

# PRE-ANNOUNCING CO-CREATION

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**Keywords:** Consumer Co-Creation, Customer Empowerment, User Innovation, Future-Oriented Advertising and New Product Pre-Announcements (NPPs).

**Abstract:** *Historically, new product development (NPD) has exclusively been assigned to internal company professionals. This model has increasingly been questioned and many have advocated the concept of consumer co-creation, a collaborative NPD activity in which consumers contribute to the content of a firm's offering. The main purpose of this study has been to investigate the non-participating consumers, i.e. the broad mass of people that do not actively participate in co-creation, and to explore how firms' future-oriented advertising of upcoming co-creative efforts affect their perceptions with regards to innovation ability and customer orientation. To fulfill this purpose, a quantitative experiment was conducted, revealing that pre-announced co-created products significantly enhance customer orientation perceptions as well as significantly weaken the perceptions of a firm's ability to be innovative. The results suggest that marketers may foster co-creation as an effective means to alter consumers' corporate associations.*

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# 1. INTRODUCTION

## 1.1 The new era of co-creation

Historically, new product development (NPD) has exclusively been assigned to internal company professionals. However, listening to the voice of the consumer has always been regarded as a prerequisite for successful new product development (Dahan & Hauser, 2002; Griffin & Hauser, 1993), and it has long been a presumption that decisions regarding NPD are more efficiently matched with market demand when based on information on consumer needs (Edvardsson, 1997). According to Edvardsson (1997), firms normally assume homogeneity of needs within market segments, and information about such needs is normally obtained using varying types of market research techniques. Still, recent research shows that about 50% of within-segment variation of customer needs is normally left unaddressed (ibid).

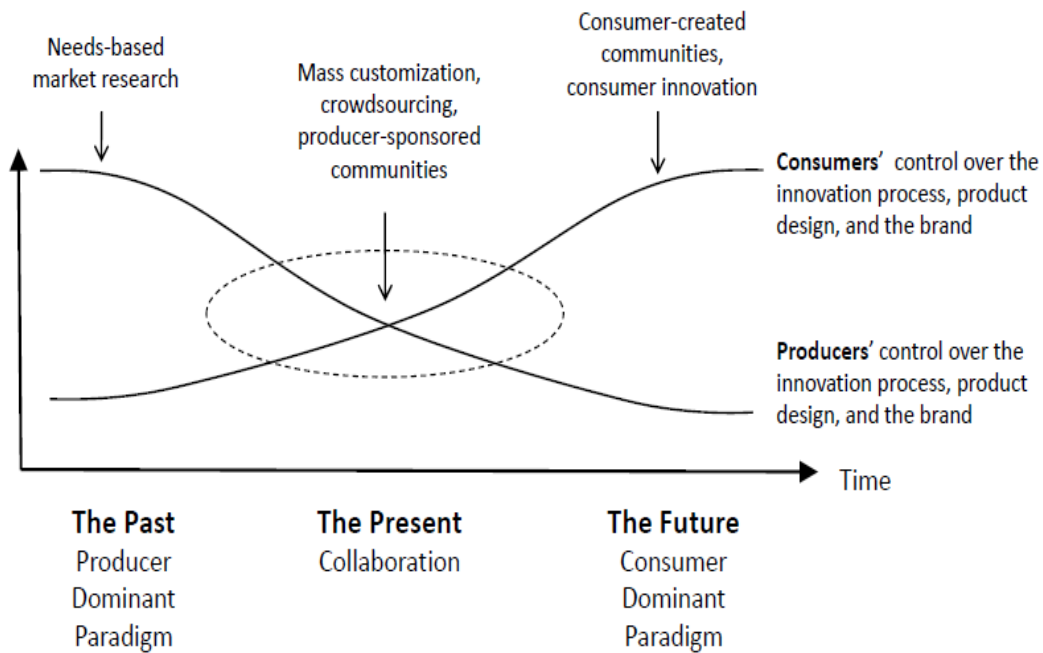
The traditional NPD model, in which companies have the sole and foremost responsibility of coming up with new product ideas and to decide which products to eventually market, has increasingly been questioned (Chesbrough, 2003; Pitt et al., 2006; von Hippel & Katz, 2002). An emerging strand of literature advocates drawing on consumers' experiences and perceptions in NPD, rather than on company professionals, might benefit firms (Fuchs, Schreier & Dahl, 2013). On the back of this, many have advocated the concept of democratizing the innovation process by encouraging and enabling customers to take on a much more dynamic role in the NPD, in order to better fulfill the needs of the market (von Hippel, 2005).

A commonly used term to denote this concept is *consumer co-creation*. It differs from the traditional *active firm - passive consumer* construct by emphasizing the ongoing customer-firm relationship by assigning the consumer an active part in the new product development process.

Consumer co-creation has become feasible thanks to the rapid growth of technologies supporting consumer interaction on the internet, making it possible for companies to build strong online communities, through which they can be connected to consumers all over the world instantaneously and in real time (Fuchs & Schreier, 2011).

An example of a firm employing this strategy is Threadless, a fashion-focused online community and e-commerce website. Each week, consumers submit about 1,000 designs online, which are put to a public vote (D'onfro, 2013). The most popular designs are sent to production and the designers behind them are rewarded. Until now over 30,000 designs have been submitted and more than 5,500 have been produced (Threadless, 2013). Dell IdeaStorm is another example of facilitation of user innovation. Dell IdeaStorm is an online community where Dell invites its customers to submit their ideas and problems. The ideas concern e.g. what new products that Dell should start to develop, or how Dell can improve their existing product portfolio. As in the case of Threadless, users are enabled to vote on all submitted ideas; information that Dell takes into account in choosing which ideas to implement. To date Dell IdeaStorm has surpassed generation of 16,000 ideas, nearly 500 of which have been implemented (Dell, 2013). Another strategy of consumer co-creation is the utilization of open source platforms, such as Linux, an open source software program created by its user community. Such open-source platforms have been used by inter alia IBM, Apple and Sun (West, 2003). Open source innovation has been employed as a strategy to enhance effectiveness in the product development process, while simultaneously reducing costs (Bloodgood, 2013).

The examples and the motives behind involving consumers in the NPD processes are many and varying, and they represent an increasingly important trend. There is a movement from previously exclusive NPD-processes, managed solely by internal professionals, to involvement and collaboration with consumers. This shift is described in the model below (Figure 1.1.1.).



**Figure 1.1.1.** The paradigm shift from producer to consumer innovation (Moreau et.al, 2012).

Clearly, there have to be some economic benefits associated to customer empowerment strategies (Pitt et al., 2006). Many user innovations are in fact marked by high commercial attractiveness (Franke, von Hippel & Schreier, 2006; Schreier & Prügl, 2008), and user-developed products in the software industry tend to outperform commercial software developed by corporate R&D professionals. Moreover, high commercial attractiveness is not exceptional for the software industry: similar effects are found in a number of industries and some describe the shift as a paradigm shift (von Hippel, 2005).

In sum, strong empirical evidence indicates that consumer co-creation in NPD is an efficient tool to enable companies to develop superior products, while concurrently reducing costs in their internal processes (Dahan and Hauser, 2002; Lilien et al., 2002; Ogawa and Piller, 2006).

## 1.2 Defining co-creation

The term *co-creation* was first introduced by C.K. Prahalad and Venkat Ramaswamy in their 2000 Harvard Business Review paper (Prahalad & Ramaswamy, 2000). Today, the concept goes under a variety of names, representing various approaches and strategies of



implementation. Some companies outsource the entire NPD process, while others only draw upon users for smaller product modifications. It is fostered in companies across a variety of industries and consumer goods fields, including household products, apparel and sports equipment (Fuchs & Schreier, 2011).

For the purpose of this thesis, we define co-creation as a collaborative new product development (NPD) activity in which consumers contribute to the content of a firm's new product or service offering in different ways (O'Hern & Rindfleisch, 2009). Co-creation takes place in the market, and both parties (company and consumer) create *and* extract value from the collaboration (Prahalad & Ramaswamy, 2004).

### **Co-creation dictionary**

When referring to co-creation in this thesis, the terms *consumer co-creation*, *customer empowerment*, *user innovation* and *common design by users* will be used interchangeably.

Seeing the variety of ways in which a company can involve its consumers, the concept can usefully be illustrated along a scale of customer participation: one side representing traditional NPD by means of market research and with no active interaction with the consumer; and the other representing co-creation in which consumers are provided ample room for active participation (Figure 1.1.1.). Along this scale, different forms of consumer participation can take place, with the consumer taking on different roles, and different degrees of operational freedom. Fuchs and Schreier have proposed a conceptualization of co-creation as a type of "customer empowerment".

Customer empowerment can be described in terms of two dimensions:

- 1) Customers empowered to *create*, and
- 2) Customer empowered to *select*

The first dimension refers to creating new product ideas or designs from scratch. The other refers to selecting which products to produce from a range of company-generated ideas. Thus,

the distinction lies within *who creates* the product or product design, and *who decides which product* or product design that ultimately will be marketed to the masses. Companies can choose to empower customers in either one or both of the two dimensions. The two empowerment strategies combined is referred to as a strategy of "full empowerment", whereas a traditional NPD strategy, where the company is the sole shaper of its products is referred to as a "zero empowerment" strategy (see Fig 1.2.1.) (Fuchs & Schreier, 2011).

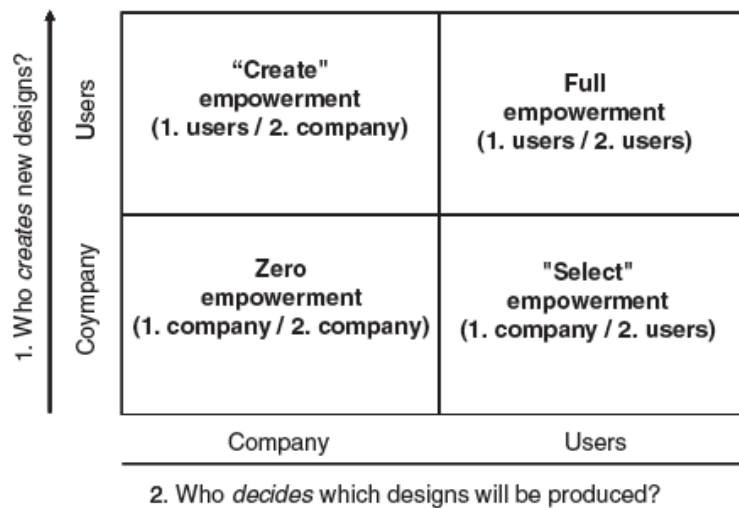


Figure 1.2.1 Customer Empowerment Strategies in NPD (Fuchs & Schreier, 2011)

Threadless provides an illustrative example of a company employing a strategy of full empowerment. Hybrid examples of employment of either "create empowerment" or "select empowerment" are found in many company activities. For instance, McDonald's "My Burger" is a campaign where customers can submit their own composed hamburger, and illustrates a process where consumers are empowered to create (McDonald's, 2012). Brief, McDonald's consumers submit ideas for the burgers, before a jury ultimately selects the winning recipes.

### 1.3 What has been explored?

As the traditional NPD model is being increasingly challenged (Chesbrough, 2003; Pitt et al., 2006; von Hippel and Katz, 2002), a growing body of theory on consumer co-creation has been produced in the innovation literature. As previously mentioned, a lot of attention has been paid to the actual output of user innovation; i.e. the user generated products (Fuchs &

Schreier, 2011). This strand of research highlights the positive aspects of involving consumers in NPD, and suggests that there are clear economic benefits associated to customer empowerment strategies (Pitt et al., 2006; von Hippel 2005).

To summarize, the bulk of theory concentrating on the commercial success of consumer vs. company-generated products offers strong support in favor of user-generated products, and consumer co-creation in NPD seem to enable companies to develop superior products and concurrently reduce costs in their internal processes (Dahan & Hauser, 2002; Lilien et al., 2002; Ogawa & Piller, 2006).

An additional area of research focuses on the people involved with the co-creation and the drivers behind the participation. For instance, what motivates consumers to participate and contribute in NPD, and how do they respond to the products they have been co-developing? Ståhlbröst & Bergvall-Kareborn (2011) suggest that both intrinsically and extrinsically motivating factors might be of importance to users' decision to participate in user innovation. For example, some users might find motivation in competitive factors such as a chance to "win" over other product ideas, while other users might be intrinsically motivated by the mere opportunity to have some fun and enjoy themselves while innovating (Leimeister et al., 2009). Von Hippel further suggests that motivation may be derived as result of unfulfilled needs in a developing market that does not yet accommodate the needs of consumers (von Hippel, 1986). Thoroughgoing, consumers who engage in co-creation practices tend to develop stronger demand for and stronger feelings of ownership toward the co-developed products, than non-involved consumers (Fuchs, Prandelli & Schreier, 2010)

This far, research has thus predominantly taken an interest in shedding light over the potential economic benefits of user innovated products and the characteristics and motivations of the users behind them (Fuchs & Schreier, 2011). However, a new and potentially equally important area of research is emerging, which has seen barely any attention this far. It focuses on the non-participating consumers, i.e. the broad mass of people that do not actively participate in user innovation, but who are nevertheless exposed to it by companies' co-created products. Point blank, the rest of the "market". This thesis will try to address some of

the issues that arise from the point of view of this critical, but hitherto neglected, group.

## 1.4 What is the problem?

To date, research on consumers in the context of co-creation has mainly focused on the active, co-creating consumer (Fuchs & Schreier, 2011). Even so, far from all consumers are interested in, or want to be associated with the responsibility of, developing new products (Hunt, Radford & Evans, 2013) and the majority of a firm's consumers will never participate in co-creation activities (Fuchs & Schreier, 2011; Schreier, Fuchs & Dahl, 2012).

From a manager's perspective, the effects of co-creation on the non-participating consumers ought to be as relevant to study as the fraction of consumers who are actually taking part in NPD, as the non-participating consumers represents the bulk of the market. Knowing the mechanics behind how non-participating consumers perceive co-creation in NPD-processes could e.g. determine whether firms should "hide" (not announce broadly) co-creation activities or "sell" (announce broadly) co-creation activities, depending on whether co-creation is perceived unfavorably or favorably respectively (Fuchs & Schreier, 2011).

Given the limited amount of attention paid to the matter, there are today only a few papers that have touched upon the topic of the effects of co-creation on non-participating consumer groups' perceptions of a firm. In two papers, Fuchs, Schreier and Dahl have shed light on two of these factors (Fuchs & Schreier, 2011; Schreier, Fuchs & Dahl, 2012), suggesting that customer empowerment may influence consumers' perceptions of a firm's degree of customer orientation, and its ability to innovate.

This is where the present study aims to make a contribution. Given the importance of company perceptions, extant literature offers unsatisfactory elaborations on the effects of co-creation with regards to non-participating consumers. This paper adds another dimension to the knowledge about this consumer group, by exploring how **future-oriented advertising** of upcoming co-creation efforts affect the perceptions of non-participating consumers generally; and, more specifically, how it affects perceived innovation ability and perceived customer orientation.

### **1.4.1 Why perceptions matter**

Why should consumer perceptions of a firm's customer orientation or innovation ability matter to companies?

Brown and Dacin (1997) use the term corporate associations to describe all the information a consumer has gathered about a company beyond product specific attributes (Brown & Dacin, 1997). These may comprise perceptions and opinions, activities and marketing strategies associated with the company, attitudes and feelings towards the company, and other general evaluations of the company and its perceived value.

When a consumer evaluates a firm, he or she often uses such "secondary" associations, which may in turn strengthen or weaken the consumer's preference of the underlying company, depending on whether they are perceived as positive or negative respectively (Berens, Riel & Bruggen, 2005; Brown & Dacin 1997). Research suggests that favorable perceptions about a company's customer orientation and innovation ability may affect corporate attitudes in a positive way (e.g. Fuchs & Schreier, 2011; Schreier, Fuchs & Dahl, 2012). Given the strong empirical support of the liaison between corporate associations and general product evaluations among consumers (Brown & Dacin 1997), it should be in the manager's interest to examine these groups' reactions to co-created products in terms of perceived innovation ability and customer orientation.

### **1.4.2 The new era of future-oriented advertising**

Future-oriented advertising is a highly relevant phenomenon that has become increasingly prevalent in the recent years (Sorescu, Shankar & Kushwaha 2007). As new technologies have emerged and enabled people to become more connected to information, a similar pattern can be observed in terms of products. Increasing numbers of various products over a wide range of industries are integrated and/or released as sequels to older products in the same range. Successful companies like Apple release regularly new versions of their products and a big hype is built around it. Strategic releases of "secrets" about upcoming product launches have even brought forth sites dedicated to decipher and analyze such rumors. Mac Rumors (Buyers Guide; Kane & Fowler 2010) collects all news regarding Apple products and

combine these with previous release statistics, offering customers an estimated release date for the next product release. It is not a coincidence that the first iPhone model generated more than 70 million Google hits even *before* its launch. Even more interestingly, it was evaluated as the leading mobile phone among U.S. consumers *before* it had even been released (Dahlén & Thorbjørnsen, 2011). Dahlén and Thorbjørnsen (2011) argue that future-oriented advertising stimulates curiosity for to-be-released products and more positive evaluations of both ads and brands compared to new product announcements (NPAs). Future-oriented advertising often relates to terminology as preannounced advertising or product preannouncements (PPAs) (Dahlén, Thorbjørnsen & Sjödin, 2011). This study will mainly refer to NPAs and new product pre-announcements (NPPs) when distinguishing conventional advertising from future-oriented advertising.

## 1.5 What is the purpose?

The main purpose of this thesis is to provide better understanding on non-participating consumers' reactions to preannounced co-created products. Previous research has indicated that firms engaging in consumer co-creation may be perceived as more customer oriented and innovative (Fuchs & Schreier, 2011; Schreier, Fuchs & Dahl, 2012). We aim to explore whether this relation can be found prior to introduction of the strategy; i.e. if any effect can be detected in concurrence with a new product preannouncement (NPP) of a co-creative product development process. More specifically, will the effects associated with implemented co-creation spillover from the future and affect **current** brand perceptions upon announcement?

Building on existing empirical studies on non-participating consumers' reactions to consumer co-creation, in combination with theory on product preannouncements, we aim to address the following research question:

- *How does information that a company is planning to develop its next product together with its consumers, affect consumers' evaluations of a company with regards to customer orientation and innovation ability?*

Hence, the aim of the study is to explore whether NPPs of co-created products will affect

current brand perceptions with regards to customer orientation and innovation ability; and, if so, how.

## **1.6 What will this bring to the marketing world?**

To this date, there is limited research looking into the effects of co-creation on the non-participating consumer. Until now, the focus of performed studies has primarily been on how *products* are affected by consumer empowerment in the NPD process (Fuchs & Schreier, 2011). Fuchs and Schreier have been pioneers in changing this focus, moving beyond product implications to instead analyzing how corporate associations within the nonparticipating consumer, i.e. the market, are affected. Corporate associations which are relevant to this thesis, are described as how innovative or customer oriented a firm is perceived to be. They are of substantive importance, not at least since such perceptions mediate both positive and negative outcomes with respect to consumer behavioral intentions.

This paper brings new attention to the area by connecting two research fields: consumer co-creation and future-oriented advertising. Reading this study will enable marketing practitioners, brand managers, and brand owners to obtain a more grounded understanding of future-oriented advertising in the context of co-creation, and consequently make them better decision makers when determining whether to “hide” or “sell” co-creation efforts to the wider public.

## **1.7 Delimitations**

When choosing to explore the effects of consumer co-creation on non-participating consumers, there were many possible directions to pursue. First and foremost, a large set of moderating variables was identified as interesting to study from a non-participating consumer perspective. Some of the moderating variables discussed were brand familiarity (the effects of co-creation depending on whether the consumer is familiar or new to the brand), ideation vs. selection (the effects of co-creation depending on whether a firm empowers their customers to create or select), and product complexity (if non-participating consumers perceive co-creation differently depending on whether the co-created product is complex or non-complex). With the presence of limited resources constraining our study, it was not possible to look into all of the above-discussed themes.

After choosing the topic of the thesis, the research approach was evaluated. In order to analyze the hypothesized causalities, an experimental research design was deemed most suitable. To enable an executable experiment, certain tradeoffs were inevitable, one of them being to select a reasonable amount of variables to include in the survey. Limitations played a large role when defining the scope of the study, and the decision was made to involve product complexity and product launch timing as moderating variables.

In order to gather a sufficiently large data sample of respondents in the experiment, further compromise was necessary. Due to time and monetary restraints, the targeted respondents were mainly students at SSE. They were easily accessible and made the collection of data convenient. Having the majority of the respondents in the same age, with the same academic background, and all living in the same city, one ought to be careful in drawing any assumptions of the data's generalizability. A larger set of gathered data across different demographics would allow for more generalizable results. Additional resources would further enable us to collect a larger number of respondents in each experiment group, which would allow for more ways to split and analyze gathered data.



## 1.8 Thesis outline

This thesis is divided into five chapters, excluding references and appendices; introduction, theory, methodology, results & analysis, and discussion. The study is divided into two parts (part 1 and part 2), which is reflected in the chapters.

The purpose with the *introduction chapter* is to set the stage of the study's topic as well as to cover relevant previous research. The chapter also contains the foundation for how this research area will gain from being studied in this specific take and what contributions it is likely to make to the marketing world.

The *theory chapter* provides the reader with a comprehensive review of the adjacent theories concerning co-creation and future-oriented advertising. Theories are knitted together in a deductive structure leading up to each hypothesis.

The *methodology chapter* relates to the methods used to carry out the research experiment and presents how the decisions were made in the process of gathering and analyzing the primary data. Furthermore, it explains how the main study, including its pre-studies, was performed along with the selection of variables and measures. Finally, the chapter is ended by a discussion of the reliability and validity of the study.

In chapter four (*results and analysis*), each hypothesis is tested followed by the results. The data presentation consists of concise analyses regarding significance levels and means, and concludes whether or not the hypotheses are supported.

The last chapter (*discussion*) opens up for a discussion concerning received results, and attempts to draw wider conclusions from the entire study. This chapter is ended with potential pitfalls and weaknesses with the study, and gives suggestions for future research.

## **2. THEORY AND HYPOTHESIS GENERATION**

The underlying assumption guiding this thesis is that co-creation does not only have an impact on a company's "actual" performance (i.e. what new products that are being developed, the development of production costs etc.), but also on its indirect performance as a result of how the marketplace perceives the NPD model. In the following section we will present a thorough compilation of relevant theories concerning the topic of co-creation, and its corresponding hypotheses.

### **2.1 Key measures**

#### **2.1.1 Innovation ability**

Innovation ability will in this thesis be defined as a consumer's belief that a company is able to generate innovative products. The innovativeness perceptions of brands and their products are important seeing they can affect outcomes with respect to consumers' behavioral intentions and satisfaction (Schreier, Fuchs & Dahl, 2012).

#### **2.1.2 Customer orientation**

Customer orientation can be described as a firm's capability to foresee the developing needs of its consumers (Brady 2001). To become customer oriented will, according to Jaworski, Kohli and Sahay (2000), entail that a firm emphasizes its customers as the central point of their business, both strategically and operationally. According to Fuchs and Schrier (2011), a strong perceived customer orientation leads to more favorable corporate attitudes and possibly stronger behavioral intentions within consumers.

### **2.2 The power of signals**

#### **2.2.1 Using signals to evaluate companies**

In a society marked by immense information overload, consumers are neither willing, nor able, to process all the available information out there. Consequently, they search for signals in order to form evaluations of brands and their products (Kirmani & Rao, 2000). Signals

work as evaluative shortcuts; helping the consumer with decisions without requiring her to take into account all available information about a company or a product. As previously implied, companies that foster consumer co-creation send out signals by doing so, which are likely to affect non-participating consumers' perceptions.

Importantly, in the case of co-created products, the company is not the only source to provide information and signals about a product or brand. Seeing co-creation as collaboration between a firm and its customers, consumers can draw upon both the brand and its co-creating consumers as a source of information. Thus, in order to truly understand the effects of co-creation one must also look into the signaling power of the co-creating consumers.

### **2.2.2 The perceived ability of the co-creating consumer**

In the same way that a brand can signal its ability to generate meaningful products, consumers may have perceptions about the ability of the users involved in NPD (Fuchs & Schreier, 2011). Researchers have found that in the case of complex products (e.g. consumer electronics), the perceived ability of the co-creating consumers is more likely to be questioned than for simpler products (e.g. a t-shirt) (Schreier, Fuchs & Dahl, 2012). Fuchs and Schreier (2011) explain that complex products run a higher risk of being perceived as too difficult for ordinary users to design. Hence, co-creation of complex products could call for a company to avoid broad announcements of its drawing on the capabilities of its users. The context of luxury fashion brands provides a second example of a situation where a company would want to consider “hiding” the co-creation (Fuchs et al., 2013). An empirical study by Fuchs, Prandelli, Schreier and Dahl (2013) reveals that for fashion brands aiming to signal high status, (e.g. Yves Saint Laurent or Prada), drawing on user innovation might potentially harm the brand. This can be understood in the light of psychological literature on social distance and comparison (Locke, 2003; Wood, 1996). A luxury fashion brand is deliberately positioned far from the consumer, creating a social distance. Fashion designers are often portrayed in the light of status and wealth, as compared to their consumers, which are framed as relatively ordinary in popular press. User involvement in the design process could consequently reduce the perceived social distance, impeding the feeling of status (Fuchs et al., 2013).

In short, the thoughts held by a non-participating consumer, about the participating consumer group, constitutes just as important drivers of perceptions to evaluate brands and products.

## **2.3 Hypotheses generation (Part 1)**

### **2.3.1 Understanding innovation perceptions**

Being innovative and being perceived as innovative are two different things, which are determined by dissimilar drivers (Brown et al., 2006). Consumer co-creation may result in the development of new innovative products, but customer empowerment in the NPD processes might not necessarily lead to higher perceived innovation ability by the non-participating consumers.

At first glance, traditional inferences on expertise and ability to innovate suggest advantages of keeping the position as innovator of new products within the company. For instance, Bennett and Cooper (1981) contend that a creative idea for a new product should normally be out of the scope for a regular consumer (Bennett & Cooper, 1981). Moreau and Herd (2010) further conclude that company professionals often possess real *or* perceived advantages over consumers in terms of knowledge and experience in NPD.

Given the newness of the research area, there is to date only one empirical study that investigates the causal linkage between co-creation and company innovativeness (Schreier, Fuchs & Dahl, 2012). Interestingly, the results contest what consumer inference literature would predict; in the course of four studies, Fuchs and Schreier and Dahl (2012) propose that the non-participating consumer will associate a firm fostering co-creative design with users with higher innovativeness than companies solely relying on proprietary design. The results are explained using a qualitative study, summing up to four explanatory arguments as to why user design ought to have a positive impact on innovation perceptions:

- *The numbers argument:* The more people that are involved in the idea generation, the greater likeliness that one of the ideas will turn out good
- *The diversity argument:* Mixing professionals and users creates a more diversified

platform, which leads to more diversified ideas

- *The user argument*: Utilization of actual users leads to more applicable and grounded ideas
- *The constraints argument*: Less restrictions on people leads to more freedom in the idea generation (implying that company professionals are generally considered to be more constrained by company guidelines in their working process)

Altogether, these variables constitute arguments that would point at the potential innovation advantages for companies that announce common design by users (Schreier, Fuchs & Dahl, 2012). Given the freshness of the study, we believe it is plausible to assume that the findings also grounded indications in favor of a positive innovation effect (despite the general ruling from traditional inferences of innovation).

### **Moderating the innovation effect**

Having proven a potential for improved innovativeness as a result of user involvement in the design process, the study further concludes that the effect depends on at least two boundary conditions:

- 1) The non-participating consumer's familiarity with user innovation, and
- 2) The perceived product complexity (Schreier, Fuchs & Dahl, 2012)

### **Familiarity with user innovation**

Familiarity with user innovation marks down the extent to which the nonparticipating consumer is acquainted with co-creation practice; either by having developed or modified a product himself; either by knowing someone who has (Schreier, Fuchs & Dahl, 2012). When a consumer is familiar with user design, the chances are bigger that he/she will be positively disposed towards other people engaging in consumer co-creation (ibid). This phenomenon can partly be explained with help of basic human psychology, stating that people tend to project their own attitudes and beliefs onto others (Kawada et al. 2004; Ross, Greene, & House 1977). Consumers who are familiar with user innovation, are thus more prone to project a positive image onto other users that innovate. In the same way, those consumers

who are low in familiarity with user innovation will have a harder time of acquiring the “right” mindset, and visualizing the active consumer as someone competent and able of coming up with meaningful product ideas.

### **Perceived product complexity**

As previously mentioned, consumers may have perceptions of the ability of the co-creating users, which in the case of complex product categories might be negatively predisposed. As consumers tend to assign more expertise to company professionals than to users (Moreau & Herd, 2010), some product categories are perceived as too difficult for ordinary users to design. Consequently, as perceived product design task complexity<sup>1</sup> increases, the innovation effect of user design could be diluted or even reversed. In particular, for consumer electronics, the effect has been shown to be reversed (Schreier, Fuchs & Dahl, 2012).

Deducing from above presented empirical arguments on innovation, people can be presumed to perceive company professionals as in possession of greater innovation skills than ordinary users. While the first and, up until now, only study of this relation concludes that due to the numbers-, diversity-, user- and constraints arguments, consumers generally perceive companies that foster consumer co-creation as more innovative; the reverse is true when companies offer more complex products, due to low perceived ability of the co-creating consumer.

Fuchs, Schreier and Dahl’s (2012) study investigates the innovation effect with regards to new product announcements (NPAs). The purpose of our research is to improve the understanding of the relation governing co-creation and perceived innovation ability in the context of new product *preannouncements* (NPPs). We aim to investigate whether the described innovation effect delineated by Fuchs, Schreier and Dahl (2012) will spill over from the future and affect current perceptions of the company. In order to develop a better understanding of how product *preannouncements* may affect current brand perceptions with regards to a company’s innovation abilities, we turn to theories of product *preannouncements*.

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<sup>1</sup> Defined as the “extent to which consumers perceive a product to be difficult to design” (Rogers, 1995)

## **NPP vs. NPA**

Products can either be advertised at the same time as they reach the market (NPA - new product announcement) or weeks, months or even years before their launch (NPP - new product preannouncement) (Dahlén, Thorbjørnsen & Lee, 2013). While traditionally, announcements of new products have been made in conjunction with the launch (Dahlén & Nordfält, 2004), recent studies show that product preannouncements are becoming more and more prevalent, and may constitute a source of comparative advantage (Sorescu, Shankar & Kushwaha, 2007).

Evaluative spillovers between an advertised product and the underlying brand are well documented in consumer behavior research (Dahlén, Thorbjørnsen & Lee, 2013). Research on consumer reactions to advertised products not yet available on the market is, however, quite scarce (Dahlén, Thorbjørnsen & Lee, 2013). In calling for exploration in this area, Dahlén, Thorbjørnsen and Lee (2013), have investigated how advertising in the form of new product *preannouncements* (NPPs) affects current evaluations of brands and their offerings.

In an empirical study from 2013, the authors found that when exposed to new product preannouncements, consumer evaluations of the relevant brand's current products were altered, an effect that implies the existence of a temporal spillover (Dahlén, Thorbjørnsen & Lee, 2013). Consequently, mental representations of preannounced products may affect evaluations of other products in the brand family, as spillovers between products are implicitly transmitted through the brand.

If a product preannouncement alters the perceptions of a brand's current product offerings, it is plausible that a product preannouncement alters perceptions of other brand-related issues; e.g. if a company informs its consumers that its new product is going to be developed jointly with other consumers, the presumed innovation effect could spill over and affect evaluations of the company's current innovation ability.

In line with previous research, for products of perceived low design task complexity, the effect is expected to be positive. Conversely, for products whose design task complexity is

perceived difficult, previous findings suggest that the effect should be reversed. For simplicity, we distinguish between these products by referring to them as “complex” and “non-complex”, and propose the following hypotheses:

**H1a:** A company that announces that it will design its next **non-complex** product together with its consumers (through an NPP) will be perceived as more innovative than a zero-empowerment company

**H1b:** A company that announces that it will design its next **complex** product together with its consumers (through an NPP) will be perceived as less innovative than a zero-empowerment company

For additional argument to why user innovation might induce a negative innovation effect we refer to the Third Person Effect (TPE). The TPE forecasts that people tend to believe that mass-mediated messages exercise a stronger influence on others than on themselves (Dahlén et al., 2013). An illustrative example of this is that people generally perceive others as more vulnerable to gambling advertising and direct-to-consumer prescription drug advertising (Youn, Faber & Shah, 2000; Huh & Langteau, 2007). The TPE stems from different types of personal biases and addresses the human tendency of overestimating one's own capabilities; for instance, generally most people believe themselves as smarter than the average person (Zhang & Daugherty, 2009). Therefore, we argue that the Third Person Effect may induce these thoughts of superiority within the observing consumers, affecting the perceived ability of the “other” user in a negative way.

### **2.3.2 Understanding customer orientation perceptions**

#### **Co-creation and perceived customer orientation**

As previously noted, co-creation can be conceptualized as a way of empowering customers. Drawing upon an analogy on political organizations, Fuchs and Schreier (2011) propose that customer empowerment can be seen in the light of two different systems, in which the zero empowerment strategy represents a totalitarian regime (mirroring the relationship between a customer and a single firm) or an indirect democracy (mirroring the relationship between a



customer and different companies) (Murray & Ozanne, 1991). In either case the metaphorical citizen, here: the consumer has no direct power to create political activities (to directly influence what products should be marketed), even though (s)he constitutes a source of influence. However, in customer empowerment in NPD, (as represented by direct democracies) power is partly delegated to the consumer, who can put new issues on the ballot by coming up with new product ideas, or vote for which products ought to be marketed.

Supported by research in economics, people are generally happier with direct democratic systems (Frey & Stutzer, 2002). This is reflected in key economic indicators such as property values and people's wellness measured in terms of "happiness," which have been found to be highest in systems that permit the highest degree of customer participation (Frey & Stutzer, 2000). The relation also holds for non-participating citizens, i.e. who don't make actual use of their rights. Moreover, it has been shown that the degree to which a system is directly democratic is correlated to the degree of how customer oriented the system is apprehended to be (Pommerehne, 1990).

On the back of this discussion, one can theorize on whether customer empowerment in an NPD setting will have similar effects on a company's perceived customer orientation. As in the case of political systems using direct democracy, companies fostering customer empowerment in NPD ought to be perceived as more customer oriented than companies using the traditional NPD model (Fuchs & Schreier, 2011).

Literature on signaling theory provides additional theoretical argument to why a brand that empowers customers in its NPD should be perceived as more customer oriented (Kirmani & Rao, 2000), addressing the way consumers use signals to make evaluations on companies' products. Research on advertising signals has mainly focused on perceived brand ability (e.g., Dahlén, Rosengren & Törn, 2008; Rosengren & Dahlén, 2012). Deshpandé, Farley and Webster (1993) broadly define customer orientation as "the set of beliefs that puts the customer's interest first", which in a signaling context could be translated into *caring*, a concept that captures company intention rather than company ability. A forthcoming paper in *Journal of Marketing Communications*, addresses the specific topic of brand care (Dahlén, Rosengren & Modig, 2013), revealing that ambient media choice may increase perceived

consumer care compared to traditional or non-ambient media choice. It is suggested that, by going beyond traditional media, a company signals efforts being made to reach its customers, which would make the consumer perceive the brand to care more about its consumers (ibid). Analogically, we believe that a company that empowers its customers in NPD signals effort that would make the customer perceives the brand as more caring and subsequently more customer oriented.

As we aim to explore this relation in the context of product pre-announcements, the subsequent question emerges: *will a product preannouncement in which consumer co-creation is communicated alter the non-participating consumer's perceptions of a company's customer orientation?*

As in hypotheses H1a and H1b, we refer to theory on product preannouncements and make an analogical reasoning: if a product preannouncement is transmitted through the brand and alters the perceptions of a brand's current products, it is plausible that a product preannouncement in which the co-creation is underlined should have an effect on the perceptions of a brand's current consumer orientation. Thus,

**H2:** A company that announces that it will design its next product together with its consumers (through an NPP) will be perceived as more customer oriented than a zero-empowerment company.

The degree to which a company should be perceived customer oriented should not be moderated by task complexity as in the case of perceived innovation ability. Hence, we do not consider product task complexity to be a boundary condition for perceived customer orientation.

### **2.3.3 Why innovation ability and customer orientation perceptions matter – behavioral intentions**

As noted, perceptions about a firm's ability to innovate and its customer orientation are likely to affect consumers' corporate associations (Fuchs & Schreier, 2011; Schreier, Fuchs & Dahl, 2012). Notably, research has provided empirical evidence on the relation between both key measures, and positive behavioral outcomes such as increased purchase behavior (Schreier,

Fuchs & Dahl, 2012; Luo & Bhattacharya, 2006; Brady & Cronin, 2001)

Based on previous hypotheses, which propose that a company that fosters consumer co-creation for non-complex (complex) products will be perceived as more (less) innovative as opposed to a non-empowering company, we hypothesize further that

**H3:** Consumers will develop stronger purchase intentions toward a company that, through an NPP, announces that it will design its next non-complex product together with its consumers (vs. design by company professionals).

This effect is mediated by higher perceived innovation ability and higher perceived customer orientation.

For complex products, we have two conflicting effects: on the one hand, perceived customer orientation is expected to increase; on the other, perceived innovation ability is expected to be lower for a co-creative company, than compared to a zero empowerment company. The limited theorizing research in this area does not offer any explanations as to how the effects will play out in terms of net effects on purchase intentions, which triggers two counterhypotheses:

**H4a:** Consumers will develop stronger purchase intentions toward a company that, through an NPP, announces that it will design its next complex product together with its consumers (vs. design by company professionals).

This effect is mediated by lower perceived innovation ability and higher perceived customer orientation, where the customer orientation effect is dominant.

**H4b:** Consumers will develop weaker purchase intentions toward a company that, through an NPP, announces that it will design its next complex product together with its consumers (vs. design by company professionals).

This effect is mediated by lower perceived innovation ability and higher perceived customer orientation, where the innovation effect is dominant.

## 2.4 Hypotheses generation (Part 2)

### 2.4.1 Understanding the effects of future-oriented advertising

Assuming that product preannouncements can cause temporal evaluative spillovers from the future to the past, and affect current perceptions of a company's customer orientation and innovation ability, we delve deeper into the understanding of this effect by investigating the effects of preannounced co-creation versus *non*-preannounced co-creation.

For an illustrative example, consider company A and company B: Company A is advertising the launch of its new co-created product (NPA). Company B is advertising the launch of its (identical) future co-created product (NPP). Will the increase/decrease of the respective firm's perceived innovation ability and customer orientation be equally big for both companies? (assuming all other factors hold equal).

#### The Nextopia effect

In a study from 2011, Dahlén, Thorbjørnsen and Sjödin demonstrate that consumers have a tendency to favor forthcoming new products (NPP) to (identical) new products that are currently available on the market. This phenomenon can be attributed to the *Nextopia effect*, which suggests that when comparing future and past events, people tend to be overly positive about the future, assuming that coming versions will always outperform current ones (Dahlén, 2008). Dahlén, Thorbjørnsen and Sjödin show empirically that by preannouncing a future product, rather than announcing in concurrence with product launch, consumers will evaluate both the product and the brand in a more favorable light.

Consumers' positive bias for future products is explained in the light of consumer psychology literature. It is argued to stem from the notion that when comparing current and past events to future events, people tend to evaluate the future through a much more positive lens (Dahlén, Thorbjørnsen & Sjödin, 2011). This is further supported by literature on *optimism bias*, which unravels a general tendency for people to be overly positive about their own future (Zhang, Fishbach & Dhar, 2007). In the marketing world, consumers have a tendency to conceive the

future more positively than the present, thereby forming favorably biased perceptions of products from the future.

Given the general tendency of favoring forthcoming new products to (identical) available new products, the theory of *Nextopia* suggests that, in our above example of company A and company B, consumers ought to prefer company B's product over company A's product. The notion of an optimism bias pertaining to the future further implies that consumer perceptions of a firm's abilities in terms of customer orientation and innovation ability would be similarly affected. Thus, people would associate the expectation of future co-creation with higher perceived customer orientation and innovation ability, than has been previously perceived from current or past co-creation.

This notion finds further support in uncertainty theory. Uncertainty theory proposes that announcing uncertainty intensifies reactions with regards to positive and negative events (Arenas, Tabernero, & Briones, 2006; van den Bos, Euwema, Poortvliet, & Maas, 2007; Lee and Qiu 2009; Wilson et al. 2005). Building on this theory, Bar-Anan, Wilson and Gilbert (2009) offer an "uncertainty intensification hypothesis", proposing that uncertainty makes pleasant events more pleasant, and unpleasant events more unpleasant, by boosting the positive and negative effect, respectively. Building on the uncertainty concept, a (pre)announcement of the co-creation of a future product can induce uncertainty regarding the outcome of the future event; i.e. the co-creation process may be perceived as a pleasant or unpleasant event. Hence, depending on whether one looks upon co-creation as something positive or negative, this effect should be boosted for the NPP, generating a positive uncertainty (if we like co-creation) or a negative uncertainty (if we dislike co-creation).

Therefore, according to the "uncertainty intensification hypothesis", a product preannouncement would boost perceptions in a negative or positive direction, respectively. We have suggested that co-creation may yield positive perceptions in terms of customer orientation and innovation ability for non-complex products. Consequently, we expect these positive responses to be amplified for an NPP, as compared to an NPA, when the previous perceptions of the co-creation process are positive, and vice versa. Accordingly, we hypothesize that...

with regards to innovation:

**H5a:** A company that announces that it will co-design its next non-complex product with its consumers (through an NPP) will be perceived as more innovative than a company that announces that it has co-designed its current product (through an NPA)

**H5b:** A company that announces that it will co-design its next complex product with its consumers (through an NPP) will be perceived as less innovative than a company that announces that it has co-designed its current product (through an NPA)

with regards to customer orientation:

**H6:** A company that announces that it will co-design its next product (no matter complexity) with its consumers (through an NPP) will be perceived as more customer oriented than a company that announces that it has co-designed its current product (through an NPA)

### **3. METHODOLOGY**

*This chapter provides a description of the research methods that have been used in this study, and begins with presenting the chosen research design and scientific approach. Further, the method of the main study including its pre-studies is described, along with the selection of variables and measures. Finally the chapter is ended by a discussion of the reliability and validity of the study.*

#### **3.1 Choice of topic**

The inspiration and interest to write a master thesis about preannounced co-creation was initiated from participating in a course at the Stockholm School of Economics (SSE) master's program called XL. During the course the authors became more familiar with the theories and concepts relating to co-creation and future-oriented advertising. It quickly became evident that both areas were limitedly explored, while perceived as being highly relevant, from both an academic and a managerial point of view. Fascinated to delve further into the fields, it became evident that the intercept of the two areas provided an interesting research gap. To get feedback on the thesis idea discussions were initiated with Karina Tøndevold Liljedal and Micael Dahmén. Liljedal is a PhD student and researcher at SSE's Center for Consumer Marketing, and has her main area of knowledge within consumer marketing where she has specialized on consumer co-creation. Micael Dahmén is an SSE professor in marketing, author, and public speaker. His research within marketing, creativity and consumer behavior has been published in four books and numerous journal articles. One of his areas of expertise lies within future-oriented advertising, and more specifically, the Nextopia theory.

Liljedal and Dahmén were the initial advisors when deciding upon and delimiting this study. Moreover, an extensive literature review was conducted to improve the understanding of relevant theories. After reading books, articles and searching through research databases the problem area and purpose of this thesis were decided upon.

### **3.2 Research approach**

This study is primarily based on two theoretical fields: co-creation and future-oriented advertising. Since hypotheses are derived from existing theory and knowledge, the study undertakes a deductive approach (Bryman & Bell, 2007). Moreover the study assumes an explanatory form, seeking to examine the relationship between chosen independent and dependent variables. In such cases a quantitative method is favorable in order to gather a large enough sample to explain hypothesized causal relationships, and subsequently answer proposed hypotheses. Due to the causal nature and preference for quantitative data, an experimental research design was deemed most suitable for this study.

An experiment can be explained as; “individuals being randomly assigned to different groups, which receive different manipulations - then the reactions from the groups are compared after the manipulation” (Söderlund, 2010). Experiments can be undertaken using different approaches; in this case, a laboratory experiment approach was chosen, in order to maximize control of the manipulated variables. The possibility to control and hold certain factors fixed will lead to a clearer picture of the relationship between cause and effect (Roe, 2009). With increased control it is further easier to understand if the manipulations, i.e. the combinations of independent variables, have a significant effect on the studied dependent variables. This research method is supported by Webster and Sell (2007) who state that an experimental design provides an opportunity to include independent variables of interest while at the same time exclude irrelevant or aggravating factors. Further, the experimental approach increases the likelihood that observed relationships between independent and dependent variables are valid. This study aims to address how consumers perceive brands, depending on the extent of consumer empowerment in NPD and the timing of the product launch.



### 3.3 Preparatory work

Before performing the main experiment a pre-test and a pilot study were carried out. The pre-test aided the study in two aspects: firstly, it enabled the selection of two products that were perceived opposed to each other in terms of complexity; secondly, it assisted in mapping the timeframe a company would normally employ when *preannouncing* a new product. The main purpose of the pilot study was to ensure that the research questions and stimuli used in the main experiment were to be interpreted correctly.

#### 3.3.1 Pre-test: Confirming product complexity and timing of NPP

The pre-test was conducted using a questionnaire created with Qualtrics Survey Software. Each questionnaire presented a product, which the respondent evaluated in terms of perceived complexity, risk and time (what point in time would be appropriate for the company to preannounce the product prior to launch). At least 32 students from SSE participated for each product tested. The students were deemed suitable and representative for the pre-test since the main experiment was going to involve students from SSE. To avoid biased results the respondents who participated in the pre-test were not allowed to take part in the main study.

#### Measures

- *Complexity* addressed perceived level of complexity, asking respondents to rate on a seven-points scale "how complex is a (product) to produce", and ranged from very difficult to very easy
- *Level of engineering* asked respondents to evaluate three statements; "These are highly engineered products", "Developing such products is technologically (technically) highly demanding" and "These products are technologically very complex" (Anderson, 1985). Respondents ranked each statement on a seven-point scale from "strongly disagree" to "strongly agree". The three items in this question were combined into an index, as they measured the same variable, Cronbach's  $\alpha = .958$
- *Financial risk* measurements were adapted from a study by Fuchs and Schreier (2011). Respondents were asked to rate if "the purchase decision for such products is associated with high financial risk" on a seven-point scale from "strongly disagree" to

“strongly agree”

- *Time* was measured by asking respondents to type the number of months they believed reasonable in the following question: ”A company specialized in (the product) announces that it is starting to work on a new (product). When do you think it is reasonable for the (product) to hit the market?”

Our results showed that t-shirts and laptops were suitable products to use in the primary test due to their perceived opposing characteristics in terms of complexity and risk (Appendix I). Furthermore, students are generally highly familiar with both product categories in terms of usage and purchasing. Moreover, this is in line with the research of Schreier, Fuchs & Dahl (2012), who state ”T-shirts, household products, and outdoor sports equipment represented low-complexity consumer products, whereas consumer electronics, electric/mechanical gardening products, and robotic toys represented high-complexity consumer products”. A suitable timeframe to pre-announce the product before launch was set to two months for a t-shirt and twelve months for a laptop (Appendix I).

### **3.3.2 Pilot Study: Testing the Questionnaire**

The pilot study ensured that questions were correctly interpreted and that no technical errors existed before launching the main survey, and was conducted on ten university students at SSE. During the pilot study, technical flaws with the online survey were detected and corrected. Fruitful questions were asked and advice from respondents concerning length, layout and the language, was taken into account. After performing the pilot study each respondent was asked to speculate about what the study aimed to investigate in order to avoid biased results due to respondents knowing the goal of the experiment (Söderlund, 2010). Finally, the survey was shortened with approximately 25 % in order to increase the response rate (Sheehan, 2001).

### 3.4 The Main Experiment

The experiment derives from a 2x2x2 between-subject design creating a 2<sup>3</sup> full factorial experiment design. A between-group design was favorable since it prevented respondents to leave biased answers from being aware of different manipulations used in the experiment (Levin, 1999).

The following independent variables were included:

- Co-creation/No Co-creation
- Complex/Non-complex product
- Product available now/ Product available in the future

Co-creation vs. No Co-creation: The aspect of co-creation vs. no co-creation in the NPD process is the most central factor for the purpose of this thesis. Experiment groups were created in order to assess the difference between a product being produced by means of consumer co-creation versus a product being produced by means of internal company resources.

Complex vs. Non-complex product: Previous studies show that the effects of co-creation may vary depending on the complexity of the underlying product. The two products t-shirt and laptop symbolized the complexity variable in the analysis.

Product available now vs. Product available in the future: The time factor was included through the comparison of the responses in two different launching time scenarios. One part of the sample was told that the product was “in stores now”, while the remaining respondents were told it was “in stores 2014/2015” (results from the pre-test set the timing of 2014 for a t-shirt and 2015 for a laptop). By making this time distinction we were able to capture the different perceptions generated from co-created NPAs and co-created NPPs.

All possible combinations of the independent variables, resulting in eight stimuli versions, were tested against our dependent variables.

Timing of product release	Future	<b>Co-creation future</b> T-shirt / Laptop (V2 / V4)	<b>No co-creation future</b> T-shirt / Laptop (V6 / V8)
	Now	<b>Co-creation now</b> T-shirt / Laptop (V1 / V3)	<b>No co-creation now</b> T-shirt / Laptop (V5 / V7)
		Yes	No
		<b>Co-creation</b>	

### The research matrix

*x two types of NPD-processes (“no co-creation” vs. “co-creation”)*

*x two time frames of the respective product (“now” vs. “future”)*

*x two product categories (“t-shirt” vs. “laptop”)*

*= eight groups.*

### The defined stimuli groups:

V1 – (CCN) Co-creation Now, T-shirt

V2 – (CCF) Co-creation Future, T-shirt

V3 – (CCN) Co-creation Now, Laptop

V4 – (CCF) Co-creation Future, Laptop

V5 – (NCCN) No Co-creation Now, T-shirt

V6 – (NCCF) No Co-creation Future, T-shirt

V7 – (NCCN) No Co-creation Now, Laptop

V8 – (NCCF) No Co-creation Future, Laptop

### 3.4.1 Manipulation

We exposed each participant in the experiment to one out of eight stimuli texts. The stimuli texts were constructed the following:

#### 1) Info about the product and how NPD takes place

Company A is a US-based (*fashion label/IT company*), which is known for its (*t-shirts/laptops*). The (*t-shirts/laptops*) **1a**) are designed through collaboration between the company's internal designers and the company's customers. **1b**) are designed by the company's internal designers. Company A is now (*launching/planning*) its (*NEW DESIGN LINE/NEW LAPTOP*).

This is how the (*new design line/laptop*) (*has been/is going to be*) developed:

Company A asked **1a**) enthusiastic customers from all over the world to submit highly creative ideas for new designs – any customer could participate. In this process, customers (*are/were*) free of any constraints and (*can/could*) let their ideas and visions flow. **1b**) professional designers to submit highly creative ideas for new designs. In this process, the designers (*are/were*) free of any constraints and (*can/could*) let their ideas and visions flow. From the large set of submitted ideas, customers (*will vote/voted*) for the best ones to be included in the new (*design line/laptop*).

#### 2) Product announcement

(*New design line/New laptop*) **2a**) - IN STORES NOW - / **2b**) - IN STORES  
(*2014/2015*) -

#### 3) Product complexity

The product presented was either a t-shirt (non-complex) or a laptop (complex).

This structure enabled participants in all groups to be exposed to identical stimuli apart from treatments of the independent variables and small language corrections such as tempus (see all versions in “Appendix II”). After reading the stimuli text respondents were asked to complete a questionnaire containing the measures of the dependent variables.

### 3.4.2 Sampling

According to Skärvad and Lundahl it is important to have a homogenous group of respondents when performing an experiment (Skärvad & Lundahl, 1999). A homogenous group enables stronger internal validity between groups and decreases the likelihood of accepting a false hypothesis (type II errors) (Lynch, 1999). The main study was launched the 24th of October 2013 and the experiment was exclusively performed using the online software survey tool Qualtrics. It was active during seven days and 475 people, out of whom 2452 had received the survey through a hyperlink via their email, initiated the experiment. Out of the 475 initiated surveys 321 were entirely completed, while the remaining 154 surveys were only completed to various degrees. The partially completed surveys have been included in our data.

In order to perform various tests such as analysis of variance (ANOVA) and independent t-tests we used the statistical heuristic of 30 respondents ( $n \geq 30$ ) for each manipulation sample as a lower limit to perform statistical tests. This sample size ensures correlation with the central limit theorem, allowing for a delineation of a normal distribution curve (Rice, 1995; Malhotra, 2010). With a total of 321 completed responses, each experiment group exceeded the threshold of 30 responses. Ranging from 33 responses in the lowest group to 46 in the highest group, the differences were mainly due a number of incomplete surveys (appendix IV).

The main target of our study was restricted to include active university students at SSE or recently graduated students from SSE. Ages ranged from a minimum of 18 years to the maximum of 55 years with a total mean of 24.22 years. 89% of all respondents were within the age span of 18-28 years.

The Qualtrics software was used to manipulate independent variables: Each respondent was randomly exposed to one of the eight experiment groups. The sample stratification was changed automatically without the respondents knowing the presence of different scenarios.

Furthermore, all questions were made mandatory through the function “forced response”.

This way, the risk of having a respondent missing or skipping a question was eliminated. Additionally, limiting IP addresses restricted respondents to only participating in the experiment once.

### 3.4.3 Questionnaire

When constructing the questionnaire a large number of measures were considered interesting to include. Most measurements were directly linked to the variables found in theory and our defined hypotheses. Other measures were added to represent adjacent theory, which could induce unforeseen results in our initial research process. In total, the respondents were asked to answer 22 measures, divided into (i) evaluation measurements, (ii) action intention measurements, (iii) control questions, (iv) potential mediators, and finally (v) demographics (appendix VI). All measures were established and adapted from previous studies. The majority of measures were based on at least three items, enabling high internal consistency and, thus, reliability (Söderlund, 2005). The use of three items is also convenient when calculating Cronbach's  $\alpha$  when creating indexes. For most of the questions, respondents ranked the statements on interval Likert scales ranging from 1 to 7 with bipolar labels; e.g. "strongly disagree" vs. "strongly agree" (Malhotra, 2010). From Söderlund's recommendations the lower value of all interval scales were placed to the left and labeled low degree adjectives such as "disagree"/"negative"/"difficult", whereas the high values were placed to the right and labeled high degree adjectives such as "agree"/"positive"/"easy" (Söderlund, 2005). Performing the study in English was deemed beneficial in order to avoid the risk of errors when translating some of the measures into Swedish, as the established measures in this specific field of research are exclusively defined in English. Below is a list of all variables included in the survey. Key measures will be presented separately.

**Complete list of measures:** *Product Attitude, Emotions, Product Category Involvement, Brand Attitude, Perceived Customer Orientation, Perceived Innovation Ability, Brand Interest, Purchase Intention, WOM intention, Salience, Newness, Perceived Consumer Ability, Perceived Product Complexity, Willingness To Pay, Skepticism Towards Companies, Familiarity with User Innovation, Locus of Control, Propensity of Risk.*

## **(i) Evaluation measurements & (ii) Action intention measurements**

**Innovation ability:** Innovation ability was measured using three items related to the question “What do you think about the firm's innovation ability?": *I think this company's ability to innovate is...*

- “[-3] not very high /very high [3]”,
- “[-3] not very strong/very strong [3]”, and
- “[-3] not excellent/excellent [3]" (Luo & Bhattaoharya 2006).

The variable was measured on a seven-point scale and consolidated to a single mean, Cronbach's  $\alpha = .955$ .

**Perceived customer orientation:** Perceived customer orientation was measured using three items related to the question “To what extent do you agree with the following statements concerning Company A”:

- “Tries to help customers to achieve their goals”;
- “Has the customers’ best interest in mind”;
- “Tries to figure out what customers’ needs are” (Fuchs & Schreier, 2011).

It was measured on a seven-point scale (1="strongly disagree," and 7="strongly agree") and consolidated to a single mean, Cronbach's  $\alpha = .859$ .

**Purchase intention** - Purchase intention was measured using a three-item scale with the following question "Assume that you are going to purchase a [product]. How likely is it that you would purchase a [product] of Company A?"

- “[-3] likely/unlikely [3]”,
- “[-3] probable/improbable [3]”, and
- “[-3] possible/impossible [3]” (Machieit, Allen, & Madden, 1993).

It was measured on a seven-point scale producing a Cronbach's  $\alpha = .909$ .

**Willingness to pay (WTP):** The respondents were asked in an open question “What would you be willing to pay for this product?” No price references were presented. Important to consider is that this measure is not behavioral, but intentional. Research point at a possible



correlation between intention and behavior, although the distinction ought to be kept (Rosengren & Dahlén, 2013)

**(iii) Control questions & (iv) Potential mediators:**

**Novelty** was measured as a single item asking “How "new" do you perceive the company's business model to be?”.

- "[ -3] not very new/very new [3]" (Schreier, Fuchs, & Dahl, 2012).

It was measured on a seven-point scale and tested as a covariate in the analysis.

**(v) Demographic questions:**

The survey ended with questions regarding gender, age and occupation.

### **3.5 Analytical Tools**

The process of analyzing collected data was started by exporting it from the Qualtrics software. The data set was first extracted to Microsoft Excel 12.3.2 where it was organized and overviewed. Missing values, out of which some stemmed from the incomplete surveys, were replaced with a unique number.

In the next step of the analysis, data were transferred into IBM SPSS Statistics 22. Variables were defined and the nature of the variables was set. Missing values were added to the variables as well as different labels. Before running tests on the data reliability, analysis were performed on all multiple item measures. Such analysis ensured that the individual item in multi-item measures measured the same variable. For two items-based questions a Pearson's coefficient was calculated and for three (or more) item-questions a Chronbach's alpha was calculated. If items proved high reliability they were indexed into a single mean. High reliability was proven if the Cronbach's alpha exceeded 0.7 and if the Pearson's coefficient exceeded 0.5 (Bearden, Netemeyer & Haws 2011; Bryman and Bell, 2007). All measures exceeded these levels (table 3.1 & 3.2) and were consequently indexed to a single mean.

Indexes were found convenient since the items intended to measure the same variable. Furthermore, indexed measures have been verified to ensure high internal consistency, which provides stronger support in the analysis.

A large number of tests were carried out in SPSS: frequencies, descriptives, ANOVA, regression analysis and independent t-tests. In some of the tests, covariates were used. Assessments of the interaction effect of the independent variables were performed with ANOVA tests prior to conducting independent t-tests, which enabled a deeper understanding of how the variables interacted, respectively.

In the results chapter (chapter 4), our hypotheses are answered based on deduction from a combination of ANOVAs and independent t-tests. The tests were conducted on our eight experiment groups, and complemented by calculations of new variables based on the independent variables.

*Visual overview of the different combinations of independent test variables (Figure 4.1)*

<b>Co-Creation Future</b> T-shirt / Laptop (V2 / V4)		<b>No Co-Creation Future</b> T-shirt / Laptop (V6 / V8)	
<b>Co-Creation Now</b> T-shirt / Laptop (V1 / V3)		<b>No Co-Creation Now</b> T-shirt / Laptop (V5 / V7)	

**A1 (Previous Studies)**

<b>Co-Creation Future</b> T-shirt / Laptop (V2 / V4)		<b>No Co-Creation Future</b> T-shirt / Laptop (V6 / V8)		<b>Co-Creation Future</b> T-shirt / Laptop (V2 / V4)		<b>No Co-Creation Future</b> T-shirt / Laptop (V6 / V8)	
<b>Co-Creation Now</b> T-shirt / Laptop (V1 / V3)		<b>No Co-Creation Now</b> T-shirt / Laptop (V5 / V7)		<b>Co-Creation Now</b> T-shirt / Laptop (V1 / V3)		<b>No Co-Creation Now</b> T-shirt / Laptop (V5 / V7)	
<b>B1</b>		<b>B2</b>		<b>C1</b>			

**Part 1** **Part 2**

Figure 4.1 Showing the different test combinations of the eight experiment groups

### **Description of *Figure 4.1***

**A1:** Compares a co-created NPA vs. a non co-created NPA. This scenario has already been investigated by researchers, and this thesis will not make any closer presentation of such data comparisons other than as above. **B1 & B2:** This combination of research variables will be presented in the “Part 1” section of our results chapter. **C1:** This combination of research variables will be presented in the “Part 2” section of our results chapter.

Whenever the significance level was set to 10% ( $p < .01$ ), the results were treated as indications, rather than strong evidence. For hypotheses supported below a 5% level of significance ( $p < .05$ ), the results were alleged as being evidence of essential certainty.

## **3.6 Data Quality**

This section looks at the applicability and correctness of the performed study. Reliability and validity are the two most important variables to consider according to Bryman and Bell. Reliability focuses on how consistent and stable results are, whereas validity concerns whether the intended concept is measured. Measures need to be reliable in order to be valid (Bryman & Bell, 2007).

### **3.6.1 Reliability**

The reliability of the study can be examined from a primary and secondary data perspective. Secondary data in this study can be categorized as information gathered from leading research journals and books. Due to the rather uncharted research area of this study, it has also been of interest to scrutinize other secondary sources, such as news articles and research material in progress.

Reliability from the primary data perspective analyses how consistent the study is; i.e. if similar results would be achieved if choosing another sample of test unit and to which extent the rating scales produce consistent and stable results (Bryman & Bell, 2007; Wilson, 2006). Consistent results are assessed by determining the amount of systematic variation there is in different measured items (Malhotra, 2010), and the most favorable method to ensure stable

results is to repeat an experiment at different occasions. However, due to the time limitations other reliability indicators were chosen. To increase the conditions for receiving stable results, a pilot study was performed. It confirmed that questions were interpreted correctly, which in turn increases the likelihood of the experiment yielding similar results if repeated in the future. Furthermore, the number of respondents in each experiment group was above 30, all according to the central limit theorem (Rice, 1995; Malhotra, 2010). All questions concerning (i) evaluation measurements and (ii) action intention measurements (except WTP) in the questionnaire consisted of two or more items. This in order to ensure an internal consistency reliability (Malhotra, 2010). Before compounding the items into indexes, all were proven to be internally consistent, with Chronbach's alphas above 0.7 (Figure 3.1) and Pearson's coefficients above 0,5 (Figure 3.2)(Bearden, Netemeyer & Haws 2011; Bryman and Bell, 2007). Chronbach's alpha ranged from 0.884 to 0.964 and Pearson's correlation measured 0.7 for the WOM measure. This was in line with our expectations since an extensive research and evaluation of the measures were performed before implementing and adapting them to the study. Furthermore, the pre-study ensured that product complexity and the timing of the NPP were set to plausible values.

Based on above-mentioned background, we believe it is legitimate to claim that the study is of high reliability.

Index	Cronbach's Alpha
Level of engineering	.958
Product category involvement	.964
Brand attitude	.937
Perceived customer orientation	.859
Innovation ability	.955
Purchase intention	.909
Perceived customer ability	.884

Figure 3.1 Showing Cronbach's Alpha for the research variables

Index	Pearson's Correlation
WOM	.700*

Figure 3.2 Showing Pearson's Correlation for the research variable WOM

---

\* Correlation is significant at the 0,01 level (2-tailed)

### **3.6.2 Validity**

Validity refers to whether or not an indicator or a set of indicators measure the concept intended. To ensure high quantitative validity, and maintain causal relationships between different treatment groups, the influence of external variables must be minimized (Bryman & Bell, 2007). Guided by this notion, we worked intensively to collect the required amount of responses swiftly. All the data was obtained within a short period of time (7 days), which increased the likelihood that external conditions were similar for all the respondents. Further, all respondents were contacted in the same way, via email, and the same information was given to them. Each respondent was randomly assigned to his/her treatment group to help ensure that any differences between and within the groups were not systematic at the outset of the experiment. An additional method employed to reduce the effect of external variables was to use an anonymous brand (“Company A”) in the experiment. This to avoid biased results stemming from previous perceptions hold about the brand.

There is a risk that the large number of non-attended surveys has affected the results but at large the control of external factors has been adequate. Moreover, the pre-study made sure that the moderating variables gave the intended effects before applying them to the main study.

## 4. RESULTS AND ANALYSIS

*In this chapter, the results and the analysis of the statistical tests will be presented in two sections, Part 1 and Part 2. Research variables are reported one at a time. The variables will be presented in the following order: 1) Perceived innovation ability (key measure 1), 2) Perceived customer orientation (key measure 2), 3) Purchase intention, and 4) Willingness to pay. Hypotheses referring to the variables will be presented in the same order as in the theoretical chapter (chapter 2).*

### 4.1 Part 1

It is suggested in this thesis that a company which, through an NPP, announces that it will design its next product together with its consumers, will be perceived differently today with regards to its customer orientation and its innovation abilities, compared to a zero empowerment company. Important to note is that a zero empowerment company can be seen in two different lights depending on whether the company advertises through NPAs or NPPs; 1) For a company which advertises through NPAs: Implicitly, the company is signaling: “*now*, company professionals are in charge of the NPD”), and 2) For a company which advertises through NPPs: Implicitly, the company is signaling “*in the future*, company professionals are in charge of the NPD”.

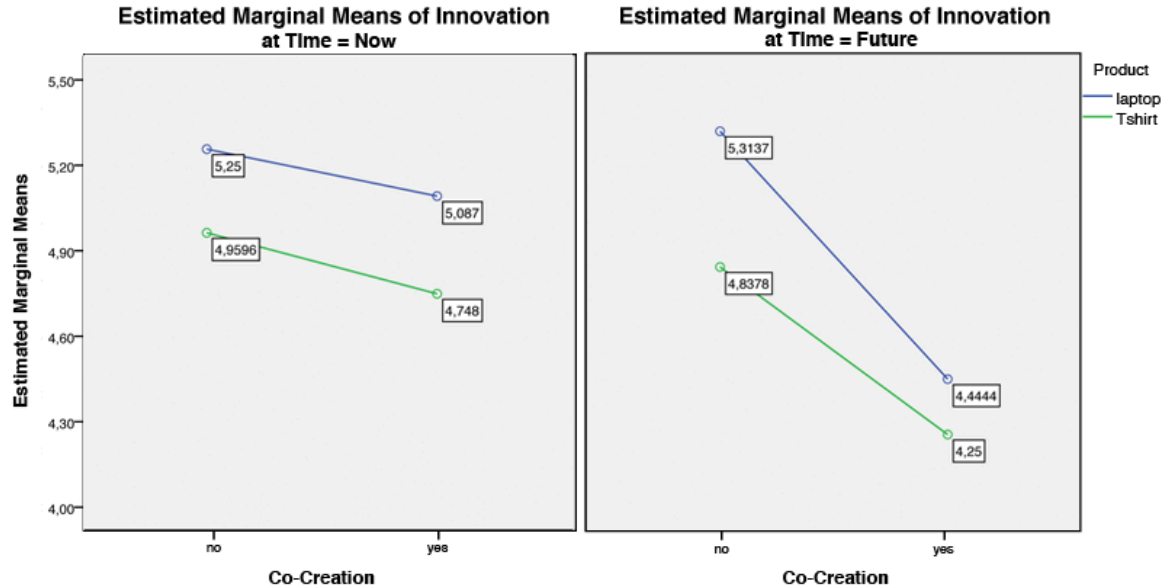
Thus, hypotheses can be tested in two different ways, having Scenario 1 (B1) denoting the first zero empowerment control group, and Scenario 2 (B2) denoting the second zero empowerment control group. Hypotheses can consequently give two results depending on what control group that is being used. In this section (Part 1), B1 has been chosen as the primary test combination. This is since this scenario is the closest to a real life example (most companies today advertise through NPAs). In addition, B1 captures the transition of moving from traditional NPD to collaborative NPD.

Both scenarios are illustrated below:

Co-Creation Future T-shirt / Laptop (V2 / V4)	No Co-Creation Future T-shirt / Laptop (V6 / V8)	Co-Creation Future T-shirt / Laptop (V2 / V4)	No Co-Creation Future T-shirt / Laptop (V6 / V8)
Co-Creation Now T-shirt / Laptop (V1 / V3)	No Co-Creation Now T-shirt / Laptop (V5 / V7)	Co-Creation Now T-shirt / Laptop (V1 / V3)	No Co-Creation Now T-shirt / Laptop (V5 / V7)
<b>B1</b>		<b>B2</b>	

#### 4.1.1 Understanding innovation perceptions

First, an ANOVA was run on the dependent variable perceived innovation. The independent research variables co-creation, time and product complexity were set as fixed factors. Co-creation had a significant main effect ( $F(1, 313) = 9.11, p < .01$ ) as well as time ( $F(1, 313) = 3.90, p < .05$ ) and product complexity ( $F(1, 313) = 4.59, p < .05$ ). Furthermore, a significant interaction effect between co-creation \* time ( $F(1, 290) = 3.18, p < .1$ ) was observed.



The plot shows that the largest differences are observed when comparing “future co-creation” with “future no co-creation” or “current co-creation” with “future co-creation” for both products. Looking at the plot above, it is clear that hypotheses H1a, H5a and H6 will be rejected since the relationship between the means are reversed from what was anticipated. To

more carefully describe these relationships, a number of independent t-tests will be presented for each hypothesis.

**For non-complex products:**

**H1a** states that a company that announces that it will design its next noncomplex product together with its consumers (through an NPP) will be perceived as more innovative than a zero-empowerment company. For perceived innovation ability, the mean difference between a future co-created non-complex product ( $M_{CCF, T-shirt} = 4,25$ ) and the control group ( $M_{NCCN, T-shirt} = 4,96$ ) was 0,71. Based on a t-test, H1a was rejected. The reversed results were confirmed on a 5 % level of significance ( $p < .05$ ). The analysis thus reveals that a pre-announced non-complex product will be perceived as less innovative than an identical product which has been developed with means of traditional NPD.

---

**H1a:** A company that announces that it will design its next **non-complex** product together with its consumers (through an NPP) will be perceived as more innovative than a zero-empowerment company. **REJECTED**

---

**For complex products:**

**H1b** states that a company that announces that it will design its next complex product together with its consumers (through an NPP) will be perceived as less innovative than a zero-empowerment company. For perceived innovation ability, the mean difference between a future co-created complex product ( $M_{CCF, Laptop} = 4,44$ ) and the control group ( $M_{NCCN, Laptop} = 5,25$ ) was 0,81. Based on a t-test, H1b was accepted on a 1 % level of significance ( $p < .01$ ). The results suggest that pre-announced co-creation of complex products has a negative effect on perceived innovation ability.

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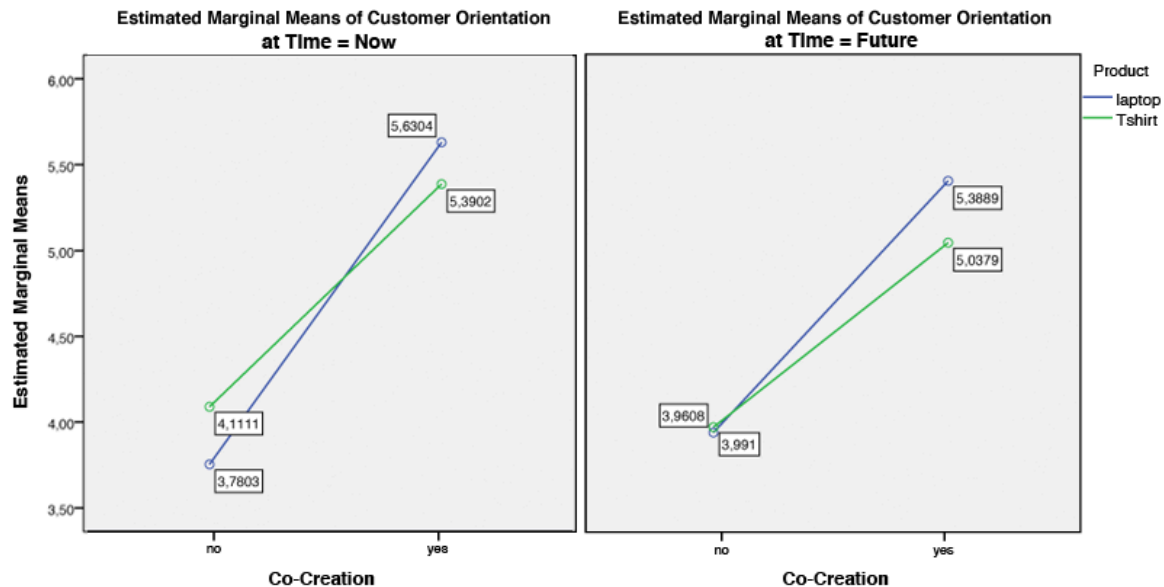
**H1b:** A company that announces that it will design its next **complex** product together with its consumers (through an NPP) will be perceived as less innovative than a zero-empowerment company. **ACCEPTED**

---



### 4.1.2 Understanding customer orientation

Again, an ANOVA was run, this time analyzing the dependent variable customer orientation. The independent research variables co-creation, time and product complexity were made fixed factors. Co-creation had a significant main effect ( $F(1, 313) = 121,92, p < .01$ ) while product complexity as a main effect was not significant. This supports our hypotheses testing perceived customer orientation, no matter the complexity of the underlying product.



The plot shows that the largest mean differences are observed when comparing “future co-creation” with “future no co-creation” or “current co-creation” with “current no co-creation” for both products. Looking at the plot above, it is clear that hypothesis H7 will be rejected since the means between “current co-creation” vs. “future co-creation” are very similar. In order to describe the relationships more thoroughly a number of independent t-tests will follow below.

#### For both complex and non-complex products:

**H2** states that a company that announces that it will design its next product together with its consumers (through an NPP) will be perceived as more customer oriented than a zero-empowerment company. For customer orientation, the mean difference between a future co-created product ( $M_{CCF, Both} = 5,21$ ) and the control group ( $M_{NCCN, Both} = 3,92$ ) was 1,29. Based

on a t-test, H2 was accepted on a 1 % level of significance ( $p < .01$ ). The analysis reveals that a company which pre-announces a co-created product will be perceived as more customer oriented than a company offering an identical non co-created product.

---

**H2:** A company that announces that it will design its next product together with its consumers (through an NPP) will be perceived as more customer oriented than a zero-empowerment company. **ACCEPTED**

---

H2 was also tested on both product categories individually. When testing the two products separately, both products supported the hypothesis on a 1 % level of significance.

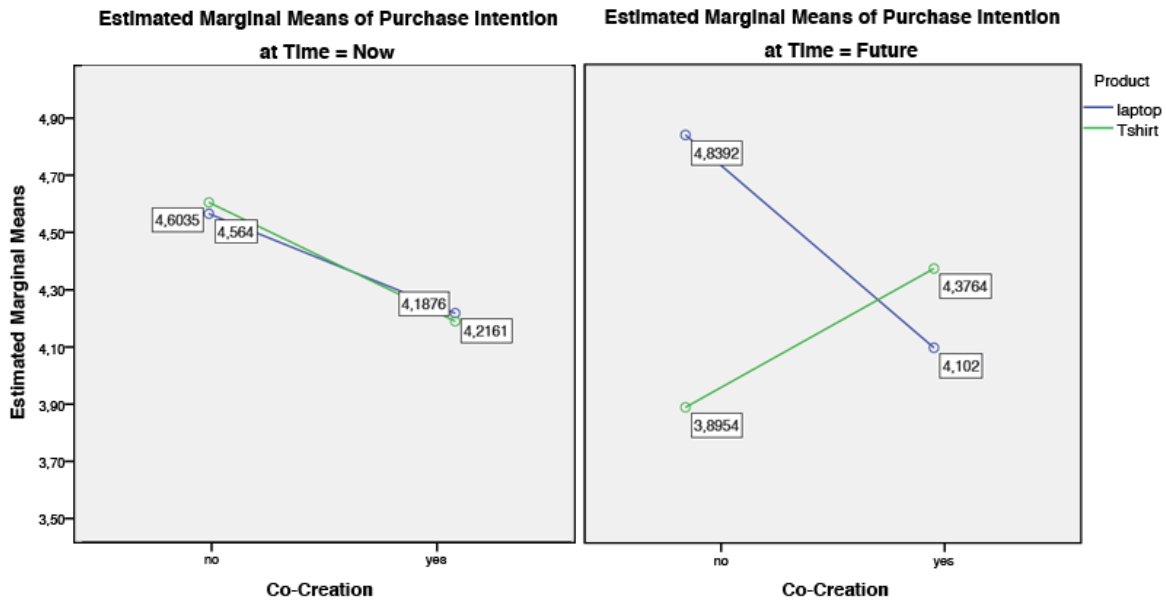
#### **4.1.3 Understanding purchase intention**

*In the theoretical chapter, hypotheses regarding behavioral intentions are presented both in relation to perceived innovation ability and perceived customer orientation. Below, the results for purchase intention are merged together.*

Theory suggests that lower perceived innovation ability would affect behavioral intentions negatively. Simultaneously there is theory suggesting that higher perceived customer orientation would positively affect behavioral intentions. Thus, there are two opposing forces at work.

Grounded in the notion that there is an interaction effect between our independent variables and purchase intention, an additional ANOVA was run. The independent variables co-creation, time and product complexity were set as fixed factors, while gender and newness were set as covariates. The test revealed that both gender ( $p < .01$ ) and newness ( $p < .05$ ) had a significant effect on purchase intention. Further, co-creation had a significant and reversed main effect on purchase intention ( $F(1, 290) = 3.12, p < .1$ ). Neither time nor product complexity showed any significant main effects. However, we found a significant interaction effect between both co-creation \* product complexity ( $F(1, 290) = 4.80, p < .05$ ), and co-

creation \* product complexity \* time ( $F(1, 290) = 5.11, p < .05$ ).



The plot shows large mean differences in purchase intention when comparing “future co-creation” with “future no co-creation” for both t-shirts and laptops. In the case of a t-shirt, the diagram suggests that if the t-shirt is to be pre-announced, it is favorable to communicate that it has been developed through co-creation rather than “hiding” it. In the case of a laptop, the opposite holds; if the laptop is to be pre-announced, the results suggest that the underlying firm should not advertise widely that it has been developed through co-creation. This observation relates to experiment scenario **B2**. According to our hypotheses, scenario **B1** should result in significant mean differences. From above it is clear that hypotheses H3 and H4a will be rejected since the relationship between the means are reversed to the ones anticipated. Below, a number of t-tests will investigate these relationships more carefully.

### For non-complex products:

**H3** states that consumers will develop stronger purchase intentions toward a company that, through an NPP, announces that it will design its next noncomplex product together with its consumers (vs. design by company professionals). For purchase intention, the mean difference between a future co-created non-complex product ( $M_{CCF, T-shirt} = 4.28$ ) and the control group ( $M_{NCCN, T-shirt} = 4.53$ ) was 0.25. Based on a t-test, H3 was rejected. The results

reveal that there is no support for the hypothesis stating that pre-announced co-creation of non-complex products should increase consumers' purchase intentions (as opposed to identical products developed by means of traditional NPD).

---

**H3:** Consumers will develop stronger purchase intentions toward a company that, through an NPP, announces that it will design its next non-complex product together with its consumers (vs. design by company professionals). **REJECTED**

---

When testing H3 by the alternative scenario **B2**, the hypothesis was **ACCEPTED** on a 5 % level of significance. The results show that a company that announces that it will design a future co-created non-complex product ( $M_{CCF, \text{T-shirt}} = 4,28$ ) will indeed induce purchase intentions within consumers ( $p < .05$ ) compared to a zero-empowerment company ( $M_{NCCF, \text{T-shirt}} = 3,75$ ) with a mean difference of 0,53. This implies that, for a company which already pursues NPP's of non-complex products (as is the case of the control group in B2), it may be beneficial to advertise the co-creative efforts in order to induce behavioral intentions within its consumers.

**For complex products:**

**H4a** states that consumers will develop stronger purchase intentions toward a company that, through an NPP, announces that it will design its next complex product together with its consumers (vs. design by company professionals). The mean difference between a future co-created non-complex product ( $M_{CCF, \text{Laptop}} = 5,38$ ) and the control group ( $M_{NCCN, \text{Laptop}} = 3,78$ ) was 1,61. Based on a t-test, H4a was rejected. The analysis reveals that there is no support for the hypothesis stating that pre-announced co-creation of complex products ought to increase consumer purchase intentions.

---

**H4a:** Consumers will develop stronger purchase intentions toward a company that, through an NPP, announces that it will design its next complex product together with its consumers (vs. design by company professionals). **REJECTED**

---

**H4b** states that consumers will develop weaker purchase intentions toward a company that, through an NPP, announces that it will design its next complex product together with its consumers (vs. design by company professionals). The mean difference between a future co-created non-complex product ( $M_{CCF, Laptop} = 5,38$ ) and the control group ( $M_{NCCN, Laptop} = 3,78$ ) was 1,61. Based on a t-test, H4b was rejected. Thus, we did not find any support for the hypothesis stating that pre-announced co-creation of complex products ought to decrease purchase intentions.

---

**H4b:** Consumers will develop weaker purchase intentions toward a company that, through an NPP, announces that it will design its next complex product together with its consumers (vs. design by company professionals). **REJECTED**

---

When testing the hypothesis by the alternative scenario **B2**, the hypothesis was **ACCEPTED** on a 10 % level of significance. The results show that a company which announces that it will design a future co-created non-complex product ( $M_{CCF, Laptop} = 4,26$ ) will induce purchase intentions within consumers ( $p < .10$ ) compared to a zero-empowerment company ( $M_{NCCF, Laptop} = 4,73$ ) with a mean difference of 0,47. For companies already practicing preannouncements of upcoming new complex products it might thus be unfavorable to communicate the source of its design.

The above hypotheses (H3, H4a-b) have only investigated one type of behavioral intention; consumer purchase intention. An additional behavioral intention measure that showed significant results in our study was willingness to pay (WTP). In line with H3, the results are the following: A company that announces that it will design a future co-created non-complex product ( $M_{CCF, T-shirt} = 281$ ) induces significantly higher purchase intentions within consumers ( $p < .10$ ) compared to a zero-empowerment company ( $M_{NCCN, T-shirt} = 237$ ) with a mean difference of 43. These results indicate that pre-announced co-creation of non-complex products may increase consumers' willingness to pay (WTP).

## 4.2 Part 2

The **C1** test-combination investigates whether there are any significant differences between advertising co-created products now vs. promising co-created products in the future. This experiment will answer which timing is suited best for promoting a company's co-created products.

<b>Co-Creation Future</b> T-shirt / Laptop (V2 / V4)	<b>No Co-Creation Future</b> T-shirt / Laptop (V6 / V8)
<b>Co-Creation Now</b> T-shirt / Laptop (V1 / V3)	<b>No Co-Creation Now</b> T-shirt / Laptop (V5 / V7)

**C1**

### 4.2.1 Understanding innovation perceptions

**For non-complex products:**

**H5a** states that a company that announces that it will design its next noncomplex product together with its consumers (through an NPP) will be perceived as more innovative than a company that announces that it has designed its current product together with its consumers (through an NPA). For perceived innovation ability, the mean difference between a future co-created non-complex product ( $M_{CCF, \text{T-shirt}} = 4,25$ ) and the control group ( $M_{CCN, \text{T-shirt}} = 4,75$ ) was 0,50. Based on a t-test, H5a was rejected. The analysis thus reveals that consumers will not perceive a company advertising its non-complex co-created products through NPPs as more innovative than a company advertising the same products through NPAs.

---

**H5a:** A company that announces that it will co-design its next non-complex product with its consumers (through an NPP) will be perceived as more innovative than a company that announces that it has co-designed its current product (through an NPA). **REJECTED**

---

**For complex products:**

**H5b** states that a company that announces that it will design its next complex product together with its consumers (through an NPP) will be perceived as less innovative than a company that announces that it has designed its current product together with its consumers (through an NPA). For perceived innovation ability, the mean differences between a future co-created complex product ( $M_{CCF, Laptop} = 4,44$ ) and the control group ( $M_{CCN, Laptop} = 5,09$ ) was 0,64. Based on a t-test, H5b was accepted on a 5 % level of significance ( $p < .05$ ). The analysis thus reveals that pre-announced co-creation of complex products is perceived less innovative than traditionally-announced co-creation.

---

**H5b:** A company that announces that it will co-design its next complex product with its consumers (through an NPP) will be perceived as less innovative than a company that announces that it has co-designed its current product (through an NPA). **ACCEPTED**

---

#### **4.2.2 Understanding customer orientation**

**H6** states that a company that announces that it will design its next product together with its consumers (through an NPP) will be perceived as more customer oriented than a company that announces that it has designed its current product together with its consumers (through an NPA). The mean difference between a future co-created complex product ( $M_{CCF, Laptop} = 4,44$ ) and the control group ( $M_{CCN, Laptop} = 5,09$ ) was 0,64. Based on a t-test, H6 was rejected. In addition, the results were significant in the reversed direction ( $p < .01$ ). The results suggest that pre-announced co-creation of complex products is perceived less customer oriented than traditionally-announced co-creation.

---

**H6:** A company that announces that it will co-design its next product (no matter complexity) with its consumers (through an NPP) will be perceived as more customer oriented than a company that announces that it has co-designed its current product (through an NPA).

**REJECTED**

---

## PART 1

### 4.1.1 Understanding innovation perceptions

**H1a:** *A company that announces that it will design its next non-complex product together with its consumers (through an NPP) will be perceived as more innovative than a zero-empowerment company.*

REJECTED

**H1b:** *A company that announces that it will design its next complex product together with its consumers (through an NPP) will be perceived as less innovative than a zero-empowerment company.*

ACCEPTED

### 4.1.2 Understanding customer orientation

**H2:** *A company that announces that it will design its next product together with its consumers (through an NPP) will be perceived as more customer oriented than a zero-empowerment company.*

ACCEPTED

### 4.1.3 Understanding purchase intention

**H3:** *Consumers will develop stronger purchase intentions toward a company that, through an NPP, announces that it will design its next non-complex product together with its consumers (vs. design by company professionals).*

REJECTED

**H4a:** *Consumers will develop stronger purchase intentions toward a company that, through an NPP, announces that it will design its next complex product together with its consumers (vs. design by company professionals).*

REJECTED

**H4b:** *Consumers will develop weaker purchase intentions toward a company that, through an NPP, announces that it will design its next complex product together with its consumers (vs. design by company professionals).*

REJECTED

## PART 2

### 4.2.1 Understanding innovation perceptions

**H5a:** *A company that announces that it will co-design its next non-complex product with its consumers (through an NPP) will be perceived as more innovative than a company that announces that it has co-designed its current product (through an NPA)*

REJECTED

**H5b:** *A company that announces that it will co-design its next complex product with its consumers (through an NPP) will be perceived as less innovative than a company that announces that it has co-designed its current product (through an NPA).*

ACCEPTED

### 4.2.2 Understanding customer orientation

**H6:** *A company that announces that it will co-design its next product (no matter complexity) with its consumers (through an NPP) will be perceived as more customer oriented than a company that announces that it has co-designed its current product (through an NPA).*

REJECTED



## 5. DISCUSSION

The findings from our thesis add to theory on the non-participating consumers' reactions to pre-announced co-reaction, as well as future-oriented marketing theory.

### 5.1 Summary of results

This thesis supports previous research findings stating that consumer co-creation affects perceptions of a company's customer orientation and ability to innovate. The effect is proven to hold for preannounced products, meaning that a brand can induce the same kinds of perceptions in consumers just by announcing co-creation of a product in the future. More specifically, pre-announced and co-created products will significantly enforce customer orientation perceptions and significantly weaken the perceptions of a firm's ability to be innovative.

The results from Part 2 in the study show that, despite the general tendency of favoring forthcoming new products (NPPs) over (identical) new products that are currently available on the market (Dahlén, Thorbjørnsen & Sjödin 2011), consumers do not favor co-created products from the future. On the contrary, pre-announced co-created products (vs. NPAs) lead to lower innovation ability perceptions and lower customer orientation perceptions.

### 5.2 Part 1

#### 5.2.1 Understanding innovation perceptions

**(H1a and H1b) Co-creation with regards to innovation perceptions for complex and non-complex products**

The results from our study indicate that a company that fosters consumer co-creation in NPD will be perceived as less innovative than a zero-empowerment company. This is well in line with the general ruling from traditional inferences on innovation, which posits that given the acquired experience and skill set, professionals should possess the qualifications that allow them to perform tasks in NPD in a more successful and innovative way than ordinary

consumers (Schreier, Fuchs & Dahl, 2012; Moreau and Herd 2010). However, given the freshness of Fuchs, Schreier and Dahl's study from 2012, we found it plausible to assume grounded indications in favor of a positive innovation effect for non-complex products. Needless to say, our results imply that users are perceived to have less know-how than company professionals, even in a relatively simple design tasks such as designing a t-shirt. Flowingly, the four arguments (the numbers-, diversity-, user- and constraints argument) that constitute explanatory reasons to why drawing upon users in NPD should lead to higher perceptions with regards to a company's innovation abilities, did not come through in this study (Schreier, Fuchs & Dahl, 2012).

There are several possible explanations to why the innovation effect didn't play out as expected. To begin with, our assumptions were based on one single study (Schreier, Fuchs & Dahl, 2012), which hardly makes its findings universal.

Moreover, the way co-creation is evaluated highly depends on two sources; the underlying brand and the active consumers. Given the limited information that was given to the respondents (no brand, and no specific information regarding the brand's consumers), there was very little information to draw conclusions from. This was a deliberate strategy since we wanted the co-creation to be evaluated on its own. Nonetheless, it may have affected the results in the way that it didn't succeed to deliver the necessary signals in order to ensure the respondent the "right" mindset, which may have lowered the expectations of the product and its creators. In the context of consumer co-creation, we expect thus the brand to play an extra important role as a guarantee that can signal ability and ensure the non-participating consumer about the standard of the product.

As noted previously, low familiarity with user design constitutes a boundary condition to the innovation effect (Schreier, Fuchs & Dahl, 2012). Consequently, no matter the complexity of the underlying product, consumers' own experiences of having modified / invented / come up with ideas for new products, will just the same have an impact on how they will evaluate the co-creation. Fuchs, Schreier and Dahl, suggest that people with limited familiarity with user design will have a harder time finding the appropriate mindset for the "right" consumer, potentially leading to lower perceived ability characteristics. Without making any substantial

claims about our respondents' familiarity with user design, we want to underline that it may have constituted a possible explanation to why our results regarding non-complex products differ from the empirical study we drew upon.

### **5.2.2 Understanding customer orientation perceptions**

#### **(H2) Co-creation with regards to customer orientation**

Significantly, and in support of hypothesis H2, the results showed that a company fostering co-creation in NPD is associated with higher customer orientation than a company pursuing traditional NPD. At the same time, and consistent with our theorization, this is also the case for pre-announced products. In other words, even companies that have not yet started to foster co-creation, but inform their customers that they will, are to be perceived as more customer oriented than zero-empowerment companies.

Seeing we only tested this effect on two products, we can hardly expect our result to be universal. Our guess is, however, that product category should have little effect on perceived customer orientation seeing it encapsulates the intention of putting the customer's interest first, which should be valued as customer oriented no matter product category.

### **5.2.3 Behavioral Intentions**

#### **(H3, H4a, H4b) Co-creation with regards to purchase intentions**

Our study shows that consumers do not develop stronger purchase intentions toward companies that fosters co-creation in NPD versus zero-empowerment companies. In fact, this analysis showed no significant results as to how prone a consumer would be to purchase different products depending on how they were developed. This was not in line with our expectations, since previous research has provided firm empirical evidence for both key measures and positive behavioral outcomes (Fuchs & Schreier, 2011; Schreier, Fuchs & Dahl, 2012). Needless to say, the innovation effect in our study turned out reversed for both laptops and t-shirts, which constitutes a possible explanation to why the respondents did not develop stronger purchase intentions for co-created products. A conclusion we can draw from this is that the strengthened perceptions of customer orientation for a company fostering consumer

co-creation did not induce corporate associations strong enough to affect behavioral intentions in a favorable way.

### 5.3 Part 2

**(H5a, H5b, H6):** Comparing co-creation that has already taken place (though an NPA), with co-creation from the future (through an NPP).

Both key measures (customer orientation and innovation ability) as well as brand attitude and WOM intentions were significantly lower for co-created NPPs (vs. co-created NPAs). The thoroughgoing lower evaluations of the future-oriented product go against the theory of Nextopia and optimism bias, which suggest positive reactions to pre-announcements. Thus, the tendency to favor forthcoming new products over (identical) new products that are currently available on the market (Dahlén, Thorbjørnsen & Sjödin 2011), was not supported in this study. To address possible explanations for the unexpected results, we consulted Professor Micael Dahlén, who concluded that these results indeed go against what previous research would predict. The only case where he himself had come across this kind of negative effect with regards to pre-announced products was in a forthcoming study where future advertising was tested in relation to credibility. For a launch associated with low credibility, the effects of future advertising were proven reversed (Dahlén, 2013).

As we did not specifically address ad credibility in our survey, we can only make assumptions regarding the matter, but we do not have any reason to believe that the products were portrayed specifically "incredible". Needless to say, given the study was carried out mostly to students (who may previously have taken part in designing similar experiments), we might have attracted respondents with a more "critical eye", which may have led to lower credibility scores for the ad, mitigating the expected Nextopia effect.

Without confounding the two concepts, one way of looking at "uncredibility" would be as a sort of uncertainty. We suggest that a co-created NPP entails two sources of uncertainty, as opposed to just one for non-co-created products; one with regards to the actual co-creation (e.g. *will the product reach a just as good standard as it would through traditional NPD?*),

and the other with regards to the future (the future is by definition "uncertain"). The suggested two-folded uncertainty might thus constitute a possible explanation for why the Nextopia effect did not play out as expected.

For an additional argument to why the future-oriented advertising of co-created products did not evoke the expected positive outcome in this study, as previous research would suggest, we refer to the psychological reactance theory. The theory posits that people form reactance when they experience that their behavioral freedom is being threatened (Brehm, 1966; Brehm , 1972; Brehm & Brehm, 1981; Wicklund, 1974). For an illustrative example, consider a person who is prohibited from smoking a cigarette. Reactance theory suggests that this person will be particularly prone to taunt the authority that prohibited it, and just as well smoke the darn cigarette.

A way of applying reactance theory in the context of co-creation in different time settings would be to think of the future co-creation as the restricted opportunity; seeing the "current" co-creation has already taken place (ergo no longer constitutes an opportunity). That is, by informing participants about a forthcoming opportunity to be involved in the development of a new product, nonetheless in a manner that takes away the feeling of being able to participate (as in the case of the experiment), the respondents might have felt as if someone was taking away his or her choice to participate, leading to reactance. Researchers have found that reactance adverse attitudes towards the source of the restriction; i.e. the individuals that threaten the person's behavioral freedom are regarded unfavorably (Miller et.al 2007). In the case of this experiment, the individual would be either Company A, or the participating consumers, potentially leading to unfavorable evaluations of the future-oriented scenario.

Worth mentioning, our hypotheses built on the uncertainty theory, proposing that uncertainty makes unpleasant events more unpleasant (where low perceived innovation ability of complex products was denoted the "unpleasant event"), was supported by the data. However, we would like to caution the reader that one cannot take for granted that this effect was a direct result of the uncertainty intensification hypothesis, since the effect did not play out in the positive direction.

## 5.4 Managerial Implications

The findings of this thesis will have practical implications for firms fostering consumer co-creation as well as firms engaging in future-oriented advertising. It may, likewise, have implications for firms not yet engaging in any of the activities mentioned.

As previously stated, non-participating consumers' responses to co-created products should be highly relevant, considering it can determine whether firms should "hide" (not announce broadly) or "sell" (announce broadly) co-creative activities.

To this date, researchers have looked upon co-creation as either something "good" (generating positive corporate associations), or as something "bad" (generating negative corporate associations). Our study is the first of its kind to point at a hybrid sort of co-creation; the same co-creation may lead to two opposing drivers of perceptions, producing contradictory inferences.

The potential negative innovation effect of consumer co-created products, even in relatively simple design tasks, should constitute a good indication for managers to thoroughly think their strategy through. Additionally, managers must be aware of the additional signaling effect of the consumer (in addition to the brand), that may be at play when evaluating co-created products.

We suggest that the way co-creation is perceived in the marketplace will be highly dependent on how a company decides to frame the co-creation in its communication efforts. For instance, in the context of luxury fashion brands (where it is suggested that involving ordinary users in NPD takes away the desirable feeling of status), it has been found that by simply replacing the phrase "common design by users" to "common design by artists", the negative signaling effect may be mitigated (Fuchs et.al., 2013).

Finally, the findings from this study have different implications depending on what type of company that is concerned. As products are becoming more and more similar, the need of being customer oriented is becoming an important differentiating strategy for brands (Grönroos, 1994). A company that does not yet engage in consumer co-creation, but plans to

involve its consumers in NPD for future projects, may by announcing this be rewarded with higher perceived consumer orientation even before actually doing anything. On the other hand, for a company that is already fostering consumer co-creation and decides upon whether to pre-announce it or not, our study points at a potential pitfall – non-preannounced co-creation (vs. preannounced co-creation) scored higher on both innovation perceptions and customer orientation perceptions.

## **5.5 Criticism of the study**

Critique of the study can be raised in the following aspects:

To begin with, the respondents consisted mainly of students at the Stockholm School of Economics. It could thus be questioned whether our results are representative of the Swedish population or not. However, students were considered an appropriate sample since the questionnaire was in rather advanced English, which could constitute a problem for someone who is not exposed to the English language on a daily basis. Moreover, the groups were highly homogenous, which is essential for between-group experiments.

Because of the limited scope of the thesis, we were restricted to only testing two single product categories. Although our study has shown that consumer co-creation may bring about perceptions of customer orientation and innovation ability, one can only speculate about the generalizability of these findings. Analogically, one cannot make any corroborated claims as to the consequences of user innovation for established brands.

Ultimo, the study contains mostly “black and white” comparisons, only contrasting two extremes of the co-creation continuum: zero empowerment versus full empowerment. In reality, companies are much more likely to foster hybrid versions of co-creation.

## **5.6 Future Research**

As previously mentioned, companies are much more likely to foster hybrid versions of customer empowerment. From a more practical standpoint, it would therefore be interesting to explore perceptions across different types of empowerment scenarios.

We are still very irresolute towards why the Nextopia effect did not play out as expected. Therefore, we believe a further exploration of the concept as highly valuable. Being the sole study to experience a negative Nextopia effect, we suggest that the Co-creation / Nextopia interaction produces some sort of “uncertainty” about the outcome of the product, which should be investigated further.

As previously noted, co-creation is highly dependent on how the co-creating consumers are perceived. Future research should analyze this topic further, and investigate how non-participating consumers evaluate products based on how they visualize the co-creators.

## **5.7 Conclusions**

The purpose of this thesis has been to provide better understanding on how non-participating consumers react to preannounced co-created products. In the course of this study, we have shown that a product preannouncement in which consumer co-creation is communicated alters the non-participating consumer’s perceptions of a company’s customer orientation and ability to innovate. Consequently, we have provided firm indications that NPPs of co-created products will affect current brand perceptions. Furthermore, we have shown that NPPs of co-created products do not produce as favorable perceptions as NPAs of the same co-created products. What one can draw from this, is that consumers’ general tendency of favoring forthcoming new products over new products does not automatically translate to co-created products.

With this study, our ambition was to explore a completely new area in marketing research by combining co-creation theory with theory on product preannouncements, contribute to the field of the non-participating consumer’s responses to customer empowerment strategies, and consequently find new paths for marketers to follow.



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## 7. APPENDIX

### Appendix I: Pre-test results

T-shirt	N	Min	Max	Mean	St. Deviation
Complexity to produce*	36	1	7	5,611	1,358
Level of Engineering	36	1	4,67	2,204	0,970
Financial Risk	36	1	4	1,833	1,133
Time	30	1	8	2,557	1,956

Laptop	N	Min	Max	Mean	St. Deviation
Complexity to produce*	40	1	5	2,300	1,764
Level of Engineering	40	3,67	7	5,483	0,970
Financial Risk	40	2	6	3,650	1,133
Time	36	2	24	12,333	4,934

Measure	T-shirt	Laptop	Difference between Means	Significance Level (1-tail)
Complexity to produce*	5,611	2,300	3,3111	0,000
Level of Engineering	2,204	5,483	-3,2796	0,000
Financial Risk	1,833	3,650	-1,8167	0,000
Time	2,557	12,333	-9,7667	0,000

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\* This measure goes from complex to non-complex, thus in reverse compared to level of engineering.

## **Appendix II: The different stimuli versions**

### **(V1 - CCN T-shirt)**

Company A is a US-based fashion label, which is known for its T-shirts. The T-shirts are designed through a collaboration between the company's internal designers and the company's customers. Company A is now launching its NEW DESIGN LINE.

This is how the new design line has been developed:

Company A asked enthusiastic customers from all over the world to submit highly creative ideas for new designs – any customer could participate. In this process, customers were free of any constraints and could let their ideas and visions flow.

From the large set of submitted ideas, customers voted for the best ones to be included in the new design line.

New design line - IN STORES NOW -

### **(V2 - CCF T-shirt)**

Company A is a US-based fashion label, which is known for its T-shirts. The T-shirts are designed by the company's internal designers. Company A is now planning its NEW DESIGN LINE.

This is how the new design line is going to be developed:

Company A will ask enthusiastic customers from all over the world to submit highly creative ideas for new designs – any customer will be able to participate. In this process, customers will be free of any constraints and can let their ideas and visions flow.

From the large set of submitted ideas, customers will vote for the best ones to be included in the new design line.

New design line - IN STORES JAN 2014 -

### **(V3 - CCN Laptop)**

Company A is a US-based information technology company, which is known for its laptop computers. The laptops are developed through a collaboration between the company's internal developers and the company's customers. Company A is now launching its NEW LAPTOP.

This is how the new laptop has been developed:

Company A asked enthusiastic customers from all over the world to submit highly creative ideas for a new laptop – any customer could participate. In this process, customers were free of any constraints and could let their ideas and visions flow.

From the large set of submitted ideas, customers voted for the best ones to be included in the new laptop.

New laptop - IN STORES NOW -

### **(V4 - CCF Laptop)**

Company A is a US-based information technology company, which is known for its laptop computers. The laptops are developed by the company's internal developers. Company A is now planning its NEW LAPTOP.

This is how the new laptop is going to be developed:

Company A will ask enthusiastic customers from all over the world to submit highly creative ideas for a new laptop – any customer will be able to participate. In this process, customers will be free of any constraints and can let their ideas and visions flow.

From the large set of submitted ideas, customers will vote for the best ones to be included in the new laptop.

New laptop - IN STORES 2015 -

**(V5 - NCCN T-shirt)**

Company A is a US-based fashion label, which is known for its T-shirts. The T-shirts are designed by the company's internal designers. Company A is now launching its NEW DESIGN LINE.

This is how the new design line has been developed:

Company A asked its professional designers to submit highly creative ideas for new designs. In this process, the designers were free of any constraints and could let their ideas and visions flow.

From the large set of generated ideas, the company selected the best ones to be included in the new design line.

New design line - IN STORES NOW -

**(V6 - NCCF T-shirt)**

Company A is a US-based fashion label, which is known for its T-shirts. The T-shirts are designed by the company's internal designers. Company A is now planning its NEW DESIGN LINE.

This is how the new design line is going to be developed:

Company A will ask its professional designers to submit highly creative ideas for new designs. In this process, the designers will be free of any constraints and can let their ideas and visions flow.

From the large set of generated ideas, the company will select the best ones to be included in the new design line.

New design line - IN STORES JAN 2014 -

**(V7 - NCCN Laptop)**

Company A is a US-based information technology company, which is known for its laptop computers. The laptops are developed by the company's internal developers. Company A is now launching its NEW LAPTOP.

This is how the new laptop has been developed:

Company A asked its professional developers to submit highly creative ideas for a new laptop. In this process, the developers were free of any constraints and could let their ideas and visions flow.

From the large set of generated ideas, the company selected the best ones to be included in the new laptop.

New laptop - IN STORES NOW -

**(V8 - NCCF Laptop)**

Company A is a US-based information technology company, which is known for its laptop computers. The laptops are developed by the company's internal developers. Company A is now planning its NEW LAPTOP.

This is how the new laptop is going to be developed:

Company A will ask its professional developers to submit highly creative ideas for a new laptop. In this process, the developers will be free of any constraints and can let their ideas and visions flow.

From the large set of generated ideas, the company will select the best ones to be included in the new laptop.

New laptop - IN STORES 2015 -

## Appendix III: Overview of Mean Values between the Different Manipulations

Group	N	Customer Orientation	Innovation Ability	Purchase Intention	WOM Intention	Brand Attitude	Willingness to Pay
V1 CCN T-shirt	41	5,3902	4,7480	4,2167	3,9000	5,6911	222
V2 CCF T-shirt	44	5,0379	4,2500	4,2791	3,6744	4,8636	281
V3 CCN Laptop	46	5,6304	5,0870	4,5039	4,4535	5,2826	6600
V4 CCF Laptop	42	5,3889	4,4444	4,2583	4,1375	5,2540	7000
V5 NCCN T-shirt	33	4,1111	4,9596	4,5333	3,7000	5,1515	237
V6 NCCF T-shirt	37	3,9910	4,8378	3,7524	3,3286	4,7117	285
V7 NCCN Laptop	44	3,7803	5,2500	4,5504	4,2791	5,3333	7221
V8 NCCF Laptop	34	3,9608	5,3137	4,7273	4,1061	5,1569	7774
Average Mean Value		4,6613	4,8613	4,3527	3,9474	5,1806	—

## Appendix IV: Comparing Means of Chosen Research Variables

### Customer Orientation

Type of Independent T-test	CCN	NCCN	CCF	NCCF	Difference between Means	Significance Level (1-tail)
A1 T-Shirt	5,3902	4,1111			1,2791	***0,000
A1 Laptop	5,6304	3,7803			1,8501	***0,000
A1 Both	5,5172	3,9221			1,5952	***0,000
B1 T-Shirt		4,1111	5,0379		-0,9268	***0,000
B1 Laptop		3,7803	5,3889		-1,6086	***0,000
B1 Both		3,9221	5,2093		-1,2872	***0,000
B2 T-Shirt			5,0379	3,9910	1,0469	***0,000
B2 Laptop			5,3889	3,9608	1,4281	***0,000
B2 Both			5,2093	3,9765	1,2328	***0,000
C1 T-Shirt	5,3902		5,0379		0,3524	*0,067
C1 Laptop	5,6304		5,3889		0,2412	0,130
C1 Both	5,5172		5,2093		0,3079	**0,027

\*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$

### Percieved Innovation Ability

Type of Independent T-test	CCN	NCCN	CCF	NCCF	Difference between Means	Significance Level (1-tail)
A1 T-Shirt	4,7480	4,9596			-0,2116	0,270
A1 Laptop	5,0870	5,2500			-0,1630	0,255
A1 Both	4,9272	5,1255			-0,1983	0,168
B1 T-Shirt		4,9596	4,2500		0,7096	**0,015
B1 Laptop		5,2500	4,4444		0,8056	***0,003
B1 Both		5,1255	4,3450		0,7806	***0,000
B2 T-Shirt			4,2500	4,8378	-0,5878	**0,031
B2 Laptop			4,4444	5,3137	-0,8693	***0,004
B2 Both			4,3450	5,0657	-0,7208	***0,001
C1 T-Shirt	4,7480		4,2500		0,4980	*0,064
C1 Laptop	5,0870		4,4444		0,6425	**0,017
C1 Both	4,9272		4,3450		0,5822	***0,005

\*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$

*Purchase Intention*

Type of Independent T-test	CCN	NCCN	CCF	NCCF	Difference between Means	Significance Level (1-tail)
A1 T-Shirt	4,2167	4,5333			-0,3167	0,140
A1 Laptop	4,5039	4,5504			-0,0465	0,437
A1 Both	4,3655	4,5434			-0,1779	0,194
B1 T-Shirt		4,5333	4,2791		0,2543	0,204
B1 Laptop		4,5504	4,2583		0,2921	0,158
B1 Both		4,5434	4,2691		0,2743	<b>*0,094</b>
B2 T-Shirt			4,2791	3,7524	0,5267	<b>**0,044</b>
B2 Laptop			4,2583	4,7273	-0,4689	<b>*0,058</b>
B2 Both			4,2691	4,2255	0,0436	0,421
C1 T-Shirt	4,2167		4,2791		-0,0624	0,417
C1 Laptop	4,5039		4,2583		0,2455	0,208
C1 Both	4,3655		4,2691		0,0964	0,323

\*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$

*Word-of-Mouth Intention*

Type of Independent T-test	CCN	NCCN	CCF	NCCF	Difference between Means	Significance Level (1-tail)
A1 T-Shirt	3,9000	3,7000			0,2000	0,291
A1 Laptop	4,4535	4,2791			0,1744	0,267
A1 Both	4,1867	4,0411			0,1457	0,260
B1 T-Shirt		3,7000	3,6744		0,0256	0,469
B1 Laptop		4,2791	4,1375		0,1416	0,300
B1 Both		4,0411	3,8976		0,1435	0,249
B2 T-Shirt			3,6744	3,3286	0,3459	0,150
B2 Laptop			4,1375	4,1061	0,0314	0,462
B2 Both			3,8976	3,7059	0,1917	0,211
C1 T-Shirt	3,9000		3,6744		0,2256	0,244
C1 Laptop	4,4535		4,1375		0,3160	0,133
C1 Both	4,1867		3,8976		0,2892	<b>*0,092</b>

\*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$

*Brand Attitude*

Type of Independent T-test	CCN	NCCN	CCF	NCCF	Difference between Means	Significance Level (1-tail)
A1 T-Shirt	5,6911	5,1515			0,5395	<b>**0,015</b>
A1 Laptop	5,2826	5,3333			-0,1744	0,416
A1 Both	5,4751	5,2554			0,2197	<b>*0,100</b>
B1 T-Shirt		5,1515	4,8636		0,2879	0,161
B1 Laptop		5,3333	5,2540		0,0794	0,375
B1 Both		5,2554	5,0543		0,2012	0,144
B2 T-Shirt			4,8636	4,7117	0,1519	0,284
B2 Laptop			5,2540	5,1569	0,0971	0,373
B2 Both			5,0543	4,9249	0,1294	0,260
C1 T-Shirt	5,6911		4,8636		0,8274	<b>***0,001</b>
C1 Laptop	5,2826		5,2540		0,0286	0,457
C1 Both	5,4751		5,0543		0,4208	<b>***0,010</b>

\*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$



*Willingness to Pay*

Type of Independent T-test	CCN	NCCN	CCF	NCCF	Difference between Means	Significance Level (1-tail)
A1 T-Shirt	222	237			-15	0,301
A1 Laptop	6600	7221			-621	0,236
A1 Both	3493	4351			-858	0,117
B1 T-Shirt		237	281		-43	<b>*0,098</b>
B1 Laptop		7221	7000		221	0,394
B1 Both		4351	3388		963	<b>*0,085</b>
B2 T-Shirt			281	285	-4	0,446
B2 Laptop			7000	7774	-774	0,144
B2 Both			3388	3803	-414	0,272
C1 T-Shirt	222		281		-58	<b>**0,013</b>
C1 Laptop	6600		7000		-400	0,292
C1 Both	3493		3388		105	0,435

\*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$

## Appendix V: Abbreviations

ANOVA – Analysis of variance

CCF – Co-Creation Future

CCN – Co-Creation Now

NCCF – No Co-Creation Future

NCCN – No Co-Creation Now

NPA – New product announcement

NPD – New product development

NPP – New product pre-announcement

PPA – Product pre-announcement

SSE – Stockholm School of Economics

WOM – Word-of-mouth

WTP – Willingness to pay

## Appendix VI: The main survey

Below the entire main survey is shown. It is the V1 stimuli version, one of our eight versions.

## MSc Thesis in Marketing

**In the next section you will receive information about a product, read it thoroughly!**

**There are no "right" or "wrong" answers. It doesn't matter that you don't know anything about the product. Answer the questions spontaneously according to what YOU feel is right.**

**V1 - CCN Tshirt (not visible)**

Company A is a US-based fashion label, which is known for its T-shirts. The T-shirts are designed through a collaboration between the company's internal designers and the company's customers. Company A is now launching its NEW DESIGN LINE.

This is how the new design line has been developed:

Company A asked enthusiastic customers from all over the world to submit highly creative ideas for new designs – any customer could participate. In this process, customers were free of any constraints and could let their ideas and visions flow. From the large set of submitted ideas, customers voted for the best ones to be included in the new design line.

New design line - IN STORES NOW -

☐ I have read the information

What is your overall perception of the new design line?

[illegible]

How does the thought of having a t-shirt from the new design line make you feel?

[illegible]

To me, this product category (t-shirt)

[illegible]

Based on what you have read, what do you think about the company?

[illegible]

To what extent do you agree with the following statements concerning Company A?

[illegible]

What do you think about Company A's ability to innovate?

[illegible]

**To what extent do you agree with the following statements?**

[illegible]

Assume that you are going to purchase a T-shirt. How likely is it that you would purchase it from Company A's new design line?

[illegible]

How inclined would you be to talk to others about the brand's new products?

[illegible]

How much attention did you pay to the way the company develops new products?

-3 -2 -1 0 1 2 3

I have not thought about it at all    ○ ○ ○ ○ ○ ○ ○    I have thought about it a lot

How "new" do you perceive the company's business model, i.e., their way to develop new products?

-3 -2 -1 0 1 2 3

Not very new ○ ○ ○ ○ ○ ○ ○ Very new

What is your perception of the consumers who have been designing the new design line?

	Strongly Disagree					Strongly Agree	
	1	2	3	4	5	6	7
They know a lot about these types of products	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
They have a good knowledge of these types of products	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
They have the necessary skills and competence	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

How difficult do you think it is for ordinary consumers to:

	Very Difficult					Very Easy	
	1	2	3	4	5	6	7
Design the product	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Improve the product	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

How complex is a t-shirt to produce?

	-3	-2	-1	0	1	2	3	
Not very complex	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Very complex

How much are you willing to pay for a t-shirt from the new design line? (answer in SEK)

To what extent do you agree with the following statements?

	Strongly Disagree	Disagree	Uncertain	Agree	Strongly Agree
Most manufacturers are more interested in making profits than in serving consumers.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
In general, manufacturers don't make an effort to design products to fit the needs of consumers.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Over the past several years, the quality of most products has not improved.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Answer "Yes" or "No"

	Yes	No
Have you ever invented a new use for a product that the manufacturer never intended?	<input type="radio"/>	<input type="radio"/>
Have you ever developed a product yourself (either modifying an existing product or creating a new artifact from scratch)?	<input type="radio"/>	<input type="radio"/>
Do you personally know other people who have already developed a product themselves (either modifying an existing product or creating a new artifact from scratch)?	<input type="radio"/>	<input type="radio"/>

Pick the statement that corresponds best to what you believe

- ☐ Many of the unhappy things in people's lives are partly due to bad luck
- ☐ People's misfortunes result from the mistakes they make

## About you

	Strongly Disagree				Strongly Agree		
	1	2	3	4	5	6	7
I am rather safe than sorry	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I'm careful not to make hasty decisions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I want to know everything there is to know before I decide on something	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

## Sex

- ☐ Woman
- ☐ Man

## Your age

## Main occupation

- ☐ Student
- ☐ Employed
- ☐ Retired
- ☐ Unemployed
- ☐ Other (submit below)

## Browser Meta Info

*This question will not be displayed to the recipient.*

Browser: **Chrome**

Version: **31.0.1650.57**

Operating System: **Macintosh**

Screen Resolution: **1280x800**

Flash Version: **11.9.900**

Java Support: **1**

User Agent: **Mozilla/5.0 (Macintosh; Intel Mac OS X 10\_9\_0) AppleWebKit/537.36 (KHTML, like Gecko)**

**Chrome/31.0.1650.57 Safari/537.36**