently, we adjusted some aspect of the medium-green stories to be less green.

Secondly, we pre-tested if the adjusted medium-green stories would provide us with more appropriate values for the belief items. We asked four new NHH-students to answer the belief items after reading *one* of the new medium stories. This revealed average values of 3.9 for *hand soap* and 3.7 for *mobile* for the new medium-green scenario (cf. Appendix D). Thus, the new medium stories were perceived as more suitable in accordance with our intentions. This indicates that the final green stories, as presented in Appendix C, contribute to manipulate green product beliefs by ensuring adequate variations in respondents' perceived greenness. Consequently, the results of our pre-tests imply that our questionnaire can capture effects of the belief construct.

Lastly, our pre-tests indicated that there are some variations between the specific beliefs between the stories for *hand soap* and *mobile*. However, as these are two different products with different functions, we expected some variations. Nevertheless, the total average scores for the different stories seem to reflect that consumers perceived somewhat similar level of

greenness for the story portraying a very-green *hand soap* and a very-green *mobile*, as for the medium-green and low-green stories for both products (cf. Appendix D). Therefore, the pre-test indicates that the scenarios are adequately similar to enable exploring the influence of product involvement in our model by comparing results of *hand soap* and *mobile.*

4.2.2 Pre-test of Product Involvement

In our study we have chosen to include two green products, respectively *hand soap* and *mobile*. The reason for choosing these particular products was mainly because they differ in the degree of involvement. While *hand soap* is a frequently purchased product by most consumers, and involve a relatively low financial risk, we assume it to be a low involvement product. On the contrary, we expect the opposite to be applicable for *mobile*, making it a high involvement product. By including these two products, it can enable us exploring the potential effect of involvement in our study. However, because product involvement can depend on consumers' subjective perceptions, we found it valuable to conduct a pre-test to investigate if our assumptions are reasonable.

This pre-test was conducted on the same 24 NHH-students as used in the previous pre-test. The students were asked to answer the questions regarding product- and purchase involvement to *one* of the relevant products. The results of this pre-test are presented in Appendix D. As expected, both product- and purchase involvement where perceived as high for mobile, with average values of respectively 5.7 and 5.6. Furthermore, the purchase involvement for *hand soap* was perceived low (avg. 3.2), as intended. However, the product involvement was rated somewhat higher than expected for *hand soap* (avg. 4.4). A reasonable explanation for this is that hygiene in general is important, as discussed in chapter 2.2.2 *Hand soap and mobile*. A discussion with the 24 students further revealed that a *hand soap* can have a symbolic function to some consumers as it is a visible and trendy product that can be decorative in addition to its functional purpose. Nevertheless, the overall results indicate that the difference between *hand soap* and *mobile* is sufficient to represent low- and high involvement products.

4.3 Sampling and Data Collection Procedure

4.3.1 Sampling

The target population for our study is Norwegian NHH-students. This population can be categorised as important potential users of green products as they are assumed to have high

purchasing power in the future. Consequently, investigating this particular group can be important to increase the market potential for green products in Norway, and thereby important for maintaining a sustainable society. Additionally, as the NHH-students are part of a higher educational program, and thus likely to have relatively high cognitive capabilities, this will increase their ability to give us accurate responses to the survey questions (MacKenzie & Podsakoff, 2012). Subsequently, NHH-students are assumed to be familiar with participating in questionnaires as students often are asked to participate in surveys at NHH. This can increase their ability to understand the questions and further answer accurately. Furthermore, NHH-students are easy to get hold of, and are thereby both time- and resource effective to use for our research. Lastly, both *hand soap* and *mobile* are products NHH-students are familiar- and experienced with. Consequently, these products are considered relevant and can therefore provide us with valid answers as it can enable the students to imagine themselves purchasing these particular products.

4.3.2 Data Collection Procedure

The data was collected over a period of two days in early November 2018. Our questionnaire was developed and conducted using Qualtrics, which is a program enabling us to create an online survey. It also gives us access to download the data file in SPSS for further data analysis using SPSS 25 and Mplus 7.4. We distributed our questionnaire through a Qualtrics-link that was sent by e-mail, inviting our target group to participate in the survey by following the attached link. Thus, this procedure resulted in self-selection, as the respondents chose whether or not to participate.

To ensure that the respondent's participation in the questionnaire was fully anonymous, we sat Qualtrics to not track IP-addresses. This prevented the possibility to track responses back to the individual respondent's e-mail address. Additionally, to further ensure anonymity of the responses, we included only two control variables to avoid obtaining detailed personal information as our study contains a relatively small population. The respondent's complete anonymity was clarified in both the introduction of the survey and the e-mail (cf. Appendix H). This decreased the possibility of social desirability bias to occur in our study, meaning that the respondents answer questions that will be viewed favorable by others instead of his/her actual opinion (Saunders et al., 2009).

The administration at NHH provided us with e-mail addresses to all Norwegian students attending the bachelor-, master- and MRR- programme at NHH. The invitation was sent to 5606 e-mail addresses, including both private- and student e-mail addresses to each student. By doing so, we increased the possibility that all the students would receive and notice the invitation, considering that the e-mail could end up in the respondent's junk mail, be sent to outdated private e-mail addresses, and/or be overlooked as the student e-mail is not regularly updated by students. In total, the survey was distributed to 2803 unique students, whereas 633 chose to participate. Of these, 215 did not complete the survey, and nine did not accept to voluntarily participate, resulting in a total of 224 non-completed questionnaires. These 224 were removed from our dataset, considering them to be confusing for further data analysis. Overall, this resulted in a dataset of 409 completed questionnaires.

Before moving on to statistical analysis, it was necessary to screen and clean the dataset for errors due to careless responses, as such errors can mess up the analysis (Pallant, 2011). Firstly, Qualtrics estimated the response time to be approximately five minutes. Consequently, we decided a threshold for the response time to be 170 seconds, assuming that it is unlikely to complete the questionnaire accurately and with thought through answers under this time limit. Seven respondents were removed due to this threshold. Secondly, we assumed that answering nine or more of the same number in a row would indicate inaccurate answers. This did not apply to the belief items, considering that the scenarios were manipulated to generate similar ratings on these items. As a consequence, we removed additionally nine responses from our dataset. Thus, of the 409 competed responses, these actions resulted in a total of 387 valid responses that will constitute our dataset for further analysis, constituting a response rate of 14% (387/2803).

4.4 Measures

4.4.1 Measurement Items

Our research model, as presented in chapter 3.5 *Research model and hypothesis*, consists of six constructs (in addition to product involvement which will be investigated by an explorative approach). When establishing measurement items for the constructs, it is beneficial to use prior developed items as it enables us to compare our findings with previous studies, allows reliability to be assessed and is time efficient (Saunders et al., 2009). All adapted items and the corresponding measurement items used in our study can be found in Appendix E.

The constructs from the original TPB model have measurement items that are well founded in previous research. The measurement items for attitude, social norm and behavioral control was adapted from a study by Nysveen, Pedersen, & Thorbjørnsen (2005). This study applied similar measurement items for social norm and behavioral control as Bhattacherjee (2000, as referred in Nysveen et al., 2005). The measurement items they applied for attitude was similar to those used by Davis (1989). However, as they were examining consumers' intent to use a mobile service, we switched the word *service* with *hand soap/mobile* in our study. Furthermore, to measure intention, we adapted the two items used by Yoo & Donthu (2001). Additionally, we found it valuable to add an additional item to measure intention in our study, which was adopted from Barbarossa et al. (2015).

Moreover, measurement items for the brand equity construct is also established in previous literature. In our study, brand equity was measured by four items adapted from Yoo & Donthu (2001). Furthermore, Zaichkowsky (1985) applied measurement items for two dimensions of involvement, namely product- and purchase involvement. Considering product involvement in our study to consist of both aspects, we adapted items from Zaichkowsky's (1985) two dimensions to measure product involvement.

When reviewing the relevant literature (cf. Appendix A (i)), we did not discover well-established items for measuring green product beliefs. In order to measure green product beliefs, we therefore found it valuable to explore additional studies relevant to green product beliefs. This revealed that many different measurement items have been applied to measure various aspects of green beliefs (cf. Appendix B). Furthermore, Appendix B show that items that seem relevant to measure green product beliefs were used to measure different constructs, such as green image and green hotel practices. Thus, it was necessary to assemble various items from different studies in *one* complete construct, resulting in nine measurement items (cf. Appendix E). Consequently, increasing the possibility for this construct to capture the different aspects of green beliefs, as discussed in chapter 3.2.2 *Green product beliefs*.

4.4.2 Measure Scale

Our questionnaire mainly consisted of rating questions which makes opinion data easier to interpret and use for statistical analysis with a large sample size (Saunders et al., 2009). More specifically, we mostly used the Likert-style rating scale where the respondent rates how

strongly he/she agree or disagree with different statements. We further chose a seven-point rating scale, as it enables finer shades of opinions on the data collected (Saunders et al., 2009). The Likert scale were used for measuring belief, social norm, perceived behavioral control, brand equity, intention and purchase involvement. In addition to the Likert-scale, we used a semantic differential rating scale to determine underlying attitudes and product involvement. The respondents were then asked to rate an object or idea on a series of bipolar seven-point rating scales, where each bipolar scale were described by a pair of opposite adjectives (Saunders et al., 2009). The measurement items for all these constructs are presented in Appendix E.

4.5 Assumptions of Multivariate Analysis

When performing multivariate analysis, a set of assumptions should be met. These includes normality, homoscedasticity and linearity. Additionally, the data should be assessed from independent responses, and should further be investigated for problems concerning multicollinearity (Hair et al., 2006). The constructs tested in this chapter are composed as specified in Table 7.

4.5.1 Normality

Normality is the most fundamental assumption in a multivariate analysis and refers to normal distribution of the constructs. If the variation from normality is substantial, all resulting statistical tests, including the F- and t-test will be invalid. To ensure that our latent constructs do not violate the normality assumption (i.e. achieving univariate normality for all variables), we must assess both the extent to which our variable's distribution is normal, and the size of our sample (Hair et al., 2006).

Firstly, inspecting the constructs' skewness and kurtosis, respectively the balance and the height of the distribution, can indicate if our constructs are normally distributed (Hair et al., 2006). According to Hair et al. (2006), skewness values outside the threshold of -1 and 1 implies that a construct is substantially skewed. Table 2 shows that all of the constructs are within this threshold, except behavioral control (-1.535). When inspecting the constructs' kurtosis, all constructs are within the recommended threshold between -1.96 and 1.96 (Rose et al., 2015). Thus, the skewness and kurtosis values indicate that belief (Bel), attitude (Att), social norm (SN), brand equity (BE) and intention (Int) are normally distributed, while

behavioral control (BC) is slightly skewed, implying some deviation for this construct's normality.

	N=387			
	Skewness		Kurtosis	
Construct	Statistic	Std. Error	Statistic	Std. Error
Bel	0.169	0.124	-0.839	0.247
Att	-0.240	0.124	-0.227	0.247
SN	0.040	0.124	-0.733	0.247
BC	-1.535	0.124	1.867	0.247
BE	-0.357	0.124	-0.495	0.247
Int	-0.026	0.124	-0.709	0.247

Table 2: *Skewness and Kurtosis measures for the six constructs*

Moreover, the constructs' histograms (cf. Appendix F) provide a visual check of normality. In this case, all the histograms indicate that the constructs deviate somewhat from normal distribution, whereas behavioral control differ the most. However, according to Hair et al. (2006), a more reliable approach to check for normality is by inspecting the constructs' normal probability plots, namely Q-Q plots (cf. Appendix F). Looking at the Q-Q plots for the behavioral control construct, it deviates slightly from a straight line, indicating violation of normal distribution. The plots for the other five constructs all reveal reasonably straight lines, thus suggesting normal distribution for these constructs.

In addition to the former approaches for testing normality, it can also be tested statistically by assessing Kolmogorov-Smirnov's test (Hair et al., 2006). The result of this test is presented in Appendix G and show significant values below 0.05 for all the constructs. This suggest a violation of the normality assumption for all the constructs.

To summarize, all approaches for testing normality indicate that there is some deviation of normality for the behavioral control construct. The Kolmogorov-Smirnov test also suggest that the other constructs, respectively belief, attitude, social norm, brand equity and intention, deviates from normal distribution. However, when inspecting their skewness and kurtosis measures, as well as the Q-Q plots, these five constructs are considered to be sufficiently normal distributed. Additionally, Hair et al. (2006) argue that violation of normality is less of

a concern for samples larger than 200. Similarly, significant results of the Kolmogorov-Smirnov statistics are quite common in large samples (Pallant, 2011). Thus, given the relatively large sample in our study (N=387), it provides us with statistical power and diminish the potential detrimental effects of univariate non-normality. We therefore consider our dataset as sufficient in accordance with this assumption.

4.5.2 Homoscedasticity

The assumption of homoscedasticity imply that the dependent construct exhibits equal levels of variance across all the predictor variables (Hair et al., 2006). Studying scatter plots of predicted versus residual for uneven distribution can detect whether our data is homoscedastic (Pallant, 2011; Stock & Watson, 2015). These plots are presented in Appendix F and shows no clear violation of this assumption.

4.5.3 Linearity

Linearity is important when conducting multivariate analysis as departure from linearity can affect the correlation, resulting in undervaluing the strength of the actual relationships (Hair et al., 2006). To assess linearity, all the constructs' normal Q-Q plots was inspected (cf. Appendix F). As discussed in chapter 4.5.1 *Normality*, all these plots visualise approximate straight lines, except for behavioral control which shows some deviation. However, we do not perceive this deviation as crucial, as there is some indication of linearity. Therefore, the linearity assumption is considered satisfying.

4.5.4 Multicollinearity

Multicollinearity refers to the relationship between the independent variables (Pallant, 2011). More specifically, when a single independent variable is highly correlated with a set of other independent variables, multicollinearity arises (Hair et al., 2006). This means that if an independent variable correlate stronger with other independent variables, the unique variance explained by them will decrease, consequently making it more difficult to predict the dependent variable. Thus, to provide a valid reason for analysing the proposed relationships between the independent and dependent variables in our study, we should first assess the potential presence of multicollinearity.

Multicollinearity can be detected by inspecting the inter-construct correlations. The recommended cut-off value for multicollinearity is typically around 0.8 (Berry & Feldman, 1985). As shown in Table 8, none of the correlations exceed this value. However, it is worth noticing that the inter-correlation value between belief and attitude is close to the upper preferred limit.

Additionally, multicollinearity can be detected by studying the tolerance value and variance influence factors (VIF) for the all the independent constructs. Tolerance values less than 0.1 and VIF values above 10 are considered common cut-off thresholds (Hair et al., 2006; Pallant, 2011). These measures are presented in Table 3 and reveals that all the constructs are within these thresholds. Consequently, there are no sign of significant problems concerning multicollinearity in our dataset.

N=387		
Collinearity Statistics		
Construct	Tolerance	VIF
Bel	0.427	2.340
Att	0.737	1.356
SN	0.928	1.078
BC	0.963	1.039
BE	0.505	1.980

Table 3: *Tolerance and VIF-measures for the five independent constructs*

4.5.5 Independence

According to Hair et al. (2006), independence is an essential assumption, and violation occurs when respondents have not conducted the questionnaire independently. This means that the data retrieved from one participant cannot be influenced by observations retrieved from other participants. We distributed the questionnaire through e-mail and highlighted the importance of the respondent's personal opinions in the introduction of the questionnaire (cf. Appendix H). Therefore, it is unlikely that students have collaborated or been influenced by others in their completion of the questionnaire. Consequently, we consider the assumption of independence met.

4.6 Sample Descriptive

As shown in Table 4, 47.5 per cent of the respondents are females, while 52.5 per cent are males. The gender distribution at NHH is 40 per cent females and 60 per cent males (SSB, 2018). Thus, we consider our sample as reasonably good to represent the population's gender distribution. Looking at the age of the respondents, Table 4 reveals that 86.3 per cent of our sample constitute the age group 19-25. As further shown in Table 4, 1.6 per cent of the respondents are 18 years old, 10.6 per cent is between 26-30 and 1 per cent is between 31-37. Additionally, the dataset constitutes two missing observations concerning age. Assuming that it is common for Norwegian NHH-students to start their five-year study program when they are 19-20 years old, our sample is likely to represent our chosen population adequately. Further, the age in our sample ranges from 18 to 37 (cf. Table 5). However, the average age is approximately 23 years and the standard deviation is 2.65, underlining a representative sample.

	N=387	
	Frequency	Per cent (%)
Gender		
Male	203	52.5
Female	184	47.5
Age		
18	6	1.6
19-25	334	86.3
26-30	41	10.6
31-37	4	1
Missing	2	0.5

Table 4: *Frequency table of gender and age*

	Minimum	Maximum	Mean	Std. Deviation
Age	18	37	22.89	2.65

Table 5: *Descriptive statistics of age*

4.7 Remedies Against Common Method Bias

Common method bias can influence the validity and reliability of the measurement items, as well as the covariation between the latent constructs. This can occur when the respondent's capabilities are undermined, if it is difficult to answer questions accurately, when motivation to respond is low and when it is easy for respondents to satisfice (MacKenzie & Podsakoff, 2012). In order to reduce the possibility of common method bias in our study, we applied

procedural techniques outlined by MacKenzie & Podsakoff (2012). Further, to statistically test the presence of common method variance in our data, Harman's single factor test was applied.

4.7.1 Lack of Ability

As discussed in chapter 4.3.1 *Sampling*, NHH-students are part of a higher education program and familiar with participating in surveys which can increase their ability to answer the questionnaire. Furthermore, as the use of Likert-scale is common in surveys conducted at NHH, the respondents are assumingly well familiar with responding to questions in this scale format, increasing their ability to answer the questionnaire. We also applied seven-point scales consequently throughout the questionnaire to avoid confusing the respondents (Dillman, 2007 as referred in Saunders et al., 2009). Additionally, to avoid confusion, the questionnaire was designed so that each construct with all the corresponding items constituted *one* page.

Additionally, it is important to check the questionnaire for unfamiliar terms and ambiguity of the measurement items to make sure the respondents are able to understand the questions and the product stories (MacKenzie & Podsakoff, 2012). This was especially important in our study as the adapted items were translated to Norwegian (cf. Appendix E). Therefore, the same four NHH-students as used in the second part of the pre-test described in chapter 4.2.1 *Pre-test of scenarios,* were asked to conduct the full questionnaire. After they had completed the questionnaire, we reviewed and discussed their answers together with them, and some problems were identified. Firstly, there was confusion regarding the brand equity questions, whether to base their answers on the presented story or imagine the brand without the new information. We therefore clarified this in a more detailed text above the brand equity questions. Secondly, they recommended us to give a reminder that the questions should be answered based on the presented story throughout the survey, so it would be no doubt about the questions. Consequently, we added a reminder before answering the questions regarding social norm and purchase intention.

Perceived relevance and experience with the actual topic are also important to increase respondents' ability to understand the questionnaire. As discussed in chapter 2.2 *The market for green products*, green products are increasingly popular in conventional markets, especially among the young generation (Cone Communications, 2017; Deloitte, 2017; Nielsen, 2015). Additionally, NHH offer several subjects that concerns sustainability. Consequently, our

sample is likely to perceive the green topic as relevant. Moreover, as discussed in chapter 4.3.1 *Sampling,* our target group is likely to perceive *hand soap* and *mobile* as familiar and relevant, increasing their ability to answer. We also aimed to increase the relevance of the questionnaire by asking the respondents to think about last time they purchased a *hand soap/mobile* and the corresponding brand. By doing this, the participants could imagine a real brand launching the new product described in the scenario (cf. Appendix C), facilitating for them to immerse themselves into a realistic purchase situation.

4.7.2 Motivation

To increase respondents' motivation to answer accurately, we emphasized our interest in their personal opinions, that no answer was right or wrong and guaranteed complete anonymity. Furthermore, we expressed that their contribution was valuable for our master's thesis and clarified our thankfulness of their participation. This information was included in the introduction to the questionnaire (cf. Appendix H). Additionally, before presenting the scenario we described to the respondents that they would be presented with a story that they should read thoroughly as the following questions would be based on the product described in this story.

In addition, to increase respondents' motivation to complete the survey, we made sure to keep the questionnaire no longer than necessary, considering both time and number of questions. Furthermore, to decrease the effort required, the questionnaire was designed so that all questions were within the interface for each page (no scrolling needed). Moreover, considering that the demographic questions are the easiest to answer, we organized these on the final page of the questionnaire as respondents might be fatigued towards the end of the survey. The questionnaire was also translated to Norwegian after a discussion with several NHH-students whom claimed it to be easier and more motivating to answer in their first language.

Procedural techniques were also applied in the e-mail distributed to our population to increase the motivation for participating in the survey. Specifically, we emphasised that estimated completion time was only five minutes, that their answers were completely anonymized and that their contribution was valuable to us. The complete e-mail can be found in Appendix H.

4.7.3 Satisficing

To increase the difficulty of satisficing, we expressed to the respondents that some questions might seem similar, but that this was the purpose. We further explained that his was due to strict requirements concerning methodology, and that all questions were surely unique in important ways. To strengthen the accuracy in the responses for all the constructs, we restricted access to previous answers, which prevented participants to check previous responses.

4.7.4 Harman's test

Harman's single factor test for common method variance revealed that none of the constructs in our model exceeds an explanation rate of 50 per cent, with the first factor showing 34.44% (cf. Appendix I). Consequently, the test confirms that common method bias is not a significant problem in our model (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). This indicate that the use of MacKenzie and Podsakoff's (2012) procedural techniques contributed to decrease common method bias.

4.8 Measure Validation

High construct validity is desired in our measurement model, which implies that the set of measured variables *actually represent the theoretical latent construct they are designed to measure* (Hair et al., 2006, p.707). Construct validity can be assessed by investigating the constructs' convergent- and discriminant validity (Pallant, 2011). Convergent validity means that there are internal consistency *within* each of the latent constructs, and discriminant validity means that there are discriminance *between* the different latent constructs (Hair et al., 2006).

To measure the validity in our measurement items, we conducted factor analysis. There are two main approaches to factor analysis; exploratory and confirmatory. Exploratory factor analysis is often used for a start to gather information about the interrelationships between a set of variables. Confirmatory factor analysis (CFA) is a more complex set of techniques that is used later in the research process to test and confirm specific hypothesis concerning the structure of the set of variables (Pallant, 2011).

4.8.1 Exploratory Factor Analysis

As discussed in chapter 4.4.1 *Measurement items*, we aim to structure the belief construct in our study. Thus, it was expedient to conduct an exploratory factor analysis to investigate the

items presumed to measure the belief construct. Firstly, we applied SPSS 25 to conduct an exploratory factor analysis including all the items of the six constructs to obtain an overview of the total measurement model. We used maximum likelihood as the method of factor extraction, and as we assume that there is correlation between the factors we used oblimin, which is a rotation technique that allow for the factors to be correlated (Pallant, 2011). To investigate the reliability of the six factors, we explored the factor loadings as shown in the pattern matrix in Appendix J (i). According to Hair et al. (2006), factor loadings exceeding 0.7 indicate reliable measures. However, the reliability in the measurement items may be sufficient for factor loadings between 0.6 and 0.7 if there are other indicators supporting good construct validity for the model (Hair et al., 2006). Additionally, this factor analysis confirmed that our model consisted of six different factors as intended.

The pattern matrix (cf. Appendix J (i)) reveals that most items are within the suggested criteria of 0.7, indicating reliable factor loadings. However, BC3 has a factor loading less than 0.6 and may therefore indicate that it should be excluded as a measure item for the behavioral control construct. Furthermore, the items intending to measure belief show factor loadings ranging from 0.395 to 0.865, whereas all first three items (Bel1, Bel2, Bel3) have factor loadings beneath 0.5. Nevertheless, belief is an explorative construct we intend to structure through our study as discussed in chapter 1.4.2 *Methodologic contribution*. Therefore, we found it valuable to investigate the measurement items for belief further by conducting an exploratory factor analysis on this construct isolated.

To investigate the belief construct, we first applied a factor analysis on the nine belief items in SPSS 25, using maximum likelihood and oblimin rotation method. The pattern matrix of this analysis is shown in Appendix J (ii) and reveals that there might be two factors for the belief construct. However, the pattern matrix shows that the items loads with relatively low values for both factors, indicating that there exists some convergence in the belief construct when assessed by two different factors. Consequently, we performed another factor analysis in SPSS 25 where we extracted the belief items as one factor (cf. Appendix J (iii)). This revealed factor loadings above 0.7 for all items except Bel1, Bel2 and Bel5. However, the two former had values exceeding 0.6 and may therefore be considered sufficient for this analysis as belief is exploratory in nature, whereas Bel5 showed a factor loading of 0.578. This factor analysis thus indicate that Bel5 should be removed from the belief construct.

The exploratory factor analysis suggest that our model consist of six constructs, namely belief, attitude, social norm, behavioral control, brand equity and intention. It further indicates that Bel5 and BC3 should be removed from the dataset in order to increase the reliability and validity of our measurement model.

4.8.2 Confirmatory Factor Analysis

To test the fit of our research model constituting the six constructs, we conducted a confirmatory factor analysis (CFA) in Mplus 7.4. Firstly, we included all measurement items in the CFA (cf. Appendix K (i)), which revealed a reasonably good fit of the model (χ^2/df = 2.66, CFI = 0.931, RMSEA = 0.066). However, when inspecting the measurement items, Bel5 and BC3 had factors loadings of respectively 0.569 and 0.473. Thus, the CFA confirms that these items are insufficient and should be removed from their corresponding constructs, as anticipated in the exploratory factor analysis. A second CFA without these items were therefore conducted (cf. Appendix K (ii)). Results of goodness-of-fit tests are presented in Table 6, confirming a significantly[9] better model fit (χ^2/df = 2.299 (0=.000), CFI = 0.953, RMSEA = 0.058). Based on this, Bel5 and BC3 will not be included in our data analysis.

Goodness-of-fit test	Abbreviation	Ranges indicating good fit*	Measurement model
Chi-square	χ^2	n.a.	495.245 (p=0.000)
Degrees of freedom	*df*	n.a.	215
Normed chi-square	χ^2/df	≤ 2	2.299
Root mean square error of approximation	RMSEA	< 0.05	0.058
Standardised root mean residual	SRMR	< 0.05	0.048
Tucker-Lewis Index	TLI	> 0.90	0.944
Comparative fit index	CFI	> 0.90	0.953

* Based on thresholds from Hair et al. (2006).

Table 6: *The goodness-of-fit statistics of the measurement model (excluding Bel5 and BC3)*

To assess the construct validity of the measurement model, we firstly investigated the model's convergent validity. Reliability and convergent validity of our model were estimated by Cronbach's alpha (α), construct reliability (CR) and average variance extracted (AVE), which is presented in Table 7 together with the standardised factor loadings for the measurement

[9] This model fit is significantly better than for the model including all measurement items ($\Delta\chi^2$= 198.962, *df* = 45, p < 0.01).

items. Table 7 reveals that all the latent constructs have relatively high factor loadings for the corresponding measure items, indicating a high level of internal consistency. The alpha values are ranging from 0.763 to 0.921, all exceeding the minimum requirement of 0.7 as suggested by Hair et al. (2006), implying consistency in the scale in its entirety. Additionally, Table 7 reveals that all CR values exceeds 0.7, which further indicate internal consistency (Hair et al., 2006). Lastly, the AVE values for all the latent constructs are exceeding 0.5, which is the threshold suggested by Hair et al. (2006) for these estimates to adequately establish convergent validity. Thus, we consider the convergent validity of our measurement model as acceptable.

Dimension	Items*	Loadings	α	CR	AVE
Bel	Bel1: This hand soap's/mobile's packaging is environmentally friendly	0.660	0.910	0.916	0.579
	Bel2: This hand soap/mobile is recyclable/re-usable	0.641			
	Bel3: This hand soap/mobile will reduce waste	0.776			
	Bel4: This hand soap/mobile is made from natural and/or organic ingredients or material	0.710			
	Bel6: This hand soap/mobile make the environment better and clean	0.813			
	Bel7: This hand soap/mobile is produced in a way that is better for the environment	0.837			
	Bel8: This hand soap/mobile is produced with non-polluting and eco-friendly production methods	0.789			
	Bel9: This hand soap/mobile have a low environmental impact	0.836			
Att	Att1: Purchasing this hand soap/mobile is bad/good	0.864	0.874	0.875	0.700
	Att2: Purchasing this hand soap/mobile is foolish/wise	0.872			
	Att3: Purchasing this hand soap/mobile is unfavourable/favourable	0.771			
SN	SN1: People important to me think I should purchase this hand soap/mobile	0.856	0.867	0.869	0.688
	SN2: It is expected that people like me to purchase this hand soap/mobile	0.779			
	SN3: People I look up to expect me to purchase this hand soap/mobile	0.852			
BC	BC1: I feel free to purchase the kind of hand soap/mobile I like to	0.760	0.763	0.765	0.619
	BC2: Purchasing this soap/mobile is entirely within my control	0.813			
BE	BE1: It makes sense to buy X instead of any other brand, even if they are the same	0.701	0.896	0.901	0.699
	BE2: Even if another brand has the same features as X, I would prefer to buy X	0.921			
	BE3: If there is another brand as good as X, I prefer to buy X	0.948			
	BE4: If another brand is not different from X in any way, it seems smarter to purchase X	0.747			
Int	Int1: Next time I'll purchase a hand soap/mobile, I will purchase this hand soap/mobile	0.886	0.921	0.923	0.800
	Int2: I would like to purchase this hand soap/mobile	0.861			
	Int3: I intend to purchase this hand soap/mobile next time I'm purchasing a hand soap/mobile	0.935			

* The items presented in this table, are adapted items that have further been translated to Norwegian. Please see Appendix E for the complete list of the measurement items and the actual translated items (Norwegian) as used in our questionnaire.

Table 7: *Overview of factor loadings, Cronbach's alpha (α), construct reliability (CR) and average variance extracted (AVE) for the six constructs*

To further assess the construct validity of our model, we evaluated the model's discriminant validity. In order to achieve discriminant validity, the factors should differ from one another, and none of the construct correlations should exceed 0.8 (Berry & Feldman, 1985; Hair et al., 2006). The correlation matrix presented in Table 8 indicate no signs of problems regarding multicollinearity as none of the construct correlations exceed 0.8, which is in accordance with the discussion in chapter 4.5.4 *Multicollinearity*. Thus, there is an acceptable discriminance between the constructs in regard to this potential issue.

Furthermore, Fornell and Larcker (1981) suggest that a model achieve discriminant validity if the square root of AVE is higher for each construct than the correlation between the constructs. As reported in Table 8, we find that the correlation between attitude and belief (0.785) is slightly higher than the square root of AVE for belief (0.761). This indicates a small breach on Fornell and Larcker's threshold for discriminant validity. However, seeing that this deviation is marginal, and that all other correlations shows values below the corresponding square root of AVE, we consider that the discriminant validity of the measurement model as adequate.

	CR	AVE	1	2	3	4	5	6
1 Bel	0.916	0.579	*0.761*					
2 Att	0.875	0.700	0.785**	*0.837*				
3 SN	0.869	0.688	0.388**	0.537**	*0.829*			
4 BC	0.765	0.619	0.158**	0.206**	-0.131*	*0.787*		
5 BE	0.901	0.699	0.075^{NS}	0.131*	0.154**	-0.019^{NS}	*0.836*	
6 Int	0.923	0.800	0.288**	0.447**	0.469**	-0.135*	0.313**	*0.894*

Significance levels are marked with ** p<0.01, * p<0.05. The square roots of AVEs are on the diagonal in italic.

Table 8: *Correlation matrix*

To summarise, we consider both convergent- and discriminant validity in our model as adequate. This implies an acceptable construct validity of the measurement model.

4.9 Descriptive Statistics

The CFA conducted in Mplus 7.4 revealed that our study contained six constructs. Belief was measured by eight items, attitude by three items, social norm by three items, behavioral control by two items, brand equity by four items, and intention by three items (cf. Table 7). We conducted descriptive statistics in SPSS 25 on these six constructs, which is presented in Table

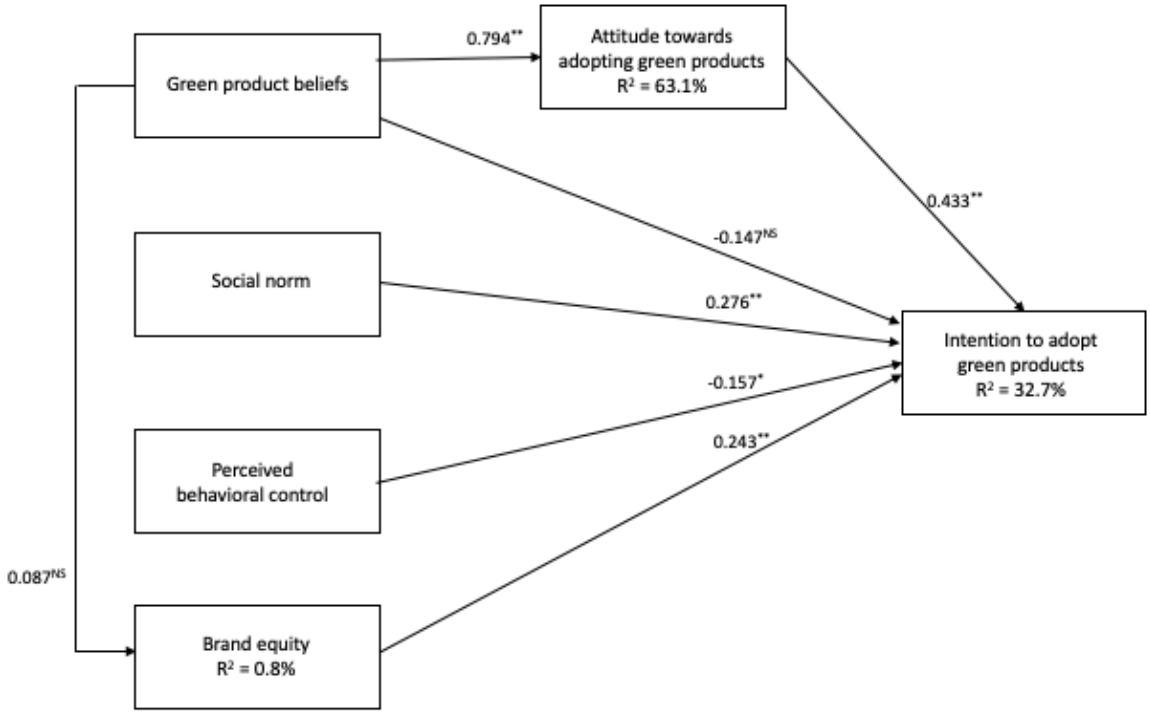
9. Behavioral control shows a high mean as compared to the other constructs. This can explain this construct's high value of skewness as discussed in chapter 4.5.1 *Normality*. Furthermore, the mean values for brand equity and attitude were somewhat higher than the scale-average of four, while belief, social norm and intention showed means slightly lower than four. Overall, these five constructs are approximately equal to the scale-average, which is as expected as the constructs are within the thresholds for both skewness and kurtosis, as discussed in 4.5.1 *Normality*.

						Skewness		Kurtosis	
	N	Min	Max.	Mean	Std. Deviation	Statistic	Std. Error	Statistic	Std. Error
Bel	387	1	7	3,50	1,57	0.169	0.124	-0.839	0.247
Att	387	1	7	4,49	1,38	-0.240	0.124	-0.227	0.247
SN	387	1	7	3,23	1,43	0.040	0.124	-0.733	0.247
BC	387	2.5	7	6.25	1,03	-1.535	0.124	1.867	0.247
BE	387	1	7	4.38	1,57	-0.357	0.124	-0.495	0.247
Int	387	1	7	3.88	1,54	-0.026	0.124	-0.709	0.247

Table 9: *Descriptive statistics of the six constructs*

5 Results

Our hypothesis was tested using Structural Equation Modelling (SEM) in Mplus 7.4 (cf. Appendix L). We investigated the relationships between the five influencing factors (beliefs, attitude, social norm, behavioral control and brand equity) on intention to adopt. The results of this analysis, including standardised path coefficients for all paths, are shown in Figure 7. In addition, the significance level for all paths are included in the figure, as well as the explained variance of attitude, brand equity and intention. The SEM showed satisfactory model fit (χ^2/df = 2.499 (p=.000), CFI = 0.944, RMSEA = 0.062).



Significance levels are marked with ** p<0.01, * p<0.05.

Figure 7: *Our research model including standardised path coefficients for all paths*

Figure 7 reveals that there are significant relationships for all paths except belief to brand equity and belief to intention. Thus, rejecting hypothesis H_1 and H_7. The significant and positive relationship for belief on attitude gives support for hypothesis H_2, indicating that beliefs positively influence consumers' attitudes. Similarly, attitude, social norm and brand equity's influences on intention are positive and significant, confirming hypothesis H_3, H_5 and H_8. Further, behavioral control's influence on intention is shown significant in our model. However, this factor has a negative impact on intention, consequently not giving support for

hypothesis H_6. Furthermore, Figure 7 reveals that the structural model explains 32.7 per cent of the variance in intention to adopt green products, 63.1 per cent of the variance in attitude and 0.8 per cent of the variance in brand equity.

5.1 Indirect effects

Hair et al. (2006) propose that a sequence of two or more direct effects can represent an indirect effect, which is consistent with mediation. To identify if attitude and brand equity mediate beliefs' influence on intention, we tested our model for the presence of mediating effects. According to Baron and Kenny (1986), a variable can function as a mediator when it accounts for the relation between the predictor and the criterion. They present a model depicting a causal chain to explain the meaning of mediation. This model assumes a three-variable system where there are two causal paths towards the dependent variable *intention* (Y); the direct path from the independent variable *belief* (X) and the impact of the mediator, *attitude* (M_a) / *brand equity* (M_b). Furthermore, there is a path from the independent variable X to the mediator M (Baron & Kenny, 1986). The presumed path diagrams for the two suggested mediators in our model are illustrated in Figure 8.

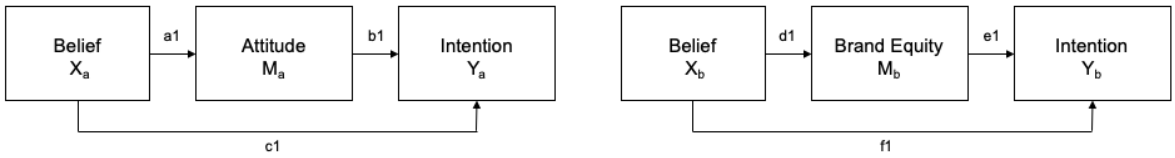


Figure 8: *Presumed path diagrams for mediation effects of attitude (a) and brand equity (b)*

Baron and Kenny (1986) further introduce three criterions which should be fulfilled in order for a mediating effect to be established. Firstly, there should be a significant relationship between X and M (a1, d1). Second, the relationship between M and Y (b1, e1) should be significant. Lastly, the independent variable X should significantly affect the dependent variable Y (c1, f1), whereas perfect mediation holds if the independent variable has no effect on the dependent variable when the mediator is controlled. More specifically, when there is an indirect effect but no direct effect between X and Y, the model contains a full mediation (Baron & Kenny, 1986).

The correlation matrix illustrated in Table 8 reveal significant bivariate correlations for the relationship between belief and attitude (0.785**), attitude and intention (0.447**) and belief

and intention (0.288**). Thus, this implies that attitude is a mediator in our model, seeing that Baron and Kenny's three requirements are fulfilled. However, the correlation between belief and brand equity (0.075^{NS}) is not significant, suggesting a violation of Baron and Kenny's first condition for establishing a mediating effect of brand equity. Therefore, this indicates that brand equity does not function as a mediator in our model. Furthermore, to investigate whether attitude is a full mediator in our model, we investigated the direct effect of beliefs on intention when the paths between the variables are controlled. As shown in Figure 7, the direct effect of belief on intention is not significant (-0.147^{NS}) when conducting a structural model in Mplus 7.4 with all variables included. According to Baron and Kenny (1986), this indicates that attitude is a full mediator in our model.

Zhao, Lynch JR, & Chen (2010) further suggests that a model can be investigated for mediation effect by testing for significant indirect effects of the indirect paths a1 x b1 (attitude) and d1 x e1 (brand equity). To test our model for indirect effects, we first applied the bootstrap test as introduced by Preacher and Hayes (2004, 2008) in Mplus 7.4, which is a powerful test to identify indirect effects (Zhao et al., 2010). The bootstrap test generate an empirical sampling distribution of the indirect relationships and relies on the 95% confidence intervals from the distribution of these estimates (Zhao et al., 2010). We used bootstrapping with 10,000 bootstrap samples[10] in our analysis, and the results from this test can be found in Appendix M (i). This test revealed that a1 x b1 (attitude) is significant at a 0.001 per cent level. Furthermore, seeing that the direct effect of belief on intention (path c1) is insignificant in the structural model (cf. Figure 7), Zhao et al. (2010) suggests that our model contains an indirect-only mediation effect, which overlaps with Baron and Kenny's full mediation. Lastly, this test revealed that d1 x e1 (brand equity) is insignificant, implying that there is no mediation effect of brand equity according to Zhao et al. (2010).

Additionally, Zhao et al. (2010) suggests to confirm these findings by investigating the confidence interval, as confidence intervals that include zero indicates an insignificant indirect effect. Table 10 reveals that the confidence interval for attitude is above zero, whereas the confidence interval for brand equity overlaps zero, this confirms the findings of the bootstrap test, as well as the findings from Baron and Kenny's three requirements for establishing mediation.

[10] We requested 10,000 bootstrap samples in Mplus 7.4, but 9978 of these were completed

Indirect effects	Standardised coefficients	95% CI
Belief -> Attitude -> Intention	0.321	{0.146 – 0.532}
Belief -> Brand Equity -> Intention	0.020	{-0.004 – 0.053}

Table 10: *Standardised coefficients and the 95% confidence intervals for identifying mediating effects*

Lastly, we conducted a simple test for indirect effects in Mplus 7.4. The results from this test can be found in Appendix M (ii). This test additionally confirmed that the suggested mediating effect of attitude is significant with a standardised coefficient estimate of 0.344 (a1 x b1) and a p-value of 0.000. Furthermore, these results show a standardised coefficient estimate of 0.021 (d1 x e1) for brand equity, but this indirect effect is not significant (p-value: 0.124).

To summarize, all the tests confirm that attitude is a mediator in our model, supporting hypothesis H_4. Furthermore, brand equity does not mediate beliefs' influence on intention, thus rejecting hypothesis H_9.

5.2 Influences of Involvement

Our study intends to explore whether level of product involvement cause differences in the relationships in our research model. To enable this, we must compare two products that differ in level of product involvement. Consequently, *hand soap* and *mobile* were chosen in our study, as our discussion in chapter 4.2.2 *Pre-test of product involvement* indicate that these products are likely to represent respectively a low- and a high involvement product. To confirm this assumption, we included six items in our questionnaire to measure consumers' perceived involvement of these two products (cf. Appendix E). These items must further be tested for its reliability. Moreover, to enable comparison between *hand soap* and *mobile*, the level of involvement must be significantly different for these two products. Subsequently, the variances in the responses for all constructs should not significantly differ between the two groups.

5.2.1 Measure Validation for Product Involvement

To assess the reliability for all six measurement items for involvement, we conducted a factor analysis with maximum likelihood and oblimin rotation method in SPSS 25. The pattern matrix for this factor analysis is presented in Appendix N (i), which reveal that the items measuring product involvement constitute two different factors. This confirms that product- and purchase

involvement can be measured as two separate factors. The pattern matrix further reveals that the two first items for product involvement (InvProd1 and InvProd2), have factor loadings of respectively 0.881 and 0.984, which is above 0.7, indicating convergence validity as suggested by Hair et al. (2006). However, the third item (InvProd3) had a factor loading of 0.557 and should therefore not be included in the analysis. Moreover, the first item for purchase involvement (InvPurch1) had a factor loading of 0.546, and are therefore indicating an unreliable item for measuring purchase involvement (Hair et al., 2006). The two other items for this construct (InvPurch2 and InvPurch3) had factor loadings of respectively 0.762 and 0.824, which indicate a satisfied convergence validity.

To further investigate the reliability in these constructs, we constructed new constructs for product involvement (InvProd) and purchase involvement (InvPurch), excluding the items presumed unreliable (respectively InvProd3 and InvPurch1). The Cronbach's alpha values of the two constructs were respectively 0.905 and 0.811 (cf. Appendix N (ii)), both exceeding the minimum requirement of 0.7 as suggested by Hair et al. (2006), implying consistency in the scale in its entirety. Thus, the reliability is considered adequate for these constructs.

5.2.2 Manipulation Test

In order to assess whether the two product categories are distinct different concerning level of involvement, we conducted a one-way ANOVA analysis of the two constructs InvProd and InvPurch for both product categories (cf. Appendix O). As shown in Table 11, the mean values for product involvement indicate that *hand soap* can be considered as a medium involvement product (4.02), and *mobile* as a high involvement product (5.89). However, the mean values for purchase involvement indicate that *hand soap* is considered a low involvement product (2.94), and *mobile* a high involvement product (5.55). In total, this indicates that *hand soap* is perceived as a relatively low involvement product and *mobile* as a high involvement product. The ANOVA test (cf. Appendix O) further revealed that the two products are significantly different for both product involvement (p=0.000) and purchase involvement (p=0.000). This confirms that *hand soap* and *mobile* can be considered as respectively a low- and a high involvement product, facilitating for exploring potential differences of involvement in our research model.

Involvement	Product	N	Mean	p-value	Standard deviation
Product involvement	Mobile (1)	192	5.89		1.28
	Hand soap (2)	195	4.02		1.75
	Total	*387*	*4.95*	*0.000*	*1.79*
Purchase involvement	Mobile (1)	192	5.55		1.25
	Hand soap (2)	195	2.94		1.44
	Total	*387*	*4.24*	*0.000*	*1.88*

Table 11: Descriptive statistics for involvement with statistics test scores for both products

5.2.3 Test of Homogeneity of Variances

To be able to draw conclusions in our analysis concerning differences for high- and low involvement products, the variance across the latent constructs should not significantly differ between the two product categories (Hair et al., 2006). We therefore conducted Levene's test of homogeneity in SPSS 25 (cf. Appendix P). As shown in Table 12, the results from this test reveal non-significant values for social norm, brand equity and intention, suggesting difference in variance between the two products for these constructs. Table 12 further reveal that the means for belief, attitude and behavioral control are significantly different at the 0.05 level. Thus, the variances are significantly different for *hand soap* and *mobile*, and the criteria of homogeneity of variance is therefore not satisfied. This indicate that the respondents are likely to have perceived the scenario differently for the two different products. Although a simple test of invariance, this suggests that we are not able to conduct reliable analysis of product involvement's influence in our dataset.

Construct	Levene statistic (based on mean)	df1	df2	Sig.
Belief	12.629	1	385	0.000
Attitude	7.000	1	385	0.008
Social norm	0.504	1	385	0.478
Behavioral control	0.478	1	385	0.005
Brand equity	3.612	1	385	0.058
Intention	2.125	1	385	0.146

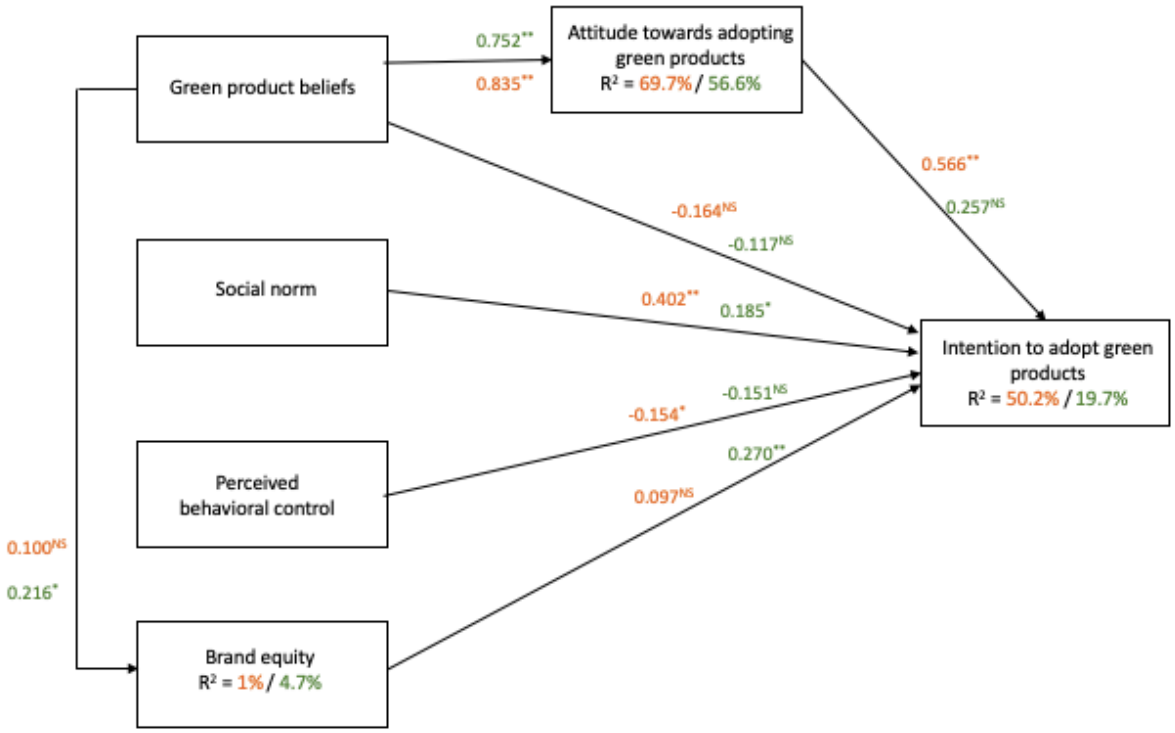
Table 12: *Test of homogeneity of variances*

Nevertheless, when the size of the groups are large and approximately equal, the ANOVA is relatively robust to violation of the homogeneity assumption (Hair et al., 2006; Stevens, 2009).

Thus, given that this study's sample is relatively large and equal for both products, in addition to the presence of homoscedasticity for three of our constructs, exploring potential differences of involvement may reveal interesting indications. However, our discussion will be explorative rather than confirmative in relation to identifying differences concerning different levels of involvement.

5.2.4 Individual Models for Hand Soap and Mobile

To assess model fit, we used Mplus 7.4 to conduct SEM for both *hand soap* and *mobile* separately (cf. Appendix Q). This revealed reasonably good model fit for both *hand soap* (χ^2/df = 2.067 (p=.000), CFI = 0.933, RMSEA = 0.074) and *mobile* (χ^2/df = 2.069 (p=.000), CFI = 0.906, RMSEA = 0.075). Further, by comparing standardised coefficients for the two models we intend to examine whether *hand soap* and *mobile* and their corresponding models seem distinctly different.



Significance levels are marked with ** p<0.01, * p<0.05. Orange = hand soap and green = mobile.

Figure 9: *Research model with standardised coefficients for low involvement products (hand soap) and high involvement products (mobile)*

Figure 10 illustrates that green product beliefs does not significantly influence consumers' intentions to adopt neither low- or high involvement green products. Further, belief

significantly influence attitude for both levels of product involvement, whereas the models explains 70 per cent and 57 per cent of the variance in attitude for respectively low- and high involvement products. Moreover, green product beliefs significantly influence brand equity for high involvement products. However, the model only explains 4.7 per cent of the variance in brand equity. Lastly, Figure 10 reveals that green product beliefs for low involvement products have no significant impact on brand equity. Consequently, this indicates barely no support for the suggested differences in beliefs' impact on attitude, brand equity and intention between high- and low involvement products as suggested in chapter 3.4 *Product involvement*.

Additionally, the direct effect of attitude on intention is not significant for high involvement products, whereas it is significant for low involvement products. Social norm's influence on intention is positive and significant for both levels of product involvement. Behavioral control is not significantly influencing intention for adopting green high involvement products but it has a significantly negative influence for intention to adopt green low involvement products. The model further indicates that brand equity significantly influence intention for high involvement products but not for low involvement products. Furthermore, Figure 10 reveals that our research model can explain respectively 50 and 20 per cent of the variation in consumers' intentions for adopting green low- and high involvement products. This indicates that there might be some differences for drivers influencing intention when comparing low- and high involvement products. Nevertheless, as the variance across the latent constructs did significantly differ between low- and high involvement products in our study, these indications should be contemplated with careful consideration.

6 Discussion

In this master's thesis we aimed to identify important drivers influencing consumers' intentions to adopt green products. This resulted in the following research questions:

> *RQ1: Does green product beliefs, attitude towards adopting green products, social norms, perceived behavioral control and brand equity influence consumers' intentions to adopt green products?*
>
> *RQ2a: Is the influence of green product beliefs on consumers' intention to adopt green products mediated through attitude towards adopting green products?*
>
> *RQ2b: Is the influence of green product beliefs on consumers' intention to adopt green products mediated through brand equity?*
>
> *RQ3: Does the influence of green product beliefs on attitude towards adopting green products, brand equity and intention to adopt green products vary for different levels of product involvement?*

6.1 Conclusion

When studying the direct effect of green product beliefs on intention, no significant relationship was identified, rejecting H_1. However, our study reveals that green product beliefs have a significant and positive impact on consumers' attitude formation towards adopting green products, providing support for H_2. This indicates that consumers evaluate green beliefs as positive and that if consumers hold such beliefs this will affect their overall evaluation of green products positively. Similarly, our results reveal that attitude significantly and positively predicts consumers' intentions to adopt green products, which supports H_3. This reflects that the more favorable evaluations consumers hold towards green products, the more likely they are to adopt green products. Additionally, our study reveals that green product beliefs have an indirect effect on intention through attitude, providing support for H_4. More specifically, attitude have a full mediation effect of the relationship between belief and intention, as no direct effect of belief on intention is identified.

Our study revealed no significant effect of green product beliefs on brand equity, rejecting H_7.

Nevertheless, brand equity is found to significantly and positively influence consumers' green intentions, confirming H_8. Consequently, companies with high brand equity have a greater possibility for success regarding consumers adopting their green products. Furthermore, our results reveal that brand equity has no mediating effect of belief's influence on intention, rejecting H_9.

Moreover, consumers' perceived behavioral control has a significant effect on intention in our study. However, this effect is negative, indicating no support for H_6. This finding suggests that when consumers perceive the adoption of green products to be within their control, their intentions to adopt green products will decrease. A possible explanation for this can be that our sample only include NHH-students which we assume to represent a group with relatively high purchasing power and social status[11]. Consequently, when NHH-students perceive adoption of green products to be within their control, it could affect their purchase intention negatively as this implies that such products might be accessible for "everyone". Thereby green products may lose some attractiveness for consumers that are willing to pay premium prices. Nevertheless, this result is in contrast with the TPB model and previous research which all identifies positive effects of behavioral control on intention. This implies that the negative effect can be due to methodological reasons, which also might explain the identified deviations of the assumptions in our analysis regarding this factor. All hypothesis with corresponding findings are summarised in Table 13.

Hypothesis	Relationship	Direction	β	*p*	Support
H1	Beliefs -> Intention	+	-0.147	0.107	No
H2	Beliefs -> Attitude	+	0.790	0.000	Yes
H3	Attitude -> Intention	+	0.433	0.000	Yes
H4	Beliefs -> Attitude -> Intention	+	0.344/0.321*	0.000/0.001	Yes
H5	Social Norm -> Intention	+	0.276	0.000	Yes
H6	Behavioral Control -> Intention	+	-0.157	0.005	No
H7	Beliefs -> Brand Equity	+	0.087	0.107	No
H8	Brand Equity -> Intention	+	0.240	0.000	Yes
H9	Beliefs -> Brand Equity -> Intention	+	0.021/0.020*	0.124/0.164	No

** The beta values for the mediation effects are listed with estimates from Indirect Effect Test (cf. Appendix M(ii)) first and estimates from Bootstrap test (cf. Appendix M (i)) second.*

***Table 13:** Hypothesis with corresponding findings*

[11] Based on our own perceptions as NHH-students, in addition to a discussion with fellow students.

When exploring our outlined proposition regarding differences in the centrality and importance of green product beliefs for products with different levels of involvement, we only found indications of differences in belief's influence on brand equity. Additionally, our exploration of product involvement suggests that there might be differences for brand equity's role in predicting intention for green adoption, seeing that there is a significant impact for high- but not for low involvement products. This implies that the brand attached to products are considered when consumers adopt high involvement green products, whereas the brand is not essential in the decision making process for low involvement products. Furthermore, there are indications that attitude predict intentions for low- but not for high involvement products, implying that consumers are likely to base their decisions for low involvement products on their overall perception of the product to simplify their decision making process. Nevertheless, it is necessary to pinpoint that these interpretations regarding differences for product involvement are only indications, and must therefore be interpreted with consideration.

6.2 Theoretical Implications

This paper contributes with theoretical implications within the field of green adoption. Firstly, as suggested by Ajzen's (1991) TPB framework, attitude, social norm and perceived behavioral control are valuable predictors of consumers' purchase intentions. This is in line with our findings in this study, identifying significant influences of all three factors. Thus, our findings provide further theoretical support for the usefulness of applying the TPB as a framework to understand consumers' intentions in the context of green adoption. Additionally, the influences of attitude and social norm on intention are positive in our study, supporting the propositions of TPB as well as previous green studies' findings regarding the positive impacts of attitude and social norm on consumers' intention to adopt green products (e.g. Hsu et al., 2017; Ko & Jin, 2017; Lenne & Vandenbosch, 2017).

Furthermore, the mediating effect of attitude on beliefs' influence on intention is well established in TPB (Ajzen, 1991). Some green studies provide indications that this mediating effect exist as there has been identified effects from beliefs to attitude and from attitude to intentions (e.g. Han et al., 2010; Thøgersen & Zhou, 2012). Thus, as our mediating effect was confirmed by testing the presumed indirect effect, this study contributes theoretically by providing evidence of attitude fully mediating beliefs' influence on intention in a green context.

Lastly, there is a general consensus in branding literature that brand equity affects consumers' brand preferences and purchase intentions (e.g. Chang & Liu, 2009; Chernatony et al., 2004; Cobb-Walgren et al., 1995; Huang et al., 2011; Moradi & Zarei, 2011; Myers, 2003). However, few green studies have investigated the role of brand equity in a context of green product adoption. To our knowledge, the only study investigating this factor is Akturan (2018), who identified a positive influence of brand equity on purchase intention. Therefore, our study contributes to generalize brand equity's importance for consumers' intentions to adopt green products, as our results reveal that brand equity have a positive effect on intention when including other green products. This implies that future studies investigating consumers' intentions for green adoption should include this factor in an extended TPB model.

6.3 Methodologic Contributions

In this master's thesis we have structured a construct to measure green product beliefs by incorporating various factors that reflect essential aspects of greenness, as previous literature lacks well-established items to measure this construct. More specifically, we assembled items that would constitute recyclability, green production methods and environmental friendliness in general, and constructed a factor including all these aspects. In total, we tested nine items, whereas eight of them were considered reliable. Thus, our paper contributes methodologically as we have developed a construct that can be used to measure green product beliefs. Consequently, future studies can adopt these items to investigate this factor.

Additionally, consumers' decision making processes towards green products can vary across different cultures (Barbarossa et al., 2015). To our knowledge, no other study has investigated consumers' intentions to adopt green products using the TPB framework nor brand equity for a Norwegian sample. Thus, our paper contributes to generalize the influence of attitude, social norm, behavioral control and brand equity on consumers' intentions, also in a Norwegian culture.

6.4 Managerial Implications

Our sample include Norwegian NHH-students which is a population that represents an important group of potential users of green products in Norway. Thus, our study reveals important insight for businesses in Norway that can be used to increase sales of green products, which can further contribute to decrease Norwegian consumers' environmental footprints. Based on our findings, we will provide advises regarding promotion, product, pricing and branding that can guide managers and marketers to exploit the market potential for green products in Norway.

Promotion

Firstly, seeing that social norm is found to positively and significantly influence consumers' intentions, we advise marketers to create promotions that focus on increasing the interest of green products among consumers in general and use "social approval" to drive green adoption. This can increase consumers' perception of green products being accepted by others, and thus increase the likelihood that consumers will adopt green products. Marketers could for example use opinion leaders or influencers to promote green products as a tool for increasing social norm towards green products, that in turn can increase sales. They could further develop marketing campaigns that promote the "normality" of contributing to a greener society by adopting greener alternatives.

Secondly, our findings reveal that attitude is important for consumers' intention to adopt green products. Therefore, managers should develop campaigns that focus on increasing consumers attitude towards green products. Specifically, our study reveals that consumers' attitude formation can be influenced by green product beliefs. Consequently, managers can increase consumers' attitudes towards their green products by highlighting specific green attributes in their promotions. This could include attributes that reflects recyclability, green production methods and environmental friendliness in general.

Product Development

In our study we find that green product beliefs indirectly affect consumers' intentions to adopt green products. Thus, when developing preferable green products, managers should consider the products' recyclability, their production methods and the general environmental friendliness of the product. Furthermore, we advise managers to highlight these features on the

product's packaging as this can make potential buyers aware of these green attributes, and thereby affect consumers' perception of the products' greenness. This can further indirectly affect consumers' intentions to adopt their products, by positively influencing their attitudes.

Pricing

Our findings suggest that managers should price green products with premium prices as this can increase consumers' intentions to adopt green products. By pricing the product with a price premium this can potentially influence the attractiveness of this product by signalling that this product is an extraordinary product. (However, this argument should be interpreted with considerations as this finding might be due to methodical issues as discussed in chapter 6.1 *Conclusion*.)

Branding

Our results reveal that brand equity positively influence consumers' intentions to adopt green products. This highlights the importance of businesses building strong brands. We therefore advice managers to invest resources in branding strategies, as this can increase sales of green products.

6.5 Limitations and Future Research

This study provides interesting findings regarding consumers' intentions to adopt green products. Despite its contributions, this study has limitations that may generate future research directions. In particular we have identified limitations related to predictor variables, study design, external validity, the belief construct and the exploration of product involvement.

Predictor variables

Consumer's decision making process towards adopting green products is complex. The extended TPB model applied in our study explains 32.7 per cent of the variance in consumer's intention to adopt green products. Consequently, it is likely that other important drivers not included in this research model can contribute to explain consumer's intention for green adoption. This implies that there is a substantial potential for future research regarding adoption of green products. Our discussion in chapter 3.1.1 *Main results of the review* reports that factors such as pro-environmental self-identity, greenwashing, brand credibility and habits could be included to investigate consumers' intentions for adopting green products. Researchers should

therefore consider including such factors in future adoption studies to potentially provide the foundation for models explaining a higher level of variance in consumers' intentions to adopt green products.

Research Design

The use of scenario conditions in our study was applied because our discussion in chapter 2.2 *The market for green products* reveals that there is lack of available green products in many product categories for consumers today. Consequently, consumers are likely to have limited experience of such products, and we therefore found it necessary to describe a factious product with green attributes in order to ensure variations in green product beliefs. However, as there is a positive trend for green products, we expect the number of green products offered in the marketplace to increase in upcoming years. Although we aimed to increase the scenario realism in this study as discussed in chapter 4.1.3 *Questionnaire design*, further research should seek to study factors influencing consumers' intention to adopt *real* green products.

Moreover, our study applies a cross-sectional survey, capturing consumers' intention to adopt green product at one specific point in time. Seeing that there is an increasing trend for green products, this implies that consumers' consciousness and experience with green products will change over time. This can potentially affect important drivers for choice, and more studies on this topic should be conducted in the future to ensure that these factors still are of importance.

Similarly, a longitudinal research focusing on the constructs' dynamics over time can contribute to define the precise casual nature of the links between the presented constructs. Conducting a longitudinal study when investigating consumers' intention to adopt green products is also requested by several green studies claiming this to be a limitation of their studies (e.g. Bloemer & de Ruyter, 2001; Jansson, Marell, & Nordlund, 2010; Lenne & Vandenbosch, 2017; Sreen, Purbey, & Sadarangani, 2018). Future research should therefore apply a longitudinal study to enhance the understanding of important drivers for consumers' green choices.

Lastly, we have developed a model that can explain multiple predictors of consumers' intention to adopt green products. Exploiting this information can increase the potential for actual purchase. Despite consumers' intentions, this might not lead to actual purchase due to barriers.

Using a real purchase situation could therefore be relevant to identify the actual importance of drivers and thereby increase the likelihood for raising sales of green products to a greater extent. For example, researchers can observe consumers purchasing specific products in physical stores, and afterwards ask them to answer the questionnaire regarding products they just purchased in a stall ensuring anonymity of their responses. Similarly, researchers could corporate with online stores asking consumers to conduct the questionnaire after purchasing specific products. However, it is important to acknowledge that this is a more complex approach that decrease one's control and require available green products for the consumer. This approach was therefore not feasible for this study due to limited resources and lack of green products in today's market. Regardless, real stimuli would make an interesting addition in future studies.

External validity

To avoid mono operationalizing, including many products is desired. Thus, only studying two products in our study could be a weakness. However, as discussed in chapter 3.1.1 *Main results of the review*, most studies only use one single product category in their study, indicating that our study including *two* products represent a strength compared to other green studies. Regardless, we encourage future studies to investigate new product categories to further generalize previous findings. For example, laptop, dishwashers, lamps and candles are among products that have not been researched regarding green adoption before (cf. Appendix A (i)).

In addition, our sample is limited to Norwegian NHH-students whereas most of them are between 19-25 years old. As discussed in chapter 4.3.1 *Sampling*, this population represents an important group of potential users of green products in Norway. Nevertheless, we encourage future researchers to investigate additional groups in Norway to increase the understanding of Norwegian consumers' intentions to adopt green products. Additionally, it would be valuable to test the research model for other countries to further generalize the results revealed in our study.

Green product beliefs

As discussed in chapter 4.1.2 *Questionnaire design*, we ensured variation in the respondents' perceived greenness of a product by developing scenarios where we manipulated green beliefs. More specifically, we developed a very-green scenario, a medium-green scenario and a low-green scenario that were manipulated to generate respectively high, medium or low rating for

all the belief items (similar ratings on the belief items in each scenario). Seeing that consumers are likely to have little experience with green products today, this means that we were able to measure consumers' intentions to adopt green products by informing the respondents about the products greenness.

However, this approach does not capture the unique importance of the different aspects of green product beliefs in our model. Consequently, our study does not provide detailed suggestions of which aspects of green product beliefs that would be most efficient to enhance for increasing consumers' intentions to adopt green products. Therefore, we advise future research to investigate the belief construct for nuances. This could be done by manipulating different aspects of the belief items in different scenarios (e.g. some very-green and some low-green in the same scenario). In addition, consumers are likely to be more experienced with green products in the future as our review of the green market reveals a positive trend for green consumption. Researchers could therefore ask the respondent to think of the last time he/she bought product X rather than applying a scenario. This could reveal which green product beliefs that consumer actually is aware of in their purchase situations, and thereby create a natural variation in the belief items.

Product involvement

In this study we intended to explore product involvement's influence on the centrality and importance of green product beliefs on consumers' intentions to adopt green products. However, as our dataset did not fulfil the requirements for enabling comparison of the two different products, we could only provide indications and not conclusions of this exploration. Nevertheless, our exploration of product involvement revealed some interesting indications that could be worth investigating in future research. Specifically, our exploration of product involvement indicate that green product beliefs might be important to influence brand equity in relation to high involvement products. If so, this implies that managers could influence brand equity by introducing high-involvement products with green features, that in turn can increase consumers' intention to adopt green products. Therefore, we encourage future research to investigate this particular relationship further. Additionally, we find indications that other relationships might be affected by the level of product involvement such as attitude and brand equity's influence on intentions. This could also be valuable to investigate further.

Moreover, the scenarios developed in our survey contains limited information. In accordance with involvement theory, consumers are likely to base their decisions to a greater extent on information for a high involvement product than the information provided to them in the scenario. Conversely, consumers purchasing a low involvement product might base their decisions on less information than the scenario provided them, whereas habits and heuristics are common strategies to simplify consumers' decisions. Thus, the explored influences of involvement on consumers' formation of beliefs in our study might be limited. Consequently, we encourage future studies to investigate product involvement by applying other research designs to capture the natural effect of belief formations regarding consumers' purchase intentions. We advise future studies to use realistic situations, like those suggested in our discussion of limitations regarding *Research design*.

References

Aaker, D. A. (1991). *Managing brand equity: Capitalizing on the value of a brand name*. New York: Free Press.

Aamodt, A., Narbel, P., Anisdahl, L., & Heggenes, H. (2016). *Grønn konkurransekraft*. Oslo: Elektroforum.

Ajzen, I. (1985). From intentions to actions: A theory of planned behavior. In *Action Control* (pp. 11–39). Berlin, Heidelberg: Springer Berlin Heidelberg. https://doi.org/10.1007/978-3-642-69746-3_2

Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, *50*(2), 179–211. https://doi.org/10.1016/0749-5978(91)90020-T

Ajzen, I. (2001). Nature and operation of attitudes. *Annual Review of Psychology*, *52*(1), 27–58. https://doi.org/10.1146/annurev.psych.52.1.27

Ajzen, I., & Fishbein, M. (1980). *Understanding attitudes and predicting social behavior*. Englewood Cliffs, NJ: Prentice-Hall PTR. Retrieved from https://books.google.no/books/about/Understanding_Attitudes_and_Predicting_S.html?id=CbVmQgAACAAJ&redir_esc=y

Ajzen, I., & Madden, T. J. (1986). Prediction of goal-directed behavior: Attitudes, intentions, and perceived behavioral control. *Journal of Experimental Social Psychology*, *22*(5), 453–474. https://doi.org/10.1016/0022-1031(86)90045-4

Akturan, U. (2018). How does greenwashing affect green branding equity and purchase intention? An empirical research. *Marketing Intelligence & Planning*, *36*(7), 809–824. https://doi.org/10.1108/MIP-12-2017-0339

Ambler, T. (1997). How much of brand equity is explained by trust? *Management Decision*, *35*(4), 283–292. https://doi.org/10.1108/00251749710169666

Arli, D., Tan, L. P., Tjiptono, F., & Yang, L. (2018). Exploring consumers' purchase intention towards green products in an emerging market: The role of consumers' perceived readiness. *International Journal of Consumer Studies*, (42), 389–401. https://doi.org/10.1111/ijcs.12432

Auger, P., Devinney, T. M., Louviere, J. J., & Burke, P. F. (2010). The importance of social product attributes in consumer purchasing decisions: A multi-country comparative study. *International Business Review*, *19*(2), 140–159. https://doi.org/10.1016/J.IBUSREV.2009.10.002

Ayadi, N., & Lapeyre, A. (2016). Consumer purchase intentions for green products: Mediating role of WTP and moderating effects of framing. *Journal of Marketing Communications*, *22*(4), 367–384. https://doi.org/10.1080/13527266.2014.888574

Bagozzi, R. P. (1982). A field investigation of causal relations among cognitions, affect, intentions, and behavior. *Journal of Marketing Research*, *19*(4), 562. https://doi.org/10.2307/3151727

Bamberg, S., & Möser, G. (2007). Twenty years after Hines, Hungerford, and Tomera: A new meta-analysis of psycho-social determinants of pro-environmental behaviour. *Journal of Environmental Psychology*, *27*(1), 14–25. https://doi.org/10.1016/J.JENVP.2006.12.002

Barbarossa, C., Beckmann, S. C., De Pelsmacker, P., Moons, I., & Gwozdz, W. (2015). A self-identity based model of electric car adoption intention: A cross-cultural comparative study. *Journal of Environmental Psychology*, *42*, 149–160. https://doi.org/10.1016/J.JENVP.2015.04.001

Barbarossa, C., & De Pelsmacker, P. (2016). Positive and negative antecedents of purchasing eco-friendly products: A comparison between green and non-green consumers. *Journal of Business Ethics*, *134*(2), 229–247. https://doi.org/10.1007/s10551-014-2425-z

Barbarossa, C., & Pastore, A. (2015). Why environmentally conscious consumers do not purchase green products. *Qualitative Market Research: An International Journal*, *18*(2), 188–209. https://doi.org/10.1108/QMR-06-2012-0030

Baron, R. M., & Kenny, D. A. (1986). The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, *51*(6), 1173–1182. https://doi.org/0022-3514/86

BBC. (2008). BBC - Press Office - BBC World News and Synovate survey reveals a shift in attitudes to climate change. Retrieved from

http://www.bbc.co.uk/pressoffice/bbcworld/worldstories/pressreleases/2008/07_july/synovate.shtml

Bendixen, A. (2011). Differensier og dø. Retrieved September 14, 2018, from https://kampanje.com/archive/2011/09/--differensier-og-do/

Berry, W. D., & Feldman, S. (1985). *Multiple regression in practice (Quantitative Applications in the Social Sciences 50)*. Sage Publishing.

Bharadwaj, S. G., Varadarajan, P. R., & Fahy, J. (1993). Sustainable competitive advantage in service industries: A conceptual model and research propositions. *Journal of Marketing*, *57*(4), 83. https://doi.org/10.2307/1252221

Bhattacherjee, A. (2000). Acceptance of e-commerce services: the case of electronic brokerages. *IEEE Transactions on Systems, Man, and Cybernetics - Part A: Systems and Humans*, *30*(4), 411–420. https://doi.org/10.1109/3468.852435

Bisang, B. wyss. (2018). Five key sustainability trends for 2018 | Ethical Corporation. Retrieved from http://www.ethicalcorp.com/five-key-sustainability-trends-2018

Bloemer, J., & de Ruyter, K. (2001). The impact of attitude strength on the acceptance of green services. *Journal of Retailing and Consumer Services*, *9*(1), 45–52. https://doi.org/10.1016/S0969-6989(01)00005-4

Bong Ko, S., & Jin, B. (2017). Predictors of purchase intention toward green apparel products: A cross-cultural investigation in the USA and China. *Journal of Fashion Marketing and Management*, *21*(1), 70–87. https://doi.org/10.1108/JFMM-07-2014-0057

Business Dictionary. (n.d.). Definition: Product adoption process. Retrieved October 19, 2018, from http://www.businessdictionary.com/definition/product-adoption-process.html

BusinessDictionary. (n.d.). Definition: Low involvement product. Retrieved October 2, 2018, from http://www.businessdictionary.com/definition/low-involvement-product.html

Chang, H. H., & Liu, Y. M. (2009). The impact of brand equity on brand preference and purchase intentions in the service industries. *The Service Industries Journal*, *29*(12),

1687–1706. https://doi.org/10.1080/02642060902793557

Chen, Y.-S. (2010). The drivers of green brand equity: Green brand image, green satisfaction, and green trust. *Journal of Business Ethics*, (93), 307–319. https://doi.org/10.1007/s10551-009-0223-9

Chen, Y., & Chang, C. (2012). Enhance green purchase intentions. *Management Decision*, *50*(3), 502–520. https://doi.org/10.1108/00251741211216250

Chernatony, L. de, Harris, F., & Christodoulides, G. (2004). Developing a brand performance measure for financial services brands. *The Service Industries Journal*, *24*(2), 15–33. https://doi.org/10.1080/02642060412331301232

Cialdini, R. B., Reno, R. R., & Kallgren, C. A. (1990). A focus theory of normative conduct: Recycling the concept of norms to reduce littering in public places. *Journal of Personality and Social Psychology*, *58*(6), 1015–1026. https://doi.org/10.1037/0022-3514.58.6.1015

Clarke, K., & Belk, R. W. (1979). The effects of product involvement and task definition on anticipated consumer effort. *NA - Advances in Consumer Research*, *6*, 313–318. Retrieved from http://www.acrwebsite.org/search/view-conference-proceedings.aspx?Id=9220

Cobb-Walgren, C. J., Ruble, C. A., & Donthu, N. (1995). Brand equity, brand preference, and purchase intent. *Journal of Advertising*, *24*(3), 25–40. https://doi.org/10.1080/00913367.1995.10673481

Cohn, D. Y., & Vaccaro, V. L. (2013). A consumer values analysis of attitudes towards green & non-green vehicle purchase. *Proceedings of the Northeast Business & Economics Association*, 40–43. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=bth&AN=101332186&site=ehost-live

Cone Communications. (2017). *2017 Cone Gen Z CSR Study: How to speak Z — Cone Communications*. Boston. Retrieved from http://www.conecomm.com/2017-cone-communications-csr-study-pdf

Coşkun, A., Vocino, A., & Polonsky, M. (2017). Mediating effect of environmental orientation on pro-environmental purchase intentions in a low-involvement product situation. *Australasian Marketing Journal*, *25*(2), 115–125. https://doi.org/10.1016/j.ausmj.2017.04.008

Cronin, J. J., Smith, J. S., Gleim, M. R., Ramirez, E., & Martinez, J. D. (2011). Green marketing strategies: an examination of stakeholders and the opportunities they present. *Journal of the Academy of Marketing Science*, *39*(1), 158–174. https://doi.org/10.1007/s11747-010-0227-0

CSE (2017). *Sustainability reporting trends in North America*. Retrieved from https://www.cse-net.org/wp-content/uploads/documents/Sustainability-Reporting-Trends-in-North America _RS.pdf?x73410

Davies, I. A., Lee, Z., & Ahonkhai, I. (2012). Do consumers care about ethical-luxury? *Journal of Business Ethics*, *106*(1), 37–51. https://doi.org/10.1007/s10551-011-1071-y

Davis-Peccoud, J., Seemann, A., Jongeneel, M., & Martins, F. (2018). Transforming business for a sustainable economy. Retrieved September 20, 2018, from https://www.bain.com/insights/transforming-business-for-a-sustainable-economy/

Davis, F. D. (1986). *A technology acceptance model for empirically testing new end-user information systems : theory and results*. Sloan School of Management. Retrieved from https://dspace.mit.edu/handle/1721.1/15192#files-area

Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, *13*(3), 319. https://doi.org/10.2307/249008

Davis, F. D., Bagozzi, R. P., & Warshaw, P. R. (1989). User acceptance of computer technology: A comparison of two theoretical models. *Management Science*, *35*(8), 982–1003. https://doi.org/10.1287/mnsc.35.8.982

Deloitte. (2017). *2017 Millennial Survey Norway: Climate conscious and stability seeking millennials.*

Dillman, D. A. (2007). *Mail and internet surveys: The tailored design method* (2nd ed). Hoboken, NJ, US: John Wiley & Sons Inc.

Ditlev-Simonsen, C. D. (2017). Kjøper du bærekraftige produkter? Retrieved September 14, 2018, from http://www.businessnorge.no/csr/kjoper-du-baerekraftige-produkter

DW. (2016). The Fairphone: Fair deal or fairy tale? Retrieved from https://www.dw.com/en/the-fairphone-fair-deal-or-fairy-tale/a-18660137

East, R. (1997). *Consumer behaviour : advances and applications in marketing* (1st ed.). Hemel Hempstead: Prentice Hall.

Euromonitor International. (2012). Quick Pulse: Green buying – An exploration of green consumer trends. Retrieved from https://blog.euromonitor.com/2012/03/quick-pulse-green-buying-an-exploration-of-green-consumer-trends.html

Fairphone. (n.d.). Fairphone 2. Retrieved from https://www.fairphone.com/en/?fbclid=IwAR2oCzjj9JVcJep6sOmrDFn_hqFKD40wHUNs6OerEsKn7Es0dEvPRy_ZSdU

Farquhar, P. H. (1989). Managing brand equity. *Journal of Marketing Research*, *1*(3), 24–33. https://doi.org/10.2307/1252048

Fishbein, M., & Ajzen, I. (1975). *Belief, attitude, intention, and behavior : an introduction to theory and research*. Reading, MA: Addison-Wesley Pub. Co. Retrieved from https://books.google.no/books/about/Belief_attitude_intention_and_behavior.html?id=8o0QAQAAIAAJ&redir_esc=y

FN-sambandet. (2018). Norge. Retrieved from https://www.fn.no/Land/Norge

Follows, S. B., & Jobber, D. (2000). Environmentally responsible purchase behaviour: a test of a consumer model. *European Journal of Marketing*, *34*(5/6), 723–746. https://doi.org/10.1108/03090560010322009

Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with Unobservable Variables and Measurement Error. *Journal of Marketing Research*, *18*(1), 39. https://doi.org/10.2307/3151312

Franchise Help. (2018). Green industry analysis 2018 - Cost & trends. Retrieved September 14, 2018, from https://www.franchisehelp.com/industry-reports/green-industry-analysis-2018-cost-trends/

Glanz, K., Rimer, B. K., & Viswanath, K. (2015). *Health behavior : theory, research, and practice* (5th ed.). San Francisco, CA: Jossey-Bass. Retrieved from https://books.google.no/books?hl=no&lr=&id=9BQWCgAAQBAJ&oi=fnd&pg=PA95&dq=theory+of+planned+bevavior+%2B+behavioral+beliefs+&ots=edKa2euT6_&sig=nwLi4LsKnlv23ZZ_oijiTI3pn04&redir_esc=y#v=onepage&q=theory of planned bevavior %2B behavioral belie

Gleim, M. R., Smith, J. S., Andrews, D., & Cronin, J. J. (2013). Against the green: A multi-method examination of the barriers to green consumption. *Journal of Retailing*, *89*(1), 44–61. https://doi.org/10.1016/J.JRETAI.2012.10.001

Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E., & Tatham, R. L. (2006). *Multivariate data analysis* (6th ed.). Upper Saddle River, New Jersey: Pearson Education.

Han, H., Hsu, L.-T. (Jane), & Sheu, C. (2010). Application of the Theory of Planned Behavior to green hotel choice: Testing the effect of environmental friendly activities. *Tourism Management*, *31*(3), 325–334. https://doi.org/10.1016/J.TOURMAN.2009.03.013

Hartmann, P., & Apaolaza-Ibáñez, V. (2012). Consumer attitude and purchase intention toward green energy brands: The roles of psychological benefits and environmental concern. *Journal of Business Research*, *65*(9), 1254–1263. https://doi.org/10.1016/J.JBUSRES.2011.11.001

Hoyer, W. D., MacInnis, D. J., & Pieters, R. (2013). *Consumer Behavior* (6th ed.). South Western: Cengage Learning.

Hsu, C.-L., Chang, C.-Y., & Yansritakul, C. (2017). Exploring purchase intention of green skincare products using the theory of planned behavior: Testing the moderating effects of country of origin and price sensitivity. *Journal of Retailing and Consumer Services*, *34*, 145–152. https://doi.org/10.1016/J.JRETCONSER.2016.10.006

Huang, P.-Y., Wang, C.-C., Tseng, Y.-Y., & Wang, R.-J. (2011). The impact of brand equity on customer's purchase intention – Taking perceived value as a moderating variable. *Journal of Information and Optimization Sciences*, *32*(3), 657–672. https://doi.org/10.1080/02522667.2011.10700078

Huang, Y.-C., Yang, M., & Wang, Y.-C. (2014). Effects of green brand on green purchase intention. *Marketing Intelligence & Planning*, *32*(3), 250–268. https://doi.org/10.1108/MIP-10-2012-0105

Husted, B. W., Russo, M. V., Meza, C. E. B., & Tilleman, S. G. (2014). An exploratory study of environmental attitudes and the willingness to pay for environmental certification in Mexico. *Journal of Business Research*, *67*(5), 891–899. https://doi.org/10.1016/J.JBUSRES.2013.07.008

Jacobsen, D. I. (2000). *Hvordan gjennomføre undersøkelser?: Innføring i samfunnsvitenskapelig metode*. Kristiansand: Høyskoleforlaget.

Jansson, J., Marell, A., & Nordlund, A. (2010). Green consumer behavior: determinants of curtailment and eco-innovation adoption. *Journal of Consumer Marketing*, *27*(4), 358–370. https://doi.org/10.1108/07363761011052396

Joshi, Y., & Rahman, Z. (2015). Factors affecting green purchase behaviour and future research directions. *International Strategic Management Review*, *3*(1–2), 128–143. https://doi.org/10.1016/J.ISM.2015.04.001

Kalafatis, S. P., Pollard, M., East, R., & Tsogas, M. H. (1999). Green marketing and Ajzen's Theory of Planned Behaviour: a cross-market examination. *Journal of Consumer Marketing*, *16*(5), 441–460. https://doi.org/10.1108/07363769910289550

Kang, J., Kim, C. L., & Kin, S.-H. (2013). Environmentally sustainable textile and apparel consumption: the role of consumer knowledge, perceived consumer effectiveness and perceived personal relevance. *International Journal of Consumer Studies*. https://doi.org/10.1111/ijcs.12013

Kaplan, S. (2016, January 20). By 2050, there will be more plastic than fish in the world's oceans, study says. *The Washington Post*. Retrieved from https://www.washingtonpost.com/news/morning-mix/wp/2016/01/20/by-2050-there-will-be-more-plastic-than-fish-in-the-worlds-oceans-study-says/?utm_term=.b8f23aa6b5b1

Keller, K. L. (1993). Conceptualizing, Measuring, and Managing Customer-Based Brand Equity. *Journal of Marketing*, *57*(1), 1. https://doi.org/10.2307/1252054

Keller, K. L. (2013). *Strategic brand management: Building, measuring, and managing brand equity*. England: Pearson Education Limited.

Khalamayzer, A. (2016). Silicon Valley's sustainability problem. Retrieved September 19, 2018, from https://www.greenbiz.com/article/silicon-valleys-sustainability-problem

Kim, S.-H., Lee, K., & Fairhurst, A. (2017). The review of "green" research in hospitality, 2000-2014. *International Journal of Contemporary Hospitality Management*, *29*(1), 226–247. https://doi.org/10.1108/IJCHM-11-2014-0562

Klardag. (n.d.). Om oss. Retrieved December 14, 2018, from https://klardag.no/om-oss/

Laroche, M., Bergeron, J., & Barbaro-Forleo, G. (2001). Targeting consumers who are willing to pay more for environmentally friendly products. *Journal of Consumer Marketing*, *18*(6), 503–520. https://doi.org/10.1108/EUM0000000006155

Lavik, R., & Borgeraas, E. (2014). Forbrukstrender 2014, SIFO-survey. Oslo. Retrieved from http://www.hioa.no/extension/hioa/design/hioa/images/sifo/files/file79838_prosjektnotat_8-2014_web.pdf

Lavik, R., & Borgeraas, E. (2017). Forbrukstrender 2017, SIFO-survey. Oslo. Retrieved from http://www.hioa.no/Om-OsloMet/Senter-for-velferds-og-arbeidslivsforskning/SIFO/Publikasjoner-fra-SIFO/Forbrukstrender-2017

Lenne, O. de, & Vandenbosch, L. (2017). Media and sustainable apparel buying intention. *Journal of Fashion Marketing and Management: An International Journal*, *21*(4), 483–498. https://doi.org/10.1108/JFMM-11-2016-0101

Lin, J. C.-C., & Lu, H. (2000). Towards an understanding of the behavioural intention to use a web site. *International Journal of Information Management*, *20*(3), 197–208. https://doi.org/10.1016/S0268-4012(00)00005-0

Lindahl, H. (2015). Grønne og etiske mobilvalg. Retrieved from https://www.framtiden.no/gronne-tips/data-og-elektronikk/gronne-og-etiske-mobilvalg.html

Ling-Yee, L. (1997). Effect of collectivist orientation and ecological attitude on actual environmental commitment. *Journal of International Consumer Marketing*, *9*(4), 31–53.

https://doi.org/10.1300/J046v09n04_03

Lu, L., Bock, D., & Joseph, M. (2013). Green marketing: what the Millennials buy. *Journal of Business Strategy*, *34*(6), 3–10. https://doi.org/10.1108/JBS-05-2013-0036

Luchs, M. G., Naylor, R. W., Irwin, J. R., & Raghunathan, R. (2010). The sustainability liability: Potential negative effects of ethicality on product preference. *Journal of Marketing*, *74*(5), 18–31. https://doi.org/10.1509/jmkg.74.5.18

Luo, X., & Bhattacharya, C. (2006). Corporate social responsibility, customer satisfaction, and market value. *Journal of Marketing*, *70*(4), 1–18.https://doi.org/10.1509/jmkg.70.4.1

MacKenzie, S. B., & Podsakoff, P. M. (2012). Common method bias in marketing: Causes, mechanisms, and procedural remedies. *Journal of Retailing*, *88*(4), 542–555. https://doi.org/10.1016/J.JRETAI.2012.08.001

Mahoney, S. (2011). Study: Green gap is bigger than ever. Retrieved September 14, 2018, from https://www.mediapost.com/publications/article/148938/study-green-gap-is-bigger-than-ever.html

Maignan, I., & Ferrell, O. (2001). Antecedents and benefits of corporate citizenship: an investigation of French businesses. *Journal of Business Research*, *51*(1), 37–51. https://doi.org/10.1016/S0148-2963(99)00042-9

Menguc, B., & Ozanne, L. K. (2005). Challenges of the "green imperative": a natural resource-based approach to the environmental orientation–business performance relationship. *Journal of Business Research*, *58*(4), 430–438. https://doi.org/10.1016/J.JBUSRES.2003.09.002

Mitchell, A. A., & Olson, J. C. (1981). Are product attribute beliefs the only mediator of advertising effects on brand attitude? *Journal of Marketing Research* (18). Retrieved from https://www.jstor.org/stable/pdf/3150973.pdf?refreqid=excelsior%3Ae5c2f219d496eb5a54936d5ce0459412

Mittal, B., & Lee, M.-S. (1989). A causal model of consumer involvement. *Journal of Economic Psychology*, *10*(3), 363–389. https://doi.org/10.1016/0167-4870(89)90030-5

Mohd Suki, N. (2016). Consumer environmental concern and green product purchase in Malaysia: structural effects of consumption values. *Journal of Cleaner Production*, *132*, 204–214. https://doi.org/10.1016/J.JCLEPRO.2015.09.087

Montague, J., & Mukherjee, A. (2010). Marketing green products: What really matters?. *Proceedings of the Northeast Business & Economics Association*, 433–441. Retrieved from http://web.b.ebscohost.com/ehost/pdfviewer/pdfviewer?vid=0&sid=5792dd53-595a-401c-a899-1f873d57b926%40sessionmgr103

Moradi, H., & Zarei, A. (2011). The impact of brand equity on purchase intention and brand preference- the moderating effects of country of origin image. *Australian Journal of Basic and Applied Sciences*, *5*(3), 539–545. Retrieved from http://ajbasweb.com/old/ajbas/2011/539-545.pdf

Moser, A. K. (2015). Thinking green, buying green? Drivers of pro-environmental purchasing behavior. *Journal of Consumer Marketing*, *32*(3), 167–175. https://doi.org/10.1108/JCM-10-2014-1179

Myers, C. A. (2003). Managing brand equity: a look at the impact of attributes. *Journal of Product & Brand Management*, *12*(1), 39–51. https://doi.org/10.1108/10610420310463126

Namkung, Y., & Jang, S. (2013). Effects of restaurant green practices on brand equity formation: Do green practices really matter? *International Journal of Hospitality Management*, *33*, 85–95. https://doi.org/10.1016/J.IJHM.2012.06.006

Nidumolu, R., Prahalad, C. K., & Rangaswami, M. R. (2009). Why sustainability is now the key driver of innovation. https://doi.org/10.1109/EMR.2013.6601104

Nielsen. (2015). *The Sustainability Imperative: New insights on consumer expectations*. Retrieved from https://www.nielsen.com/content/dam/corporate/us/en/reports-downloads/2015-reports/global-sustainability-report-oct-2015.pdf

Nysveen, H., & Pedersen, P. E. (2016). Consumer adoption of RFID-enabled services. Applying an extended UTAUT model. *Information Systems Frontiers*, *18*(2), 293–314. https://doi.org/10.1007/s10796-014-9531-4

Nysveen, H., Pedersen, P. E., & Thorbjørnsen, H. (2005). Intentions to use mobile services: Antecedents and cross-service comparisons. *Journal of the Academy of Marketing Science*, *33*(3), 330–346. https://doi.org/10.1177/0092070305276149

OECD. (2008). *Promoting sustainable consumption: Good practices in OECD countries*. Retrieved from https://www.oecd.org/greengrowth/40317373.pdf

Oliver, R. (1997). *Satisfaction: A behavioral perspective on the consumer*. New York: McGraw-Hil.

Olsen, M. C., Slotegraaf, R. J., & Chandukala, S. R. (2014). Green claims and message frames: How green new products change brand attitude. *Journal of Marketing*, *78*(5), 119–137. https://doi.org/10.1509/jm.13.0387

Olson, E. L. (2013). It's not easy being green: the effects of attribute tradeoffs on green product preference and choice. *Journal of the Academy of Marketing Science*, *41*(2), 171–184. https://doi.org/10.1007/s11747-012-0305-6

Pallant, J. (2011). *SPSS Survival Manual- A step by step guide to data analysis using SPSS* (4th ed.). Crows Nest, NSW, Australia: Allen&Unwin.

Pavlou, P. A., & Fygenson, M. (2006). *Understanding and predicting electronic commerce adoption: An extension of the theory*. *Source: MIS Quarterly* (Vol. 30). Retrieved from https://www.jstor.org/stable/pdf/25148720.pdf?refreqid=excelsior%3A4f317edc1e24664f08de04430bfcb044

Peter, P. J., & Olson, J. C. (1996). *Consumer behavior and marketing strategy* (4th ed.). IRWIN.

Podsakoff, P. M., MacKenzie, S. B., Lee, J.-Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology*, *88*(5), 879–903. https://doi.org/10.1037/0021-9010.88.5.879

Preacher, K. J., & Hayes, A. F. (2004). SPSS and SAS procedures for estimating indirect effects in simple mediation models. *Behavior Research Methods, Instruments, & Computers*, *36*(4), 717–731. Retrieved from www.psychonomic.org/archive/.

Preacher, K. J., & Hayes, A. F. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behavior Research Methods*, *40*(3), 879–891. https://doi.org/10.3758/BRM.40.3.879

Prothero, A., Dobscha, S., Freund, J., Kilbourne, W. E., Luchs, M. G., Ozanne, L. K., & Thøgersen, J. (2011). Sustainable consumption: Opportunities for consumer research and public policy. *Journal of Public Policy & Marketing*, *30*(1), 31–38. https://doi.org/10.1509/jppm.30.1.31

Pujari, D., Wright, G., & Peattie, K. (2003). Green and competitive: Influences on environmental new product development performance. *Journal of Business Research*, *56*(8), 657–671. https://doi.org/10.1016/S0148-2963(01)00310-1

Quester, P., & Lin Lim, A. (2003). Product involvement/brand loyalty: is there a link? *Journal of Product & Brand Management*, *12*(1), 22–38. https://doi.org/10.1108/10610420310463117

Raska, D., & Shaw, D. (2012). When is going green good for company image? *Management Research Review*, *35*(3/4), 326–347. https://doi.org/10.1108/01409171211210190

Regjeringen. (2017). 100 millioner til miljøvennlig teknologi. Retrieved from https://www.regjeringen.no/no/aktuelt/100-millioner-til-miljovennlig-teknologi/id2554904/?fbclid=IwAR0SkpqVeJVKxUT-EdUdrA_QVjDBQB-C7P0RiMoaIjcGt72tN0ezDqy1zN4

Research Methodology. (n.d.). Deductive approach (Deductive reasoning). Retrieved from http://research-methodology.net/research-methodology/research-approach/deductive-approach-2/

Royne, M. B., Levy, M., & Martinez, J. (2011). The public health implications of consumers' environmental concern and their willingness to pay for an eco-friendly product. *Journal of Consumer Affairs*, *45*(2), 329–343. https://doi.org/10.1111/j.1745-6606.2011.01205.x

Saad, L. (2009). Water pollution: Americans' top green concern. Retrieved September 14, 2018, from https://news.gallup.com/poll/117079/water-pollution-americans-top-green-concern.aspx

Saunders, M., Lewis, P., & Thornhill, A. (2009). *Research methods for business students* (5th ed.). Harlow, England: Pearson Education.

Schifferstein, H. N. J. (2001). Effects of product beliefs on product perception and liking. In *Food, People and Society* (pp. 73–96). Berlin, Heidelberg: Springer Berlin Heidelberg. https://doi.org/10.1007/978-3-662-04601-2_6

Schifter, D. E., & Ajzen, I. (1985). *Intention, perceived control, and weight loss: An application of the Theory of Planned Behavior*. *Journal of Personality and Social Psychology* (Vol. 49). Retrieved from https://pdfs.semanticscholar.org/2915/b1f4142be19dfbfbee23a61011a71603cc07.pdf

Schill, M., & Shaw, D. (2016). Recycling today, sustainability tomorrow: Effects of psychological distance on behavioural practice. *European Management Journal*, *34*(4), 349–362. https://doi.org/10.1016/J.EMJ.2016.05.004

Schlossberg, T. (2017, July 27). Flying is bad for the planet. You can help make it better. *The New York Times*. Retrieved from https://www.nytimes.com/2017/07/27/climate/airplane-pollution-global-warming.html

Schuitema, G., & de Groot, J. I. M. (2015). Green consumerism: The influence of product attributes and values on purchasing intentions. *Journal of Consumer Behavior*, 57–69. https://doi.org/10.1002/cb.1501

Sheppard, B. H., Hartwick, J., & Warshaw, P. R. (1988). The Theory of Reasoned Action: A meta-analysis of past research with recommendations for modifications and future research. *Journal of Consumer Research*, *15*(3), 325–343. Retrieved from http://www.jstor.org/stable/2489467

Shrum, L. J., McCarty, J. A., & Lowrey, T. M. (1995). Buyer characteristics of the green consumer and their implications for advertising strategy. *Journal of Advertising*, *24*(2), 71–82. https://doi.org/10.1080/00913367.1995.10673477

Skippon, S., & Garwood, M. (2011). Responses to battery electric vehicles: UK consumer attitudes and attributions of symbolic meaning following direct experience to reduce psychological distance. *Transportation Research Part D: Transport and Environment*, *16*(7), 525–531. Retrieved from https://trid.trb.org/view/1114593

Sreen, N., Purbey, S., & Sadarangani, P. (2018). Impact of culture, behavior and gender on green purchase intention. *Journal of Retailing and Consumer Services*, *41*, 177–189. https://doi.org/10.1016/j.jretconser.2017.12.002

Srivastava, R. K., & Shocker, A. D. (1991). *Brand Equity: A perspective on its meaning and measurement - MSI Web Site »*. Retrieved from http://www.msi.org/reports/brand-equity-a-perspective-on-its-meaning-and-measurement/

SSB. (2017). BNP per innbygger, prisnivåjustert. Retrieved November 26, 2018, from https://www.ssb.no/priser-og-prisindekser/statistikker/ppp/aar

SSB. (2018). Studenter i høyere utdanning. Retrieved November 26, 2018, from https://www.ssb.no/utdanning/statistikker/utuvh

Stevens, J. P. (2009). *Applied multivariate statistics for the social sciences* (5th ed.). New York: Routledge.

Stock, J. H., & Watson, M. W. (2015). *Introduction to econometrics* (3rd ed.). Boston: Pearson.

Tangland, T., Heidenstrøm, N., & Vittersø, G. (2017). *Endringer i forbruksutviklingen i Norge - implikasjoner for det grønne skiftet*. Retrieved from http://www.hioa.no/content/download/139538/3975081/file/OR%204%20-%202017%20Endringer%20i%20forbruksutviklingen%20i%20Norge%20-%20implikasjoner%20for%20det%20gr%C3%B8nne%20skiftet.pdf

Tanner, C., & Wölfing Kast, S. (2003). Promoting sustainable consumption: Determinants of green purchases by Swiss consumers. *Psychology & Marketing*, *20*(10), 883–902. https://doi.org/10.1002/mar.10101

TDG. (2018). 3 Best environmentally eco-friendly green android smartphones. Retrieved from https://thedroidguy.com/2018/10/3-best-environmentally-eco-friendly-green-android-smartphones-1067264

Thøgersen, J., & Zhou, Y. (2012). Chinese consumers' adoption of a 'green' innovation – The case of organic food. *Journal of Marketing Management*, *28*(3–4), 313–333. https://doi.org/10.1080/0267257X.2012.658834

Umweltbundesamt. (2014). *Green products in Germany 2014: Status Quo and Trends*. Retrieved from https://www.umweltbundesamt.de/sites/default/files/medien/378/publikationen/uba_green_in_germany_2014.pdf

Unilever. (2017). Report shows a third of consumers prefer sustainable brands. Retrieved from https://www.unilever.com/news/Press-releases/2017/report-shows-a-third-of-consumers-prefer-sustainable-brands.html

United Nations. (1987). *Report of the World Commission on environment and development*. Retrieved from http://www.un-documents.net/a42r187.htm

United Nations. (2005). *2005 World summit outcome*. Retrieved from http://www.un-documents.net/a60r1.htm

United Nations. (2015). *Transforming our world: The 2030 agenda for sustainable development*. Retrieved from http://www.undocs.org/A/RES/70/1

Venkatesh, V., & Davis, F. D. (2000). A theoretical extension of the Technology Acceptance Model: Four longitudinal field studies. *Management Science*, *46*(2), 186–204. https://doi.org/10.1287/mnsc.46.2.186.11926

Vermeir, I., & Verbeke, W. (2006). Sustainable food consumption: Exploring the consumer "attitude – behavioral intention" gap. *Journal of Agricultural and Environmental Ethics*, *19*(2), 169–194. https://doi.org/10.1007/s10806-005-5485-3

VG. (2002). Nordmenn er på jåletoppen. Retrieved December 14, 2018, from https://www.vg.no/nyheter/innenriks/i/qnnbdO/nordmenn-er-paa-jaaletoppen

Wærstad, L. (2018). Historisk elbil-rekord i Norge. Retrieved from https://www.side3.no/motor/elbil-setter-nye-salgsrekord-i-norge-6688696?fbclid=IwAR2NsfoRVQbBE8BShIq10Sj2RGlQG06wwtFh9LsfLqosf0NC9RVbjwOGVNk

Weinstein, N. D. (2007). Misleading tests of health behavior theories. *Annals of Behavioral Medicine*, *33*(1), 1–10. https://doi.org/10.1207/s15324796abm3301_1

Williams, F. (2011). Charge Less, Sell More: How to price green products. Retrieved

September 14, 2018, from https://www.greenbiz.com/blog/2011/05/10/charge-less-sell-more-how-to-price-green-products

Wolfe, K. L., & Shanklin, C. W. (2001). Environmental practices and management concerns of conference center administrators. *Journal of Hospitality & Tourism Research*, *25*(2), 209–216. https://doi.org/10.1177/109634800102500207

Yoo, B., & Donthu, N. (2001). Developing and validating a multidimensional consumer-based brand equity scale. *Journal of Business Research*, *52*(1), 1–14. https://doi.org/10.1016/S0148-2963(99)00098-3

Zaichkowsky, J. L. (1985a). Familiarity: Product use, involvement or expertise? In *NA - Advances in Consumer Research* (Vol. 12, pp. 296–299). Provo, UT. Retrieved from http://www.acrwebsite.org/search/view-conference-proceedings.aspx?Id=6403

Zaichkowsky, J. L. (1985b). Measuring the involvement construct. *Journal of Consumer Research*, *12*(3), 341–352. Retrieved from http://www.jstor.org/stable/254378

Zeithaml, V. A. (1988). Consumer perceptions of price, quality, and value: A means-end model and synthesis of evidence. *Journal of Marketing*, *52*(3), 2–22. https://doi.org/10.2307/1251446

Zhao, X., Lynch JR, J. G., & Chen, Q. (2010). Reconsidering Baron and Kenny: Myths and truths about mediation analysis. *Journal of Consumer Research, 37(2),* 197–206. https://doi.org/10.1086/651257

Zondag, M. H. W., & Archer, E. K. (2017). Oslo er kåret til Europas miljøhovedstad – NRK Østlandssendingen – Lokale nyheter, TV og radio. Retrieved from https://www.nrk.no/ostlandssendingen/oslo-er-karet-til-europas-miljohovedstad-1.13543238

Appendix

Appendix A: Literature Review

A (i): Overview of Relevant Research

Author	Title	Journal (ABS)	Dependent Variable	Antecedents	Method	Product	Country
Huang, Yang and Wang (2014)	Effects of green brand on green purchase intention	Marketing Intelligence & Planning (1)	Green purchase intention	Green brand positioning, green brand knowledge, attitude towards green brand	Survey	Green car	Taiwan
Jansson, Marell and Nordlund (2010)	Green consumer behavior: determinants of curtailment and eco-innovation adoption	Journal of Consumer Marketing (1)	Willingness to curtail and willingness to adopt	Values, beliefs (ascription of responsibility to oneself for environmental problems), personal norms and habits	Survey	Alternative fuel vehicle	Sweden
Olson (2013)	It's not easy being green: the effects of attribute tradeoffs on green product preference and choice	Journal of the Academy of Marketing Science (4)	Purchase intention and "Price they would expect to pay"	Powertrain technology, economy and emissions, 0-100kph acceleration, collision safety rating / screen technology, annual energy cost, screen resolution, screen size	Survey	Car and TV	Norway
Lenne and Vandenbosch (2017)	Media and sustainable apparel buying intention	Journal of Fashion Marketing and Management (1)	Intention to buy	Exposure to media, attitudes, subjective norms, descriptive norms and self-efficacy beliefs [TPB]	Survey	Sustainable apparel	Belgium (Flanders) and the Netherlands
Akturan (2018)	How does greenwashing affect green branding equity and purchase intention? An empirical research	Marketing Intelligence & Planning (1)	Purchase intention	Greenwashing, brand credibility, green brand associations and green brand equity (moderator: product involvement)	Survey	Refrigerator and Tissue paper	Turkey
Hsu, Chang and Yansritakul (2017)	Exploring purchase intention of green skincare products using the theory of planned behavior: Testing the moderating effects of country of origin and price sensitivity	Journal of Retailing and Consumer Services (2)	Purchase intention	Attitude, subjective norm, and perceived behavioral control [TPB] (moderator: country of origin and price-sensitivity)	Survey	Green skincare products	Taiwan
Ko and Jin (2017)	Predictors of purchase intention	Journal of Fashion Marketing	Purchase intention	Man-nature orientation, environmental	Survey	Green apparel	USA and China

	toward green apparel products	and Managemen t (1)		knowledge, attitude, subjective norm, external and internal perceived behavioral control [TPB]			
Gerpott and Mahmudova (2010)	Determinants of green electricity adoption among residential customers in Germany	International Journal of consumer studies (2)	Adoption	Social endorsement, environmental protection attitude, switching difficulty, Knowledgeability , switching experiences, price emphasis, differences between electric power companies offerings, electric power companies social responsibility	Survey	Green electricity	Germany
Bloemer and Ruyterb (2002)	The impact of attitude strength on the acceptance of green services	Journal of Retailing and Consumer Services (2)	Acceptance	Attitude strength: embeddedness and commitment (Mediators: cognitive elaboration, information seeking)	Survey	Green family insurances	Belgium (Flemish)
Stöckigt, Schiebener and Brand (2018)	Providing sustainability information in shopping situations contributes to sustainable decision making: An empirical study with choice-based conjoint analyses	Journal of Retailing and Consumer Services (2)	Importance of sustainability -related attributes on decision making	Agreeableness, conscientiousness, openness, delay discounting, materialism	Choice-based conjoint task (simulated buying scenarios)	Online- and offline shopping of sustainable food and fashion	Germany
Sreen, Purbey and Sadarangani (2018)	Impact of culture, behavior and gender on green purchase intention	Journal of Retailing and Consumer Services (2)	Intention to purchase	Collectivism, man-nature orientation and Long-term orientation (mediator: attitude, subjective norms and perceived behavior control [TPB] (moderator: gender)	Survey	Green products in general	India
Thøgersen and Zhou (2012)	Chinese consumers' adoption of a 'green' innovation – The case of organic food	Journal of Marketing Managemen t (2)	Intention to purchase	Beliefs (Experience, taste better, pesticide free, environment, healthier), attitude, injunctive norm, descriptive norm, perceived	Survey	Organic food	China

				behavioral control [TPB]			
Hartmann, Apaolaza Ibáñez and Forcada Sainz (2005)	Green branding effects on attitude: functional versus emotional positioning strategies	Journal of Marketing Intelligence and Planning (1)	Brand attitude	Functional and emotional dimensions of green brand positioning	Experimental setting (online questionnaire)	Cars	Spain
Olsen, Slotegraaf and Chandukala (2014)	Green branding effects on attitude: functional versus emotional positioning strategies	Journal of Marketing (4*)	Brand attitude	Green New Product Introductions (moderators: message framing, source credibility, and product type)	Secondary dataset	22 different product categories and 75 different brands	USA
Fernando, Sivakumaran and Suganthi (2016)	Message involvement and attitude towards green advertisements	Marketing of Intelligence and Planning (1)	Attitude towards advertisement	Perceived severity, perceived vulnerability, response efficacy, self-efficacy, objective environmental knowledge, environmental concern, message involvement (moderator: fear)	Experimental study (paper questionnaire)	Green mobile phones	India
Mostafa (2007)	Gender differences in Egyptian consumers' green purchase behaviour: the effects of environmental knowledge, concern and attitude	International Journal of Consumer Studies (2)	Environmental knowledge, concern and attitudes	Gender	Survey	Green products in general	Egypt
Miniero, Codini, Bonera, Corvi and Bertoli (2014)	Being green: from attitude to actual consumption	International Journal of Consumer Studies (2)	Comply with green consumption	Individual differences: regulatory focus and time horizon	Experimental studies (Questionnaire)	Car-sharing service	Italy
Wiederhold and Martinez (2018)	Ethical consumer behaviour in Germany: The attitude-behaviour gap in the green apparel industry	International Journal of Consumer Studies (2)	Purchase decisions	Price, transparency, image, lack of availability, inertia, consumption habits, lack of knowledge	In-depth interviews	Green apparel	Germany
Hustvedt, Ahn and Emmel (2012)	The adoption of sustainable laundry technologies by US consumers	International Journal of Consumer Studies (2)	Intention of adoption	Demographic characteristics, housing characteristics, perceived attributes of innovations (relative advantage, compatibility, complexity, trialability, observability), communication channels	Survey	Laundry technology	USA

McNeill and Moore (2015)	Sustainable fashion consumption and the fast fashion conundrum: fashionable consumers and attitudes to sustainability in clothing choice	International Journal of Consumer Studies (2)	Attitude towards sustainable fashion consumption	Concern for social and environmental well-being, preconceptions towards sustainable fashion, prior behavior in ethical consumption actions	Survey + in-depth interview	Apparel / fashion clothing	New Zealand
Moser and Raffaelli (2012)	Consumer preferences for sustainable production methods in apple purchasing behaviour: a non-hypothetical choice experiment	International Journal of Consumer Studies (2)	Willingness to pay	Production method (conventional, IPM, innovative and organic), visual appeal (good, mediocre, bad), origin (Trentino region, Italy and abroad), low GHG emission practices, and price	A non-hypothetical choice experiment + survey	Apples	Italy
Arli,Tan, Tjiptono and Yang (2018)	Exploring consumers' purchase intention towards green products in an emerging market: The role of consumers' perceived readiness	International Journal of Consumer Studies (2)	Purchase intention	Attitude, subjective norm, perceived behavioral control, pro-environmental self-identity, ethical obligation and consumers' readiness to be green [TPB]	Survey	Environmentally-friendly household product	Indonesia

A (ii): Summary of Searches

Search	Number of hits	Number used
Green + adoption (title), consumer (journal)	3	2
Green + adoption (title), customer (journal)	0	0
Green + adoption (title), marketing (journal)	7	2
Sustainable + adoption (title), consumer (journal)	1	1
Sustainable + adoption (title), customer (journal)	0	0
Sustainable + adoption (title), marketing (journal)	7	0
Green + choice (title), consumer (journal)	0	0
Green + choice (title), customer (journal)	0	0
Green + choice (title), marketing (journal)	6	1
Sustainable + choice (title), consumer (journal)	5	3
Sustainable + choice (title), customer (journal)	0	0
Sustainable + choice (title), marketing (journal)	0	0
Green + acceptance (title), consumer (journal)	1	1
Green + acceptance (title), customer (journal)	0	0
Green + acceptance (title), marketing (journal)	1	0
Sustainable + acceptance (title), consumer (journal)	1	0
Sustainable + acceptance (title), customer (journal)	0	0
Sustainable + acceptance (title), marketing (journal)	0	0
Green + intention (title), consumer (journal)	3	3

Green + intention (title), customer (journal)	1	0
Green + intention (title), marketing (journal)	16	4
Sustainable + intention (title), consumer (journal)	0	0
Sustainable + intention (title), customer (journal)	0	0
Sustainable + intention (title), marketing (journal)	7	1
Green + Attitude (title), consumer (journal)	4	1
Green + Attitude (title), customer (journal)	0	0
Green + Attitude (title), marketing (journal)	25	3
Sustainable + Attitude (title), consumer (journal)	1	0
Sustainable + Attitude (title), customer (journal)	1	0
Sustainable + Attitude (title), marketing (journal)	8	0
	98	22

A (iii): List of Included and Excluded Studies

** Black = included studies, grey = excluded studies*

Green-adoptions – consumer

1. Green consumer behavior: determinants of curtailment and eco-innovation adoption, Jansson, Marell and Nordlund (2010). Retrieved from: https://www.emeraldinsight.com/doi/full/10.1108/07363761011052396 (ABS 1)
2. Determinants of green electricity adoption among residential customers in Germany, Gerpott and Mahmudova (2010). Retrieved from: https://onlinelibrary.wiley.com/doi/abs/10.1111/j.1470-6431.2010.00896.x. (ABS 2)
3. Consumer reactions to the adoption of green reverse logistics. Retrieved from: https://www.tandfonline.com/doi/full/10.1080/09593969.2012.690777?scroll=top&needAccess=true . (Not found in the ABS-list)

Green-adoptions – customer

None

Green-adoptions – marketing

1. Green consumer behavior: determinants of curtailment and eco-innovation adoption, Jansson, Marell and Nordlund (2010). Retrieved from: https://www.emeraldinsight.com/doi/full/10.1108/07363761011052396 (ABS 1)
2. Chinese consumers' adoption of a 'green' innovation – The case of organic food, Thørgersen and Zhou (2012). Retrieved from: https://www.tandfonline.com/doi/full/10.1080/0267257X.2012.658834?scroll=top&needAccess=true (ABS 2)
3. Green technology adoption: An empirical study of the Southern California garment cleaning industry. Retrieved from: https://link.springer.com/article/10.1007/s11129-015-9163-0 (ABS: 3). Not relevant: Research on economic incentives from the government.
4. Assessing determinants of green practices adoption: a conceptual framework. Retrieved from: https://www.elixirpublishers.com/articles/1350371543_45%20(2012)%207760-7766.pdf (Not found in the ABS-list)
5. Understanding the influence of stakeholders as a basis for the adoption of green marketing strategy. Retrieved from: https://bib.irb.hr/prikazi-rad?rad=664744 (Not found in the ABS-list)
6. Beyond green regulations: achieving true sustainability through engagement in a forced adoption context. Retrieved from: https://iris.unibocconi.it/handle/11565/3842897#.W5epm5MzZZ0 (Not found in the ABS-list)
7. Drivers of green product adoption - the role of green perceived value, green trust and perceived quality. Retrieved from: http://db.koreascholar.com/article?code=271857 (Not found in the ABS-list)

Sustainable – adoption – consumer

1. The adoption of sustainable laundry technologies by US consumers, Hustvedt, Ahn and Emmel (2012). Retrieved from: https://onlinelibrary.wiley.com/doi/abs/10.1111/ijcs.12007 (ABS: 2)

Sustainable – adoption – customer

None

Sustainable – adoption – marketing

1. Barriers and bridges to the adoption of environmentally-sustainable offerings. Retrieved from: https://www.sciencedirect.com/science/article/pii/S0019850113001429 (ABS: 3). Not relevant: Not consumers, but supplier to business perspective.
2. A Multilevel Analysis of the Adoption of Sustainable Technology. Retrieved from: https://www.tandfonline.com/doi/abs/10.2753/MTP1069-6679220213 (ABS: 2). Not relevant: Not green products, but sustainable technology.
3. An Interpretive Structural Modelling Approach for Analysing the Enablers towards Adoption of Initiatives for a Sustainable Supply Chain (Not found in the ABS-list)
4. Sustainable horticulture: understanding barriers to the adoption of innovation. Retrieved from: https://researchonline.jcu.edu.au/36740/ (Not found in the ABS-list)
5. Sustainable Retrofits of Apartment Buildings: Developing a Process to Address the Barriers to Adoption. Retrieved from: https://link.springer.com/chapter/10.1007/978-3-319-24184-5_77 (Not found in the ABS-list)
6. Moving Towards Sustainable Consumption: A Study of Reduce, Reuse and Recycle (3Rs) Adoption among Malaysians. Retrieved from: http://ibaicm.iba.edu.pk/pdfs/Movingtowardssustainableconsumption.pdf (Not found in the ABS-list)
7. Sustainable Retrofits of Apartment Buildings: Developing a Process to Address the Barriers to Adoption. Retrieved from: https://books.google.no/books?hl=no&lr=&id=emkiCwAAQBAJ&oi=fnd&pg=PA284&dq=+sustainable+adoption+source:marketing&ots=fViZHv4Zgc&sig=KmeZeRFoAS0d_kocCWTq0gw1htg&redir_esc=y#v=onepage&q&f=false (Not found in the ABS-list)

Green – choice – consumer

None

Green – choice – customer

None

Green – choice – marketing

1. Green advertising effects on attitude and choice of advertising themes. Retrived from: https://www.emeraldinsight.com/doi/pdfplus/10.1108/13555850510672386 (Not found in the ABS-list)
2. It's not easy being green: the effects of attribute tradeoffs on green product preference and choice, Olson (2012). Retrieved from: https://link.springer.com/article/10.1007/s11747-012-0305-6 (ABS: 4)
3. Impact of Social Medium on Green Choice Behavior → http://jmm-net.com/journals/jmm/Vol_2_No_2_June_2014/6.pdf (ABS 2). Not relevant: Social media and TAM
4. Preferences and Willingness to Pay for Green Hotel Attributes in Tourist Choice Behavior: The Case of Taiwan. Retrieved from: https://www.tandfonline.com/doi/abs/10.1080/10548408.2014.895479 (ABS 2). Not relevant: Specific relevant for hotel preferences.
5. The influencing factors on consumer choice behavior regarding green products based on theory of consumption values. Retrieved from: http://www.sid.ir/En/Journal/ViewPaper.aspx?ID=473835 (ABS 2). No access.

6. Market Segmentation for Green Electricity Marketing Results of a Choice-Based Conjoint Analysis with German Electricity Consumers. Retrieved from: https://link.springer.com/chapter/10.1007/978-3-319-46427-5_5 (Not found in the ABS-list)

Sustainable – choice – consumer

1. Sustainable fashion consumption and the fast fashion conundrum: fashionable consumers and attitudes to sustainability in clothing choice, McNeill and Moore (2015). Retrieved from: https://onlinelibrary.wiley.com/doi/abs/10.1111/ijcs.12169 (ABS 2)
2. Forced Choice Restriction in Promoting Sustainable Food Consumption: Intended and Unintended Effects of the Mandatory Vegetarian Day in Helsinki Schools. Retrieved from: https://link.springer.com/article/10.1007/s10603-013-9221-5 (ABS 2). Not relevant: Forced choices of vegetarian meals at a school in Helsinki.
3. Consumer preferences for sustainable production methods in apple purchasing behaviour: a non-hypothetical choice experiment, Moser and Raffaelli (2012). Retrieved from: https://onlinelibrary.wiley.com/doi/abs/10.1111/j.1470-6431.2011.01083.x (ABS 2)
4. Evaluating consumers' sustainable choice of wine: An on-line shop experiment. Retrieved from: https://hal.archives-ouvertes.fr/hal-01580728/ (Not found in the ABS-list)
5. Providing sustainability information in shopping situations contributes to sustainable decision making: An empirical study with choice-based conjoint analyses, Stöckigt, Schiebener and Brand (2018). Retrieved from: https://www.sciencedirect.com/science/article/pii/S0969698917304368 (ABS 2)

Sustainable – choice – customer

None

Sustainable – choice – marketing

None

Green – acceptance – consumer

1. The impact of attitude strength on the acceptance of green services, Bloemer and Ruyterb (2002). Retrieved from: https://www.sciencedirect.com/science/article/pii/S0969698901000054 (ABS 2)

Green – acceptance – customer

None

Green – acceptance – marketing

1. Acceptance trend of green food in large Chinese cities: An investigation of Beijing city in January 2003. Retrieved from: http://agris.fao.org/agris-search/search.do?recordID=JP2004008167 (Not found in the ABS-list)

Sustainable – acceptance – consumer

1. A model of sustainable household technology acceptance. Retrieved from: https://onlinelibrary.wiley.com/doi/abs/10.1111/ijcs.12217 (ABS 2). Not relevant: sustainable household technology.

Sustainable – acceptance – customer

None

Sustainable – acceptance – marketing

None

Green – intention – consumer

1. Exploring purchase intention of green skincare products using the theory of planned behavior: Testing the moderating effects of country of origin and price sensitivity, Hsu, Chang & Yansritakul (2017). Retrieved from: https://www.sciencedirect.com/science/article/pii/S0969698916303721 (ABS 2)
2. Exploring consumers' purchase intention towards green products in an emerging market: The role of consumers' perceived readiness, Arli, tan, tiptono and yang (2018). Retrieved from: https://onlinelibrary.wiley.com/doi/abs/10.1111/ijcs.12432 (ABS 2)
3. Impact of culture, behavior and gender on green purchase intention, Sreena, Purbeya & Sadarangania (2018). Retrieved from: https://www.sciencedirect.com/science/article/pii/S0969698917304071 (ABS 2)

Green – intention – customer

1. Determinants of Green Purchase Intention: An Empirical Study in India. Retrieved from: https://search.proquest.com/docview/1919495640?pq-origsite=gscholar (Not found in the ABS-list)

Green – intention – marketing

1. Examination of environmental beliefs and its impact on the influence of price, quality and demographic characteristics with respect to green purchase intention. Retrieved from: https://charteredabs.org/academic-journal-guide-2015-view/ (Not found in the ABS-list)
2. Consumers' purchase intention of green products: An investigation of the drivers and moderating variable. Retrieved from: https://www.elixirpublishers.com/articles/1367043926_57A%20(2013)%2014503-14509.pdf (Not found in the ABS-list)
3. Effects of green brand on green purchase intention, Huang., Yang, and Wang (2014). Retrieved from: https://www.emeraldinsight.com/doi/pdfplus/10.1108/MIP-10-2012-0105 (ABS 1)
4. The role of Islamic values on green purchase intention. Retrieved from: https://www.emeraldinsight.com/doi/abs/10.1108/JIMA-11-2013-0080 (Not found in the ABS-list)
5. Exploring the Effects of Customer Attitude and Purchase Intention on Green Products: Implications for Corporate Environment Strategies and Public Policy. Retrieved from: http://www.papersearch.net/thesis/article.asp?key=3560124 (Not found in the ABS-list)
6. Predictors of purchase intention toward green apparel products, Ko and Jin (2017). Retrieved from: https://www.emeraldinsight.com/doi/pdfplus/10.1108/JFMM-07-2014-0057 (ABS 1)
7. Investigating the impact of selected factors on consumer green purchase intention. Retrieved from: http://www.sid.ir/En/Journal/ViewPaper.aspx?ID=291256 (ABS 2). No access.
8. Correlations Between Awareness of Green Marketing, Corporate Social Responsibility, Product Image, Corporate Reputation, and Consumer Purchase Intention. Retrieved from: https://www.igi-global.com/chapter/correlations-between-awareness-of-green-marketing-corporate-social-responsibility-product-image-corporate-reputation-and-consumer-purchase-intention/175896 (Not found in the ABS-list)
9. The effect of consumer's received value, effectiveness and risk on purchase intention of green products (case study: islamic azad university, science and research brand student's). Retrieved from: http://www.sid.ir/En/Journal/ViewPaper.aspx?ID=473751 (ABS 2). No access.
10. Study of consumer attitudes towards green cosmetic products and its impact on consumer purchase intention. Retrieved from: http://repository.kln.ac.lk/handle/123456789/17661 (Not found in the ABS-list)
11. The Impact of Consumer Attitude towards Purchase Intention on Green Packaged Products. Retrieved from: http://repository.kln.ac.lk/handle/123456789/17354. (Not found in the ABS-list)
12. Impact of green guilt on the purchase intention: a case referring to fmcg sector Sri Lanka. Retrieved from: http://repository.kln.ac.lk/handle/123456789/17658. (Not found in the ABS-list)
13. Conspicuous green purchase intention: the mediating role of consumer ethics and conspicuous consumption. Retrieved from: http://db.koreascholar.com/article?code=350862. (Not found in the ABS-list)

14. How does greenwashing affect green branding equity and purchase intention? An empirical research, Akturan (2018). Retrieved from: https://www.emeraldinsight.com/doi/full/10.1108/MIP-12-2017-0339 (ABS 1)
15. Multilevel mediational effects of attitude and intention toward the Green Olympic Games. Retrieved from: https://books.google.no/books?hl=no&lr=&id=0TslDwAAQBAJ&oi=fnd&pg=PA156&dq=+green+intention+source:marketing&ots=BxU8SexlKK&sig=GziXE_iVwns9inDg4i23zpc-EWQ&redir_esc=y#v=onepage&q=green%20intention%20source%3Amarketing&f=false (Not found in the ABS-list)
16. Relationships Between Attitude Dimensions and the Intention to Purchase Green Food Products Among Malaysian Consumers. Retrieved from: http://myrepositori.pnm.gov.my/handle/123456789/1743 (Not found in the ABS-list)

Sustainable – intention – consumer
None

Sustainable – intention – customer
None

Sustainable – intention – marketing
1. Understanding fashion consumers' attitude and behavioral intention toward sustainable fashion products: Focus on sustainable knowledge sources and knowledge types. Retrieved from: https://www.tandfonline.com/doi/abs/10.1080/20932685.2015.1131435 (Not found in the ABS-list)
2. Media and sustainable apparel buying intention, Lenne and Vandenbosch (2017). Retrieved from: https://www.emeraldinsight.com/doi/full/10.1108/JFMM-11-2016-0101 (ABS 1)
3. The effect of organic label and traceability on purchase intention of sustainable products. Retrieved from: http://db.koreascholar.com/article?code=351844 (Not found in the ABS-list)
4. Influence of knowledge and social embeddedness on intention to participate in sustainable consumption: an empirical study on voluntary carbon offsetting. Retrieved from: http://db.koreascholar.com/article?code=271010 (Not found in the ABS-list)
5. Consumer's Intention of Purchase Sustainable Products: The Moderating Role of Attitude and Trust. Retrieved from: https://www.researchgate.net/profile/Hossein_Nezakati/publication/298181079_Consumer's_Intention_of_Purchase_Sustainable_Products_The_Moderating_Role_of_Attitude_and_Trust/links/56e691e608ae65dd4cc1a84a/Consumers-Intention-of-Purchase-Sustainable-Products-The-Moderating-Role-of-Attitude-and-Trust.pdf (Not found in the ABS-list)
6. US Consumers' Environmentally Sustainable Apparel Purchase Intention: Investigating the Role of Social Influence of Peers to Use Social Networking Sites Applied to the Theory of Reasoned Action (An Abstract). Retrieved from: https://link.springer.com/chapter/10.1007/978-3-319-47331-4_279 (Not found in the ABS-list)
7. Me, myself, and I: the impact of self-construal and imagecongruence on consumer purchase intention towards sustainable goods. Retrieved from: http://db.koreascholar.com/article?code=351003 (Not found in the ABS-list)

Green – attitude – consumer
1. Gender differences in Egyptian consumers' green purchase behaviour: the effects of environmental knowledge, concern and attitude, Mostafa (2007). Retrieved from: https://onlinelibrary.wiley.com/doi/abs/10.1111/j.1470-6431.2006.00523.x (ABS 2)
2. Being green: from attitude to actual consumption, Miniero, Codini, Bonera, Corvi & Bertoli (2014). Retrieved from: https://onlinelibrary.wiley.com/doi/abs/10.1111/ijcs.12128 (ABS 2)
3. The impact of attitude strength on the acceptance of green services, Bloemer and Ruyterb (2002). Retrieved from: https://www.sciencedirect.com/science/article/pii/S0969698901000054 (ABS 2)

4. Ethical consumer behaviour in Germany: The attitude-behaviour gap in the green apparel industry, Wiederhold and Martinez (2018). Retrieved from: https://onlinelibrary.wiley.com/doi/abs/10.1111/ijcs.12435 (ABS 2)

Green – attitude – customer
None

Green – attitude – marketing
1. Green branding effects on attitude: functional versus emotional positioning strategies, Hartmann, Apaolaza Ibáñez & Apaolaza Ibáñez (2005). Retrieved from: https://www.emeraldinsight.com/doi/full/10.1108/02634500510577447 (ABS 1)
2. Green Claims and Message Frames: How Green New Products Change Brand Attitude, Olsen, Slotegraaf & Chandukala (2014). Retrieved from: http://journals.ama.org/doi/abs/10.1509/jm.13.0387?code=amma-site (ABS 4)
3. Green advertising effects on attitude and choice of advertising themes. Retrieved from: https://www.emeraldinsight.com/doi/pdfplus/10.1108/13555850510672386 (Not found in the ABS-list)
4. Consumer attitude towards green marketing in India. Retrieved from: http://web.b.ebscohost.com/ehost/detail/detail?vid=0&sid=26ae5162-b2b4-442c-8bbe-fa79cf24638e%40pdc-v-sessmgr06&bdata=JnNpdGU9ZWhvc3QtbGl2ZQ%3d%3d#AN=91736324&db=bth (Not found in the ABS-list)
5. Religiosity as an antecedent of attitude towards green products: an exploratory research on young Malaysian consumers. Retrieved from: http://journal.ui.ac.id/index.php/amj/article/viewArticle/1979 (Not found in the ABS-list)
6. Influence of parent brand **attitude** and self-brand congruity on consumer response to **green** brand extensions for apparel products. Retrieved from: https://www.tandfonline.com/doi/abs/10.1080/20932685.2014.881586 (Not found in the ABS-list)
7. Exploring the Effects of Customer Attitude and Purchase Intention on Green Products: Implications for Corporate Environment Strategies and Public Policy. Retrieved from: http://www.papersearch.net/thesis/article.asp?key=3560124 (Not found in the ABS-list)
8. Message involvement and attitude towards green advertisements, Fernando, Sivakumaran & Suganthi (2016). Retrieved from: https://www.emeraldinsight.com/doi/full/10.1108/MIP-11-2015-0216 (ABS 1)
9. Green Marketing and Sustainable Development: Marketing Professionals Attitude Towards Green Marketing. Retrieved from: http://web.a.ebscohost.com/ehost/detail/detail?vid=0&sid=b2fb9c45-3f7f-4b5b-a398-04e254f9e538%40sessionmgr4007&bdata=JnNpdGU9ZWhvc3QtbGl2ZQ%3d%3d#AN=111944760&db=bth (Not found in the ABS-list)
10. Green consumer attitude and its implications to athletic sector. Retrieved from: https://s3.amazonaws.com/academia.edu.documents/53719913/ICCMI_2016_proceedings.pdf?AWSAccessKeyId=AKIAIWOWYYGZ2Y53UL3A&Expires=1537527700&Signature=aXL2o4FvS8Y5mTobiqecHjIVafw%3D&response-content-disposition=inline%3B%20filename%3DEffects_of_Brand_Experience_on_Brand_Loy.pdf#page=309 (Not found in the ABS-list)
11. Trial-Attitude Formation in Green Product Evaluations. Retrieved from: https://digitalcommons.kennesaw.edu/amj/vol5/iss1/3/ (Not found in the ABS-list)
12. Investigating the impact of environmental attitude on the decision to purchase a green product with the mediating role of environmental concern and care for green products. Retrieved from: https://content.sciendo.com/view/journals/mmcks/12/2/article-p297.xml (Not found in the ABS-list)
13. Hispanics and Green Consumption: Exploring the Green "Attitude-Behavior Gap". Retrieved from: https://link.springer.com/chapter/10.1007/978-3-319-10951-0_37 (Not found in the ABS-list)

14. Consumer attitude towards sustainability: a challenge or an opportunity for green marketing. Retrieved from: http://repository.kln.ac.lk/handle/123456789/17523 (Not found in the ABS-list)
15. Drivers of Green Marketing: Attitude and Perception of Consumers. Retrieved from: content page not found (Not found in the ABS-list)
16. Consumers' attitudes towards green food in China: A hierarchical value-attitude model. Retrieved from: Page not found.
17. The Impact of Consumer **Attitude** towards Purchase Intention on **Green** Packaged Products. Retrieved from: http://repository.kln.ac.lk/handle/123456789/17354 (Not found in the ABS-list)
18. A Review on Green Trust and Environmental Quality Awareness Affect Towards Environmental Attitude. Retrieved from: https://www.igi-global.com/chapter/a-review-on-green-trust-and-environmental-quality-awareness-affect-towards-environmental-attitude/191859 (Not found in the ABS-list)
19. Research on knowledge types to encourage consumer attitude for green fashion. Retrieved from: http://db.koreascholar.com/article?code=271939 (Not found in the ABS-list)
20. Green Marketing: A Study on Consumer's Attitude Towards ECO Friendly Products, in Tiruvannamalai. Retrieved from: http://www.indianjournals.com/ijor.aspx?target=ijor:ijrfm&volume=6&issue=8&article=005 (Not found in the ABS-list)
21. Driving Green Marketing in a Developing Country: Reducing the Attitude-Behaviour Gap. Retrieved from: https://www.igi-global.com/chapter/driving-green-marketing-in-a-developing-country/191863 (Not found in the ABS-list)
22. A study on consumer attitude towards green advertisement and green purchase behavior. Retrieved from: http://indianjournals.com/ijor.aspx?target=ijor:sajmmr&volume=6&issue=10&article=005 (Not found in the ABS-list)
23. Multilevel mediational effects of attitude and intention toward the Green Olympic Games. Retrieved from: https://books.google.no/books?hl=no&lr=&id=0TslDwAAQBAJ&oi=fnd&pg=PA156&dq=23.%09Multilevel+mediational+effects+of+attitude+and+intention+toward+the+Green+Olympic+Games.+&ots=BxU9R9vmCI&sig=KZfMPYotTFwqkBegZ0OkHtHqw2E&redir_esc=y#v=onepage&q&f=false (Not found in the ABS-list)
24. Attitude towards green advertisement and consumers purchasing behaviour: a linkage. Retrieved from: http://www.indianjournals.com/ijor.aspx?target=ijor:ijrfm&volume=5&issue=8&article=004 (Not found in the ABS-list)
25. Relationships Between Attitude Dimensions and the Intention to Purchase Green Food Products Among Malaysian Consumers. Retrieved from: http://myrepositori.pnm.gov.my/handle/123456789/1743 (Not found in the ABS-list)

Sustainable – attitude – consumer

1. Mastering Consumer Attitude and Sustainable Consumption in the Digital Age. Retrieved from: https://www.igi-global.com/chapter/mastering-consumer-attitude-and-sustainable-consumption-in-the-digital-age/160452 (Not found in the ABS-list)

Sustainable – attitude – customer

1. Same study as (1) Sustainable – attitude – consumer: Mastering Consumer Attitude and Sustainable Consumption in the Digital Age. Retrieved from: https://www.igi-global.com/chapter/mastering-consumer-attitude-and-sustainable-consumption-in-the-digital-age/160452 (Not found in the ABS-list)

Sustainable – attitude – marketing

1. Understanding fashion consumers' attitude and behavioral intention toward sustainable fashion products: Focus on sustainable knowledge sources and knowledge types. Retrieved from: https://www.tandfonline.com/doi/abs/10.1080/20932685.2015.1131435 (Not found in the ABS-list)
2. Reducing the Attitude-Behavior Gap in Sustainable Consumption: A Theoretical Proposition and the American Electric Vehicle Market. Retrieved from: https://www.emeraldinsight.com/doi/full/10.1108/S1548-643520160000013016 (Not found in the ABS-list)
3. Green Marketing and Sustainable Development: Marketing Professionals Attitude Towards Green Marketing. Retriever from: http://web.b.ebscohost.com/ehost/detail/detail?vid=0&sid=07a00c26-852d-4106-bac2-b5809d4d4767%40sessionmgr103&bdata=JnNpdGU9ZWhvc3QtbGl2ZQ%3d%3d#AN=111944760&db=bth (Not found in the ABS-list)
4. Predicting Behavioral Intentions Toward Sustainable Fashion Consumption: A Comparison of Attitude-Behavior and Value-Behavior Consistency Models. (Not found in the ABS-list)
5. Bypassing the Attitude-Behavior Gap: Using Social Identity and Norm Effects to Engender Sustainable Consumer Behaviors (An Abstract). Retrieved from: https://link.springer.com/chapter/10.1007/978-3-319-47331-4_281 (Not found in the ABS-list)
6. Environmental policy instruments, sustainable consumption attitude and sustainable consumption behavior: the moderating role of long-term orientation. Retrieved from: http://db.koreascholar.com/article?code=314883 (Not found in the ABS-list)
7. Consumer's Intention of Purchase Sustainable Products: The Moderating Role of Attitude and Trust. Retrieved from: https://www.researchgate.net/profile/Hossein_Nezakati/publication/298181079_Consumer's_Intention_of_Purchase_Sustainable_Products_The_Moderating_Role_of_Attitude_and_Trust/links/56e691e608ae65dd4cc1a84a/Consumers-Intention-of-Purchase-Sustainable-Products-The-Moderating-Role-of-Attitude-and-Trust.pdf (Not found in the ABS-list)
8. Changing consumer attitude towards sustainable fashion: a balance theory approach. Retrieved from: http://db.koreascholar.com/article?code=315249 (Not found in the ABS-list)

Appendix B: Literature Review of Green Product Beliefs

References	Concept	Measurement items
Thøgersen and Zhou (2012)	Behavioral beliefs (significant predictors of the attitude towards buying organic food)	(1) Organic food is free from chemicals such as residues from fertilisers, pesticides (2) Organic vegetables are produced in a way that is better for the environment (3) Organic vegetables are more natural (4) Organic vegetables are better for the health
Nielsen (2015)	Top sustainability purchasing drivers	(1) The product's packaging is environmentally friendly (2) The product is known for its health and wellness benefits (3) the product is made from fresh, natural and/or organic ingredients
Lu, Bock and Joseph (2013)	Product attributes (significant effect on purchase of green products)	(1) Recyclability or re-usability (2) Biodegradableness (3) Positive health effects (4) Non toxic ingredients or material (5) Nonpolluting and ecofriendly production methods
Ojiakua, Achib and Agharaa (2018)	Green product beliefs (non-significant effect of green product belief on green product purchase intention)	(1) Green product help save or protect the environment (2) Green products will enable the performance of eco-friendly practises (3) Green products make the environment better and clean (4) Buying green products instead of conventional products would feel like making a good decision (5) Buying green products instead of conventional products will make feel like a better person
Chen, Lai and Wen (2006)	Green product/process innovation (significant effect on Corporate Competitive Advantage)	(1) Energy-saving, (2) Pollution-prevention (3) Waste recycling (4) Corporate environmental management
Schuitema and Groot (2015)	Green product attributes (Significant effect on green purchase intention)	(1) Low environmental impact
Huang, Yang and Wang (2013)	Green brand image (1) and green positioning (2,3) (Significant effect on attitude toward green brand)	(1) The brand's products are made of recyclable materials (2) The brand is low fuel-using (3) The brand is low air-polluting
Jeong, Jang, Day and Ha (2014)	Perception of green practices (Significant influence on green image, non-significant influence on attitude and choice of restaurant)	(1) Recyclable take-out containers (2) Waste recycling (3) Energy-efficient equipment
Han, Hsu and Sheu (2010)	Behavioral beliefs (significantly influence on attitude)	Staying at a green hotel when traveling would enable me to: (1) protect our environment. (2) experience a healthy environmental friendly guestroom. (3) perform environmental friendly practices (4) enjoy environmental friendly products and healthy amenities. (5) eat fresh and healthy foods

Appendix C: Green Product Stories

Very-green Hand Soap

Tenk tilbake til sist gang du kjøpte en håndsåpe og det merket du da kjøpte. Tenk deg at dette merket nå lanserer en ny velduftende håndsåpe. Håndsåpen har et stilrent design og kommer i en såpebeholder med en enkel etikett. Både såpeinnholdet og såpebeholderen er produsert på en energibesparende måte, og produksjonsprosessen er optimalisert til å begrense CO2 utslipp. Såpeinnholdet inneholder kun naturlige råvarer. Såpebeholderen er laget av resirkulert materiale. Håndsåpen kommer med en pumpe med innlagt stoppemekanisme som hindrer at det kommer ut mer såpe enn nødvendig. Det er også mulig å kjøpe påfyll til denne såpen slik at man kan bruke såpebeholderen om igjen.

Medium-green Hand Soap

Tenk tilbake til sist gang du kjøpte en håndsåpe og det merket du da kjøpte. Tenk deg at dette merket nå lanserer en ny velduftende håndsåpe. Håndsåpen har et stilrent design og kommer i såpebeholder med en enkel etikett. Såpebeholderen er produsert på en energibesparende måte, mens såpeinnholdet produseres som vanlig (ikke energibesparende produksjon). Såpeinnholdet inneholder vanlige råvarer (ikke naturlige råvarer). Såpebeholderen er laget av resirkulert materiale. Håndsåpen kommer med en pumpe for å trykke ut såpen. Det er ikke mulig å kjøpe påfyll til denne såpen for å kunne bruke såpebeholderen om igjen.

Low-green Hand Soap

Tenk tilbake til sist gang du kjøpte en håndsåpe og det merket du da kjøpte. Tenk deg at dette merket nå lanserer en ny velduftende håndsåpe. Håndsåpen har et stilrent design og kommer i en såpebeholder med en enkel etikett. Både såpeinnholdet og såpebeholderen produseres som vanlige såper på markedet (ikke energibesparende produksjon). Såpeinnholdet inneholder vanlige råvarer (ikke naturlige råvarer). Såpebeholderen er laget av vanlig materiale (ikke resirkulert materiale). Håndsåpen kommer med en pumpe for å trykke ut såpen. Det er ikke mulig å kjøpe påfyll til denne såpen for å kunne bruke såpebeholderen om igjen.

Very-green Mobile

Tenk tilbake til sist gang du kjøpte en mobil og det merket du da kjøpte. Tenk deg at dette merket nå lanserer en ny mobil med et stilrent design. Mobilen selges i en eske som også inneholder høretelefoner og lader. Både mobilen og emballasjen er produsert på en energibesparende måte, og produksjonsprosessen er optimalisert for å begrense CO2 utslipp. Mobilen og emballasjen er laget av resirkulert materiale. Batteriet er vesentlig mer energibesparende enn lignende produkter som gjør at man ikke trenger å lade mobilen like ofte. Mobilen kan leveres tilbake til butikken for gjenvinning, hvor delene vil bli brukt om igjen til å lage nye produkter.

Medium-green Mobile

Tenk tilbake til sist gang du kjøpte en mobil og det merket du da kjøpte. Tenk deg at dette merket nå lanserer en ny mobil med et stilrent design. Mobilen selges i en eske som også inneholder høretelefoner og lader. Mobilen er produsert på en energibesparende måte, mens emballasjen produseres som vanlig (ikke energibesparende produksjon). Mobilen er laget av resirkulert materiale, mens emballasjen er laget av vanlig materiale (ikke resirkulert materiale). Batteriet har tilsvarende levetid som andre telefoner på markedet. Mobilen kan ikke leveres tilbake til butikken for gjenvinning, og delene vil derfor ikke bli brukt om igjen til å lage nye produkter.

Low-green Mobile

Tenk tilbake til sist gang du kjøpte en mobil og det merket du da kjøpte. Tenk deg at dette merket nå lanserer en ny mobil med et stilrent design. Mobilen selges i en eske som også inneholder høretelefoner og lader. Både mobilen og emballasjen produseres som vanlige produkter på markedet (ikke energibesparende produksjon). Mobilen og emballasjen er laget av vanlig materiale (ikke resirkulert materiale). Batteriet har tilsvarende levetid som andre telefoner på markedet. Mobilen kan ikke leveres tilbake til butikken for gjenvinning, og delene vil derfor ikke bli brukt om igjen til å lage nye produkter.

Appendix D: Pre-test

Average Scores for Green Product Beliefs

LG = Low-green story

MG1 = First medium-green story

MG2 = Second medium-green story

VG = Very-green story

Items*	Hand Soap LG (N=4)	Hand Soap MG1(N=4)	Hand Soap MG2 (N=2)	Hand Soap VG (N=4)	Mobile LG (N=4)	Mobile MG1 (N=4)	Mobile MG2 (N=2)	Mobile VG (N=4)
Bel1	1.5	6.25	4.75	6.25	1.75	2.75	2.75	5.75
Bel2	1.25	5.25	3.5	6.75	1.5	5	3	6.5
Bel3	1.25	5.75	3,25	6.75	1.5	5.75	4	4.5
Bel4	2.75	3.25	3	6.75	1.75	3.5	3.5	4.25
Bel5	3	4	3	5	3	3.5	3.25	4.5
Bel6	2	5.5	4.5	6	1.75	4.75	3.75	4.75
Bel7	1.5	5.25	4.5	7	1.75	6	4.75	6.25
Bel8	2.5	4.25	4.5	6	2	5.25	4	6
Bel9	2.25	4.5	4	5.75	2	4.5	4.25	5
Total	**2**	**4.9**	**3.9**	**6.25**	**1.9**	**4.6**	**3.7**	**5.9**

* Bel = Belief. Please see Appendix E for an overview of the items.

Average Scores for Product Involvement

Items*	Hand Soap (N=12)	Mobil (N=12)
InvProd1	5	6.5
InvProd2	4.5	6
InvProd3	3.7	4.6
Total InvProd	**4.4**	**5.7**
InvPurch1	3.3	5.5
InvPurch2	2.7	5.2
InvPurch3	3.6	6
Total InvPurch	**3.2**	**5.6**

* InvProd =Product involvement, InvPurch = Purchase involvement. Please see Appendix E for an overview of the items.

Appendix E: Table for Complementary List with References

Items: Bel = Belief, Att = Attitude, SN = Social norm, BC = Perceived behavioral control, BE = Brand equity, Int = Intention, InvProd = Product involvement, InvPurch = Purchase involvement.

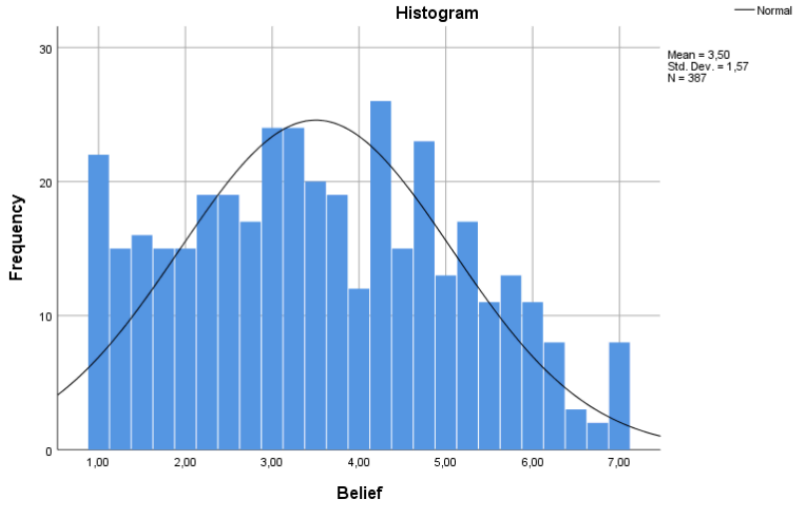
Item	Items used in previous studies (reference)	Adapted items	Translated items (Norwegian)
Bel1	The product's packaging is environmentally friendly (Nielsen, 2015)	This hand soap's/mobile's packaging is environmentally friendly	Denne såpen/mobilen sin emballasje er miljøvennlig
Bel2	Recyclability or re-usability (product attributes important to green purchase) (Lu, Bock and Joseph, 2013)	This hand soap/mobile is recyclable/re-usable	Denne såpen/mobilen er resirkulerbar / kan gjenvinnes
Bel3*	Energy-efficient equipment (a green practice) (Jeong, Jang, Day and Ha, 2014) + Energy-saving (a green product/process innovation) (Chen, Lai and Wen, 2006)	This hand soap/mobile will reduce waste	Denne håndsåpen/mobilen vil redusere sløsing
Bel4	The product is made from fresh, natural and/or organic ingredients (Nielsen, 2015)	This hand soap/mobile is made from natural and/or organic ingredients or material	Denne håndsåpen/mobilen er laget av naturlige/organiske ingredienser/materiale
Bel5	Non toxic ingredients or material (product attributes important to green purchase) (Lu, Bock and Joseph, 2013)	This hand soap/mobile has non-toxic ingredients or material	Denne håndsåpen/mobilen er ikke laget av skadelige ingredienser/materiale
Bel6	Green products make the environment better and clean (Ojiakua, Achib and Agharaa, 2018)	This hand soap/mobile make the environment better and clean	Denne håndsåpen/mobilen gjør miljøet bedre og renere
Bel7	Organic vegetables are produced in a way that is better for the environment (Thøgersen and Zhou, 2012)	This hand soap/mobile is produced in a way that is better for the environment	Denne håndsåpen/mobilen er produsert på en måte som er bedre for miljøet
Bel8	Nonpolluting and ecofriendly production methods (product attributes important to green purchase) (Lu, Bock and Joseph, 2013)	This hand soap/mobile is produced with non-polluting and eco-friendly production methods	Denne håndsåpen/mobilen er produsert med en ikke-forurensende og miljøvennlig produksjonsmetode
Bel9	Low environmental impact (green attributes important to green purchase) (Schuitema and Groot, 2015)	This hand soap/mobile have a low environmental impact	Denne håndsåpen/mobilen har lav miljøbelastning
Att1	Using this mobile service is bad/good	Purchasing this hand soap/mobile is bad/good	Å kjøpe denne håndsåpen/mobilen er dårlig/bra
Att2	Using this mobile service is foolish/wise	Purchasing this hand soap/mobile is foolish/wise	Å kjøpe denne håndsåpen/mobilen er dumt/smart
Att3	Using this mobile service is unfavourable/favourable	Purchasing this hand soap/mobile is unfavourable/favourable	Å kjøpe denne håndsåpen/mobilen er ugunstig/gunstig
SN1	People important to me think I should use "service" (Nysveen et al., 2005)	People important to me think I should purchase this hand soap/mobile	Personer som er viktige for meg syns jeg skal kjøpe denne håndsåpen/mobilen
SN2	It is expected that people like me use "service" (Nysveen et al., 2005)	It is expected that people like me to purchase this hand soap/mobile	Det er forventet at personer som meg skal kjøper denne håndsåpen/mobilen
SN3	People i look up to expect me to use "service" (Nysveen et al., 2005)	People I look up to expect me to purchase this hand soap/mobile	Personer jeg ser opp til forventer at jeg skal kjøpe denne håndsåpen/mobilen
BC1	I feel free to use the kind of "service" I like to (Nysveen et al., 2005)	I feel free to purchase the kind of hand soap/mobile I like to	Jeg føler meg fri til å kjøpe den håndsåpen/mobile jeg ønsker å kjøpe
BC2	Using "service" is entirely within my control (Nysveen et al., 2005)	Purchasing this hand soap/mobile is entirely within my control	Å kjøpe denne håndsåpen/mobile er fullstendig innenfor min kontroll
BC3	I have the necessary means and resources to use "service" (Nysveen et al., 2005)	I have the necessary means and resources to purchase this hand soap/mobile	Jeg har de nødvendige midler og ressurser til å kjøpe denne håndsåpen/mobilen
BE1	It makes sense to buy X instead of any other brand, even if they are the same (Yoo and Donthu, 2001)	It makes sense to buy X instead of any other brand, even if they are the same	Det gir mening å kjøpe merke Y I stedet for et annet merke, selv om de er like
BE2	Even if another brand has the same features as X, I would prefer to buy X (Yoo and Donthu, 2001)	Even if another brand has the same features as X, I would prefer to buy X	Selv om et annet merke har samme egenskaper som Y, ville jeg foretrukket å kjøpe fra Y

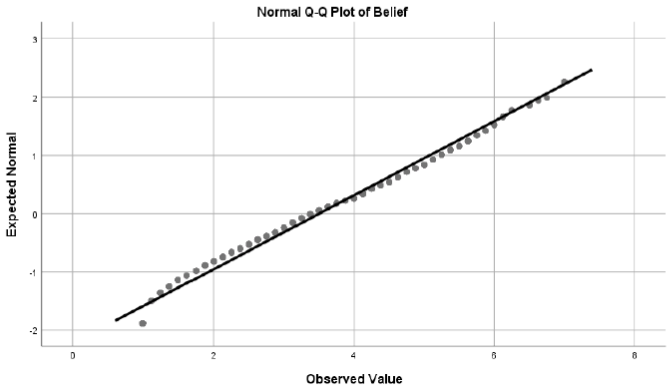
BE3	If there is another brand as good as X, I prefer to buy X (Yoo and Donthu, 2001)	If there is another brand as good as X, I prefer to buy X	Hvis et annet merke er like bra som Y, foretrekker jeg å kjøpe fra Y
BE4	If another brand is not different from X in any way, it seems smarter to purchase X (Yoo and Donthu, 2001)	If another brand is not different from X in any way, it seems smarter to purchase X	Hvis et annet merke ikke er annerledes enn Y på noen måte, virker det mer fornuftig å kjøpe fra Y
Int1	Next time I buy a car, I will consider buying an eco-friendly electric car (Barbarossa et al., 2015)	Next time I'll purchase a hand soap/mobile, I will purchase this hand soap/mobile	Neste gang jeg skal kjøpe en håndsåpe/mobil kommer jeg til å kjøpe denne håndsåpen/mobilen
Int2	I would like to buy X (Yoo and Donthu, 2001)	I would like to purchase this hand soap/mobile	Jeg ønsker å kjøpe denne håndsåpen/mobilen
Int3	I intend to purchase X (Yoo and Donthu, 2001)	I intend to purchase this hand soap/mobile next time I'm purchasing a hand soap/mobile	Jeg har intensjon om å kjøpe denne håndsåpen/mobilen neste gang jeg skal kjøpe håndsåpe/mobil
InvProd1	This product is important/unimportant to me (Zaichowsky, 1985)	This hand soap/mobile is important/unimportant to me	For meg er håndsåpe/mobil viktig/uviktig
InvProd2	This product means a lot/nothing to me (Zaichowsky, 1985)	This hand soap/mobile means a lot/nothing to me	For meg er håndsåpe/mobil av stor/liten betydning
InvProd3	This product is interesting/boring (Zaichowsky, 1985)	This hand soap/mobile is interesting/boring	For meg er håndsåpe/mobil spennende/kjedelig
InvPurch1	I would be interested in reading information about how the product is made (Zaichowsky, 1985)	I would be interested in reading information about how the hand soap/mobile is made	Før jeg kjøper en håndsåpe/mobil ville jeg vært interessert i å lese om hvordan den er laget
InvPurch2	I would be interested in reading the Consumer Reports article about this product (Zaichowsky, 1985)	I would be interested in reading an article about this hand soap/mobile	Før jeg kjøper en håndsåpe/mobil ville jeg vært interessert i å lese en artikkel om den
InvPurch3	I have compared product characteristics among brands (Zaichowsky, 1985)	I would like to compare product characteristics among different brands	Før jeg kjøper en håndsåpe/mobil ville jeg vært interessert i å sammenligne håndsåpen/mobile med håndsåper/mobile fra andre merker

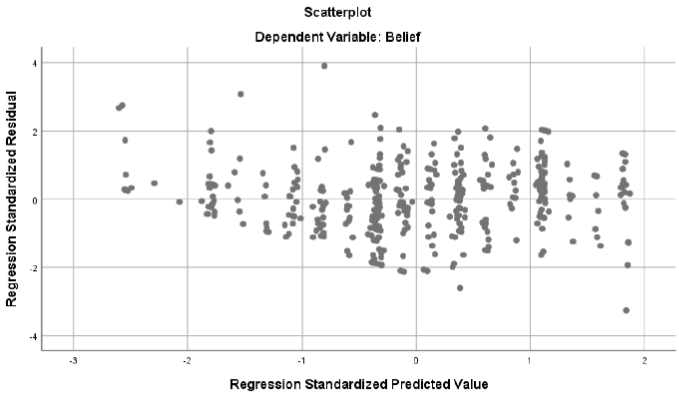
*For Bel3 we combined important attributes from two different studies and composed a new measurement item as we assume «waste» to be an important attribute for consumers' perception of reducing environmental harm.

Appendix F: Histograms, Q-Q- and Scatter Plots

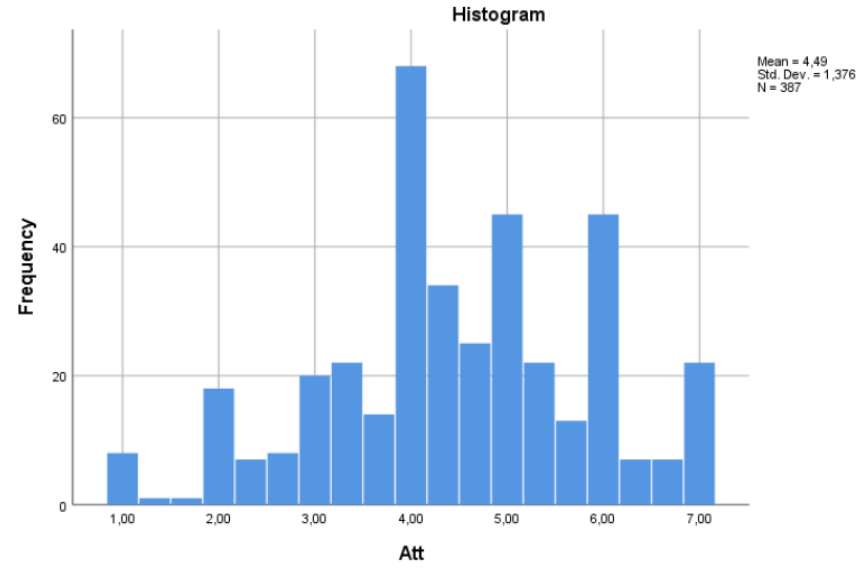
Green Product Beliefs

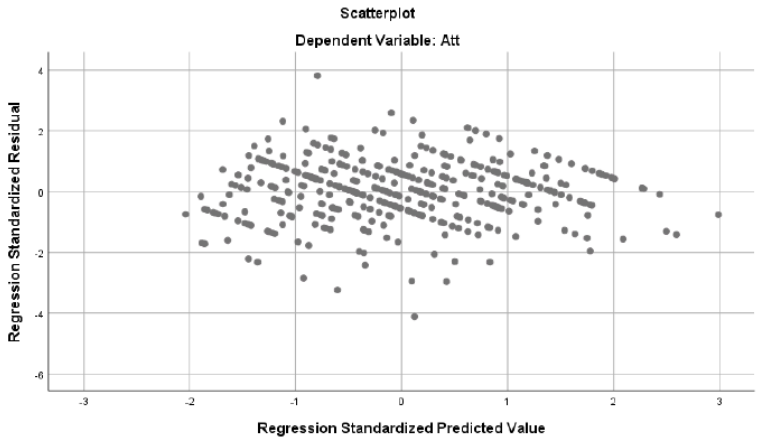


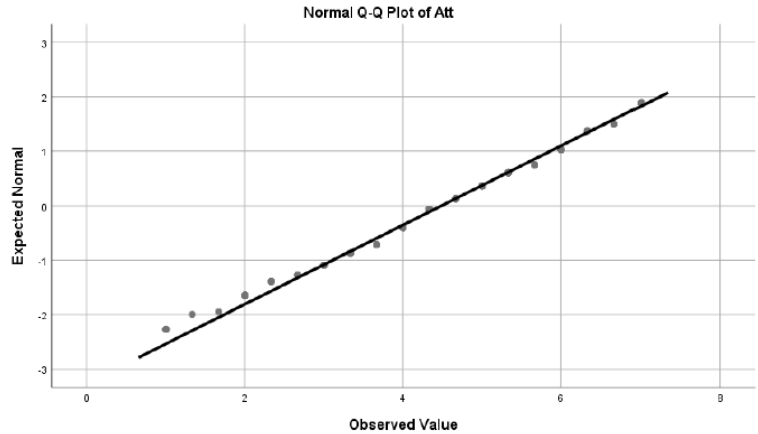




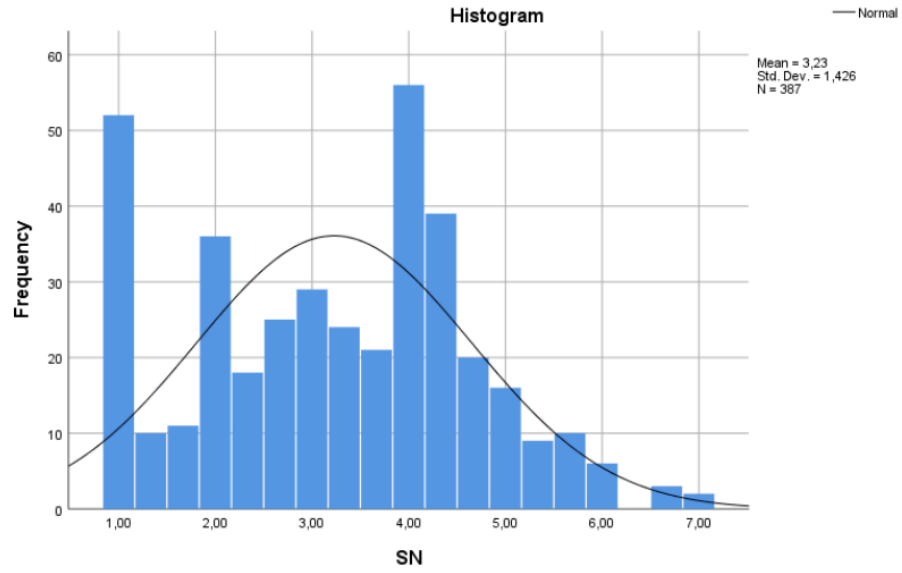
Attitude

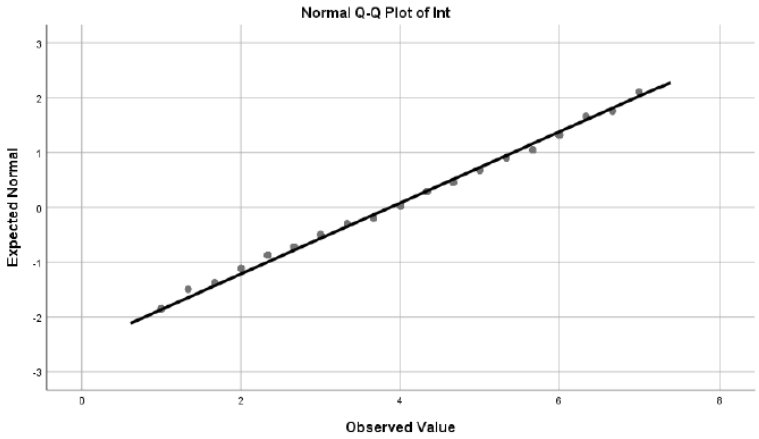

Histogram
Mean = 4,49
Std. Dev. = 1,376
N = 387
Frequency
Att

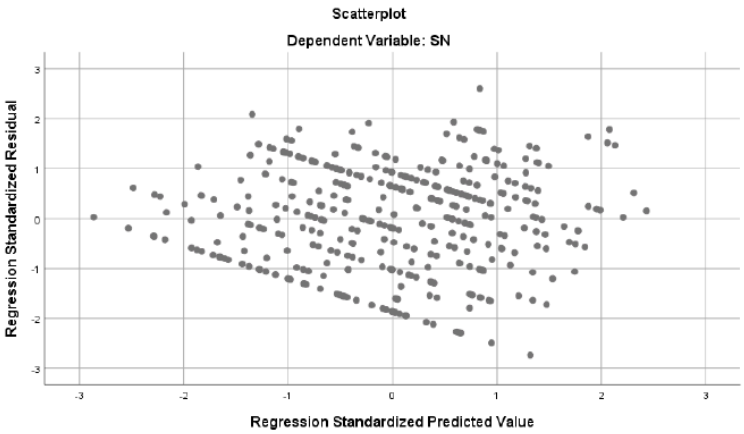

Scatterplot
Dependent Variable: Att
Regression Standardized Residual
Regression Standardized Predicted Value


Normal Q-Q Plot of Att
Expected Normal
Observed Value

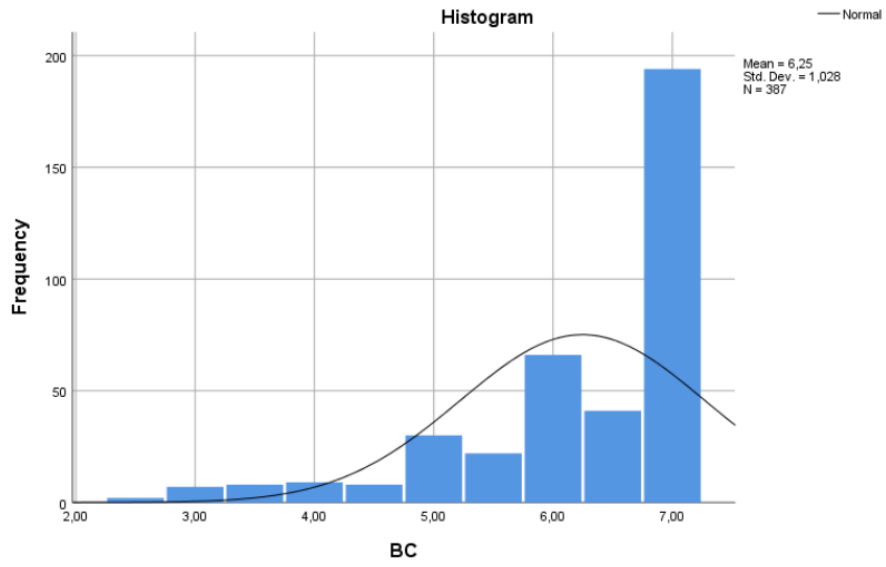
Social Norm

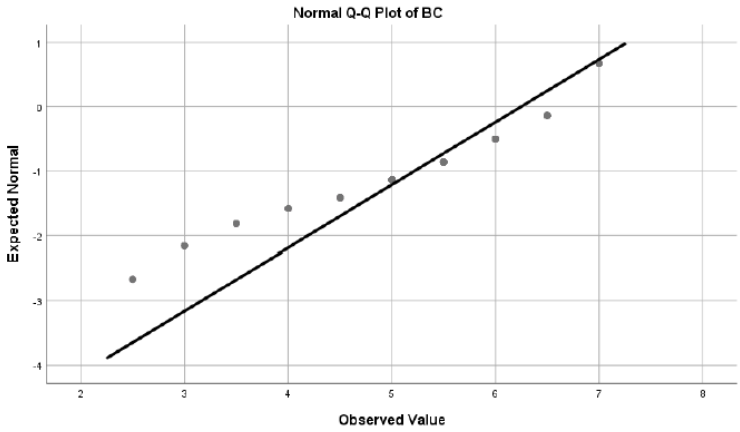

Histogram
Normal
Mean = 3,23
Std. Dev. = 1,426
N = 387
Frequency
SN

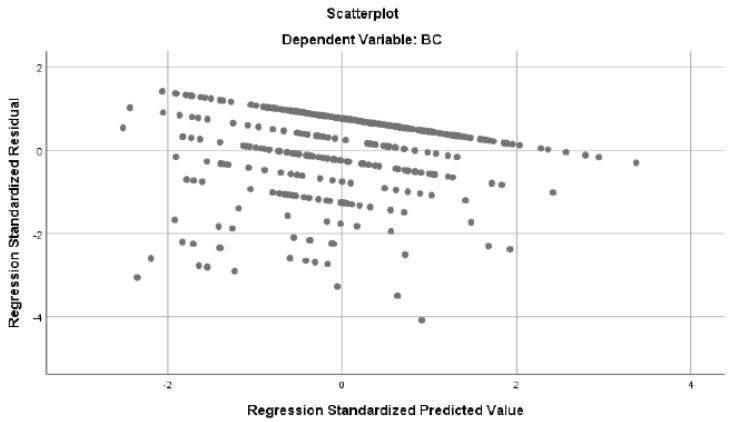

Normal Q-Q Plot of Int
Expected Normal
Observed Value


Scatterplot
Dependent Variable: SN
Regression Standardized Residual
Regression Standardized Predicted Value

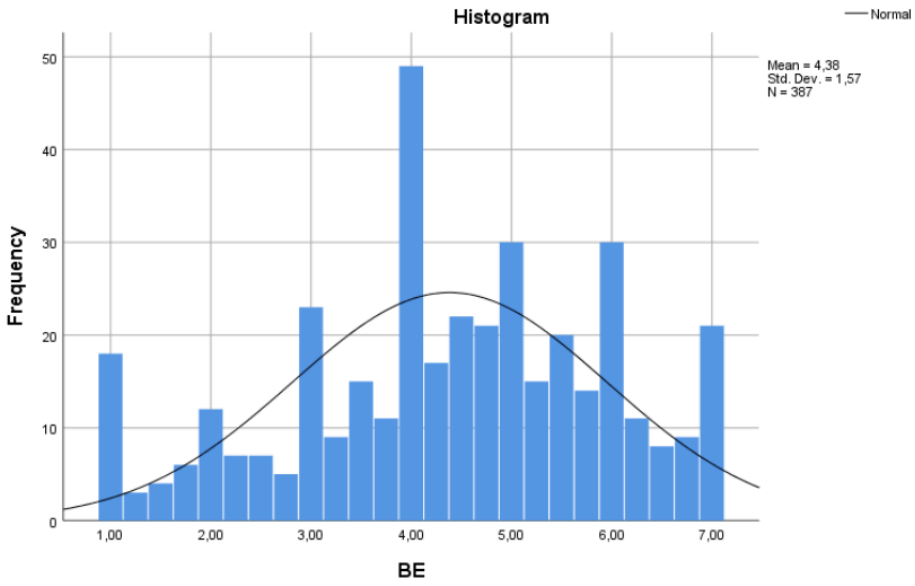
Perceived Behavioral Control

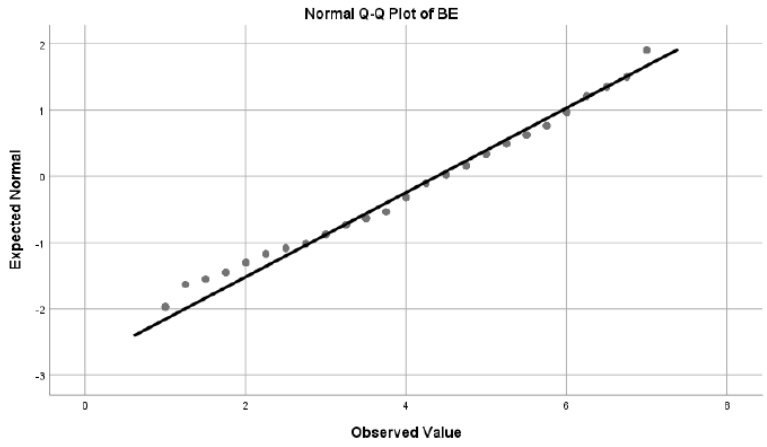


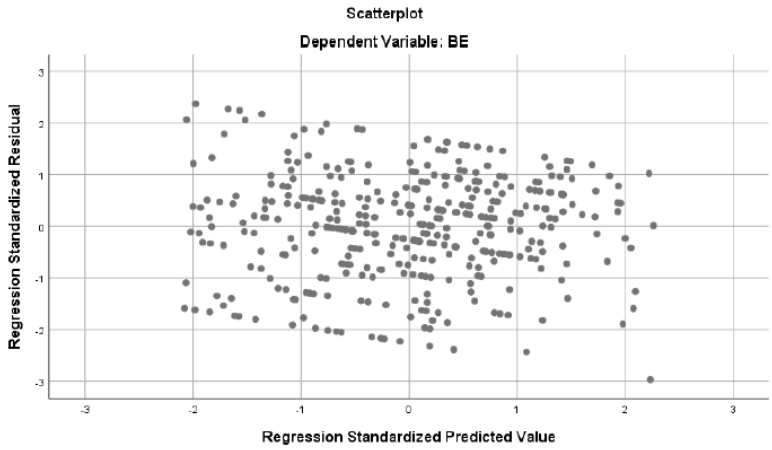




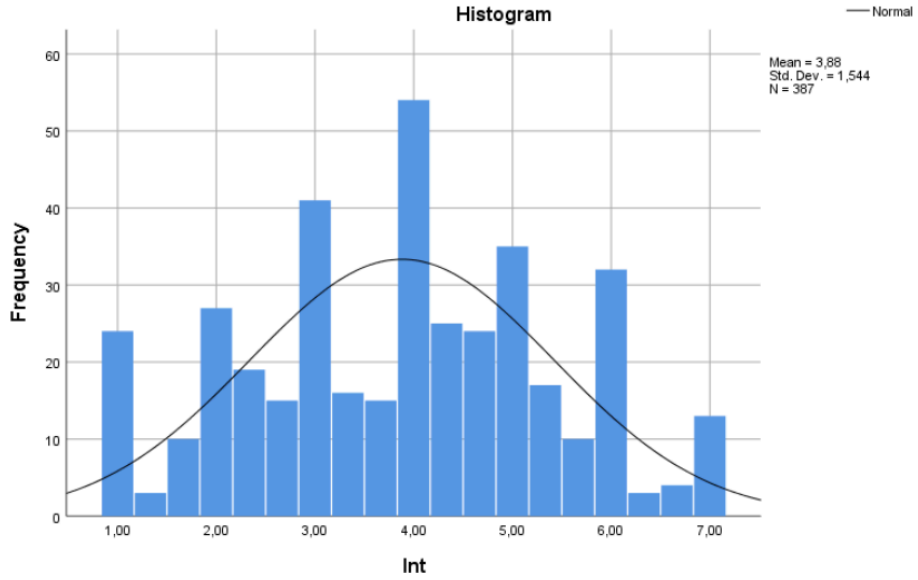
Brand Equity







Intention


Histogram
Normal
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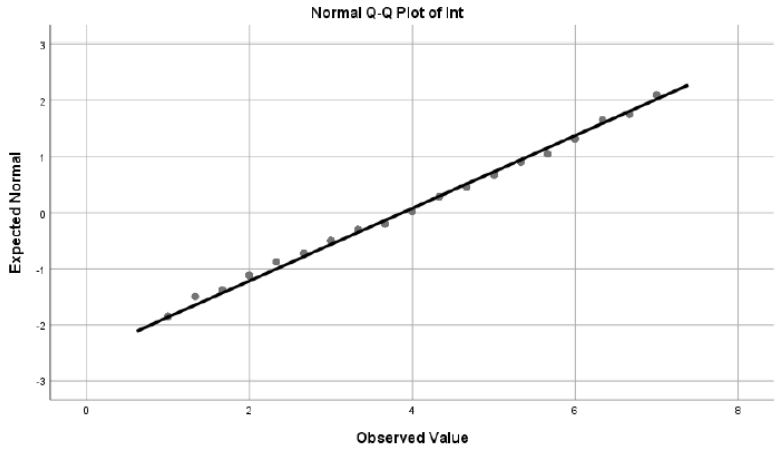
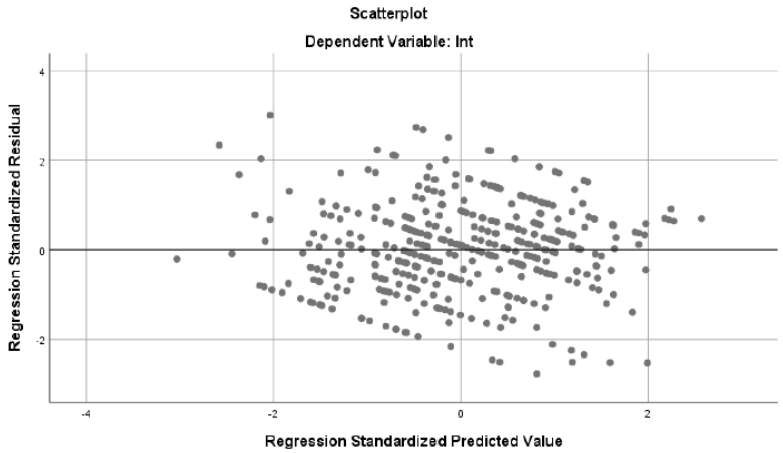
Std. Dev. = 1,544
N = 387
Frequency
Int


Normal Q-Q Plot of Int
Expected Normal
Observed Value


Scatterplot
Dependent Variable: Int
Regression Standardized Residual
Regression Standardized Predicted Value

Appendix G: Statistical Test for Normality

	Kolmogorov-Smirnov[a]		
	Statistic	df	Sig.
Belief	,055	387	,006
Att	,106	387	,000
SN	,122	387	,000
BC	,269	387	,000
BE	,094	387	,000
Int	,092	387	,000

a. Lilliefors Significance Correction

Appendix H: Questionnaire

Introduction


NHH

Denne undersøkelsen utføres som en del av vår masteroppgave ved Norges Handelshøyskole og vil ta ca. fem minutter å gjennomføre. Vi setter veldig stor pris på din deltakelse - dine svar er verdifulle for oss!

Svarene er helt anonyme og alle opplysninger du oppgir vil bli behandlet konfidensielt. Deltakelse i undersøkelsen er frivillig, og du kan når som helst trekke ditt samtykke uten å oppgi noen grunn.

Ettersom undersøkelsen er en del av et forskningsarbeid stilles det strenge krav til metode. Du vil derfor kunne oppleve at noen spørsmål virker like. Det er ment å være slik, og vi ber deg svare på godt og ærlig du kan på alle spørsmålene. Det er ikke noe riktig eller feil svar på disse spørsmålene - vi er ute etter dine personlige vurderinger.

Dersom du bekrefter at du har lest informasjonen over, og gir samtykke til å frivillig delta i undersøkelsen, klikk "Ja".

Ja

Nei

>>

E-mail


Spørreundersøkelse til masteroppgave

Maiken Sørensen noreply@qemailserver.com via student.nhh.no
til Maiken

Kjære medstudent,

I forbindelse med vår masteroppgave ved NHH, håper vi du kan hjelpe oss med å svare på en kort spørreundersøkelse.
Denne undersøkelsen tar bare fem minutter å gjennomføre, og er helt anonym.

Vi setter veldig stor pris på om du tar deg tid til å hjelpe oss - dine svar er verdifulle!

Følg denne linken til spørreundersøkelsen:
Ta spørreundersøkelsen

Mvh,
Marit Voll & Maiken Sørensen

--

Click here to unsubscribe

Appendix I: Harman's Test for Common Method Variance

	Initial Eigenvalues			Extraction Sums of Squared Loadings		
Factor	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	8,111	32,443	32,443	7,115	28,460	28,460
2	3,543	14,171	46,614	3,618	14,471	42,931
3	2,383	9,533	56,147	2,206	8,826	51,757
4	1,794	7,177	63,323	1,364	5,458	57,214
5	1,407	5,630	68,953	1,313	5,250	62,465
6	1,036	4,144	73,098	,599	2,394	64,859
7	,749	2,994	76,092			
8	,670	2,681	78,773			
9	,575	2,300	81,073			
10	,527	2,108	83,181			
11	,472	1,889	85,071			
12	,417	1,667	86,738			
13	,392	1,568	88,306			
14	,360	1,439	89,745			
15	,329	1,315	91,061			
16	,315	1,259	92,320			
17	,300	1,200	93,520			
18	,294	1,174	94,694			
19	,261	1,045	95,739			
20	,254	1,017	96,756			
21	,209	,836	97,593			
22	,196	,784	98,377			
23	,172	,688	99,065			
24	,134	,537	99,601			
25	,100	,399	100,000			

Appendix J: Exploratory Factor Analysis

J (i): Factor Analysis Including All Items

Bel= Belief, Att= Attitude, SN= Social norm, BC= Behavioral control, BE= Brand equity, Int= Intention

Pattern Matrix[a]

	Factor					
	1	2	3	4	5	6
Bel1 Vurder følgende påstander på en skala fra 1-7, hvor 1=svært uenig og 7=svært enig - Denne [Field-Produktet] sin emballasje er miljøvennlig	,395	,087	-,046	,033	,035	-,346
Bel2 Vurder følgende påstander på en skala fra 1-7, hvor 1=svært uenig og 7=svært enig - Denne [Field-Produktet] er resirkulerbar / kan gjenbrukes	,429	,030	-,137	,058	-,092	-,233
Bel3 Vurder følgende påstander på en skala fra 1-7, hvor 1=svært uenig og 7=svært enig - Denne [Field-Produktet] vil redusere sløsing	,494	-,041	,004	-,020	-,071	-,341
Bel4 Vurder følgende påstander på en skala fra 1-7, hvor 1=svært uenig og 7=svært enig - Denne [Field-Produktet] er laget av naturlige/organiske ingredienser/materiale	,760	-,012	-,020	-,015	-,055	,038
Bel5 Vurder følgende påstander på en skala fra 1-7, hvor 1=svært uenig og 7=svært enig - Denne [Field-Produktet] er ikke laget av skadelige ingredienser/materiale	,676	-,040	,054	-,048	,084	,111
Bel6 Vurder følgende påstander på en skala fra 1-7, hvor 1=svært uenig og 7=svært enig - Denne [Field-Produktet] gjør miljøet bedre og renere	,729	,021	,000	-,046	-,008	-,104
Bel7 Vurder følgende påstander på en skala fra 1-7, hvor 1=svært uenig og 7=svært enig - Denne [Field-Produktet] er produsert på en måte som er bedre for miljøet	,701	-,024	-,059	,038	-,001	-,169

Bel8 Vurder følgende påstander på en skala fra 1-7, hvor 1=svært uenig og 7=svært enig - Denne [Field-Produktet] er produsert med ikke-forurensende og miljøvennlige produksjonsmetoder	,865	-,039	-,002	-,058	,004	,079
Bel9 Vurder følgende påstander på en skala fra 1-7, hvor 1=svært uenig og 7=svært enig - Denne [Field-Produktet] har lav miljøbelastning	,768	,060	-,065	,013	-,004	-,097
Att1 Vurder utsagnene på en skala fra 1-7 Å kjøpe denne [Field-Produktet] er: - Dårlig:Bra	,213	-,040	-,026	-,129	,078	-,614
Att2 Vurder utsagnene på en skala fra 1-7 Å kjøpe denne [Field-Produktet] er: - Dumt:Smart	,006	-,016	-,045	-,103	,024	-,825
Att3 Vurder utsagnene på en skala fra 1-7 Å kjøpe denne [Field-Produktet] er: - Ugunstig:Gunstig	-,007	-,070	-,078	-,130	,030	-,674
SN1 Tenk på produktet som ble presentert innledningsvis og vurder følgende påstander på en skala fra 1-7, hvor 1=svært uenig og 7=svært enig - Personer som er viktige for meg syns jeg skal kjøpe denne [Field-Produktet]	,048	,003	,003	-,809	-,012	-,052
SN2 Tenk på produktet som ble presentert innledningsvis og vurder følgende påstander på en skala fra 1-7, hvor 1=svært uenig og 7=svært enig - Det er forventet at personer som meg skal kjøpe denne [Field-Produktet]	-,076	-,036	-,052	-,765	-,006	-,032
SN3 Tenk på produktet som ble presentert innledningsvis og vurder følgende påstander på en skala fra 1-7, hvor 1=svært uenig og 7=svært enig - 3) Personer jeg ser opp til forventer at jeg skal kjøpe denne [Field-Produktet]	,065	,042	,005	-,849	-,026	,006
BC1 Vurder følgende påstander på en skala fra 1-7, hvor 1= svært uenig og 7=svært enig - Jeg føler meg fri til å kjøpe den [Field-Produktet] jeg ønsker å kjøpe	,065	,030	,061	,039	,701	-,080

BC2 Vurder følgende påstander på en skala fra 1-7, hvor 1= svært uenig og 7=svært enig - Å kjøpe denne [Field-Produktet] er fullstendig innenfor min kontroll	,076	-,048	-,014	,051	,820	-,113
BC3 Vurder følgende påstander på en skala fra 1-7, hvor 1= svært uenig og 7=svært enig - 3) Jeg har de nødvendige midler og ressurser til å kjøpe denne [Field-Produktet]	-,082	,022	-,034	-,025	,545	,091
BE1 Vurder følgende påstander på en skala fra 1-7, hvor 1=svært uenig og 7=svært enig Y = Merket du valgte forrige gang du kjøpte [Field-Produkt] som nå også har lansert [Field-Produktet] som beskrevet i introduksjonen - Det gir mening å kjøpe merke Y i stedet for et annet merke, selv om de er like	,046	-,692	,003	-,031	,004	-,081
BE2 Vurder følgende påstander på en skala fra 1-7, hvor 1=svært uenig og 7=svært enig Y = Merket du valgte forrige gang du kjøpte [Field-Produkt] som nå også har lansert [Field-Produktet] som beskrevet i introduksjonen - Selv om et annet merke har samme egenskaper som Y, ville jeg foretrukket å kjøpe fra Y	-,017	-,932	-,019	,065	,005	,011
BE3 Vurder følgende påstander på en skala fra 1-7, hvor 1=svært uenig og 7=svært enig Y = Merket du valgte forrige gang du kjøpte [Field-Produkt] som nå også har lansert [Field-Produktet] som beskrevet i introduksjonen - Hvis et annet merke er like bra som Y, foretrekker jeg å kjøpe fra Y	-,032	-,956	,031	-,027	,025	,019
BE4 Vurder følgende påstander på en skala fra 1-7, hvor 1=svært uenig og 7=svært enig Y = Merket du valgte forrige gang du kjøpte [Field-Produkt] som nå også har lansert [Field-Produktet] som beskrevet i introduksjonen - Hvis et annet merke ikke er annerledes enn Y på noen måte, virker det mer fornuftig å kjøpe fra Y	,016	-,735	-,041	,008	-,045	,021

Int1 Med utgangspunkt i produktet du ble presentert innledningsvis, vurder følgende utsagn på en skala fra 1-7, hvor 1=svært uenig og 7=svært enig - Neste gang jeg skal kjøpe [Field-Produkt] kommer jeg til å kjøpe denne [Field-Produktet]	-,054	-,047	-,891	,003	,052	-,004
Int2 Med utgangspunkt i produktet du ble presentert innledningsvis, vurder følgende utsagn på en skala fra 1-7, hvor 1=svært uenig og 7=svært enig - Jeg ønsker å kjøpe denne [Field-Produktet]	,050	,044	-,822	-,040	-,011	-,061
Int3 Med utgangspunkt i produktet du ble presentert innledningsvis, vurder følgende utsagn på en skala fra 1-7, hvor 1=svært uenig og 7=svært enig - Jeg har intensjon om å kjøpe denne [Field-Produktet] neste gang jeg skal kjøpe [Field-Produkt]	,012	-,029	-,952	-,014	-,033	,092

Extraction Method: Maximum Likelihood.

Rotation Method: Oblimin with Kaiser Normalization.

a. Rotation converged in 10 iterations.

J (ii): Factor Analysis of Green Product Belief

Pattern Matrix[a]

	Factor	
	1	2
Bel1 Vurder følgende påstander på en skala fra 1-7, hvor 1=svært uenig og 7=svært enig - Denne [Field-Produktet] sin emballasje er miljøvennlig	,727	,042
Bel2 Vurder følgende påstander på en skala fra 1-7, hvor 1=svært uenig og 7=svært enig - Denne [Field-Produktet] er resirkulerbar / kan gjenbrukes	,815	,159
Bel3 Vurder følgende påstander på en skala fra 1-7, hvor 1=svært uenig og 7=svært enig - Denne [Field-Produktet] vil redusere sløsing	,727	-,090
Bel4 Vurder følgende påstander på en skala fra 1-7, hvor 1=svært uenig og 7=svært enig - Denne [Field-Produktet] er laget av naturlige/organiske ingredienser/materiale	,322	-,530

Bel5 Vurder følgende påstander på en skala fra 1-7, hvor 1=svært uenig og 7=svært enig - Denne [Field-Produktet] er ikke laget av skadelige ingredienser/materiale	-,075	-,815
Bel6 Vurder følgende påstander på en skala fra 1-7, hvor 1=svært uenig og 7=svært enig - Denne [Field-Produktet] gjør miljøet bedre og renere	,571	-,332
Bel7 Vurder følgende påstander på en skala fra 1-7, hvor 1=svært uenig og 7=svært enig - Denne [Field-Produktet] er produsert på en måte som er bedre for miljøet	,674	-,229
Bel8 Vurder følgende påstander på en skala fra 1-7, hvor 1=svært uenig og 7=svært enig - Denne [Field-Produktet] er produsert med ikke-forurensende og miljøvennlige produksjonsmetoder	,384	-,556
Bel9 Vurder følgende påstander på en skala fra 1-7, hvor 1=svært uenig og 7=svært enig - Denne [Field-Produktet] har lav miljøbelastning	,565	-,378

Extraction Method: Maximum Likelihood.

Rotation Method: Oblimin with Kaiser Normalization.

a. Rotation converged in 11 iterations.

J (iii): Forced Beliefs as One Factor

Factor Matrix[a]

	Factor 1
Bel1 Vurder følgende påstander på en skala fra 1-7, hvor 1=svært uenig og 7=svært enig - Denne [Field-Produktet] sin emballasje er miljøvennlig	,640
Bel2 Vurder følgende påstander på en skala fra 1-7, hvor 1=svært uenig og 7=svært enig - Denne [Field-Produktet] er resirkulerbar / kan gjenbrukes	,623
Bel3 Vurder følgende påstander på en skala fra 1-7, hvor 1=svært uenig og 7=svært enig - Denne [Field-Produktet] vil redusere sløsing	,755
Bel4 Vurder følgende påstander på en skala fra 1-7, hvor 1=svært uenig og 7=svært enig - Denne [Field-Produktet] er laget av naturlige/organiske ingredienser/materiale	,731

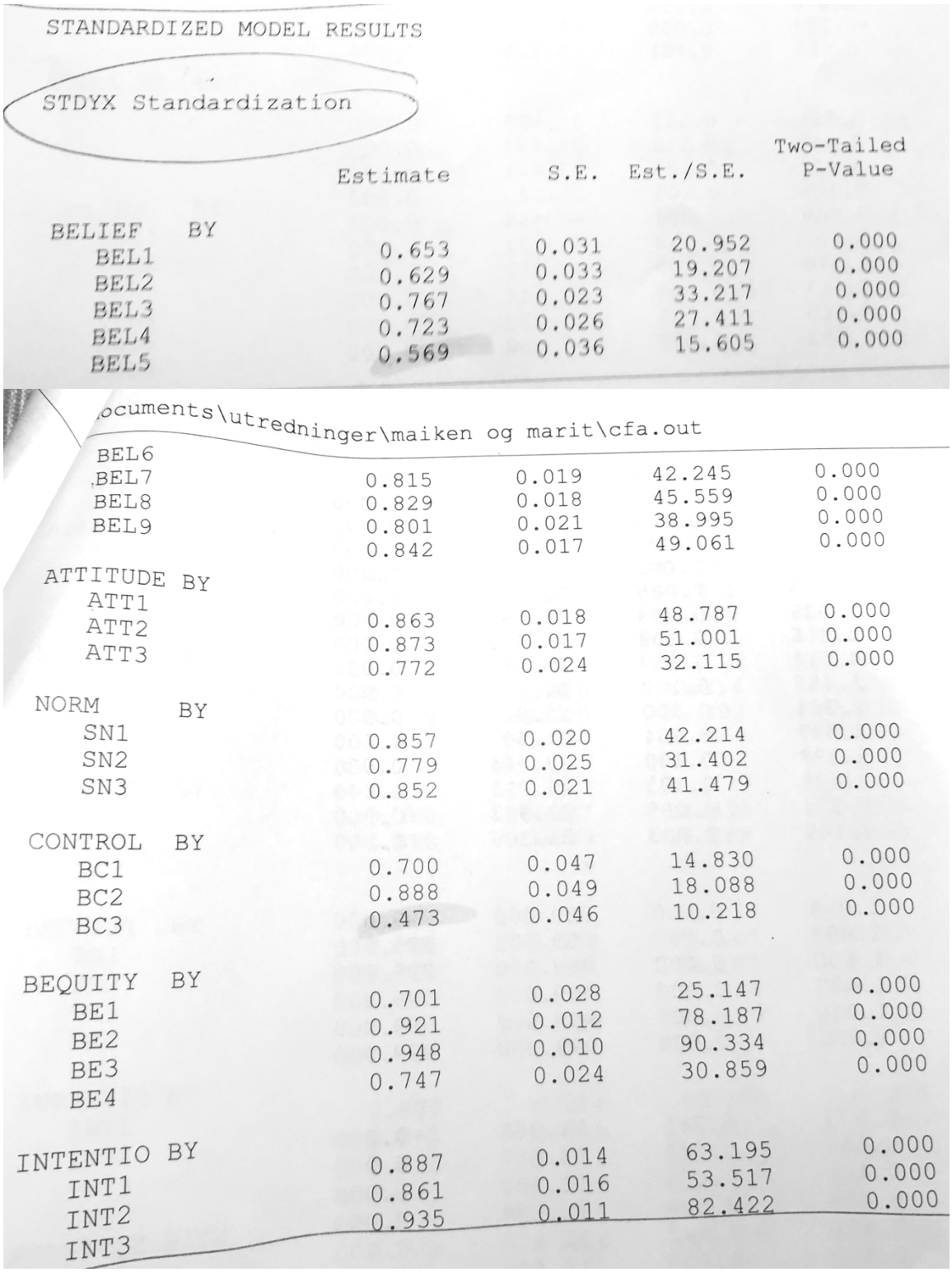
Bel5 Vurder følgende påstander på en skala fra 1-7, hvor 1=svært uenig og 7=svært enig - Denne [Field-Produktet] er ikke laget av skadelige ingredienser/materiale	,578
Bel6 Vurder følgende påstander på en skala fra 1-7, hvor 1=svært uenig og 7=svært enig - Denne [Field-Produktet] gjør miljøet bedre og renere	,816
Bel7 Vurder følgende påstander på en skala fra 1-7, hvor 1=svært uenig og 7=svært enig - Denne [Field-Produktet] er produsert på en måte som er bedre for miljøet	,826
Bel8 Vurder følgende påstander på en skala fra 1-7, hvor 1=svært uenig og 7=svært enig - Denne [Field-Produktet] er produsert med ikke-forurensende og miljøvennlige produksjonsmetoder	,810
Bel9 Vurder følgende påstander på en skala fra 1-7, hvor 1=svært uenig og 7=svært enig - Denne [Field-Produktet] har lav miljøbelastning	,845

Extraction Method: Maximum Likelihood.

a. 1 factors extracted. 4 iterations required.

Appendix K: Confirmatory Factor Analysis

K (i): CFA Including All Items



STANDARDIZED MODEL RESULTS

STDYX Standardization

	Estimate	S.E.	Est./S.E.	Two-Tailed P-Value
BELIEF BY				
BEL1	0.653	0.031	20.952	0.000
BEL2	0.629	0.033	19.207	0.000
BEL3	0.767	0.023	33.217	0.000
BEL4	0.723	0.026	27.411	0.000
BEL5	0.569	0.036	15.605	0.000
BEL6	0.815	0.019	42.245	0.000
BEL7	0.829	0.018	45.559	0.000
BEL8	0.801	0.021	38.995	0.000
BEL9	0.842	0.017	49.061	0.000
ATTITUDE BY				
ATT1	0.863	0.018	48.787	0.000
ATT2	0.873	0.017	51.001	0.000
ATT3	0.772	0.024	32.115	0.000
NORM BY				
SN1	0.857	0.020	42.214	0.000
SN2	0.779	0.025	31.402	0.000
SN3	0.852	0.021	41.479	0.000
CONTROL BY				
BC1	0.700	0.047	14.830	0.000
BC2	0.888	0.049	18.088	0.000
BC3	0.473	0.046	10.218	0.000
BEQUITY BY				
BE1	0.701	0.028	25.147	0.000
BE2	0.921	0.012	78.187	0.000
BE3	0.948	0.010	90.334	0.000
BE4	0.747	0.024	30.859	0.000
INTENTIO BY				
INT1	0.887	0.014	63.195	0.000
INT2	0.861	0.016	53.517	0.000
INT3	0.935	0.011	82.422	0.000

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K (ii): CFA Without Bel5 and BC3

STDYX Standardization AVE & CR

	Estimate	S.E.	Est./S.E.	Two-Tailed P-Value
BELIEF BY				
BEL1	0.660	0.031	21.389	0.000
BEL2	0.641	0.032	19.976	0.000
BEL3	0.776	0.023	34.468	0.000
BEL4	0.710	0.027	25.965	0.000
BEL6	0.813	0.020	41.634	0.000
BEL7	0.837	0.018	47.469	0.000
BEL8	0.789	0.022	36.561	0.000
BEL9	0.836	0.018	47.239	0.000
ATTITUDE BY				
ATT1	0.864	0.018	49.156	0.000
ATT2	0.872	0.017	50.766	0.000
ATT3	0.771	0.024	31.996	0.000
NORM BY				
SN1	0.856	0.020	42.042	0.000
SN2	0.779	0.025	31.434	0.000
SN3	0.852	0.020	41.594	0.000
CONTROL BY				
BC1	0.760	0.069	10.984	0.000
BC2	0.813	0.072	11.223	0.000
BEQUITY BY				
BE1	0.701	0.028	25.146	0.000
BE2	0.921	0.012	78.196	0.000
BE3	0.948	0.010	90.330	0.000
BE4	0.747	0.024	30.863	0.000
INTENTIO BY				
INT1	0.886	0.014	63.095	0.000
INT2	0.861	0.016	53.525	0.000
INT3	0.935	0.011	82.530	0.000

Appendix L: SEM

Model Fit Information

MODEL FIT INFORMATION

Number of Free Parameters	79

Loglikelihood

H0 Value	-14578.879
H1 Value	-14303.938

Information Criteria

Akaike (AIC)	29315.758
Bayesian (BIC)	29628.474
Sample-Size Adjusted BIC (n* = (n + 2) / 24)	29377.815

Chi-Square Test of Model Fit

Value	549.883
Degrees of Freedom	220
P-Value	0.0000

RMSEA (Root Mean Square Error Of Approximation)

Estimate	0.062	
90 Percent C.I.	0.056	0.069
Probability RMSEA <= .05	0.001	

CFI/TLI

CFI	0.944
TLI	0.936

Chi-Square Test of Model Fit for the Baseline Model

Value	6148.203
Degrees of Freedom	253
P-Value	0.0000

SRMR (Standardized Root Mean Square Residual)

Value	0.062

Standardised Model Results

STANDARDIZED MODEL RESULTS

STDYX Standardization

	Estimate	S.E.	Est./S.E.	Two-Tailed P-Value
BELIEF BY				
BEL1	0.659	0.031	21.399	0.000
BEL2	0.640	0.032	19.947	0.000
BEL3	0.778	0.022	34.787	0.000
BEL4	0.708	0.027	25.774	0.000
BEL6	0.812	0.020	41.503	0.000
BEL7	0.836	0.018	47.181	0.000
BEL8	0.787	0.022	36.417	0.000
BEL9	0.833	0.018	46.498	0.000
ATTITUDE BY				
ATT1	0.861	0.018	47.055	0.000
ATT2	0.877	0.017	50.629	0.000
ATT3	0.769	0.024	31.527	0.000
NORM BY				
SN1	0.854	0.021	40.420	0.000
SN2	0.773	0.025	30.667	0.000
SN3	0.859	0.021	41.174	0.000
CONTROL BY				
BC1	0.776	0.077	10.125	0.000
BC2	0.795	0.078	10.190	0.000
BEQUITY BY				
BE1	0.701	0.028	25.173	0.000
BE2	0.923	0.012	78.446	0.000
BE3	0.947	0.011	89.455	0.000
BE4	0.747	0.024	30.768	0.000
INTENTIO BY				
INT1	0.881	0.014	61.358	0.000
INT2	0.855	0.016	52.157	0.000
INT3	0.932	0.012	79.241	0.000
ATTITUDE ON				
BELIEF	0.794	0.025	31.547	0.000
BEQUITY ON				
BELIEF	0.087	0.054	1.610	0.107
INTENTIO ON				
BELIEF	-0.147	0.091	-1.614	0.107
ATTITUDE	0.433	0.096	4.511	0.000
NORM	0.276	0.059	4.676	0.000
CONTROL	-0.157	0.056	-2.805	0.005
BEQUITY	0.243	0.047	5.214	0.000

Explained Variance (R^2)

Latent Variable	Estimate	S.E.	Est./S.E.	Two-Tailed P-Value
ATTITUDE	0.631	0.040	15.774	0.000
BEQUITY	0.008	0.009	0.805	0.421
INTENTIO	0.327	0.043	7.577	0.000

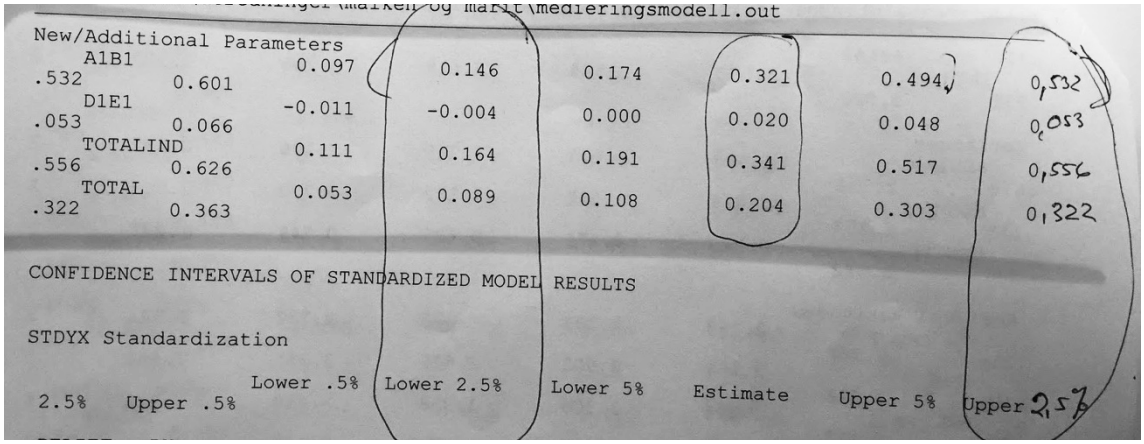
Appendix M: Testing for Indirect Effects

(i) Bootstrap

Model Results

New/Additional Parameters				
A1B1	0.321	0.097	3.328	0.001
D1E1	0.020	0.014	1.392	0.164
TOTALIND	0.341	0.098	3.464	0.001
TOTAL	0.204	0.060	3.420	0.001

Confidence Intervals of Model Results



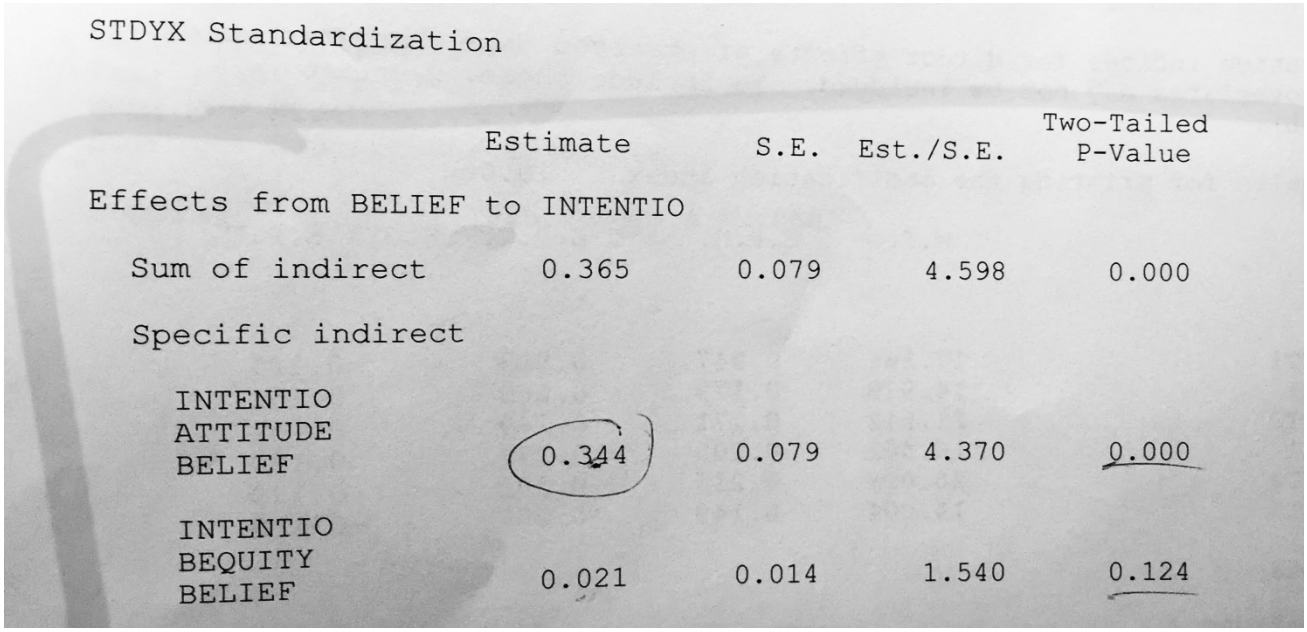
New/Additional Parameters

	Lower .5%	Lower 2.5%	Lower 5%	Estimate	Upper 5%	Upper 2.5%
A1B1	0.097	0.146	0.174	0.321	0.494	0.532
D1E1	-0.011	-0.004	0.000	0.020	0.048	0.053
TOTALIND	0.111	0.164	0.191	0.341	0.517	0.556
TOTAL	0.053	0.089	0.108	0.204	0.303	0.322

CONFIDENCE INTERVALS OF STANDARDIZED MODEL RESULTS

STDYX Standardization

(ii) Indirect effect



STDYX Standardization

	Estimate	S.E.	Est./S.E.	Two-Tailed P-Value
Effects from BELIEF to INTENTIO				
Sum of indirect	0.365	0.079	4.598	0.000
Specific indirect				
INTENTIO ATTITUDE BELIEF	0.344	0.079	4.370	0.000
INTENTIO BEQUITY BELIEF	0.021	0.014	1.540	0.124

Appendix N: Product Involvement

(i) Pattern Matrix for Involvement

Pattern Matrix[a]

	Factor 1	Factor 2
InvProd1 Vurder følgende utsagn på en skala fra 1-7 For meg er [Field-Produkt]: - Uviktig:Viktig	,881	-,028
InvProd2 Vurder følgende utsagn på en skala fra 1-7 For meg er [Field-Produkt]: - Av liten betydning:Av stor betydning	,984	-,065
InvProd3 Vurder følgende utsagn på en skala fra 1-7 For meg er [Field-Produkt]: - Kjedelig:Spennende	,557	,263
InvPurch1 Vurder følgende utsagt på en skala fra 1-7, hvor 1=svært uenig og 7=svært enig Før jeg kjøper en [Field-Produkt] ville jeg: - Vært interessert i å lese informasjon om hvordan den er laget	-,049	,564
InvPurch2 Vurder følgende utsagt på en skala fra 1-7, hvor 1=svært uenig og 7=svært enig Før jeg kjøper en [Field-Produkt] ville jeg: - Vært interessert i å lese en artikkel om den	,145	,762
InvPurch3 Vurder følgende utsagt på en skala fra 1-7, hvor 1=svært uenig og 7=svært enig Før jeg kjøper en [Field-Produkt] ville jeg: - Vært interessert i å sammenligne [Field-Produktet] sine egenskaper med [Field-Produkter] fra andre merker	-,002	,824

Extraction Method: Maximum Likelihood.

Rotation Method: Oblimin with Kaiser Normalization.

a. Rotation converged in 4 iterations.

(ii) Cronbach's Alpha values for InvProd and InvPurch

```
RELIABILITY
  /VARIABLES=InvProd1 InvProd2
  /SCALE('ALL VARIABLES') ALL
  /MODEL=ALPHA.
```

Reliability

Scale: ALL VARIABLES

Case Processing Summary

		N	%
Cases	Valid	387	99,2
	Excluded[a]	3	,8
	Total	390	100,0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
,905	2

```
RELIABILITY
  /VARIABLES=InvPurch2 InvPurch3
  /SCALE('ALL VARIABLES') ALL
  /MODEL=ALPHA.
```

Reliability

Scale: ALL VARIABLES

Case Processing Summary

		N	%
Cases	Valid	387	99,2
	Excluded[a]	3	,8
	Total	390	100,0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
,811	2

Appendix O: Manipulation Test for involvement

```
ONEWAY Invprod Invpros BY Produkt
  /STATISTICS DESCRIPTIVES
  /MISSING ANALYSIS.
```

Oneway

Descriptives

		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean	
						Lower Bound	Upper Bound
Invprod	1	192	5,8932	1,27514	,09203	5,7117	6,0747
	2	195	4,0179	1,74862	,12522	3,7710	4,2649
	Total	387	4,9483	1,79519	,09125	4,7689	5,1277
Invpros	1	192	5,5521	1,25427	,09052	5,3735	5,7306
	2	195	2,9436	1,44018	,10313	2,7402	3,1470
	Total	387	4,2377	1,87783	,09546	4,0500	4,4254

Descriptives

		Minimum	Maximum
Invprod	1	1,00	7,00
	2	1,00	7,00
	Total	1,00	7,00
Invpros	1	1,00	7,00
	2	1,00	7,00
	Total	1,00	7,00

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Invprod	Between Groups	340,218	1	340,218	144,934	,000
	Within Groups	903,748	385	2,347		
	Total	1243,966	386			
Invpros	Between Groups	658,271	1	658,271	360,576	,000
	Within Groups	702,859	385	1,826		
	Total	1361,129	386			

Page 1

Appendix P: Test of Homogeneity of Variances

1 = Mobile (N=192)
2 = Hand Soap (N=195)

```
>Warning # 849 in column 23.  Text: no_NO
>The LOCALE subcommand of the SET command has an invalid parame
>not be mapped to a valid backend locale.
GET
  FILE='M:\Documents\Utredninger\Maiken og Marit\Survfinal.sav'
DATASET NAME DataSet1 WINDOW=FRONT.
ONEWAY Belief Holdn Sosnorm Kontrol Merke Intensjon BY Produkt
  /STATISTICS HOMOGENEITY
  /MISSING ANALYSIS.
```

Oneway

```
[DataSet1] M:\Documents\Utredninger\Maiken og Marit\Survfinal.s
```

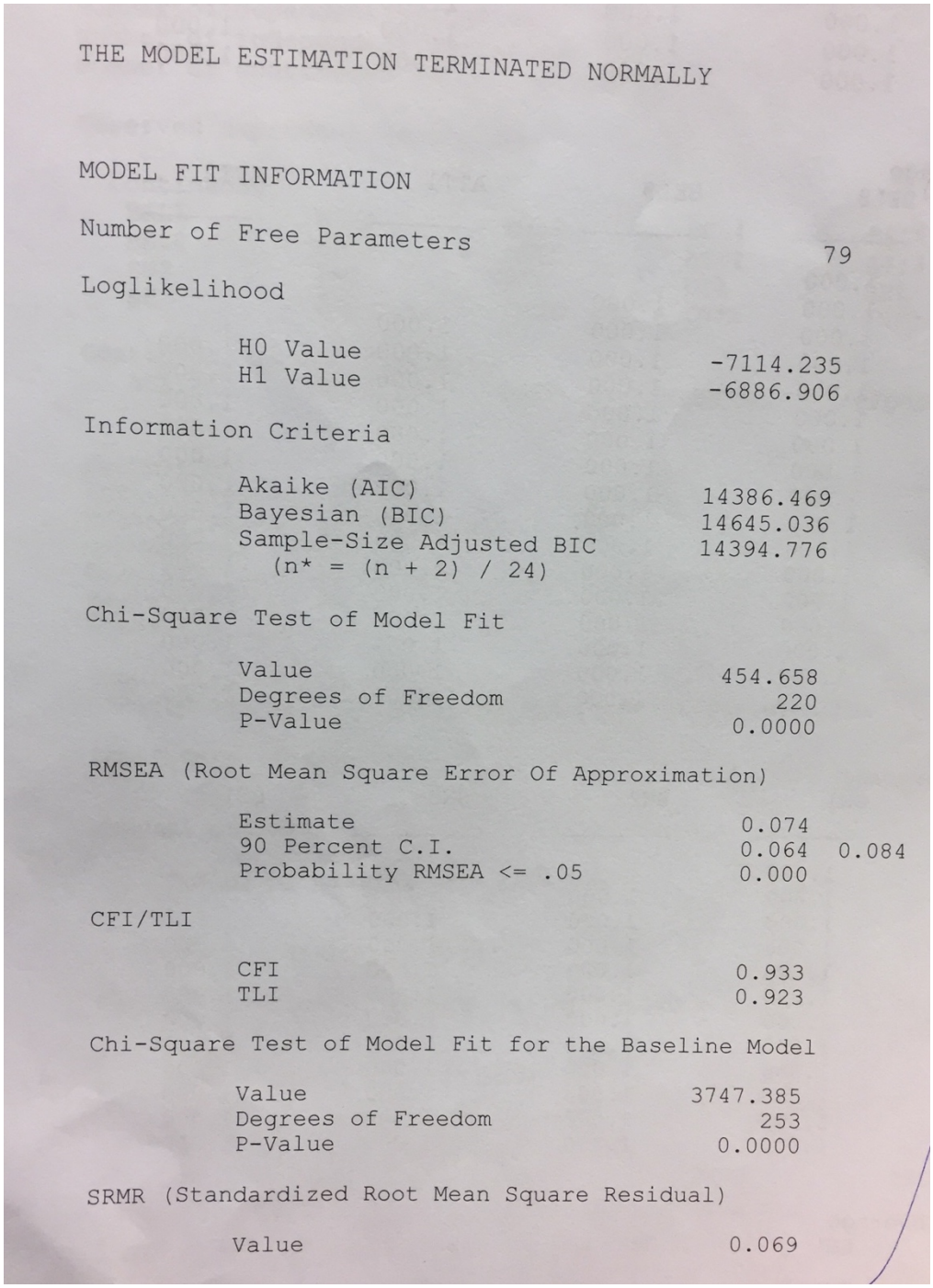
Test of Homogeneity of Variances

		Levene Statistic	df1	df2	Sig.
Belief	Based on Mean	12,629	1	385	,000
	Based on Median	11,483	1	385	,001
	Based on Median and with adjusted df	11,483	1	377,213	,001
	Based on trimmed mean	12,427	1	385	,000
Holdn	Based on Mean	7,000	1	385	,008
	Based on Median	6,919	1	385	,009
	Based on Median and with adjusted df	6,919	1	384,713	,009
	Based on trimmed mean	6,871	1	385	,009
Sosnorm	Based on Mean	,504	1	385	,478
	Based on Median	,520	1	385	,471
	Based on Median and with adjusted df	,520	1	384,298	,471
	Based on trimmed mean	,478	1	385	,490
Kontrol	Based on Mean	8,119	1	385	,005
	Based on Median	9,062	1	385	,003
	Based on Median and with adjusted df	9,062	1	384,613	,003
	Based on trimmed mean	9,661	1	385	,002
Merke	Based on Mean	3,612	1	385	,058
	Based on Median	3,027	1	385	,083
	Based on Median and with adjusted df	3,027	1	379,152	,083
	Based on trimmed mean	4,063	1	385	,045
Intensjon	Based on Mean	2,125	1	385	,146
	Based on Median	2,024	1	385	,156
	Based on Median and with adjusted df	2,024	1	384,524	,156
	Based on trimmed mean	2,139	1	385	,144

Appendix Q: SEM for hand soap and mobile

Q (i) Hand soap:

Model Fit



THE MODEL ESTIMATION TERMINATED NORMALLY

MODEL FIT INFORMATION

Number of Free Parameters	79
Loglikelihood	
H0 Value	-7114.235
H1 Value	-6886.906
Information Criteria	
Akaike (AIC)	14386.469
Bayesian (BIC)	14645.036
Sample-Size Adjusted BIC (n* = (n + 2) / 24)	14394.776
Chi-Square Test of Model Fit	
Value	454.658
Degrees of Freedom	220
P-Value	0.0000
RMSEA (Root Mean Square Error Of Approximation)	
Estimate	0.074
90 Percent C.I.	0.064 0.084
Probability RMSEA <= .05	0.000
CFI/TLI	
CFI	0.933
TLI	0.923
Chi-Square Test of Model Fit for the Baseline Model	
Value	3747.385
Degrees of Freedom	253
P-Value	0.0000
SRMR (Standardized Root Mean Square Residual)	
Value	0.069

Standardised Model Results

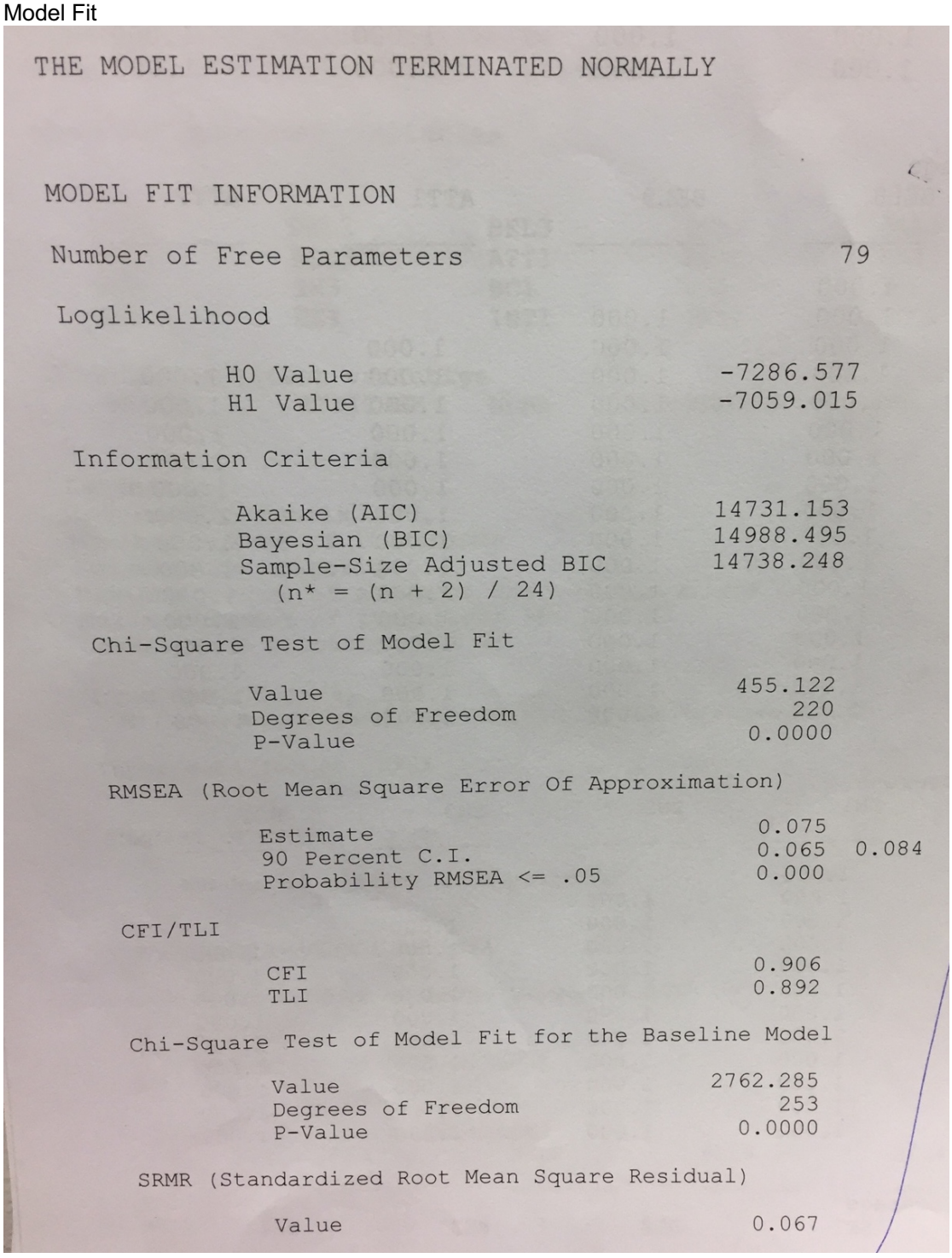
ATTITUDE ON				
BELIEF	0.835	0.029	29.172	0.000
BEQUITY ON				
BELIEF	0.100	0.075	1.331	0.183
INTENTIO ON				
BELIEF	-0.164	0.125	-1.308	0.191
ATTITUDE	0.566	0.129	4.388	0.000
NORM	0.402	0.072	5.615	0.000
CONTROL	-0.154	0.066	-2.328	0.020
BEQUITY	0.097	0.060	1.613	0.107

Explanatory power (R^2)

Latent Variable	Estimate	S.E.	Est./S.E.	Two-Tailed P-Value
ATTITUDE	0.697	0.048	14.586	0.000
BEQUITY	0.010	0.015	0.666	0.506
INTENTIO	0.502	0.059	8.527	0.000

Q (ii) Mobile:

Model Fit



THE MODEL ESTIMATION TERMINATED NORMALLY

MODEL FIT INFORMATION

Number of Free Parameters	79
Loglikelihood	
H0 Value	-7286.577
H1 Value	-7059.015
Information Criteria	
Akaike (AIC)	14731.153
Bayesian (BIC)	14988.495
Sample-Size Adjusted BIC (n* = (n + 2) / 24)	14738.248
Chi-Square Test of Model Fit	
Value	455.122
Degrees of Freedom	220
P-Value	0.0000
RMSEA (Root Mean Square Error Of Approximation)	
Estimate	0.075
90 Percent C.I.	0.065 0.084
Probability RMSEA <= .05	0.000
CFI/TLI	
CFI	0.906
TLI	0.892
Chi-Square Test of Model Fit for the Baseline Model	
Value	2762.285
Degrees of Freedom	253
P-Value	0.0000
SRMR (Standardized Root Mean Square Residual)	
Value	0.067

Standardised Model Results

ATTITUDE ON				
BELIEF	0.752	0.043	17.392	0.000
BEQUITY ON				
BELIEF	0.216	0.075	2.858	0.004
INTENTIO ON				
BELIEF	-0.117	0.130	-0.900	0.368
ATTITUDE	0.257	0.141	1.825	0.068
NORM	0.185	0.091	2.028	0.043
CONTROL	-0.151	0.083	-1.825	0.068
BEQUITY	0.270	0.072	3.735	0.000

Explanatory power (R^2)

Latent Variable	Estimate	S.E.	Est./S.E.	Two-Tailed P-Value
ATTITUDE	0.566	0.065	8.696	0.000
BEQUITY	0.047	0.033	1.429	0.153
INTENTIO	0.197	0.058	3.418	0.001