# Social proof as a promotional persuasion tactic 

- A quantitative comparative study on the individual and joint effects of scarcity and urgency on consumer behaviour

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#### Abstract

With the emergence of e-commerce, the way consumers are shopping has changed drastically and the competition has increased. In order to stay profitable, retailers have to come up with more innovative and effective ways to attract and convert possible customers. Social proof has long been a utilized phenomenon by brick and mortar retailers, but it is becoming more and more necessary even for online stores to employ aggressive promotional tactics in order to persevere. Previous research has not examined different social proof promotional tactics in combination with each other, which has created a gap in the literature. This thesis therefore examines two promotional tactics, scarcity and urgency, and analyses and compares their individual and joint effects on consumer attitude and behaviour. Using a quantitative method to examine this phenomenon, collecting data through several surveys, the thesis came to several interesting conclusions. First, the thesis concludes that the effect of promotional tactics on consumer values is stronger on hedonic products than on utilitarian products. Second, implementing scarcity as a promotional tactic will increase attitude, popularity and attractiveness, an effect that is found to be mediated by perceived value. Third, the combination of quantity limits (scarcity) and time limits (urgency) increases consumer behaviour in terms of purchase intention and speed of conversion. The perceived value and attitude have a mediating effect on the intention to purchase the product. At last, the results show that there is a positive relationship between individuals defined as being value-shoppers, and their intention to purchase as well as the speed of conversion. In sum, scarcity and urgency have distinct benefits that e-commerce retailers should employ according to their goals.


Keywords: social proof, urgency, scarcity, e-commerce

## Preface

The last three years at the Retail Management bachelor-program have been extremely valuable and exciting. It has surely been some periods of complete exhaustion, but overall I can say that I am super grateful for this period of my life. The process of writing this thesis has combined almost every aspect of the things that I have learned, and it was interesting to dive deep into a subject of my choosing. I want to say a big thank you to my supervisor in this thesis, Mariya Ivanova, who guided me throughout the process, and was always open for questions and discussions. Furthermore, a big thank you to Jona Hischer and Lukas Johansson for mental support.

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## 1. Introduction

The introductory chapter presents the reader to a background and presentation of the subject that will be dealt with in this thesis, followed by the purpose of the study and the research question. Furthermore, it will include the delimitations, contributions as well as disposition of the thesis. It will end with the definitions that are central to the development of this study.

### 1.1 Background

Have you ever felt pressured or directly persuaded to make an online purchase? While the majority of e-commerce brands apply persuasion tactics and aggressive marketing strategies to increase intent to purchase, or improve customers' attitude towards their brand, it is rarely very obvious. E-commerce has grown substantially over the past decade and is becoming more and more vital for all different kinds of brands and stores. During 2017, Swedish e-commerce had a growth of $16 \%$ over the previous year, and a revenue of 67 billion (SEK). This accounts for around $9 \%$ of the total Swedish trade (E-Barometern, 2018). The growing e-commerce platform and its dominating role in the current shopping landscape leads to consequences, for example in terms of increased competition and change in consumer preferences. Coming up with ways to compete with other brands is of vital importance.

One aspect that retailers have utilized for a very long time is social proof. Social proof was first introduced by Robert B. Cialdini in his book Influence: Science and practice (2000), where it is described as a persuasion tactic, meaning that individuals adapt and shape their opinions and behaviour through observing others. This has been embodied in practice, for example in if one should donate to charity, return a found wallet or in the case of commercial situations, what product one should choose to purchase (Cialdini, Wosinska, Barrett \& Górnik-Durose, 1999). The promotional effects in physical store contexts is a more actively researched area, with many studies evaluating effects of promotions in stores where customers are exposed to the physical presence of others (Salmon, De Vet, Adriaanse, Fennis, Veltkamp \& De Ridder, 2015). In contrast, promotions in digital contexts is a relatively non-researched area, while the use of social proof is even more relevant in the case of e-commerce, that lacks the social presence of brick-and-mortar shops. Furthermore, companies with a presence in e-commerce are not only exposed to domestic competition, which is characterized by geographical limitations, but are also exposed to competition from around the world. Many retail companies need to employ
aggressive promotional strategies in order to stay competitive. The interest in this subject has therefore grown, in line with that e-commerce have grown massively recently. For a long time, social proof has been used in advertising and marketing campaigns, to attract interest. Before the technological development of the world wide web, the social proof could not utilize the same adaptation advantages of today's e-commerce brands. Updating, changing or revamping social proof tactics to adapt for changes in available quantity or time was not a possibility. With the current technology this has been made possible, and there are therefore better prerequisites for using social proof successfully today.

In e-commerce, two promotional tactics commonly used for social influence are quantity scarcity and time urgency. Quantity scarcity is defined as the lack of inventory of a product and time urgency is the case of time pressure and time limit before a product no longer is available for purchase. While setting a time limit aims to encourage customers to purchase (Aggarwal, Jun \& Huh, 2011), imposing a quantitative limit has been shown to change customers' perceptions of the product's rarity and therefore stimulate both the customers purchase intention and competitive mentality (Swain, Hanna \& Abendroth, 2006). There is evidence in support of the effectiveness of both tactics.

In previous research Inman, Peter and Raghubir (1997) conclude that forcing time limits increases purchase intent and generates purchasing signals to customers. However, other studies on the effects of time scarcity tactics (Sinha, Chandran \& Srinivasan, 1999) show that imposing a time limit during the decision-making process can have negative effects on the customer such as experiencing time pressure. Interestingly, there are varying views on the effects of time pressure, but summed up the phenomenon includes time limits, the attitude towards time limits, as well as emotional experience. For example, Svenson and Maule (1993) stressed that time pressure is the outcome of time limits for making decisions. Payne, Bettman and Johnson (1988) denoted time pressure as the subjective emotional reaction and response to time limits, while Svenson and Edland (1987) concluded that time pressure can lead to anxiety, if the consumer feels pressured by the deadline. Previous studies of the behavioural aspects of consumers purchasing process has put more and more emphasis on specifically the effects of time pressure on consumers' decision-making process. For example, Kocher and Sutter (2006) investigated the impact of time pressure on decision making processes by examining the relationship between decision quality, time pressure as well as material stimulation. Spears (2001) studied that same impact by analysing the relationship between information processing
and time pressure. While there is some evidence (Payne et al., 1988; Payne, Bettman \& Luce, 1996) that consumers tend to make worse decisions while under time limits and time pressure, many studies show that precisely time pressure speeds up consumers' decision making and often can improve the decision-making quality (Ordóñez \& Benson, 1997).

In regards to quantity scarcity, prior literature (Ge, Messinger, Li, 2009) indicates that quantity limits in products increase the likelihood of purchase and prompt customers to buy the options that are available. Unavailability of a product makes it more desirable, and increases its perceived value (Lynn, 1991). The product is generally also seen as more unique due to the limited availability (Snyder, 1992). Although, just like in the case of time limits, quantity scarcity can generate negative feelings, depending on the way the quantity limit is visualized and portrayed by the consumer. There are two types of quantity limits, one on the supply side and one on the demand side. Scarcity due to supply, where there for example are only 25 products left in inventory due to poor inventory management, is more often than not the generator of negative views and feelings. It will also not generate the urgency needed in order to make consumers to buy the product. Scarcity due to demand is on the other hand increasing the products exclusivity-feeling, making the customer want to purchase (Gierl \& Huettl, 2010).

### 1.2 Purpose and overarching research question

While prior literature provides considerable insights on the individual effects of quantity and time limits, there is still an area that has been under-researched. While social proof has been used throughout history, with the growth of e-commerce, it is surprising that there is no evidence on the relative effectiveness of time and quantity scarcity and their joint effects, i.e. employing both promotional types as part of the same promotional campaign. Wu and Lee (2016) noted this gap and recommended future research, in their study regarding scarcity versus popularity, to explore how time limits and quantity limits actually differ in terms of effect on the consumer, or if the two combined may be the most optimal promotional tactic. Furthermore, Zhu, Yang and Hsee (2018) also recommended future literature to include research on not only urgency and time limits, but also other types of scarcity such as quantitative limits. Therefore, the purpose of the study is to further the understanding of social proof, and specifically the individual and joint effects of quantity limits and time limits, in relation to central relevant consumer attitude and behavioural variables. The overarching research question is as follows:

Does the promotional type of quantity scarcity, time urgency, or both combined, in e-commerce, have the strongest impact on the attitude towards the product, popularity of the product, attractiveness of the product, the intention to purchase, and the speed of conversion?

### 1.3 Delimitations

To give some context to the coming delimitations of the thesis, this paper has a foundation in three (3) surveys, two pre-studies and then a main study. In the main study, two products are examined, one hedonic and one utilitarian, where the products are combined with a time limit, a quantity limit or a combination of a quantity and time limit.

The first delimitation is the use of a fictitious retailer by the name of VIBE in the study, rather than using an existing retailer. This decision was based on the knowledge of customer's previous brand associations and their relationships with companies across the globe. By imposing this delimitation, the respondents in the study were placed in a more neutral mind-set towards the brand, and the effects of the promotions that was tested gave more unbiased results.

Furthermore, a product delimitation was put in place where only one utilitarian product and one hedonic product were tested. Due to resource and time constraints it would be nearly impossible to examine several products of each kind. Testing only two products, to some extent, limits how valuable the results and recommendations can be, but it was the only way to manage this study. Furthermore, the choice to have one of each product type, instead of for example two hedonic products, gave a more nuanced study.

The study and survey are only tested in online contexts, since the outcomes of promotions in online contexts is a "less" researched area. By leaving physical stores out of the discussion, a more focused and specific point of view could be analysed, to come up with more effective recommendations.

The study also only examined a limited amount of consumer variables, due to time and resource constraints. The inclusion of more variables could strengthen the foundation of this analysis, and could lead to even more applicable conclusions.

Another delimitation is the collection of data, which was done only through an online survey. Although the study tried to cover and collect data from a broad range of people, the size and variation was not very big. This can lead to skewed data results, or that the results obtained cannot be generalized.

### 1.4 Contributions

In order to contribute to theory, the goal is to extend current literature on time and quantity scarcity by studying the effectiveness of these promotional tactics within online store environments. This study also seeks to dive into other fields such as social pressure, that may or may not explain the different correlations and relationships between the phenomenon and the presented hypotheses. Furthermore, the thesis aims to build upon prior research within related subjects such as consumer behaviour and promotions and simultaneously contribute with current and relevant knowledge and insights regarding online promotions, as well as its effects on consumer's behaviour and attitudes.

In practical aspects, the thesis aims to contribute with further knowledge and understanding of how to develop and design this critical aspect of online promotions. Furthermore, it aims to provide a best-practice foundation for usage of social proof promotional tactics in e-commerce.

### 1.5 Disposition

In order to ensure a systematic scientific approach, as well as providing a structured framework for guidance, a disposition of eleven (11) chapters is presented in this thesis.

The introduction (1) explains the general background to the subject of the thesis, the purpose, contributions, delimitations and definition. The chapter of theoretical framework (2) includes the theoretical foundation of the thesis, that the studies, analysis, discussions and conclusions are based on. The methodological approach (3) including the choice of subject, study object and choice of method for collection of data is then discussed. Following the method comes the results (4) of the study, which present the results combined with related analysis. The result is presented in the order of the presented hypotheses (from the theoretical section). After the results comes the discussion (5) about the presented result. Following the discussion is a conclusion (6) of the study, which discusses and answers the thesis' formulated problem and questions. Following the conclusion is a section of theoretical and practical implications (7).

Then comes recommendations for future research (8), as well as limitations and critique (9). Lastly follows the references (10) and relevant appendix (11).

### 1.6 Definitions

Scarcity - a lack of something. In the context of the thesis it is related to a low level of remaining products available for consumers to buy, caused either by low inventory levels (supply-side) or high demand (demand-side).

Urgency - a situation requiring quick swiftly action. In the context of the thesis it is related to time limits the customer faces in buying situations. The time limit is created by the retailer.

## 2. Theoretical framework

This section will present theories and previous research that will lay the foundation for the thesis. The theories are all connected to the problem definition and the chosen subject, and will be used as a framework to effectively answer the presented thesis question. This section presents theory behind hedonic and utilitarian products, purchasing processes and decision making processes. Furthermore, theories regarding scarcity, urgency and the social impact theory is presented.

### 2.1 Hedonism vs. utilitarianism

The behaviour and decision-making process varies a lot depending on the type of product a consumer is about to buy, if it is a hedonic or utilitarian product (Kushwaha \& Shankar, 2013). It differs for example in terms of the aim of the purchase. Hedonic purchases mainly consist of the shopping experience itself with a pursuit of pleasure and goods that provide some kind of personal value. Hedonic products are also more likely to be bought at an impulse and usually mean more to the individual (Babin, Darden \& Griffin, 1994). On the other hand, utilitarian products are mostly functional with a purchasing process that aims to maximize utility (Chandon, Wansink \& Laurent, 2000), and can be related to more rational aspects, compared to more emotional aspects concerning hedonic shopping (Babin et al., 1994).

These characteristics create different purchasing scenarios and lead to different effects of promotions and other type of marketing tactics. Generally, it is said that hedonic products are more suitable for certain types of promotion due to the increased cognitive effort in the purchasing situation. There is also evidence that some types of promotions, and specifically time constraints and time limits, increase the effectiveness of the promotion more for hedonic than for utilitarian products (Eisenbeiss, Wilken, Skiera \& Cornelissen, 2015). Therefore, the following hypothesis is developed:

Hypothesis 1 (H1): Attitude, popularity, attractiveness, intention to purchase and speed of conversion will all be higher for a hedonic product, in comparison to a utilitarian product. This effect will hold true for all promotional types.

### 2.2 Social proof, scarcity and urgency

Brands across all industries are using social proof to attract consumers. According to Söderlund (2016), people are sensitive and are affected by other people, and often therefore look for clues in situations about any kind of social proof. Social proof does not have to be direct contact or interaction between individuals. It can rather be traces of other people, showing signs that there has previously been a presence of another individual, which have an effect on the behaviour (Kuan, Zhong \& Chau, 2014; Guerin, 1986). A well-known theory discussing the causes and effects of social influence is the Social Impact Theory (SIT). SIT argues that consumers and individuals in general are affected by the perceived or real social presence from others, in regards to the size, source and immediacy of the presence. According to Argo, Dahl and Machanda (2005), people dislike being and feeling alone while shopping, even though too much presence by staff or co-shoppers may have various effects. The fact that customers within ecommerce are not exposed, physically, to other individuals while shopping, is a feature that is especially interesting to keep in mind, since the use of social proof marketing tactics therefore can have even more drastic effects than in physical stores.

In online purchasing situations, brands always try to convey their offer as attractive as humanly possible, to increase the probability of a purchase. They often try to convince consumers through different kind sales promotions. One method is to make the products appear scarce, or appear limited in some way. According to Cialdini (2001), different kinds of products throughout many categories get a perceived increased value when the availability decreases. Two ways to create this phenomenon is through quantity limitation (scarcity) and time limitation (urgency). These promotional tactics are developed to create feeling for the customer that if they do not act immediately, the product will not be available to purchase in the future. Quantity limitations can be limited-edition products or bundles, while time limitations often refer to offers only being available for a certain period of time. There is considerable prior research and literature on these different areas, but comparing the differences between scarcity and urgency as promotional tactics has not yet been performed. The next subsections will further discuss the relevant theories and their connection to the variables of interest that together will build the foundation for this thesis's hypotheses.

### 2.3 Attitude, popularity and attractiveness of product

According to Brock, Greenwald and Ostrom (1968), any commodity, i.e. an item that can be presented to an individual, is going to be "valued to the extent that it is unavailable". Their commodity theory suggests that a product's perceived value is assessed by the customer based on its availability, which means that the higher availability, the lower perceived value. An important implication of this, according to Lynn (1991) is that unavailability leads to a product becoming more desirable, due to its higher perceived value. According to Fromkin (1970), Amaldoss and Jain (2005), and Snyder (1992), an explanation is that the product has an increased perceived value due to the fact that it demonstrates a kind of uniqueness. Products that are "unique" are characterized, according to Lynn (1991), by this phenomenon of unavailability, which implies that scarcity directly affects a products perceived value. In addition, people tend to be more interested to purchase and invest more of their time and resources into goods and products that they consider as being unique.

The aforementioned studies imply that unavailability and uniqueness lead to a higher demand and valuation. However, the uniqueness theory (Snyder \& Fromkin, 1980) implies that individuals have a lower preference for a product that is more scarce, unavailable and in turn even unique. According to Amaldoss and Jain (2005), consumers "value a product less when more consumers own it". Despite the contradicting predictions of these theories, most of the evidence suggests that attitude, popularity and attractiveness of a product is increased when it is scarce. One alternative perspective is economic theories such as herd behaviour and bandwagon effects (Corneo \& Jeanne, 1997; Bikhchandani, Hirshleifer \& Welch, 1998; Banerjee, 1992), which imply an increased preference for a scarcer product. Bandwagon effects and herd behaviour occur at times when individuals copy the behaviour of other people. The reasons for this behaviour is most often because the individuals want to feel included and fit in, but also because they feel that other consumer are more knowledgeable and superior, and by mimicking others behaviour they will make better decisions. This is even relevant when individuals do not directly observe the behaviour of others, but instead observe indirect evidence of the behaviour of other customers such as pop-up notifications on websites or empty shelves, both of which can be manipulated by the retailer. Furthermore, researchers have recently found that individuals in retail-environments infer that "scarcer products are more popular" and that "scarcer products are of higher quality" (van Herpen, Pieters \& Zeelenberg, 2009).

There is also some academic research on the relationship between time pressure, time limits and individual's decision making. Most studies state that time limits for the majority are used to increase the intention to purchase a product (Swain et al., 2006). There is limited research in terms of the direct effect on variables such as attitude, popularity and attractiveness of the product, but some research on the overall purchasing process. Studies show that when there is limited time to purchase, customers are more likely to form a more negative view of the purchasing process (Sinha et al., 1999). Some studies also show that when put under time pressure, it negatively impacts consumer's quality of the decision-making (Payne et al., 1988). Furthermore, individuals in purchasing situations who are put under time pressure do not have enough time to gather sufficient information about a product's characteristics and attributes, which may harm the possibility of a comprehensive evaluation (Iyer, 1989).

Based on the theories and empirical evidence discussed above, it is proposed that:

Hypothesis $2 a$ (H2a): The effect on attitude will be higher for the quantitative limit, in comparison to having no promotional limit, a time limit or a combination of the quantitative and time limit.

Hypothesis $2 b(\mathbf{H} \mathbf{2 b})$ : The effect of a quantitative limit on the attitude towards the product will be mediated by the perceived value.

Hypothesis 3 (H3a): The effect on popularity will be higher for the quantitative limit, in comparison to having no promotional limit, a time limit or a combination of the quantitative and time limit.

Hypothesis $3 b(\mathbf{H 3 b})$ : The effect of a quantitative limit on the popularity of the product will be mediated by the perceived value.

Hypothesis 4a (H4a): The effect on the attractiveness of the product will be higher for the quantitative limit, in comparison to having no promotional limit, a time limit or a combination of the quantitative and time limit.

Hypothesis $4 b$ (H4b): The effect of a quantitative limit on the attractiveness of the product will be mediated by the perceived value.

### 2.4 Intention to purchase and speed of conversion

An influential theory within retail environments is the Theory of Reasoned Action, which aims to explain the relationship between attitude and behaviour, within human actions (Fishbein \& Ajzen, 1988). According to the theory, behavioural intentions towards an item are affected by the attitudes towards that same item. This means that a positive attitude towards a retailer or a product generates a stronger and higher intention to purchase from that same retailer or that specific product (Hoyer, MacInnis \& Pieters, 2012).

As a consequence of previous indications of a relationship between perceived value and the phenomenon of scarcity, according to Jeong and Kwon (2012) and Kaptein and Eckles (2012) the intention to buy these products is also going to be higher. Furthermore, according to Dodds, Monroe and Grewal (1991), a high perceived value has a positive correlation with the intention to purchase. As previously noted, a lower level of availability correlates with a higher perceived value, which indicates that scarcity has a positive effect on intention to purchase, with perceived value as a mediating variable. Furthermore, according to Lazarus (1966), is that the perceived increased competition in these scarce, and partly urgent, situations can lead to stress, which in turn can trigger specific stress-related reactions. Previous literature and research shows that stress has a direct relationship with increased impulsive purchasing behaviour (Amirpur \& Benlian, 2015; Burrough \& Rindfleisch, 2002). The competition in regards to the product in question due to social proof, which leads to a feeling of stress, can therefore affect individuals to purchase the product preferably sooner than later, to not be in a position to be left without a product. Van Herpen et al. (2009) also recently concluded that in retail situations, individuals are more likely, and have a higher intent, to choose and purchase scarcer products.

According to previous theory that has examined the time limit and time pressure effects on individual's decision making, there is a speed \& accuracy trade-off that can occur. With time constraints there is a possibility that consumers make use of so called non-compensatory coping strategies, with one of them being acceleration. In previous literature, these decision coping strategies are defined as less rational with a lack of complete decisional information (Janis, 1983; Payne et al., 1996; Svenson, Edland \& Slovic, 1990). The time an individual has to make a purchase decision will therefore have an effect on their behaviour. Someone who is not willing, or does not have the opportunity, to devote time into different alternatives are much more likely to decide quickly. Making decisions in a quick fashion requires cognitive shortcuts, and these individuals could therefore be more sensitive to the phenomenon of urgency and
scarcity (Gierl, Plantsch \& Schweidler, 2008; Jung \& Kellaris, 2004). Furthermore, according to Blattberg \& Neslin (1990) and Swain et al. (2006), low level cognitive processes are triggered by the feeling of urgency that is enhanced by time limits, which end up in a focus toward taking quick action. At the same time, the lack of time limits encourage delay in decision-making as no feeling of constraint is presented (Dhar \& Nowlis, 1999; Anderson, 2003; Aggarwal \& Vaidyanathan, 2003). The "opportunity-cost perception", which promotional offers containing urgency conveys, is a good way to promote quick sales, as it according to Tykocinski and Pittman (2001) proposes the thought that the consumer will "regret refusing to buy". Current relevant research also identifies a phenomenon termed "the mere urgency effect", which is an individual's tendency to prioritize urgency over importance (Zhu et al., 2018). Consumers are more likely to take action on tasks deemed unimportant (tasks that generally should generate lower payoffs) compared to important tasks (tasks that generally should generate higher payoffs), when these unimportant tasks are defined by some illusion and sense of urgency and expiration. This is interesting since this effect contradicts basic principles of "dominance", which argues that individuals normally choose better options over worse. This implies that consumers are more likely to want to take action, and do it quickly, when put under the feeling of urgency.

One personality trait or mechanism that is relevant in this context is the Theory of Need for Cognitive Closure (NCC) (Kruglanski, Webster \& Klem, 1993; Gierl et al., 2008; Jung \& Kellaris, 2004). The theory states that individuals with a high desire for cognitive closure, therefore using cognitive shortcuts, have a need for definite answers, dislike uncertainty and want to make quick decisions. These individuals rely on heuristic rules and information to make judgements. With the knowledge that customers who react to scarcity and urgency by utilizing heuristic rationale which trigger cognitive shortcuts, gives an indication, according to the theory, that individuals exposed to scarcity and urgency will have a higher speed of conversion. Furthermore, Ben Zur and Breznitz (1981) propose that so called "harassed decision makers", individuals affected by time pressure, increase the speed and rate at which they process information and make decisions.

These are all substantiations that scarcity and urgency combined should lead to more impulse buying and therefore increased intention to purchase as well as a higher speed of conversion.

The following hypotheses are formed with foundation in above theoretical passage:

Hypothesis 5 a (H5a): The effect on the intention to purchase will be higher for the combination of a quantitative and time limit, in comparison to having no promotional limit, a time limit or a quantitative limit.

Hypothesis 5 ( $\mathbf{H 5 b}$ ): The combinative effect of a quantitative and a time limit on the intention to purchase will be mediated by the perceived value.

Hypothesis $5 c(\mathbf{H 5 c})$ : The combinative effect of a quantitative and a time limit on the intention to purchase will be mediated by the attitude.

Hypothesis $6 a(\mathbf{H 6 a}):$ :The effect on the speed of conversion will be higher for the combination of a quantitative and time limit, in comparison to having no promotional limit, a time limit or a quantitative limit.

Hypothesis $6 b(\mathbf{H} \mathbf{6 b}):$ The combinative effect of a quantitative and a time limit on the speed of conversion will be mediated by the desire for cognitive closure.

Hypothesis $6 \mathrm{c}(\mathbf{H 6 c}):$ The combinative effect of a quantitative and a time limit on the speed of conversion will be mediated by the feeling of stress.

The relationship between the proposed variables can be summarized visually as per below:


Figure 1. Visualization of relationship of dependent, mediating and independent variables.

## 3. Method

### 3.1 Choice of subject

The retailers in the highly competitive e-commerce market are on a daily basis being pressured to perform. The competitive nature in attracting consumers and increasing revenue very often transfers over to the customers. This means that the consumers often are overwhelmed by information and tactics trying to convince them to purchase. These tactics are in many cases crucial for e-commerce brands to be successful due to the high competition, and it is therefore important to better understand the effects of these tactics. Two of them that quickly arose as commonly used were time urgency and quantity scarcity. The decision to examine both the separate and joint effects became clear after reading previous research and literature, as this approach would be the most beneficial and would give the best foundation for future research. The insights gained through this study can give support or further indication on what type of promotional tool based on social proof that is most effective in e-commerce situations.

### 3.2 Study object

### 3.2.1 Channel

The study is presented in a digital setting due to that e-commerce is rapidly growing and taking market share from physical stores (E-barometern Q1, 2018). Examining the subject in a digital setting can give more knowledge and insight which can be valuable for many companies across different industries. It can also bring further insight for future research in this subject. The specific social proof tactics that will be studied are also commonly used in e-commerce settings, and it therefore makes more sense to use this type of channel. In the study, a fictive e-commerce store called VIBE is used in order to minimize potential bias due to respondents' previous brand associations and attitudes toward an established brand. Although a fictive brand is used, the study had the goal of imitating other established e-commerce stores in its design, to not create any unnecessary confusion for the respondent.

### 3.2.2 Product

The selection of the type of products was driven by the fundamental differences in product characteristics between hedonic and utilitarian products. The study used one hedonic product and one utilitarian product, in order to examine the differences in the effects of the promotions. This gives the thesis the opportunity to provide more nuanced theoretical and managerial
implications. The products were chosen through the first pre-study. The hedonic product that was chosen was a pair of beige sneakers. Hedonic products are generally characterized to satisfy more emotional needs, which create a bigger sense of risk and the customer's thought process is supposed to be more thorough (Babin et al., 1994). The utilitarian product that was chosen was a white t-shirt. Utilitarian products are more practical and bought for their specific functions. The pre-study determined that these products, out of a pair of sunglasses, a pair of normal glasses, a pair of white sneakers, a pair of beige sneakers, a watch and a white $t$-shirt. were the ones that respondents felt were most hedonic and utilitarian.

Both products are ones that consumers are frequently exposed to in normal e-commerce situations. The study tries to minimize surprises for the respondents in order to try to create the feeling of a real purchasing situation. Using products that consumers are used to encounter also leads to that the respondents can focus more on the situation and questions, rather than try to get an understanding of the product itself. With the same mind-set, the study kept the product clean from all types of branding, logotypes or other aspects that might bring forth previous brand associations.

### 3.2.3 Promotion

With the goal of trying to delimit the study and acquire more precise results, and as online promotions is a very broad term, the study decided on examining promotions of the type that that only lasts for a short period of time (time limit/urgency) or with a very limited quantity (quantity limit/scarcity). To determine the size of quantity and time limits, a second pre-study was carried out. By making the decision on the design of the promotional tactic with foundation in a second pre-study, it gives the results more credibility. Through the second pre-study, the time limit chosen was 55 minutes left, while the quantity limit chosen was 5 items left. The chosen promotional type is also something customers often get exposed to in the type of industry that the study has chosen, and therefore it makes it a good pairing. The study has tried to copy the value, form and visual setting from existing brands, such as ASOS and Zalando.

### 3.3 Research method

To test the hypotheses and address the research question of the thesis, a quantitative research method was used. In particular, based on prior literature, an experimental study was developed. A quantitative study provides the opportunity to explain the result using a more statistical
approach, and furthermore makes it possible to be able to reproduce the same result, should the study be repeated. The quantitative method is also preferable when the thesis aims to make valid conclusions that are applicable in a broader aspect than only what the study examines (Holme \& Solvang, 1997, s.78.). Although, using a quantitative method limits the subjective part and aspect of the respondent's answers. Furthermore, the method is often also limited by not being able to go very deep with different questions (Eliasson, 2013, s.30) and therefore can often lack depth in its analysis. Nevertheless, a quantitative method was used throughout the study as it is the best available option to address the research question of the thesis.

### 3.4 Choice of approach

The thesis is using a deductive approach, meaning that it is built on a foundation of previous research, literature and theories on the subject. The hypotheses are based in previous theories that in this study are tested in a new context. New variables are being examined in this context to see how they are affected by the chosen type of promotion. A deductive approach is preferable to be able to theoretically, in a quantitative way, take on different types of connections (Olsson \& Sörensen, 2011, s.48). Although there are clear advantages of using a deductive approach, there are limitations. By using a deductive approach, the hypotheses within the study generate expectations that can cause too much focus and a narrow mind-set on these specific hypotheses, and by that overlook and disregard other important insights (Jacobsen, 2017). The author feels that the advantages outweighs the limitations, and a deductive approach is used to enable a greater focus on the actual research question and problem definition.

### 3.5 Pre-studies

### 3.5.1 Pre-study \#1

### 3.5.1.1 Design of pre-study \#1

The purpose of developing the first pre-study is to identify two products, one that is considered as hedonic and one that is considered as utilitarian. The products in the first pre-study were a pair of sunglasses, a pair of normal glasses, a watch, pair of white sneakers, a pair of beige sneakers and a white $t$-shirt. Half of the products were picked as they are normally seen as hedonic while the other half normally are seen as utilitarian. The pre-study is a quantitative study, which included pictures of the products, one at a time, combined with statements regarding the product. The statements include five (5) hedonic variables and five (5) utilitarian variables and were based on measures and theory from Voss, Spangenberg and Grohmann
(2003). The respondents looked at a picture of each product and were asked to indicate how well the statements agreed with the characteristics of the product. A Likert-scale was used, with answer-options from 1-7 where 1 equalled that the respondent did not agree at all, and 7 equalled that the respondent fully agreed. This structure was chosen to hopefully be able to identify clear differences between the people who received the survey (Söderlund, 2005). The only difference between each survey that the respondents received was the product they saw, while the questions remained the same. See appendix 11.1 for a showcase of the survey.

### 3.5.1.2 Sample of pre-study \#1

The survey of the pre-study was distributed between 7th and 11th of April, and was solely sent through personal networks, social media as well as distributed to people throughout SSE's campus. In total the pre-study received 39 answers, whereof 22 men and 17 women. Qualtrics was used to create the survey.

### 3.5.1.3 Results of pre-study \#1

In the survey, the hedonic and utilitarian variables were indexed, respectively, which was possible since they had Cronbach's Alpha values above 0,7 (Söderlund, 2005). Below, the mean values and Cronbach's Alpha values are summarized. Due to the multiple products and groups, ANOVA-Scheffe tests were performed to test significance. The pre-study clearly indicated two products that stood out in each category, hedonic and utilitarian. The utilitarian product was the white $t$-shirt, with a mean value of 5,59 , and it was statistically significant in comparison to the other products $(\mathrm{p}=0,008)$. The hedonic product was the pair of beige sneakers, with a mean value of 5,96 , and also this product was in terms of the hedonic measurements statistically significant in comparison to the other products $(p=0,019)$. These products will be used further on in the study as the main objects.

|  | Utilitarian | Hedonic |  | Utilitarian | Hedonic |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Sunglasses | 3,11 | 4,96 | Sunglasses | 0,951 | 0,921 |
| Reading glasses | 5,03 | 3,56 | Reading glasses | 0,967 | 0,955 |
| White sneakers | 4,23 | 2,87 | White sneakers | 0,926 | 0,944 |
| Beige sneakers | 4,15 | 5,96* | Beige sneakers | 0,916 | 0,963 |
| Watch | 5,09 | 2,03 | Watch | 0,904 | 0,937 |
| White T-shirt | 5,59* | 4,01 | White T-shirt | 0,943 | 0,929 |

*Result is significant on a $5 \%$-level
Table 1. Results of pre-study \#1

### 3.5.2 Pre-study \#2

### 3.5.2.1 Design of pre-study \#2

The purpose of developing the second pre-study is to identify how to design the promotions, in terms of the time limit and quantitative limit on the product page. By establishing these aspects with a pre-study, it increases the reliability and especially the validity of the main study. The second pre-study involved two segments, one that determines how big of a time limit that generates the wanted effects by the consumer, and one that determines how big of a quantitative limit that is sufficient to generate a feeling of scarcity by the respondent. The pre-study is a quantitative study, with a product page in combination with two time limits and two quantitative limits, to determine which one, respectively, that has the best effects. The pictures were combined with questions in regards to how the respondent felt pressured by the time limit and how the respondent felt pressured in terms of the limited quantity of the product. The time limits that were used were " 55 minutes left" and " 6 hours left", while the quantitative limits that were used were " 5 items left" and " 20 items left". If a respondent was exposed to a product with a time limit (urgency), they were then asked to answer questions in relation to time pressure and stress. On the other hand, if a respondent was exposed to a product with a quantity limit (scarcity), they were then asked to answer questions in relation to scarcity. Once again, Likertscales were used with answer-options from 1-7 where 1 equalled that the respondent did not agree at all, and 7 equalled that the respondent fully agreed (Söderlund, 2005). The questions were asked both directly in terms of the product page and the promotion, as well as in terms of the feelings and emotions of the respondent. The product pages were identical, with the only part differentiating each exposure was the time and quantitative limit. See appendix 11.2 for a showcase of the survey.

### 3.5.2.2 Sample of pre-study \#2

The survey of the pre-study was distributed between 11th and 14th of April, and was solely sent through personal networks, social media as well as distributed to people throughout SSE's campus. In total the pre-study received 34 answers, whereof 15 men and 19 women. Qualtrics was once again used to create the survey.

### 3.5.2.3 Results of pre-study \#2

The second pre-study gave fairly clear indications of which limits that would be more suitable for the main study. Due to the way the survey was set up, and the aim of the survey, only
respondents who were exposed to the same limit and questions were compared, to see which time and quantity limit that would be the most optimal. This means that each analysis has two groups, and t-tests (independent) were performed. The pre-study indicated that the time limit of 55 minutes left (with a mean value of 5,03 ) and the quantitative limit of 5 products left (with a mean value of 5,43 ) had stronger effects on the respondent's emotions and perceived urgency and scarcity of the offers. These results also showed statistical significance. Therefore, these limits will be used in the main-study.

| Pre-study \#2 <br> Mean values | Quantity limit |  | Time limit |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 5 items left | 20 items left | 55 minutes left | 6 hours left |
| Scarcity | 5,43* | 4,21 |  |  |
| Urgency |  |  | 5,03* | 3,89 |
| $\mathrm{N}=34$ |  |  |  |  |

*Result is significant on a 5\%-level

| Pre-study \#2 | Quantity limit |  | Time limit |  |
| :--- | ---: | ---: | ---: | :---: |
| Cronbach Alphas <br> 5 items left <br> 20 items left <br> $\mathbf{5 5}$ <br> minutes left $\mathbf{6}$ hours left <br> Scarcity <br> Urgency <br> 0,919$\quad 0,922$ |  |  |  |  |

Table 2. Results of pre-study \#2

### 3.6 Main study

### 3.6.1 Design of the main study

The main study consisted of eight ( $2 \times 4$ ) different experimental groups, all of whom were exposed to different visual product pages. The different stimuli and scenarios were time urgency, quantity scarcity, both combined (time urgency + quantity scarcity) or no promotion at all, with two different products being exposed, one hedonic and one utilitarian (as decided by pre-study \#1). The goal is to be able to compare differences in the effects, reactions and answers of the respondents, based on the type of promotion. In the study and survey, the respondents were presented with a scenario, that they were using their computer to visit a fictive website, and they were given further information that they were looking to purchase some kind of product. The respondents were told to carefully read through the instructions to be able to answer the questions more precisely. All participants in the different experimental groups were exposed to the same kind of product page, with the type of promotion being the only aspect differentiating them. Half of the respondents were exposed to a hedonic product, and the other half to a utilitarian product. After seeing this manipulated product page, each respondent answered several statements and questions. The type of promotion and product-type each
respondent was exposed to was completely randomized. Each respondent randomly got one of the following, in combination with either a hedonic or utilitarian product:

- A product page consisting of no type of scarcity or urgency promotion at all. A normal product page.
- A product page combined with two pop-ups (on the product picture itself and below the "add to bag" button) displaying "There is only 55 minutes left to purchase this product".
- A product page combined with two pop-ups (on the product picture itself and below the "add to bag" button) displaying "There is only 5 items left in stock".
- A product page combined with two pop-ups (on the product picture itself and below the "add to bag" button) displaying "There is only 5 items left in stock \& only 55 minutes left to purchase this product".


### 3.6.2 Design of the survey

The survey has four (4) different question blocks, with each block playing its own important role in getting the wanted result. It begins with an introduction, presentation of the situation as well as a visual representation of the e-commerce retailer and the product page. It continues with questions in regards to how the respondent reacted to the product page, in terms of attitude, perceived value and other important variables. As a third block the survey included some personality questions, to understand who each respondent is as a person, how sensitive they are to stress and what their mind-set is while shopping online. The survey ends with personal questions such as age, gender and current occupation. Statistical measures, such as attitude, intention to purchase, speed of conversion and popularity, were designed and incorporated using relevant theory and research. More information on these measures will be found in the following section. The last part of the survey also included a control question, to improve the reliability. The control question asked what type of promotion the respondent was exposed to. See appendix 11.3 for a showcase of the study.

### 3.6.3 Statistical measures

The study used several different multi-question statistical measures. In order to obtain high validity in the survey, the measures for all different variables have been combined through indexes. The indexes were able to be constructed as they showed Cronbach's Alpha values above 0.7. Below, the Cronbach Alpha values are presented, for each applicable statistical measure. For measures without the possibility of indexing, due to the measures only including
a single or open-ended question, no Cronbach's Alpha values are presented. The questions are constructed with both Likert and bipolar scales, and some measures have open-ended questions.

### 3.6.3.1 Attitude (Cronbach's Alpha $=0,878$ )

The study measured the respondent's attitude towards the product through answering questions and statements regarding their feelings in terms of positive or negative, like or dislike, or good or bad. A multi-question questionnaire, previously presented by Söderlund (2001), was used.

### 3.6.3.2 Popularity (Cronbach's Alpha $=0,791$ )

The study measured the perceived popularity of the product by asking the respondents to take a stand whether they perceived the product to be trendy/not trendy, popular/unpopular and highly liked by others or highly disliked by others. This type of question comes from "Popularity of the Object" (Bruner 11, 2009) and has previously been used successfully.

### 3.6.3.3 Attractiveness of product (Cronbach's Alpha $=0,865$ )

The study measured the perceived attractiveness of the product by using questions regarding "Visual Appeal" (Bruner 11, 2009), that focus on the visual aspects of the product. This was done through the respondents giving their opinion on whether the product on the website was unpleasant/pleasant, ugly/good-looking and not stylish/stylish.

### 3.6.3.4 Intention to purchase (Cronbach's Alpha $=0,907$ )

The study measured the respondents purchase intention towards the product by answering how likely it would be that they would purchase the product, and then deciding between improbable/probable, unlikely/likely and impossible/possible. These questions are based from Söderlund and Öhman (2003).

### 3.6.3.5 Speed of conversion (Cronbach's Alpha = N/A)

The study measured the respondents speed of conversion by asking the respondent, if they were to buy the product, how soon would they follow through with the purchase. In the question, 1 equalled "not soon" and 7 equalled "very soon". This would give an indication on how fast the respondents actually wanted to purchase the product, if they were interested, and would show how the promotional aspect affected the respondent. This type of question was developed personally, and it has previously been used in a bachelor's thesis from the Retail Management program at Stockholm School of Economics (Nordström \& Rooyani, 2018).

### 3.6.3.6 Perceived scarcity (Cronbach's Alpha $=0,807$ )

The study measured the perceived scarcity of the product by letting the respondent answer whether or not they got the feeling that the product only remained in a limited amount, the product is scarce and the product is about to sell out. These questions are from $\mathrm{Wu}, \mathrm{Lu} \& \mathrm{Fu}$ (2012). The questions had answer options between 1-7, where 1 equalled that they do not agree at all, and 7 equalled that they fully agree.

### 3.6.3.7 Perceived value (Cronbach's Alpha $=0,841$ )

The study measured the perceived value of the product by asking the respondents to take a stand whether they perceived the product to be valuable or not valuable, preferable or not preferable, usable or not usable and important or not important.

### 3.6.3.8 Perceived feeling of stress (Cronbach's Alpha $=0,860$ )

The study measured the respondents perceived feeling of stress by asking the respondent regarding their emotional state. The respondents had to answer, after were exposed to the product page, whether they felt calm/stressed, patient/impatient and not tense/tense. These questions would give a good foundation for further analysis.

### 3.6.3.9 Personality purchasing cues (Cronbach's Alpha = N/A)

The study also included questions about who the respondent is as an individual (Arnold \& Reynolds, 2003), for example if they are value-shoppers or adventure-shoppers. These questions were more focused on the psychological aspect. These question blocks also touched on human psychological aspects, for example the Theory of Need for Cognitive Closure (cognitive closure in decision making) (Jung \& Kellaris, 2004), and have been used in previous research. This was included in order to better understand who the respondents are, and to be able to develop an analysis with more depth.

### 3.6.4 Sample

To be able to conduct the study, a small sample of Swedish online consumers were examined. The most optimal situation would be to use the entire population, but due to time, budget and capability constraints a delimitation had to be done. The survey was distributed through the author's personal network through social media channels and e-mail, as well as to people throughout SSE's campus. This was done due to limited resources. To further increase the
effectiveness and spread of the survey, the contacted respondents were asked to send the survey through their own network. The total sample can therefore be seen as a convenience sample (Eliasson, 2018, s.47) and snowball sample (Eliasson, 2018, s.48). Considering this, the sample is a non-probability sample (Eliasson, 2018, s.47), which means that it generally is not a sample that represents an entire population. It can therefore give misleading results and conclusions, which is something to take into account.

The survey was in total completed by 294 respondents. When taking out participants who answered wrong on the control-question, 283 respondents remained. To make sure that the data used in the analysis is valid, responses from people who gave the exact same answer on every questions (1-7), were eliminated. These respondents are frequently referred to as "straight liners", and their standard deviation sums up to zero (0). Usually these respondents did not bother to answer more honestly and tried to finish the survey as quickly as possible (Persson, 2016, s.15, s.143). When these respondents were eliminated, 279 remained. Out of the remaining respondents, 268 ( $96 \%$ ) have done one or more online purchases in the last six months. There are 129 men ( $46,3 \%$ ) and 150 women ( $53,7 \%$ ), with an age range of 16 to 68 years old (mean age $=26$ ). In regards to the respondent's occupations, 97 were employed ( $34,8 \%$ ), 152 were students ( $54,5 \%$ ), 19 had their own companies ( $6,8 \%$ ), 7 were unemployed $(2,5 \%)$ and 4 were retired ( $1,4 \%$ ).

### 3.6.5 Survey implementation

The survey was developed in Qualtrics and was distributed to the respondents between 14th to 27th of April. Each respondent was randomly exposed to one of four promotional types, in combination with either a hedonic or a utilitarian product. These exposures were equally divided throughout all respondents, to get an equal amount of responses for each block. The survey had enough respondents for each group ( $\mathrm{n}>30$ ) to be able to, according to Söderlund (2010), carry out the relevant statistical tests.

### 3.6.6 Analytical instrument

In order to successfully examine and analyse the results from both the two pre-studies and the main study, statistical tests were accomplished using the statistical program SPSS Statistics 24, created by IBM. Most statistical tests were mean comparisons, with ANOVA-Scheffe (Post-Hoc-test) and Independent T-tests being the most frequently used. ANOVA-Scheffe is used
when having more than two (2) groups to analyse, while an independent t -test is applicable with only two (2) groups. Some linear regression tests were performed as well, through SPSS. To test mediation, Andrew F. Hayes model 4 (PROCESS) was used (Hayes, 2018). A mediation analysis is used to analyse the estimation of an indirect effect of the independent variable, X , on the dependent variable, Y , through an intermediary mediating variable, M . The causal relationship between the independent variable, dependent variable and the intermediary, is interesting since it can tell a lot about the process of how and why X leads to Y. Mediation analysis interpret both direct and indirect effects, where the direct effect is the independent to the dependent variable, while the indirect effect is the effect transmitted through the mediating variable. To conclude that the mediation has a significant impact, it is important that the lower and upper limit of the confidence interval are positive, and do not intercept the value of zero (0). The generally accepted significance level of $5 \%$ was used as a standard throughout the study. In the mediation-analysis, a bootstrapping sample of 5000 is used due to the study's small sample size, to improve the consistency of the estimate. The indexed variables in the study all had Cronbach's Alpha values of above 0,7 .

### 3.7 Reliability and validity

The credibility of the thesis is an important aspect. To make sure this perspective is fully accomplished, validity and reliability is examined. According to Söderlund (2005) and Eliasson (2018) it is important that these perspectives are high, since they are used to evaluate the quality of the study in relation to possible measurement errors, either random or systematic.

### 3.7.1 Reliability

The term reliability is, according to Jacobsen (2017), used to examine and measure how well the study is able to produce a similar result if it is reproduced. The questionnaire was developed carefully, with clear instructions, and it was processed several times before distribution, in order to make sure and increase the reliability. Also, academically proven questions and measures, from credible sources, are used throughout the survey. Furthermore, several questions were used to measure the same kind of variable, to reduce the possibility of incorrect entries. According to Eliasson (2018) the above adjustments are vital to improve reliability. As the study had the goal of examining each respondent's reaction to a specific promotional type, it was vital to confirm that each respondent perceived and noticed the manipulation correctly. In the end of the survey a control question was asked to validate this aspect, and the respondents
who answered this question wrong, and therefore misinterpreted the manipulation, were excluded from further examination (Söderlund, 2010, s. 120-123). The control question was asked in the end of the survey, in line with prior research (McCarney, Warner, Illiffe, Van Haselen, Griffin \& Fisher, 2007) that argues that having the control question in the beginning of a survey increases the risk of getting lower quality answers, due to respondents unconsciously being affected by the control question in the rest of their answers. As in all credible statistical analysis, the study and data was cleared of all missing values. As previously mentioned, discovered straight liners, i.e. respondents who chose the same answer alternative throughout the survey, were excluded from further analysis. These respondents can make the quality of the data worse as they probably were stressed, unmotivated or just could not bother to answer the survey thoroughly (Persson, 2016, s.15, s.143). To make sure the respondents were consistent in their answers, Cronbach's Alpha (internal consistency) was measured on each set of variables. For the variables that was indexed in this study, they all had Cronbach's Alpha values of above 0,7 (Söderlund 2010; Söderlund, 2005, s. 146).

### 3.7.2 Validity

In comparison to reliability, validity instead examines how well the study actually measures what it is supposed to measure. According to Eliasson (2013) a high reliability usually leads to a high validity, but to ensure a high validity, several aspects are important. The study simulated an e-commerce website based on actual brands within the same niche, to increase credibility. A pre-study was used to select reliable products, which increased the validity. The way the promotion was presented on the product page was also imitated from how actual established website use them. The survey was solely based on academically established and viable questions. In accordance with Söderlund (2005) the order in which the questions were asked was carefully planned, with the help of previous literature and research, to avoid respondents being affected by previous questions and information. The validity of the study is determined to be relatively high.

## 4. Results

This section will cover the results of the main study that was presented in part 3.6. The section aims to explain and account for whether or not the previously presented hypotheses are supported or rejected, as well as how the different personality purchasing cues have an effect on some of the chosen variables.

### 4.1 Hedonism vs. utilitarianism

The study included two types of products, one hedonic and one utilitarian, in order to see for which type of product that the different promotional types had the biggest effect on, in terms of the different presented variables: attitude, popularity, attractiveness, intention to purchase and speed of conversion. The hypothesis (H1), expected the hedonic product to show the more extensive effects, compared to the utilitarian. What the study and consequential result and data analysis showed is that for each promotion, singular, combination or even without promotion, the hedonic product showed bigger effects. To visually show this, the table below has been created:

| No promotional limit |  |  |  |  |  | Quantity limit |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { Hedon. } \\ & \text { Utilit. } \end{aligned}$ | Attit. <br> 4,76* <br> 3,89 | $\begin{array}{r} \hline \text { Popul. } \\ 4,96^{*} \\ 4,33 \\ \hline \end{array}$ | Attract 4,87* 4,26 | $\begin{array}{r} \hline \text { Intent. } \\ 4,67^{*} \\ 3,67 \\ \hline \end{array}$ | $\begin{array}{r} \hline \text { of conv. } \\ 4,66^{*} \\ 3,51 \\ \hline \end{array}$ | $\begin{aligned} & \text { Hedon. } \\ & \text { Utilit. } \\ & \hline \end{aligned}$ | Attit. <br> 5,68* <br> 4,67 | Popul. 5,98* 4,7 | ract. <br> 5,89* <br> 4,62 | Intent. 5,06* <br> 4,38 | $\begin{array}{r} \hline \text { fonv. } \\ 5,09^{*} \\ 4,28 \\ \hline \end{array}$ |
| Time limit |  |  |  |  |  | Quantity limit + time limit |  |  |  |  |  |
| $\begin{aligned} & \text { Hedon. } \\ & \text { Utilit. } \end{aligned}$ | Attit. <br> 4,89* <br> 4,02 | $\begin{array}{r} \hline \text { Popul. } \\ \mathbf{5 , 0 3 ^ { * }} \\ 4,4 \\ \hline \end{array}$ | $\begin{array}{r} \text { Attract } \\ 4,98^{*} \\ 4,31 \end{array}$ | $\begin{gathered} \hline \text { Intent. } \\ 5,03^{*} \\ 4,41 \\ \hline \end{gathered}$ | $\begin{array}{r} \text { f conv. } \\ 5,06^{*} \\ 4,29 \end{array}$ | $\frac{\text { Hedon. }}{\text { Utilit. }}$ | Attit. <br> 4,99* <br> 4,32 | Popul. $5,43^{*}$ $4,66$ | ract. <br> 5,11* <br> 4,49 | Intent. <br> 5,78* <br> 4,65 | $\begin{array}{r} \hline \text { f conv. } \\ 5,67^{*} \\ 4,62 \\ \hline \end{array}$ |

* Result is significant on a 5\%-level

Table 3. Results for H1

Furthermore, independent $t$-tests for each variable between the two different product types were carried out to check for signs of significance. For the variables attitude, popularity, attractiveness, intention to purchase and speed of conversion, there is a significant difference in the effects of a hedonic compared to a utilitarian product. Therefore, H1 is supported.

The table below is a visual representation of the combined average values of all variables, for each promotional type. It is implemented to show the dominance of using a hedonic product, it is not meant to support any hypothesis or support any statistical element.


Figure 2. Diagram of results for H1

### 4.2 Attitude, popularity and attractiveness of product

Due to the result of H1, all of the other hypotheses ( $\mathbf{H} \mathbf{2}-\mathbf{H 6}$ ) will only be thoroughly statistically examined in regards to the hedonic product. Values for the utilitarian product will be showcased to further strengthen $\mathbf{H} 1$, but the statistical tests will be focused on the hedonic product.

Hypotheses H2-H4 propose that the promotional type of quantity limit, compared to the other promotional types, has a greater positive effect on attitude, popularity and the attractiveness of the product. To test this, the effects of all promotional types are tested by doing mean comparisons, to compare between the different eight (8) groups, and also examining if there is any statistical significance.

The result shows that the promotional type of a quantity limit, in combination with a hedonic product, has a higher mean value of attitude ( mean $_{\text {hed-quant }}=5,68$ ), compared to the other promotional types in combination with a hedonic product $\left(\right.$ mean $_{\text {hed-no-prom }}=4,76$, mean $_{\text {hed-time }}=$ 4,89 , mean hed-quantime $=4,99$ ). The difference in mean values between the promotional type of quantity limit, with a hedonic product, and the other promotional types with a hedonic product is statistically significant ( $p$-value $<0,05$ ). This indicates support of $\mathbf{H 2 a}$, the promotional type of a quantity limit, in combination with a hedonic product, has a more positive effect on the attitude towards the specific product compared to the other promotional types.

| Attitude | Effect attitude w/ utilitarian product | Effect attitude w/ hedonic product | Significance between groups (hedonic product) |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1. No promotional limit | 3,89 | 4,76 | 1\&2 | 0,009* | 284 | 0,029* |
| 2. Quantity limit | 4,67 | 5,68 | $1 \& 3$ | 0,143 | $3 \& 4$ | 0,203 |
| 3. Time limit | 4,02 | 4,89 | 1\&4 | 0,121 |  |  |
| 4. Quantity + time limit | 4,32 | 4,99 | $2 \& 3$ | 0,012* |  |  |

* Result is significant on a 5\%-level

Table 4. Results for H2a

As H2b stated that perceived value would be a mediating variable on the effect on attitude, this needs to be tested. A regression-based approach, by Andrew F. Hayes, for analysis of mediation (PROCESS/Model-4) is used. The study uses a confidence interval (CI) of $95 \%$, which is a generally accepted interval throughout statistics. Furthermore, a bootstrapping-sample of 5000 is used to improve the consistency of the estimate. For guidance for what a mediation analysis is and how it works, check section 3.6.6 Analytical instruments. The result shows that the direct and indirect effects are $0,689(p-v a l u e=0,021)$ and 0,169 respectively, where the indirect effect indicates the effect transmitted through the mediating variable. This combines into a complete effect of 0,858 , with a $p$-value of 0,005 . To check for significant mediation, the upper confidence interval limit (UCIL) and lower confidence interval limit (LCIL) is examined. It shows that the UCIL is 0,389 and LCIL is 0,047 , which means that both are positive and they do not intercept zero (0). Therefore, it indicates that the mediation has a significant impact, which means that $\mathbf{H 2 b}$ is fully supported.

| Independent variable | Mediator | Dependent variable Direct effect Indirect effect | $95 \% \mathrm{KI}$. |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Quantity limit $-\gg$ |  | Attitude | 0,689 |  | $[0,168-1,260]$ |
| Quantity limit $-\gg$ | Perceived value $->$ | Attitude |  | 0,169 | $[0,047-0,389]$ |

Table 5. Results for H2b

Furthermore, the promotional type of a quantity limit, in combination with a hedonic product, has a slightly higher mean value of popularity of the product ( mean $_{\text {hed-quant }}=5,98$ ), compared to the other promotional types in combination with the same hedonic product ( $\mathrm{mean}_{\text {hed-no-prom }}=$ 4,96, mean $_{\text {hed-time }}=5,03$, mean $_{\text {hed-quanttime }}=5,43$ ). The difference in mean values between the promotional type of a quantity limit, with a hedonic product, and any other promotional type (with a hedonic product) is statistically significant with a $p$-value of below 0,05 . This shows support of H3a.

| Popularity | Effect popularity w/ | Effect popularity w/ hedonic product | Significance between groups (hedonic product) |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1. No promotional limit | 4,33 | 4,96 | 1\&2 | 0,008* | 2\&4 | 0,031* |
| 2. Quantity limit | 4,7 | 5,98 | 183 | 0,164 | 3\&4 | 0,112 |
| 3. Time limit | 4,4 | 5,03 | 1\&4 | 0,096 |  |  |
| 4. Quantity + time limit | 4,66 | 5,43 | 2\&3 | 0,011* |  |  |

* Result is significant on a 5\%-level

Table 6. Results for H3a

Just like H2b, H3b stated that perceived value would be a mediating variable in the relationship. The process followed is exactly the same as for the previous hypothesis, using a regressionbased approach. The result shows that the direct and indirect effects are 0,705 ( $p$-value $=0,017$ ) and 0,154 respectively, where the indirect effect indicates the effect transmitted through the mediating variable. This combines into a complete effect of 0,859 , with a $p$-value of 0,004 . To check for significant mediation, the upper confidence interval limit (UCIL) and lower confidence interval limit (LCIL) is examined. It shows that the UCIL is 0,367 and LCIL is 0,032 , which means that they do not intercept zero ( 0 ) and therefore it indicates that the mediation has a significant impact. Therefore, H3b is fully supported.

| Independent variable | Mediator | Dependent variable Direct effect Indirect effect |  |  | 95\% KI. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Quantity limit --> |  | Popularity | 0,705 |  | [0,152-1,157] |
| Quantity limit --> | Perceived value --> | Popularity |  | 0,154 | [0,032-0,367] |

Table 7. Results for H3b
Additionally, the promotional type of quantity limit, in combination with a hedonic product, has a higher mean value of attractiveness of the product ( mean $_{\text {hed-quant }}=5,89$ ), compared to the other promotional types in combination with the same hedonic product ( mean $_{\text {hed-no-prom }}=4,87$, mean $_{\text {hed-time }}=4,98$, mean $_{\text {hed-quanttime }}=5,11$ ). Compared to the other promotional types with a hedonic product, it also shows signs of statistical significance. This shows support of H4a.

| Attractiveness | Effect attractiveness w/ utilitarian product | Effect attractiveness w/ hedonic product | Significance between groups (hedonic product) |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1. No promotional limit | 4,26 | 4,87 | 1\&2 | 0,007* | 284 | 0,024* |
| 2. Quantity limit | 4,62 | 5,89 | 183 | 0,134 | 3\&4 | 0,104 |
| 3. Time limit | 4,31 | 4,98 | 184 | 0,101 |  |  |
| 4. Quantity + time limit | 4,49 | 5,11 | 283 | 0,009* |  |  |

* Result is significant on a $5 \%$-level

Table 8. Results for H4a

Just like H2b and H3b, H4b stated that perceived value would be a mediating variable in the correlation. The exact same process is followed as for the previous hypotheses. The result
shows that the direct and indirect effects are 0,711 ( $p$-value $=0,012$ ) and 0,243 respectively, where the indirect effect indicates the effect transmitted through the mediating variable. This combines into a complete effect of 0,954 , with a p-value of 0,002 . To check for significant mediation, the upper confidence interval limit (UCIL) and lower confidence interval limit (LCIL) is examined. It shows that the UCIL is 0,489 and LCIL is 0,135 , which means that they do not intercept zero (0) and therefore it indicates that the mediation has a significant impact. Therefore, H4b is fully supported.

| Independent variable | Mediator | Dependent variable Direct effect Indirect effect |  |  | 95\% KI. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Quantity limit --> |  | Attractiveness | 0,711 |  | [0,178-1,221] |
| Quantity limit --> | Perceived value --> | Attractiveness |  | 0,243 | [0,135-0,489] |

Table 9. Results for H4b

### 4.3 Intention to purchase and speed of conversion

Hypotheses H5a and H6a propose that a promotional tactic that combines a quantity limit and a time limit, compared to the other promotional tactics, has a greater positive effect on intention to purchase and speed of conversion. Just like for $\mathbf{H 2} \mathbf{- H 4}$, the statistical tests are focused on the hedonic product.

Regarding H5a, the results show that the promotional type of a quantity and time limit (combined), in combination with a hedonic product, has a higher mean value of the intention to purchase $\left(\right.$ mean $\left._{\text {hed-quantime }}=5,78\right)$, compared to all other promotional types. Among the results on the hedonic product, the promotional type of quantity and time limit (combined) also shows statistical significance ( p -value $<0,05$ ). This shows support of H5a.

| Intention to purchase | Effect intention to purchase w/ utilitarian product | Effect intention to purchase w/ hedonic product | Significance between groups (hedonic product) |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1. No promotional limit | 3,67 | 4,67 | $1 \& 2$ | 0,098 | 2\&4 | 0,015* |
| 2. Quantity limit | 4,38 | 5,06 | $1 \& 3$ | 0,102 | $3 \& 4$ | 0,012* |
| 3. Time limit | 4,41 | 5,03 | $1 \& 4$ | 0,007* |  |  |
| 4. Quantity + time limit | 4,65 | 5,78 | $2 \& 3$ | 0,237 |  |  |

* Result is significant on a 5\%-level

Table 10. Results for H5a

Hypotheses H5b and H5c has two different mediating variables; perceived value and attitude towards the product. The same regression-based approach is used. The result for H5b shows that the direct and indirect effects are 0,715 ( p -value $=0,014$ ) and 0,223 respectively, where the indirect effect indicates the effect transmitted through the mediating variable (perceived value). This combines into a complete effect of 0,938 , with a p-value of 0,003 . To check for significant
mediation, the upper confidence interval limit (UCIL) and lower confidence interval limit (LCIL) is examined. It shows that the UCIL is 0,470 and LCIL is 0,149 , which means that they do not intercept zero $(0)$ and therefore it indicates that the mediation has a significant impact. Therefore, $\mathbf{H 5 b}$ is fully supported. The result for H5c shows that the direct and indirect effects are 0,786 ( $p$-value $=0,011$ ) and 0,178 respectively, where the indirect effect indicates the effect transmitted through the mediating variable (attitude). This combines into a complete effect of 0,964 , with a p-value of 0,002 . The UCIL is 0,452 and LCIL is 0,136 , which means that they are both positive and therefore it indicates that the mediation has a significant impact. This means that $\mathbf{H 5 c}$ is fully supported.

| Independent variable | Mediator | Dependent variable | Direct effect | Indirect effect | 95\% KI. |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Quantity + time limit $->$ |  | Intention to purchase | 0,715 |  | $[0,167-1,140]$ |
| Quantity + time limit $\rightarrow>$ | Perceived value $\rightarrow$ | Intention to purchase |  | 0,223 | $[0,149-0,470]$ |
| Quantity + time limit $->$ |  | Intention to purchase | 0,786 |  | $[0,151-1,113]$ |
| Quantity + time limit $->$ | Attitude $->$ | Intention to purchase |  | 0,178 | $[0,136-0,452]$ |

Table 11. Results for H5b \& H5c

In regards to H6a, the results show that the promotional type of quantity and time limit (combined), in combination with a hedonic product, has a higher mean value of speed of conversion $\left(\right.$ mean $\left._{\text {hed-quantime }}=5,67\right)$, compared to the other promotional types in combination with a hedonic product $\left(\right.$ mean $_{\text {hed-no-prom }}=4,66$, mean $_{\text {hed-quant }}=5,09$, mean $_{\text {hed-time }}=5,06$ ). There is statistical significance between the promotional types on the hedonic product (p-value $<$ 0,05 ), which shows support for H6a.

| Speed of conversion | Effect speed of <br> conversion w/ utilitarian <br> product | Effect speed of <br> conversion w/ hedonic <br> product | Significance between groups <br> (hedonic product) |  |  |  |
| :--- | :--- | :--- | :--- | ---: | ---: | ---: |
| 1. No promotional limit | 3,51 | 4,66 | $1 \& 2$ | 0,099 | $2 \& 4$ | $\mathbf{0 , 0 2 1 *}$ |
| 2. Quantity limit | 4,28 | 5,09 | $1 \& 3$ | 0,103 | $3 \& 4$ | $0,019^{*}$ |
| 3. Time limit | 4,29 | 5,06 | $1 \& 4$ | $0,009^{*}$ |  |  |
| 4. Quantity + time limit |  | 4,62 |  | $\mathbf{5 , 6 7}$ | $2 \& 3$ | 0,199 |

*Result is significant on a $5 \%$-level
Table 12. Results for H6a

To further examine H6b and H6c, with the respective mediating variables of desire for cognitive closure and the feeling of stress, a regression-based approach is used, following the exact same process as for the other examined mediating variables. For H6b it shows that the direct and indirect effects are $0,811(p$-value $=0,011)$ and 0,209 respectively, where the indirect effect indicates the effect transmitted through the mediating variable (desire for cognitive closure). This combines into a complete effect of 1,020 , with a p-value of 0,004 . To check for
significant mediation, the upper confidence interval limit (UCIL) and lower confidence interval limit (LCIL) is examined. It shows that the UCIL is 0,451 and LCIL is 0,187 , which means that they do not intercept zero ( 0 ) and therefore it indicates that the mediation has a significant impact. Therefore, H6b is fully supported. On the other hand, H6c shows some different results. In contrast to H6b where the mediation of the desire for cognitive closure had a significant impact, the mediating variable of the feeling of stress in H6c does not. The same kind of regression-based approach was used, but no mediation of stress was found and the limits for the $95 \%$ CI intercepts zero (0). Therefore, H6c is not accepted.

| Independent variable | Mediator | Dependent variable | Direct effect | Indirect effect | 95\% KI. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Quantity + time limit --> |  | Speed of conversion | 0,811 |  | [0,202-1,135] |
| Quantity + time limit --> | Desire for cognitive closure --> | Speed of conversion |  | 0,209 | [0,187-0,451] |
| Quantity + time limit --> |  | Speed of conversion | 0,113 |  | [-0,151-0,356] |
| Quantity + time limit --> | Stress --> | Speed of conversion |  | -0,034 | $[-0,243-0,204]$ |

Table 13. Results for $H 6 b \& H 6 c$

### 4.4 Personality purchasing cues

The author has also looked closer at some of the examined personality purchasing cues, to see if there are some interesting relationships between them and the dependent variables. Linear regressions (SPSS) are carried out, and the most interesting results will be shown below.

In a regression analysis between the indexed value-shopper variable (independent variable) and the intention to purchase (dependent variable), some interesting results can be concluded. The adjusted R -square was 0,506 and the standard error of the estimate was 0,415 . As can be seen below the result is significant ( $p$-value $=0,009$ ), with a beta-coefficient of 0,431 , meaning that there is a relationship between being a value shopper and the intention to purchase.

| Model | Unstandardized coefficients Sig. |  |  |
| :---: | :---: | :---: | :---: |
|  | B | Std. Error |  |
| (Constant) |  |  |  |
| Value-shopper | 0,431 | 0,101 | 0,009 |

Dependent variable: Intention to purchase
Table 14. Results of regression-analysis \#1
Furthermore, between the indexed value shopper variable (independent variable) and the speed of conversion (dependent variable), there is the same significant result. The adjusted R-square for this analysis was 0,655 and the standard error of the estimate was 0,301 . As can be seen below, the result is significant ( p -value $=0,003$ ), with a beta-coefficient of 0,312 . Once again,
this means that there is a relationship between being a value shopper and the speed of conversion.

| Model | $\begin{array}{l}\text { Unstandardized coefficients } \\ \text { B }\end{array}$ |  | Sig. |
| :--- | ---: | ---: | :--- |
|  | Std. Error |  |  |$)$

Dependent variable: Speed of conversion
Table 15. Results of regression-analysis \#2
Below is a summary of the result of the hypotheses, to get a better overview.

|  | Summary of the result of the hypotheses |
| :--- | :--- |
| Hypotheses <br> H1: Attitude, popularity, attractiveness, intention to purchase and speed of conversion will all be higher for a hedonic product, in comparison to a utilitarian product. <br> This effect will hold true for all promotional types. | Accepted |
| H2a: The effect on attitude will be higher for the quantitative limit, in comparison to having no promotional limit, a time limit or a combination of the quantitative and time limit. |  |
| H2b: The effect of a quantitative limit on the attitude towards the product will be mediated by the perceived value. | Accepted |
| H3a: The effect on popularity will be higher for the quantitative limit, in comparison to having no promotional limit, a time limit or a combination of the quantitative and time limit. | Accepted |
| H3b: The effect of a quantitative limit on the popularity of the product will be mediated by the perceived valuc. | Accepted |
| H4a: The effect on the attractiveness of the product will be higher for the quantitative limit, in comparison to having no promotional limit, a time limit or a combination of the quantitative |  |
| and time limit. | Accepted |
| H4b: The effect of a quantitative limit on the attractiveness of the product will be mediated by the perceived value. | Accepted |
| H5a: The effect on the intention to purchase will be higher for the combination of a quantitative and time limit, in comparison to having no promotional limit, a time limit or a quantitative limit. | Accepted |
| H5b: The combinative effect of a quantitative and a time limit on the intention to purchase will be mediated by the perceived value. | Accepted |
| H5c: The combinative effect of a quantitative and a time limit on the intention to purchase will be mediated by the attitude. | Accepted |
| H6a: The effect on the speed of conversion will be higher for the combination of a quantitative and time limit, in comparison to having no promotional limit, a time limit or a quantitative limit. | Accepted |
| H6b: The combinative effect of a quantitative and a time limit on the speed of conversion will be mediated by the desire for cognitive closure. | Accepted |
| H6c: The combinative effect of a quantitative and a time limit on the speed of conversion will be mediated by the feeling of stress. | Rejected |

Table 16. Summary of the result of the hypotheses

## 5. Discussion

In this section the result that has been found will be further discussed. The result will be discussed in connection to related and previously presented theories, as well as the presented hypotheses. This section will be structured in relation to the hypotheses.

### 5.1 Hedonism vs. utilitarianism

According to the result of the study, all the examined promotions have a greater effect on the overall evaluation of the product as well as the decision making process, for hedonic products in comparison to utilitarian products. Irrespective of the type of promotional limit, the effects on attitude, popularity, attractiveness, intention to purchase, and speed of conversion, are higher for a hedonic product than a utilitarian product. This is all in accordance with previously presented literature. Hedonic products affect more cognitive processes, which generates a more meaningful purchasing experience. This in turn provides a scenario where individuals facing purchasing situations of hedonic products, consciously or unconsciously, are more inclined to take in and be affected by different promotional tactics.

### 5.2 Attitude, popularity and attractiveness of product

The result shows that the promotional type of a quantity limit had the greatest positive effect on the attitude towards the product, the popularity of the product and the attractiveness of the product, also showing statistical significance. In regards to these variables, herd behaviour and bandwagon effects strongly indicate what the result has shown. Individuals perceive scarce products with an increased preference, since they rely and copy the behaviour of other consumers. Seeing social proof of lower inventory is perceived as if many other customers have shown a positive attitude towards the product and valued it highly. Individuals more often than not want to fit in, and they simultaneously feel that by copying the behaviour of others they will make superior decisions. As Burnkrant and Cousineau (1975) also state, people adapt their behaviour to feel included, independently of if there is any real proof of others or not. As can be seen in the result, perceived value turned out to be a mediating variable with significant impact, which also means that by perceiving a product as scarce, increases the perceived value of the product due to the above reasons, which in turn increases the attitude, popularity and attractiveness of the product. This is a confirmation of what previous studies mention, but also builds the foundation of research on the aspects of scarcity versus urgency.

Furthermore, online shopping generates more uncertainty and insecurity for consumers compared to shopping in physical stores. In physical stores the customer can see the goods, feel the quality and in a more convenient way fully explore the product and its alternatives. In ecommerce, the lack of physical characteristics leads to that the consumers seek more clues, in addition to the normal aspects such as brand and price (Oppewal \& He, 2017). What scarcity brings in an online shopping situation is a kind of social validation which reduces the uncertainty, and according to Griskevicius (2009) and Cialdini \& Goldstein (2004), this leads to and indicates an increased popularity and attractiveness. It is therefore even more crucial for online retailers to work with, and optimize, how scarcity cues are implemented.

The fact that urgency (time limits), separately or combined with scarcity (quantity limits), did not show the same effects on the variables, was fairly expected given previous research. The limited time may prevent consumers from completing a comprehensive evaluation of a product, which negatively impacts the decision-making process. This in turn may decrease attitude, popularity and attractiveness of the product. The combination of time and quantity limits had not been examined thoroughly before, which still makes it interesting to learn that not even time limits as an addition to cues of scarcity was preferable in terms of the above variables. It can be valuable knowledge for retailers to be able to implement the correct and relevant strategies.

### 5.3 Intention to purchase and speed of conversion

The result shows that the combination of a quantity and time limit had the greatest positive effect on the intention to purchase and speed of conversion. One reason that the combination of quantity and time limits had the greatest effect on the intention to purchase can according to researchers be that the respondents indirectly were made aware that other individuals seemed interested in the product. This increases the perceived rivalry and in turn the perceived value of the product, which according to Jeong and Kwon (2012) and Kaptein and Eckles (2012) leads to an increased intention to buy. This is also shown in the results as perceived value had a significant impact as a mediating variable in the relationship between the promotion and the intention to purchase the product. The way the promotion is portrayed in terms of size of quantity limit is therefore of utmost importance for the retailer as it is an important determinant of whether the customer perceives the product to be more valuable or not.

Furthermore, implementing an aspect of a time limit creates a sense of urgency, which according to the "mere urgency effect" leads to that an individual prioritize to complete this urgent task. Furthermore, an individual being exposed to a perceived increased competition due to the portrayed urgency will trigger reactions that, according to Amirpur and Benlian (2015), will increase impulsive purchasing behaviour and therefore increase the direct intention to purchase. The portrayal of the time limit matters since it defines if the purchasing situation is deemed urgent or not, which in turn generates an illusion of expiration, which implies that the individual would not want to miss out, and would have a higher intention to buy.

The other mediating variable that had a significant impact on the intention to purchase was the attitude towards the product. The result showed that if the promotion generates a positive attitude towards the product, the intention to purchase that same product also increased. This is in accordance with the Theory of Reasoned Action by Fishbein and Ajzen (1988), which discusses a relationship between attitude and behavioural intention, and this is an interesting application for retailers.

The result on the speed of conversion was the same as for the intention to purchase the product, where the combination of a quantity and time limit showed the strongest effect. One reason could be that people, after realizing the apparent competition, quickly wanted to secure their ownership of the product. The feeling of competition through time limits and quantity limits, which lead to stress, is also often seen as a major reason for an increased speed of conversion (Stokols, 1972). Stress was one variable that was measured in the study, and it was also included as a mediator of speed of conversion. But as mentioned in the result-section it did not show any signs of significant impact. The reason could be that the respondents in the main study did not generate any reactions of perceived stress, as the promotional tactics for these respondents did not portray enough urgency or importance. Another reason could be that the respondents in the survey are not actual customers of the product, and therefore they do not get involved emotionally to the same extent.

Furthermore, one reason that scarcity (quantity limit) in combination with urgency (time limit) had such a high effect could be due to herd behaviour (Kuan et al., 2014), in the sense that people trust and follow the decisions of other individuals. This can create shorter decision times since people refrain from implementing their own decision making processes, and rather make a decision based on other individuals. This in combination with time pressure creates a situation
where the speed of conversion has the possibility to increase rapidly. By just implementing either a quantity limit or time limit would not separately give this same effect.

The increased speed of conversion can also be explained by the speed and accuracy trade-off that occur when individuals are affected by pressure in terms of quantity and time limits. An individual with a time constraint is more likely to implement coping strategies such as acceleration, which increases the decision-making time through the lack of complete decisional information (Janis, 1983; Payne et al., 1996). Putting an individual through time limits affects their behaviour, since they need to adapt their decision-making process in accordance to the time they have. In these situations, individuals are more likely to implement low level cognitive processes, which end up in a narrow focus towards taking quick action.

The other mediating variable that was examined was the desire for cognitive closure. This was found to have a significant impact on the speed of conversion, which correlates with the Theory of Need for Cognitive Closure (Kruglanski et al., 1993; Gierl et al., 2008; Jung \& Kellaris, 2004). A high desire for cognitive closure means that an individual implements cognitive shortcuts to increase the effectiveness of the decision-making process. This speeds up the time an individual makes decisions, and can be used by retailers to increase the speed of conversion of a product. Individuals with this mind-set instead utilize heuristic rules to trigger these shortcuts, in order to avoid uncertainty, and it shows that these individuals are most sensitive to urgency, and in some cases scarcity, cues. As a retailer, understanding who the consumers really are as individuals is therefore highly valuable in the design and implementation of social proof as promotional persuasion tactics.

What the study also show is that people who are defined as value-shoppers are the ones with a higher indication for the variables of intention to purchase and speed of conversion. The regression analysis supports this with significant values. Value-shoppers are more inclined to purchase products that are on sale, and actively look for bargains. The implementation of time limits and quantity limits seem to have had a positive effect on these individuals, stimulating their search for bargains and products of perceived high value. This is important since it can be used to further attract these individuals, without compromising much on other factors such as price or number of products on sale. On the other hand, adventure-shoppers get stimulated by the entire shopping experience. No results were found for these individuals, which could be because they do not appreciate the type of limits that are presented in the study, as it harms their
full shopping experience, by hindering it with either time or quantity limitations. No conclusion can be drawn here as no significant results were found, but it is an interesting aspect to keep in mind.

## 6. Conclusion

The purpose of this thesis was to examine what promotional type or combination of promotional types that are most optimal to use in e-commerce situations, in order to most positively affect the customer's perceived attitude, popularity and attractiveness of the product, as well as their actions in the form of intention to purchase and speed of conversion. The conclusion is, based on the discussion and result, that the mere application of any promotional type will affect all above variables in a positive way. Furthermore, the promotional type of a quantity limit has the bigger effect on attitude, popularity and attractiveness of the product. For the significant variables, perceived value was a mediating factor. This is assumed to be because the consumer discovers the competition from other individuals, which triggers the effect of an increased perceived value of the product. This in turn leads to a better attitude, higher popularity and increased attractiveness of the product. The reason a time limit as a promotional type is not preferable for these variables is believed to be due to that time limits cause time pressure, which in turn might lead to negative overall evaluation of the product and brand.

Moreover, the combination of quantity limits and time limits has the strongest effects on intention to purchase and speed of conversion. For the same reason as the attitude, popularity and attractiveness, the intention to purchase and speed of conversion is increased due to products becoming more unique and wanted when they become scarce. This means that the consumer wants to secure his or hers access to the product by purchasing it quicker. For these behavioural-centric variables of intention to purchase and speed of conversion, the addition of time limits also has a positive effect, mainly because it increases the sense of urgency and impulsive purchasing behaviour. Perceived value and attitude turned out to be mediating factors for intention to purchase, as an increased value of a product increases the attractiveness to purchase (higher intention), while attitude is supposed to have a positive correlation with purchasing behaviour. In regards to the speed of conversion, the desire for cognitive closure showed signs of significance in terms of acting as a mediating factor, while the mediating variable of the feeling of stress did not have a significant impact. Furthermore, what can be concluded is that value shoppers get more positively affected by limitations in terms quantity and time, possibly since it might trigger their innate desire for finding bargains and good deals.

## 7. Implications

### 7.1 Theoretical implications

This thesis gives some theoretical contributions to the current literature. Initially it expands the current literature and research on promotions within e-commerce. The current research on promotions online is thorough, but this thesis tests some new aspects. Previous research examines promotional tactics separately to see effects on different variables. To understand what promotional types and tactics are most optimal, several different articles and literature need to be compared. This thesis instead compares two frequently used types of promotional tools, and gives an interesting result. To the knowledge of the author, the combination of promotions in this thesis has not been examined in this exact context before. This both builds on the current literature on promotions online, but it also opens up a new way to research promotions within e-commerce.

### 7.2 Practical implications

This study also gives some practical implications. Due to the increased competition in ecommerce, it is highly valuable for retailers to invest resources correctly, and not waste the opportunity to attract and convert customers. This study contributes with information and data on how e-commerce retailers should implement promotional tactics in different situations, depending on the purpose and goal. The study shows that there are actual situations where it clearly is better to use one type of promotion over another, and other situations where they should be combined. It creates a kind of blueprint for retailers to follow.

What the thesis shows is that while time limits are preferable in some situations, their doubleedged effect means that they should be left out where non-behavioural effects are wanted. For retailers to improve the attitude and popularity of their products, in order to increase awareness and possibly increase chances of entering consumer's consideration sets, using only quantitative limits is preferable. On the other hand, to simply increase consumer's intention to purchase and speed of conversion, more behavioural-centric aspects, applying the combination of time limits and quantity limits is optimal.

## 8. Future studies

Based on the result, discussion and limitations of the thesis, there are some recommendations for future studies. Initially, this thesis is based on a quantitative approach to get a specific focus on the actual research question and problem definition. Future studies can instead study the perceptions of customers exposed to different types of promotional stimuli in a qualitative manner. Furthermore, more types of quantity limits and time limits can be examined, to see which limits that are most optimal for different types of consumers. In this study only one limit of each type were examined, decided by the second pre-study. Although, to get a broader view and more specific implications, both theoretical and practical, more types of each limit should be analysed. Continuing, different markets and industries can be examined to get a broader overview, and to see if there are some actual differences in how the promotions behave and effect consumers. This, in combination with examining different types of promotional tactics, in the same context as this study, as well as different combinations of promotional types, would be valuable. This thesis only examined time and quantity limits, which are both used frequently in e-commerce, but there are more promotional tactics that are relevant and valuable to analyse, which could generate both theoretical and practical implications.

This study also only included one hedonic and one utilitarian product. While the inclusion of both product types was very valuable in seeing the effects of the promotional tactics, it would still be interesting if future studies either narrowed down their research by product type, or tried more products. This would give even more depth and nuance, and add well to the current research on the subject.

Due to time and resource constraints, only a few dependent variables were included. To fully examine the effects of the promotional tactics it would be valuable to take more variables into account, for example more types of emotions, purchasing cues and human behavioural factors. With these variables it would be possible to examine more types of mediations and correlations, to see how different variables, in the context of promotional tactics, interact with each other.

All the above recommendations for future studies would create more extensive knowledge on promotional tactics within e-commerce.

## 9. Critique and limitations

The concluded experiment and thesis has several limitations, which are natural when forming an experiment with limited time and resources. In the survey, the respondents were only presented with one type of product and one type of promotion. If an individual in a real situation were to research different products, they would be exposed to a lot more products, brands and promotional types, which all affect the individual's behaviour and thought process. By being exposed to several types of promotions when searching for products, individuals' thoughts and attitudes are blunted over time. People also get used to and learn about how brands use different marketing tactics in order to persuade them to purchase. This study is not in the same extent able to capture this effect. It is generally hard to capture this in an experimental situation with a time and resource limitation like this study had, but more could have been done to prevent this.

Another limitation is the choice of products. Finding products that are neutral for all respondents is a hard task. Some individuals might have more experience purchasing these types of products, and therefore are more used to being exposed to the related promotions. This creates a gap in experience, information and knowledge between different groups of respondents. This is especially relevant for the questions regarding purchasing intention and speed of conversion, since they all in some extent demand previous genuine interest in the product as well as previous information and reference in the specific category. This could partly have been avoided by making several pre-studies to more definitely come up with the best possible product, but due to time constraints, this was not doable.

Throughout the experiment, the promotions were imitated from established e-commerce brands. But it is generally difficult to completely copy the feeling that a real website brings, compared to a still picture in a survey. It differs both in that real websites often have moving promotional cues, and also the fact that the websites have multiple product pages exposing the consumers to different promotions. This creates a limitation that is hard to avoid, but still is relevant to keep in mind.

Another limitation is regarding the non-probability sample used in the study. The sample is not optimally represented for the population, due to time and resource constraints. Even though the
study received a fairly equal balance between ages and genders, generalizing must be done with care.

Furthermore, only quantitative analytical methods were used as well, since it was concluded to be most appropriate for the experiment. Qualitative methods could have been useful in some scenarios to get further insights and capture other aspects that would have been valuable for future research and established retailers.

Moreover, some critique can be directed towards the chosen variables, or the lack of variables. There are a lot more variables that could be examined, and could give more depth to really understand how and why promotional limits affect consumers. More personality cues and behavioural traits could also be implemented to really understand the characteristics of the different groups of consumers and respondents. That could lead to more nuanced analysis and more impactful future recommendations for retailers.

Another important limitation, and something that critique can be directed towards, is the fact that we are not certain that the respondents of the survey actually have any kind of interest towards shopping only or specifically the products in the survey. Without any real connection to the experimental purchasing situation in the study, respondents might not get involved emotionally to the same extent, which could generate data of bad quality. This is hard to avoid, but something to keep in mind.

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## 11. Appendix

### 11.1 Pre-study \#1



Jag upplever denna produkt som:

|  | Instämmer <br> inte alls |  |  |  |  |  | Instämme <br> helt |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Funktionell | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| Praktisk | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| Effektiv | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| Nödvändig | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| Hjälpsam | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| Härlig | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| Rolig | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| Underhållande | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| Spännande | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| Glädjebringande | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |

### 11.2 Pre-study \#2



Hur väl håller du med om följande påståenden?
( $1=$ håller inte alls med, $7=$ håller verkligen med)

|  | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Produkten håller på att <br> sälja slut | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Produkten finns i iett <br> begränsat antal | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Produkten är knapp, <br> dvs. det finns fä antal <br> kvar i lager | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Produkten är högt <br> efterfrăgad | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Hur väl håller du med om följande påståenden?
( 1 = håller inte alls med, $7=$ håller verkligen med)

|  | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Jag känner mig stressad i köpet | 0 | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | 0 | $\bigcirc$ | O |
| Möjligheten att köpa produkten tar snart slut | 0 | O | O | $\bigcirc$ | O | $\bigcirc$ | O |
| Jag känner mig pressad att ta ett beslut | O | O | O | O | O | O | $\bigcirc$ |

### 11.3 Main study

Handelshögskolan i Stockholm
Handelshögskolan i Stockholm

Hej! Tack för att du deltar i min undersökning, det uppskattas otroligt mycket! Dina svar kommer att vara vitala i min undersökning och bygga den grund som min analys står på.

Försök att inte överanalysera frågorna, utan istället svara relativt mycket på den känsla som du får av det du kommer att få se. Det finns inga fel eller rätt svar, och alla dina svar är anonyma.

Om du har några frågor, maila gärna 50488@student.hhs.se!
/Gustav Broström

Läs nedanstående scenario innan du går vidare:
Föreställ dig att du sitter hemma vid din dator och går in på en klädbutiks hemsida. Du har aldrig besökt denna hemsida förut, men du ollar runt bland de olika produkterna. Du får upp ögonen för en produkt och klickar dig vidare in på produktsidan. Väl där dyker en pop-up upp på produktbilden.

Kolla noggrant på bilden på nästa sida innan du klickar dig vidare och svarar på resterande frågor.

Handelshögskolan i Stockholm


Home , Sole , Stoes A Troinern


Handelshögskolan i Stockholm



Home . Sole , Shoes A Troinen



Produkten på bilden är:

|  | 1 | 2 | 3 | 4 | 5 | 6 | 7 |  |
| ---: | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Väldigt ful | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | Väldigt snygg |
| Väldigt osmickrande | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | Väldigt smickrande |
| Väldigt stillös | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | Väldigt stilfull |

Produkten på bilden är:

|  | 1 | 2 | 3 | 4 | 5 | 6 | 7 |  |
| ---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :--- |
| Väldigt impopulär | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | Väldigt populär |
| Väldigt otrendig | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | Väldigt trendig |
| Väldigt illa omtyckt av andra | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | Väldigt omtyckt av andra |

Produkten på bilden är:

|  | 1 | 2 | 3 | 4 | 5 | 6 | 7 |  |
| ---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Inte värdefull | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | Väldigt värdefull |
| Inte fördelaktig | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | Väldigt fördelaktig |

Hur väl håller du med om följande påståenden om produkten?
( 1 = håller inte alls med, 7 = håller verkligen med)

|  | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Produkten håller på att <br> sälja slut | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| Produkten finns i ett <br> begränsat antal | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| Produkten är knapp, <br> dvs. det finns få antal <br> kvar i laget | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| Produkten är högt <br> efterfrågad | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |

Hur väl håller du med om följande påståenden?
( 1 = håller inte alls med, 7 = håller verkligen med)

|  | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Jag känner mig <br> stressad i köpet | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| Möjligheten att köpa <br> produkten tar snart <br> slut | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| Jag känner mig <br> pressad att ta ett <br> beslut | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |

Hur kände du när du såg den här annonsen?

|  | 1 | 2 | 3 | 4 | 5 | 6 | 7 |  |
| ---: | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Lugn | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | Stressad |
| Tålig | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | Otålig |
| Icke spänd | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | Spänd |

Hur mycket skulle du vara villig att betala för tröjan i kronor?
(vānligen ange svaret endast med siffror - inga andra tecken - ex "200", "1000", "5000")
$\square$

Om du skulle köpa produkten, hur snart skulle du dả genomföra ditt köp?


Hur sannolikt är det att du skulle köpa produkten?

|  | 1 | 2 | 3 | 4 | 5 | 6 | 7 |  |
| ---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :--- |
| Väldigt osannolikt | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | Väldigt sannolikt |
| Inte alls troligt | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | Väldigt troligt |
| Inte alls omöjligt | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | Mycket möjligt |

Ange hur väl du instämmer med följande påståenden:
( 1 = håller inte alls med, 7 = håller verkligen med)

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |

Jag observerar ofta
vad andra köper för att försäkra mig om att jag gör ett bra köp

Jag tycker det är viktigt att andra har köpt samma produkt för att jag också ska köpa den

Jag rådfrågar gärna andra innan jag tar beslut
$\bigcirc$
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$\bigcirc$
$\bigcirc$

Ange hur väl du instämmer med följande påstảenden:
( 1 = håller inte alls med, 7 = håller verkligen med)

|  | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Jag föredrar produkter som det finns få kvar av i lager | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| Jag tycker det är viktigt att produkten verkar vara exklusiv för att jag ska köpa den | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| En produkt som det finns fả av kvar i lager | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | O | $\bigcirc$ | $\bigcirc$ |

Ange hur väl du instämmer med följande påståenden:
( 1 = håller inte alls med, $7=$ håller verkligen med)
1
2
3
4
5
6
7

Jag letar ofta efter one-of-a-kind produkter eller varumärken så att jag kan skapa min alldeles egna klädstil

Jag försöker aktivt utveckla min personliga unikhet genom att köpa
$\bigcirc$
$\bigcirc$
$\bigcirc$
$\bigcirc$

$\bigcirc$
$\bigcirc$speciella produkter och varumärken

Produkterna och varumärkena som jag tycker om allra mest är de som uttrycker mig som individ

Ange hur väl du instämmer med följande påståenden:
(1 = håller inte alls med, 7 = håller verkligen med)

Jag gillar inte
situationer som är osäkra

Jag gillar att ha tydliga
regler och processer
$\bigcirc$
$\bigcirc$
$\bigcirc$
$\bigcirc$
$\bigcirc$
$\bigcirc$
$\bigcirc$
$\bigcirc$
$\bigcirc$
O

När jag har gjort ett val så tvekar jag sällan på mitt beslut
r med följande påståend
= håller verkligen med)

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |

1
2
3
4
5
6
7
$\bigcirc \bigcirc$
$\bigcirc$ $\bigcirc$

Ange hur väl du instämmer med följande påståenden:
( 1 = håller inte alls med, 7 = håller verkligen med)

|  | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| För mig är shopping <br> ett äventyr | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| Jag tycker shopping <br> är stimulerande | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| När jag shoppar känns <br> det som att jag <br> befinner mig i min <br> egna värld | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |

Ange hur väl du instämmer med följande påståenden:
( 1 = håller inte alls med, $7=$ håller verkligen med)

|  | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Oftast shoppar jag när <br> det är rea | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| Jag gillar att leta efter <br> rea när jag shoppar | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |
| Jag gillar att leta efter <br> fynd när jag shoppar | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |

Slutligen ber vi dig svara på några personliga frågor. Dina svar är självklart anonyma!

Vad innehöll den pop-up du fick se?

O Information om att produkten håller på att ta slut i lager.
O Information om att erbjudandet bara finns kvar i en kort tid.
O Jag fick se båda ovanstående.
O Ingen pop-up fick jag se.
Hur många köp har du genomfört online under de senaste 6 månaderna?
O Inga
-1-3
-4-6
(7-9
○ $10+$Kvinna
○ Man
O Icke-binär

Ålder (2 siffror, ex. 23)


Nuvarande huvudsaklig sysselsättningAnställdEgenföretagareStudentArbetssökandePensionär
Stort tack för att du svarade på denna enkät och deltog i vår studie! Studien är skapad i undersökningssyfte och företaget och kommunikationen du exponerats för är fiktiv. Dina svar kommer att vara till stor hjälp!

Gả vidare till nästa sida för att slutföra studien!

