Norwegian School of Economics Bergen, spring semester 2014





# "Made for a Friend": A Recipient Perspective on Self-Produced Outcome Evaluation

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Master Thesis within the main profile of Marketing and Brand Management

## NORWEGIAN SCHOOL OF ECONOMICS

This thesis was written as a part of the Master of Science in Economics and Business Administration at NHH. Please note that neither the institution nor the examiners are responsible – through the approval of this thesis – for the theories and methods used, or results and conclusions drawn in this work.

## Abstract

This thesis examines the effects of self-production on outcome evaluations and preferred level of involvement in the self-production task. Although several studies have already addressed this issue, we extend these findings and emphasize the importance of the recipient of the outcome of self-production, which appears often to be ignored. In two experimental studies, we distinguish between self-production for oneself and self-production for someone else, and investigate the effects and potential differences with regard to this aspect.

In Study 1, we hypothesized that self-production for someone else results in more negative outcome evaluations and higher preferences for low self-production treatment. Moreover, we assumed a self-produced outcome (the coffee) mainly reflects the self-producer's ideal self-concept when adapted for a friend. Eight hypotheses are subsequently proposed, for situations involving preparing a coffee under two different levels of self-production produced for either oneself or someone else, i.e. a friend. All of them are supported by theories from academic articles, books and other relevant marketing sources. A real self-production experiment design was chosen: the data were obtained from students with different international background.

The findings from Study 1 demonstrate that self-production for a friend does not result in more negative outcome evaluations. In fact, there were no significant differences in outcome evaluations between self-producers that were preparing the outcome for themselves and self-producers that were preparing the outcome for their friend. Moreover, results did not show higher preferences for low-self-production treatment when self-producing for a friend. We did not observe more positive outcome evaluations in low-self-production conditions or any relationship with higher perceived risk, as we had assumed. Lastly, the self-produced outcome reflects self-producer's perceptions about the recipient rather than his or her ideal self-concept.

In Study 2 we proposed three additional hypotheses. The analysis showed that outcome satisfaction mediates the positive effects of both process enjoyment and self-production effort on taste evaluations. Moreover, self-production for oneself enhances perceived self-production effort while self-production for a friend boosts process enjoyment instead according to our results.

Last but not least, limitations and both theoretical and managerial implications are addressed and suggestions for future research are provided.

## Preface

This thesis is submitted in order to fulfill the requirements for the degree of Master of Science in Economics, within the master program in Marketing and Brand Management at the Norwegian School of Economics. We first learned about the topic of self-production in the course "Contemporary Topics in Consumer Behavior". In fact, it was especially the study conducted by Troye and Supphellen in 2012 – "Consumer Participation in Coproduction: "I Made It Myself" Effects on Consumers' Sensory Perceptions and Evaluations of Outcome and Input Product" that provided us with the important insights into the topic and hence served as the main inspiration for our thesis.

First of all we would like to thank our supervisor, Professor Sigurd Villads Troye, for advice and valuable comments throughout this work. His wisdom and sense of humor never ceased to impress and inspire us. We would also like to thank the janitor from the C-block reception in Hatleberg, who allowed us to conduct the experiment there (and we deeply apologize for almost setting the kitchen area on fire). Finally, we are grateful to all our fellow students, friends and others who participated in our experiment.

Bergen, June 2014

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## **1** Introduction

The role of co-production has been a highly discussed topic in literature (Bendapudi and Leone, 2003; Lusch and Vargo, 2006; Prahalad and Ramaswamy, 2004; Vargo and Lusch, 2004; Xie, Bagozzi and Troye, 2007; Etgar, 2007; Troye and Supphellen, 2012). However, many studies on co-production focus the attention on the repercussions of co-production for the supplying companies, therefore relying primarily on an economic rational (Mills et al., 1983; Lovelock and Young, 1979), its general benefits and drawbacks (Etgar, 2007) or the antecedents of co-production choice (Xie, Bagozzi and Troye, 2007). Although there is clear evidence of the increased interest in co-production phenomenon, several issues remain unresolved. In fact, before Bendapudi and Leone (2003) introduced the psychological implications of customer participation in co-production, no prior studies had been explicitly concerned with customer's psychological processes and implications (Bendapudi and Leone, 2003). One decade later, Troye and Supphellen (2012) conducted the first experimental investigations on the effects of co-production, which they labeled self-production, and addressed its psychological effects on perceptions and evaluations of the outcome and the input product. They demonstrated the positive effects of self-production on evaluations of the input product (the dinner kit) and on evaluations and attribute perceptions of the self-produced outcome. We, therefore, base this study on their findings, however, extend it by explicitly distinguishing the recipient of the self-production outcome (made for oneself and made for a friend). We also test the influence of following factors: goal relevance, perceived risk and preference match.

## 1.1 Research Purpose

Specifically, in this study we aim to examine if self-production for someone else rather than for oneself is responsible for different self-production outcome evaluations and if it has an impact on preferred level of self-production in the given self-production task. This will be investigated by a self-production experiment in which participants will be preparing a coffee for either themselves or someone else under either low or high self-production conditions. We will also shed light on three factors - perceived risk, goal relevance and preference match which, as we assume, might explain the differences in self-production outcome evaluation and self-production level preferences among the experimental groups.

The research questions that are central to our study are:

Does the knowledge about WHO is going to be the recipient of an outcome influence selfproducer's outcome evaluation?

Does the knowledge about WHO is going to be the recipient of an outcome influence the preferred level of self-production (high/low self-production)?

## 1.2 Thesis Structure

The thesis is divided into eight main chapters. The first chapter, labeled as "Literature Review" introduces the evolution of value creation in marketing, followed by a detailed description of closely related concepts such as: phenomenon of prosumption, co-creation, co-production and self-production. Additionally, the symbolic aspects of consumption and the theory of gift giving are presented and briefly discussed.

The second chapter - "Conceptual Model Development and Hypotheses" first describes the most relevant theoretical constructs and motivations behind inclusion of certain variables into the model. Subsequently, the list of hypotheses is presented.

The next chapter deals with thesis methodology and explains in detail the choice of research design and procedures behind the experiment. A short description of a questionnaire sample is also covered in this section.

In chapter four we present the results of the experiment. With the use of different statistical tests, analyses of the research hypotheses are provided and relationships between variables of the conceptual model are discussed.

Discussion and implications of the given findings are provided in the last chapter. Furthermore, the limitations of the research are addressed and suggestions for future research are described.

## 2 Literature Review

In this section, we address the most relevant theoretical findings on the evolution of value creation in marketing, phenomenon of prosumption in general (Toffler, 1980), co-creation, co-production as the subordinate concept of co-creation (Lusch and Vargo 2006), and self-production (Troye and Supphellen, 2012) as a special type of co-production. We also outline the symbolic aspects of consumption (Holt, 1995) as we further try to link the theory of prosumption to the theory of gift giving (Belk, 1977) in an attempt to shed light on the processes that may occur when the outcome of a self-production task is intended for someone other than the producer of the outcome him- or herself.

## 2.1 From Exchange towards Value Creation

For several decades, exchange has been widely accepted as the core concept in marketing (Houston and Gassenheimer, 1987). However, the official shift toward the "exchange paradigm" was crowned in 1985 when American Marketing Association (AMA) included the word exchange into the official definition of marketing: "[Marketing is] the process of planning and executing the conception, pricing, promotion, and distribution of ideas, goods and services to create exchanges that satisfy individual and organizational objectives" (Lusch, 2007). The implicit assumption was that consumer's role was rather passive, and the process of exchange (i.e. giving or taking one thing in return for another) was the most dominant one.

Since 1985 AMA has offered several updates of marketing definitions. The one from 2004 defined marketing as an organizational function and a set of processes for *creating*, communicating, and delivering *value* to customers and for managing customer *relationships* in ways that benefit the organization and its *stakeholders* (Lusch, 2007). Although this could be considered as a certain improvement due to its focus on value, relationships and stakeholders, the prevalence of exchange and company-centric value creation has remained relatively unchallenged.

According to Prahalad and Ramaswamy (2004), the future, however, lies in a totally new approach to value creation, based on an individual-centered co-creation of value between consumers and companies. Xie, Bagozzi and Troye (2008) further posit that the emergent orientation towards consumers as active value creators reflects a confluence of theoretical and methodological advances on one side and trends and developments in society and marketing practice on the other. In fact, firms that enable customers to take part in creation of a product have been enjoying tremendous growth (Moreau, Bonney, Herd, 2011). This certainly implies

that consumers do not want to be further isolated, unaware or passive; but they desire connections, information and active interaction. Therefore, outsourcing of certain aspects of production and delivery to customers and increasing availability of advanced household tools are some of the factors that pave the way for consumer value creation (Xie, Bagozzi and Troye, 2008). As a result co-creation supplants the exchange process (Prahalad and Ramaswamy, 2004). This view is also consistent with the "service-dominant logic," value-in-use in particular, according to which a customer is always a co-creator of value (Lusch and Vargo, 2004). Value-in-use can occur through shared inventiveness, co-design or the shared production of related goods, with customers and with any partners in the value network. Sheth and Uslay (2007) further support previous notions by claiming that with the co-creation perspective, the transactions that take place between consumers and companies can preempt and supersede a single economic exchange to a process, in which the consumer and producer collaborate for the best possibly achievable total value. Finally, these perspectives correlate with the process of prosumption (Toffler, 1980) and prosumer movement (Kotler, 1986) in which consumers co-design and co-produce their own products and services.

Taking everything into account, the line between the consumers and the producers has become blurred and traditional understanding of marketing system has become obsolete. In fact, there is an urgent need to center the attention on co-creation experiences instead, which subsequently pave the way for a value creation that is truly unique to each individual.

## 2.2 Prosumption: Definition and Origin

Prosumption could be defined as value creation activities undertaken by the consumer that result in the production of products they eventually consume and that become their consumption experiences (Xie, Bagozzi and Troye, 2008). In other words, consumers are more actively participating in production processes that have traditionally been under manufacturers' (i.e. companies' and brands') control (e.g. moving, assorting, combining, changing inputs, etc.) and in creating their consumption experiences.

Importantly, prosumption needs to be understood as a process rather than a single act consisting of physical activities (e.g. time, effort, skills, money etc.), mental effort (e.g. planning, assembling, gathering etc.), and socio-psychological experiences (e.g. effects on oneself and others) (Xie, Bagozzi and Troye, 2008). According to Kotler (1986), prosumption activities that have the biggest potential to attract consumers possess four important

characteristics: they are cost-effective, require minimum skills, consume little time and effort, and yield high personal satisfaction.

In fact, prosumption activities are a natural part of our everyday life. People actively engage in preparing their own meal, assembling furniture, designing and decorating their belongings (e.g. clothing, bank cards, cars, houses etc.), planning their holidays, using the self-service kiosks at the airport or hotels, gardening, etc. In fact, instead of task simplification, people have a tendency to favor task elaboration in the interest of achieving different goals. Some people find the activities they indulge in to be enjoyable or want to spend their leisure time productively. Others prosume for economic reasons, for instance because of the necessity or willingness to save some extra money. Many prosumers want to have direct control over the production process and believe they can produce goods and services of a better quality than what is offered in the marketplace. It might be necessary to turn away from mass produced goods to one-of-a-kind self-produced counterparts.

The 21<sup>st</sup> century has witnessed a booming interest in the prosumer and the process of prosumption (Ritzer, 2012). However, the original concept of prosumer was implied much earlier, in works of different philosophers and scholars. For instance, in "Take Today" McLuhan and Nevitt (1972) claimed the consumer was becoming the producer at "electric speed" (p. 4). The term prosumption was, however, introduced by futurist Alvin Toffler in 1980 in his book "The Third Wave," where he wrote about the "rise of prosumer" (p. 13). Compared to consumers who purchase goods and services in marketplace, Toffler defined prosumers as people who produce some of the goods and services entering their own consumption (in Kotler, 1986). Over the ensuing decade, Phillip Kotler (1986) summarized and built upon the ideas of Toffler using the notion of "prosumer movement" and predicted a swelling rise of prosumption activity. As he pointed out, consumers will want to play a larger role in designing or producing certain goods and services that they consume and therefore marketers, instead of fighting prosumers, should seek for opportunities to facilitate prosumption activities.

In fact, Kotler's revolutionary prediction reflects the current situation in the marketplace with many contemporary marketing practices of numerous companies that enable consumers to take part in a variety of desired prosumption activities. Few examples could include furniture companies that require self-assembly (e.g. IKEA), airlines allowing consumers to carry out the check-in procedure themselves using automated machines (e.g. Norwegian), food

producers offering products with different levels of prosumption necessary, from ready-made food to "prepare from scratch" products (e.g. Toro), or car and apparel manufacturers enabling to consumers to design their cars or clothing (e.g. Ford, Nike), or restaurants engaging consumers into composing or preparing their own dish (e.g. Subway).

#### 2.3 Co-production vs. Co-creation

Although co-production and co-creation might often be confused as synonyms (Johnson, Gebauer and Enquist, 2010) for the purposes of this thesis we have to clearly distinguish these terms. Lusch and Vargo (2006) define them as two separate constructs, with co-production being a subordinate concept to that of co-creation of value. They further claim that co-creation of value takes place in the usage/consumption stage, and co-production may take place within the production process, which precedes the usage stage. The production process involves numerous operational activities (e.g. initiating and designing, resource aggregating and processing), which lead to creation of outputs that serve as platforms for delivery of value consumed later on, up until ensuring delivery and executing use (consumption). Therefore, co-production implies that consumers participate in the execution of the various activities performed in production process (Etgar, 2007). This notion is in line with Troye and Supphellen (2012), who claim that consumer's involvement in the value chain is not limited to acquisition and subsequent consumption. In fact, most of the offerings, whether goods or services, require some activity (co-production) on the consumers' part to provide value (e.g. cars need to be driven, maintained, and serviced, and food items must be assorted, combined, transformed, and presented).

## 2.4 Self-production Effects

The study of Troye and Supphellen (2012) primarily focused on the effects of a specific type of co-production, which they termed self-production. Self-production can be defined as producing goods and services from scratch with little or no use of commercial products, to coproducing goods and services using tools such as input products and devices (Troye and Supphellen, 2012). The major findings from their experimental investigations demonstrated that self-production (e.g. cooking) leads to more positive evaluations of the self-produced outcome and the input product. As they argued, it is the theory of associative self-anchoring that mainly accounts for the findings: "self-production results in the formation of multiple links between the outcome and the self, which in turn enables transfer of positive affect from the self to the outcome" (Troye and Supphellen, 2012).

Since the study of Troye and Supphellen (2012) served as the primary inspiration for this thesis, we will adopt their definition of self-production as well as we will use the term self-production for addressing co-production activities throughout the whole paper.

Although our study mostly follows the findings of Troye and Supphellen (2012) with respect to the nature of self-production tasks and its positive effects on outcome evaluation, it extends this research with regard to several aspects. Firstly, compared to Troye and Supphellen's study (2012) where the recipient of the self-produced outcome was not explicitly distinguished (or manipulated), we focus on differences in outcome evaluation that might occur when a self-producer produces an outcome for someone else, compared to oneself. Under the same experimental conditions we further investigate the preferred level of selfproduction (high vs. low self-production). Last but not least, we investigate the role of different factors that might explain the assumed self-production outcome evaluation differences and self-production level preferences. All effects is measured via a real selfproduction experiment, in which participants are tasked to prepare a coffee under different levels of self-productive efforts for either themselves or others, in our case scenario, for their friend.

## 2.4.1 Self-production for Someone Else

Although Troye and Supphellen (2012) successfully addressed the effects of self-production on outcome evaluation and input product evaluation, in their study, they did not explicitly guide the self-producers to prepare an outcome for himself/herself or someone else. As a result, the perspective of recipient was to some extent disregarded.

We, however, assume that self-production has to be viewed from "I made it for myself" perspective but its effects and implications need to be understood also from "I made it for others" point of view. In fact, although many times without realizing, almost all generally popular self-production activities can represent both viewpoints (i.e. cooking for oneself vs. friends or family members, assembling the furniture for oneself vs. others, knitting clothes etc.).

People engage in a large number of self-production activities for others for many reasons. For instance, according to one online survey, which refers to the domain of cooking (note that cooking is the most similar self-production activity to our experiment) and especially discuss the reasons for being involved in this self-production task ("Why do I like cooking for others?," 2010), most people responded that they find it enjoyable and funny. Other people

consider cooking for others as a good stress reliever and a good way of spending their free time. The rest likes to spoil their relatives, see their reactions and happy faces when enjoying their food. This in turns helps to build their confidence and make them feel good about themselves.

One of the comments was particularly worth mentioning: "It's like giving them a nice gift" (Emma, "Why do I like cooking for others?," 2010). This statement clearly relates to our assumption that the process of self-production is closely related to the concept of gift giving (Belk, 1977), discussed below. Therefore, our study will attempt to shed light on this aspect as well as to investigate the specific type of message that has been conveyed by a self-produced outcome, i.e. the 'gift'.

Taking everything into account, we find the understanding of "I made it for others" perspective of self-production to be crucial for a broader picture of this phenomenon and therefore we have decided to employ this view as the basis for our study.

## 2.5 Symbolic Properties of Consumption

The shift from the traditional view of the consumer, whose consumption patterns were seen as passive and determined by the consumption object properties, was also marked by the emergence of theory distinguishing between the types of benefits a product provides and shifting the focus from the prevailing utilitarian perspective on consumption (based on fairly objective product features) to the experiential perspective leveraging the more subjective properties and symbolic meanings of consumption (Holbrook & Hirschman, 1982). Such meanings directly relate to the understanding of consumers' active role in consumption and the fact that consumers can consume the same consumption object (i.e. a product or a service) in a variety of ways according to the purpose and structure of their actions revolving around the consumption object (Holt, 1995).

Holt's typology of consumption practices (1995) distinguishes whether the consumer's interaction with the consumption object focuses on the object itself or on the interpersonal actions with the consumption object serving as the common locus. Furthermore, the purpose of the consumption activity can be either autotelic (consumption for the sake of consumption) or instrumental, in which case the consumer is expected to tap into the symbolic meanings of the consumption object (Holt, 1995).

The social aspect of customer self-production relates to the interpersonal dimension of consuming, where the consumers use the consumption objects as resources to interact with fellow consumers (Holt, 1995). If the act of consumption (or self-production for that matter) is carried out for autotelic reasons (i.e. with no ulterior end but mere consumer interaction), the consumers experience the consumption object together and as a result their interactions with the consumption object become a mutual experience (Arnould & Price, 1993) or they use their experience with the consumption object to entertain each other (Sherry, 1990).

Concerning the interpersonal-centric consumption with instrumental purposes, the consumption objects and acts serve as classification devices. By the mere usage of a consumption object, the consumers leverage their interaction with the object (and its symbolic meanings) to communicate with other consumers, or even themselves viewed in a third person (Holt, 1995).

The experiential and integrating practices of classification through consumption are expected to simultaneously facilitate affiliation building as well as distinction enhancement, since any social boundaries are both exclusive and inclusive, thus consumers affiliate while distinguishing themselves from other consumers not included in their inner consumption circle (Holt, 1995).

The self-production activity with the product in its centre creates a framework from which affiliative bonds between the consumers emerge (Belk, Wallendorf, & Sherry, 1989). The consumers, according to their awareness and perceived importance of shared meanings associated with a consumption object, quality or intensity of their relationship, etc., construct and sustain meaningful ties between themselves (Holt, 1995).

The shared meanings, namely the symbolic ones, play an important part in communication through the consumption object, as the consumer goods are able to carry and communicate cultural meaning (Douglas & Isherwood, 1996). While the consumer goods serve as a locus of cultural meaning, this meaning is transferred from the consumer good to an individual consumer by special instances of "symbolic actions" or rituals (McCracken, 1986). One of the types of such rituals are exchange rituals, a typical example of which is the act of gift exchange or gift giving. The specificity of gift giving lies in the fact that such exchange allows the consumer acting as a giver (an agent of meaning transfer) to insinuate certain symbolic meanings by selective distribution of goods with specific properties to recipients who may or may not have chosen them otherwise (McCracken, 1986).

Belk (1977) describes various possible messages to be conveyed by a gift, i.e. the consumption object – the giver's perception of the recipient, the giver's actual self-concept or the giver's ideal self-concept (i.e. the self-concept the giver is trying to project). His study indicates that the giver's actual self-concept and perceptions of the recipient are both important to gift selection and the characteristics, which the giver believes are conveyed by the gift. However, the strongest determinant of this message is, according to Belk (1977), the self-concept that the giver would ideally like to project.

We believe all of these messages to apply to the act of self-production for someone other than the self-producer him- or herself as well, due to the consumers assuming roles parallel to the roles of the giver and the receiver.

## **3** Study 1: Effects of Self-Production and "Made for Myself" versus "Made for a Friend" on Outcome Evaluation

As it has been noted in the 'Literature Review' section, high self-production level in a given self-production task results in more positive outcome evaluation for a medium quality outcome (Troye and Supphellen, 2012). It is essential to note that Troye and Supphellen (2012) did not explicitly manipulate the outcome recipient variable in their experiment. We, however, believe that the recipient of the self-production outcome plays an important role and can be responsible for significant differences in effects of self-production. That is why we will manipulate the recipient variable and will specifically investigate the effects of self-producing for oneself compared to for someone else in our study.

In this chapter, we first list two hypotheses that represent the core of our study and reflect the research questions stated at the beginning of the thesis. Next, we discuss relevant theories that serve as the basis for developing other hypotheses. Lastly, the chapter is finished with the comprehensive summary of all hypotheses listed.

## 3.1 Main Assumptions

*H1:* Self-producer is more likely to evaluate the self-production outcome with lower outcome evaluation score when preparing an outcome for someone else.

H2: Low level of self-production is preferred more (in terms of higher outcome evaluation scores) when a self-producer prepares an outcome for someone else.

According to our main hypotheses, the self-producer is prone to prefer low self-production level conditions and thus give the self-produced outcome a lower outcome evaluation score when preparing the outcome for someone else than himself or herself. This would mean that due to being aware of others receiving and evaluating the outcome, the self-producer would choose to "play it safe" and leave a large portion of the value creation process to the manufacturer by choosing a product with a lower required level of self-production (numerous virtually identical products in their final form are offered in alternatives enabling different levels of self-production, from preparing from scratch to simple reheating).

#### 3.2 Theoretical Background for Developing Hypotheses

#### 3.2.1 Perceived Risk

When Raymond Bauer (1960) introduced the notion of perceived risk, one of his initial claims proposed that consumer behavior involves risk in the sense that any action of a consumer will produce consequences, which he cannot anticipate with anything approximating certainty, and some of which are likely to be unpleasant (p.24). Perceived risk includes physical, financial, psychological, performance social and time-related risks (Stone and Gronhaug, 1993).

Co-production process is no exception. On the one hand, consumers are motivated to engage in co-production since it can reduce perceived risk by giving a co-producer direct control over the production process (Etgar, 2007). This is also the case of active self-production where the outcomes are mostly beyond the marketer's control (Troye and Supphellen, 2012). On the other hand, since self-production requires physical interaction with the input product as well as the outcome (Troye & Supphellen, 2012), some risk arises.

According to the literature there are several types of risks related to co-production activities. A consumer might perceive the risk of potential failure, financial losses or social risk due to the lack of required skills, i.e. competence, conflicts with performance partners or dangers of legal complications (Etgar, 2007).

Moreover, the level of risk which consumers perceive before they engage in self-production activities can differ depending on the type of the consumption task (e.g. cooking, assembling, gardening, maintenance etc.). Our assumption is that the perceived risk is greater with selfproduction tasks with outcomes that can easily be observed and evaluated on the basis of objective criteria (e.g. dysfunctional plumbing, failed furniture assembly etc.). On the other hand, with regard to self-production task such as cooking, which is the most similar to the self-production task involved in our experiment, perceived risks might be alleviated for several reasons. Firstly, when people make a dish for themselves they know their likes and dislikes, and thus combine the ingredients and preparation methods in the way they prefer most. Secondly, the evaluation of the outcome involves sensory information, which is inherently ambiguous, and the taste of self-produced dish is thus usually opened to interpretation and subjectivity (Hoch, 2002). If the outcome is average or bad, the selfproducer is able to justify the worse than expected performance by assigning a portion of the blame to the product or the preparation conditions in line with the self-serving bias (Troye and Supphellen, 2012). Moreover, we assume that by repeating a self-production activity (e.g. cooking the same dish over and over again) the previously experienced, subjective sensory

information is stored in the self-producer's memory. Besides, the repetition of an identical self-production activity certainly results in greater self-producer's competency. As a result, the biased processing of sensory information from previous experience as well as possession of required skills might decrease the level of perceived risk and subsequently enhance the evaluation of the self-produced outcome.

However, what is the impact of perceived risk if a consumer self-produces for someone else, in our case scenario his or her friend? As noted earlier, there are indications that the principles of self-production for someone else may be of a similar nature as principles of gift giving. Therefore, we employ the findings of Hart (1976) who concluded that subjects in gift giving situations are more conservative and rate the overall perceived risk severity as much greater when making decision for their spouses than when making decisions for themselves. We believe that similar perceived risk severity would occur if subjects were making decisions for their friends as well.

We suppose that especially the higher perceptions of the key factors, performance risk and social risk, would make a self-producer evaluate the self-produced outcome more negatively when self-producing for someone else.

Firstly, when discussing perceived performance risk, i.e. fear of failure, self-efficacy beliefs need to be considered. Defined by Bandura (1982), self-efficacy is related to judgments of how well one can execute the courses of action required to deal with prospective situations. As Bandura (1982) further states, self-efficacy judgments influence choice of activities, thought patterns, emotional reactions, behavior as well as the amount of effort during performance. Since people have a tendency to avoid activities, which they believe exceed their coping capabilities (Bandura, 1982), perceived performance risk or the fear of failure may be greater if a self-producer perceives himself or herself to be not competent enough. Moreover, in the context of self-production for someone else, a self-producer may be concerned with being evaluated by others (e.g. a self-producer wants to make a good impression on the recipient). In fact, self-perceived competency contributes heavily to the giver's assessment of his or her chances of making a good impression (Moreau, Bonney, Herd, 2011). Therefore, low self-perceived competency may decrease self-producer's beliefs of making good impression and, in turn, contribute to more robust risk perception when self-producing for someone else.

Secondly, even if a self-producer feels to be competent in a given self-production task, the self-producer certainly does not know a friend's preferences better than his own. As a result, the perceived risk of an unsuccessful outcome ('The best friend will not like the dish I am about to prepare') is expected to be higher when preparing an outcome for someone else compared to for oneself. This assumption is further supported by Moreau, Bonney and Herd (2011); who also claim that a giver's unfamiliarity with the recipient's preferences is one of the major contributors to anxiety (i.e. risk).

Thirdly, a self-producer might perceive that a third-party evaluator (the friend) may not be as benevolent in their evaluation, and that is why the self-producer may choose a product with lower required level of self-production and thus providing less room for failure.

Last but not least, when it comes to social risk, expectations of failure also need to be taken into account. They represent an estimate of one's likelihood of a performance failure, and therefore refer to outcome expectations (Bagozzi, 1992). For instance, the idea that the outcome does not meet the approval the of self-producer's friend (fails to meet the friend's expectations) can result in significant social risk such as loss of credibility, embarrassment or harmed self-esteem.

H3: Perceived risk mediates the effect of outcome recipient on the outcome evaluation.

H3a: The self-producer is more likely to report higher perceived risk when preparing an outcome for someone else.

H3b: The self-producers with higher perceived risk are more likely to evaluate the outcome more negatively.

## **3.2.2** Preference Match

One of the primary goals of co-production is customization (Etgar, 2007). Assuming that consumers know their own preferences better (McConnel, Brue and Flynn, 2011, p. 125) and have direct access to their own preferences (Moreau, Bonney, Herd, 2011), they strive to involve in co-production in order to match their preferences as closely as possible while taking obvious budgetary and physical constraints into account (Etgar, 2007). For instance, if they decide to cook for themselves, they will most likely know which ingredients, seasonings or preparation methods they prefer more and, enough financial resources and competences provided, favor these productive efforts.

However, when self-producing for others, consumers do not have direct access to recipient's preferences and thus need to predict them (Moreau, Bonney, Herd, 2011). In fact, predicting the likes and dislikes of others is a well-known challenge (Scheibehenne, Mata and Todd, 2011). On the one hand, with more opportunities such as joint activities or conversations (Karniol, 2010, p.5) and with getting feedback (Scheibehenne, Mata and Todd, 2011) concerning others' likes and dislikes over the course of relationship, we learn and know more about preferences of our close friends, partners or family members than of strangers or general public. On the other hand, irrespective of this knowledge and hence better ability to predict their preferences, consumers still often hesitate in trivial decisions such as what to recommend to them when shopping, what gifts to give them or what to make them for a dinner. This uncertainty, in turn, might contribute to more negative self-produced outcome evaluations.

*H4: Self-producers preparing the outcome for someone else with lower preference knowledge are more likely to evaluate the outcome evaluation with a lower score.* 

Additionally, even the self-producer of the outcome possesses a certain level of knowledge about the preferences of the recipient, he or she may not take full account of these preferences. According to their intended message to be communicated by the consumption object given to the recipient, the self-producer (i.e. the giver) may be prone to primarily communicate either their own self image or their intended self image through the given consumption object instead of communicating their perceived image of the recipient (Belk, 1977). In such case, their knowledge of the recipient's preferences remains disregarded to at least some extent.

H5: The strongest determinant of the message to be conveyed by the act of giving the self-production outcome to a friend is the self-concept the giver would ideally like to project.

#### 3.2.3 Goal Relevance

Fergusson and Bargh (2004) propose that evaluation of objects is sensitive to the shifting goal relevance of the corresponding objects. If such evaluations are meant to enable the perceiver to prepare for a goal-consistent action, they should ideally be responsive to the perceiver's current motivational concerns. In other words, when an object is useful to a current goal, the automatically activated evaluation should be more positive compared to when the goal is not in place. They further claim that irrespective of whether the outcome is positive or negative, it would render the object more approach-friendly and thus potentially facilitate goal-consistent

behavior. Troye and Supphellen (2012) support this notion and demonstrated that consumers to whom the self-production task is more relevant to their goal pursuit are more likely to upgrade their outcome evaluations under high self-production conditions.

Moreover, we take the effects of past behaviour into consideration, especially the effects of frequency, which, according to Xie (2005), affect both intentions and behaviour. This notion is supported by Troye and Supphellen (2012), who claim that the self-production task should be more relevant for goal pursuit to people who frequently engage in similar self-production tasks than for those who engage in them seldom.

All in all, if the task is relevant to self-producers, i.e. it reflects their current motivational concerns; they should prefer to do the specific self-production task more frequently, to be more involved, and subsequently evaluate the outcome more positively. We expect the same effects to occur when tasking self-producers to prepare a coffee for themselves.

However, when instructing participants to prepare a coffee for a friend, compared to for oneself, we assume they would favour low self-production conditions more and would evaluate the outcome more negatively irrespective of how relevant they would perceive the task to be. This notion is based on two beliefs. Firstly, the self-producer might not inform the recipient about the self-production efforts that stand behind the outcome (e.g. time constraints, fear of "big talks" etc.). We, however, assume this does not happen that often and it is more likely that a self-producer informs the recipient about the self-production steps undertaken. This leads to the second belief, according to which a self-producer expects that the receiver, who is informed, might not fully comprehend and thus appreciate the amount of work the self-producer has put into the outcome preparation. As the research done by Troye & Supphellen (2012) has shown, mere self-production of the outcome is able to significantly enhance the taste perceptions of the outcome (if the self-production task is highly goal relevant to the self-producer). However, this applies to the self-producer him- or herself, who is aware of all the steps undertaken in the course of the preparation and possesses the knowledge of how much effort the outcome has required and might not extend to the recipient.

H6: Goal relevance does not influence outcome evaluations with regards to H1 and H2.

H6a: Self-producer evaluates the outcome with a lower outcome evaluation score when preparing an outcome for someone else irrespective of how a self-producing task is relevant for self-producer's goal pursuit.

H6b: Low level of self-production is preferred (in terms of higher outcome evaluation scores) more when preparing an outcome for someone else irrespective of how a self-producing task is relevant for self-producer's goal pursuit.

## 3.3 Review of Hypotheses

Based on the previously noted theories, six hypotheses have been formulated and will be subsequently tested.

H1: Self-producer is more likely to evaluate the self-production outcome with lower outcome evaluation score when preparing an outcome for someone else.

H2: Low level of self-production is preferred more (in terms of higher outcome evaluation scores) when a self-producer prepares an outcome for someone else.

H3: Perceived risk mediates the effect of outcome recipient on the outcome evaluation.

H3a: The self-producer is more likely to report higher perceived risk when preparing an outcome for someone else.

H3b: The self-producers with higher perceived risk are more likely to evaluate the outcome more negatively.

H4: Self-producers preparing the outcome for someone else with lower preference knowledge are more likely to evaluate the outcome evaluation more negatively.

H5: The strongest determinant of the message to be conveyed by the act of giving the self-production outcome to a friend is the self-concept the giver would ideally like to project.

H6: Goal relevance does not influence outcome evaluations with regards to H1 and H2.

H6a: Self-producer evaluates the outcome with a lower outcome evaluation score when preparing an outcome for someone else irrespective of how a self-producing task is relevant for self-producer's goal pursuit.

H6b: Low level of self-production is preferred (in terms of higher outcome evaluation scores) more when preparing an outcome for someone else irrespective of how a self-producing task is relevant for self-producer's goal pursuit.

## 4 Methodology

#### 4.1 Research Design

Research design refers to the overall strategy that is chosen to integrate the different components of the study in a coherent and logical way, thereby, ensuring that the research problem is addressed effectively and as unambiguously as possible (Labaree, 2013). According to Viswanathan, (2005) there are two main types of research design – a survey design and an experimental design. The survey design uses a correlational approach and measure independent and dependent variables (Xie, 2005) while the experimental design tries to establish a causal relationship between variables, by manipulating at least one independent variable to assess the effect upon dependent variables (Shuttleworth, n.d.). In other words, when conducting an experiment, the researcher is trying to prove that if one event occurs, a certain outcome happens. In fact, experimental design is probably the strongest design with respect to internal validity, which is at the center of all causal inferences (Research Method Knowledge Base, n.d.). Last but not least, experimental design needs to have controls and random assignment of respondents to ensure that the groups are as identical as possible (Shuttleworth, n.d.).

#### 4.1.1 The Choice of Research Design: The Experiment

We decided to conduct an experiment since this thesis attempts to identify cause and affect relationships between variables since the main goal is to find out whether one event results in another event happening, or to what extent one event affects another one. Additionally, the major independent variables in our study, self-production and recipient, are rather easily manipulable. We decided to manipulate the level of self-production at two levels – high self-production and low self-production, and the factor of recipient by using two scenarios – preparing a coffee for oneself and preparing a coffee for a friend. As a result, we find the experiment as the most suitable option to effectively test our hypotheses.

There are many ways an experiment can be designed. For instance, subjects can be all tested under each of the treatment conditions or a different group of subjects can be used for each treatment (Lane, n.d.). We, employed a between-subject design, i.e. different groups of subjects were assigned into different experimental conditions in our study. Next, the choice of experimental design also depends on the number of independent variables (Lane, n.d.). Our experiment had more than one independent variable and therefore can be further classified as multi-factor between-subject design. More specifically, we included two main independent variables, i.e. the level of self-production and recipient, hence the experimental design finally used can be described as Self-Production Level (2) x Recipient (2) factorial design. The numbers in parentheses represent the number of levels of the independent variable; i.e. high vs. low self-production for the self-production level variable and preparing a coffee for oneself vs. for a friend for the recipient variable. Using factorial design was extremely useful since, through the statistical means, it allowed us to carry out many levels of analysis, from isolating and analyzing a single variable to judging the relationships between more variables.

Last but not least, we employed a random assignment of subjects, i.e. participants were assigned to four different groups by chance, which ensured that we avoided biases and all groups were probabilistically equivalent, i.e. equivalent within known probabilistic ranges.

## 4.2 Stimulus Development

In order to manipulate the level of self-production, we employed a coffee as the main object of our experiment. We find coffee to be a suitable input product for addressing theoretical and managerial issues of self-production due to several reasons. Firstly, coffee represents one of the most consumed beverages in the world (Statistic Brain, 2014) and its general popularity is hence undisputable. Secondly, coffee preparation is one of the fastest growing hobbies (Cameron, n.d.). We assume this might be due to an option to choose among a wide variety of self-production activities involved in coffee preparation, which trigger interest and creativity more than a store-bought coffee (e.g. from roasting coffee beans, boiling water, putting coffee into a beverage container to choosing between different coffee condiments, mixing, decorating, etc.). As a result, both the self-producer and the input product are mutually responsible for the outcome, irrespective of the self-production level employed in the coffee preparation.

We decided not to reveal the identity of the coffee brand used in the experiment. Although we used an already established and well-known Norwegian coffee brand, the participants were told that they were using a brand new, yet unknown brand. This "fictitious" stimulus ensured that participants would be less likely to be biased by the previous experiences with the company or the brand per se. We followed the same pattern with other subjects used in the experiment, i.e. the brands of the plastic cups, the coffee condiments, the French press and the grinder were hidden to isolate any previously created associations and avoid all potential biases.

## 4.3 Experiment Procedure

## 4.3.1 Low Self-Production

### 4.3.1.1 Make a Coffee for Yourself

In order to manipulate the level of self-production and the factor of recipient, one quarter of all participants (i.e. 20) was assigned to prepare a coffee under *low self-production* conditions and *for themselves*. First they were given printed step-by-step instructions (Appendix A) purpose of which was to briefly acquaint the partakers with the particular steps of the experiment. After they finished reading, participants were directed to answer the first part of the questionnaire, which referred to the variable of perceived risk in the form of several statements. Answering these statements *before* the actual coffee preparation per se ensured that all partakers were able to justify the level of perceived risk, i.e. how risky they perceive all steps within the experiment based on the instructions which they had been given. The main purpose was to closely imitate the real-life situation in which a self-producer first considers all potential risks before he decides for actual self-production.

Subsequently, participants were guided to select any of the two types of plastic cups available and pour an already prepared black coffee from the coffee thermos. The coffee in the coffee thermos had been prepared by us in advance, according to the same step-by-step instructions that were given to participants under high self-production conditions (discussed subsequently). This ensured that all groups tasted highly comparable outcome before adding condiments. By holding the quality of the outcome (the taste of a self-produced coffee) constant across different self-production levels, we were able to interpret perceptual and evaluative variations across different levels as evidence of bias.

Accordingly, participants were supposed to taste and evaluate the taste of the black coffee (later referred as Taste 1). At this point, we were primarily interested whether there already will be any differences in outcome evaluations or not (i.e. taste of the black coffee) between the low and high self-production groups, which could further support the findings of Troye and Supphellen (2012).

Subsequently, all partakers were given an option to add any number and amount from four coffee condiments available (milk, sugar, artificial sweetener and cinnamon) and asked to taste the coffee again (later referred as Taste 2). After tasting the coffee, participants were guided to answer a questionnaire with measures of Taste 2, condiments used, self-production

effort, outcome evaluation, process enjoyment and goal relevance (see Appendix E for the full questionnaire). Moreover, demographic variables such as age or gender were included in the study as individual variables.

## 4.3.1.2 Make a Coffee for a Friend

The next 20 participants were assigned to the same low self-production conditions (i.e. pouring the coffee from the coffee thermos and adding condiments). However, compared to the previous group, the instructions they were given at the beginning clearly stated that their task was to prepare a coffee for one of their friends who, as we further clarified, drinks coffee. Except for this condition, we replicated procedures from the previous group with few differences in the questionnaire that will be discussed in the subsequent "Final Questionnaire Development" section (see Appendix F for the full questionnaire).

## 4.3.2 High Self-Production

## 4.3.2.1 Make a Coffee for Yourself

The third group consisted of other 20 participants who were randomly assigned to high selfproduction conditions and were tasked to prepare a coffee for themselves. In comparison with the low self-production condition (i.e. pouring coffee from the coffee thermos and adding condiments), participants were supposed to prepare a coffee from scratch under high selfproduction conditions. In order to fulfill this task, we provided them with a prearranged number of coffee beans (105), a coffee grinder, a French press, two deciliters of boiled water, a coffee thermos, and condiments (i.e. milk, sugar, artificial sweetener and cinnamon). We kept the number of coffee beans and amount of boiled water equal for all partakers and under both, i.e. high and low, self-production conditions to ensure the same black coffee outcome (measured as Taste 1).

First, all partakers read printed instructions (Appendix C) that informed them about the particular steps within the experiment. After reading the instruction they answered the first part of the questionnaire consisting of statements that measured the level of risk they had perceived before they actually started with a coffee preparation.

Subsequently, participants were asked to place the already prepared amount of coffee beans into the coffee grinder and grind it for 10 seconds. Next, they placed the ground coffee into the coffee maker (French press), added two deciliters of boiled water and waited for three minutes until the coffee was ready. At the end they poured the coffee from the coffee maker

over into the coffee thermos. At this point, partakers selected any of the two types of cups available, poured there the coffee from the coffee thermos and were asked to taste it (Taste 1). After they had evaluated the taste, they were given an option to choose any number and amount from the coffee condiments available and asked to taste it again (Taste 2), and answer the rest of the questionnaire with the measures of taste, condiments used, self-production level, outcome evaluation, process evaluation, goal relevance and demographic variables (see Appendix G for the full questionnaire).

## 4.3.2.2 Make a Coffee for a Friend

The last group of 20 participants was instructed to prepare a coffee for their friend under high self-production conditions. Partakers were employed in the same procedure of coffee preparation as members of the previous high self-production group (i.e. preparing a coffee from scratch, the choice of plastic cup and coffee condiments according to the perceived friend's preferences). However, in order to emphasize the fact they were preparing the coffee for their friend, we reminded participants of this fact several times while preparing the coffee as well as we added several questions within the final questionnaire (see Appendix H).

#### 4.4 Final Questionnaire Development

#### 4.4.1 Data Collection

All data was collected through questionnaires using Qualtrics online survey software and subsequently analyzed by using the IBM SPPS statistical software package. Since the experiment served as the basis for subsequent data collection via questionnaires, this study was based on the primary data. Using primary data provided us with several advantages. For instance, we had a greater amount of control, i.e. we addressed our research questions specifically and determined how the data was collected.

#### 4.4.2 Questionnaire Design

Since four different scenarios were used in the actual experiment, i.e. making a coffee under low self-production conditions for either oneself vs. a friend and making a coffee under high self-production conditions for either oneself vs. a friend, we designed the questionnaire in the following way:

We primarily employed two similar questionnaires depending on whether partakers were preparing a coffee for themselves or for someone else, i.e. their friend. The only difference was that few extra questions were added to the latter one (i.e. prepare a coffee for someone else). When it comes to distinguishing low vs. high self-production conditions, there was only one minor stylistic difference ("Please rate the coffee you've prepared," referring to high self-production and "Please rate the coffee you've poured," referring to low self-production). Below, we present the operationalizations for variables in the situation of preparing a coffee for a friend under high self-production conditions. Since, as noted above, similar operationalization was used for other three situations they are not presented here but included in Appendix E-G.

We collected responses from all the 80 experiment participants. They were tasked to fill in the questionnaire that corresponded with the experimental group they had been a part of. However, since we did not set the online survey in the way that respondents could not switch to the next question without completing the previous ones, we ended up with few missing values.

The scale operationalizations for variables were taken from the relevant academic articles in the field of self-production (e.g. Troye & Supphellen, 2012, Xie, 2005) or other fields of marketing. Most items (except measures for taste, coffee condiments and reasoning behind the coffee evaluation) were measured by seven-point Likert scales. Each response value from 1 to 7 was respectively labeled as follows: "Strongly Disagree", "Disagree", "Somewhat Disagree", "Neither Agree nor Disagree", "Somewhat Agree", "Agree", "Strongly Agree".

## 4.4.2.1 Perceived Risk

*Knowledge of friend's preferences* was measured by one item "I know my friend's coffee taste preferences well". A seven-point Likert agreement scale was included. The item was used separately to measure the values of the "preference match" independent variable.

*Level of friend's benevolence* was measured by asking subjects to indicate to what degree they agree or disagree with the following statement on a seven-point Likert agreement scale: "I think my friend would evaluate the prepared coffee more critically than I would (given he/she does not know how the coffee was prepared)". By stating that the self-producer's friend does not know the specifics of the coffee preparation procedure (priming stimulus), we attempted to isolate any additional considerations that could potentially influence the outcome evaluation on the friend's behalf besides taste evaluations (i.e. self-producer's exhibited effort). The values on this item were not included in the analysis.

*Self-efficacy* was measured on a three-item, seven-point Likert agreement scale adopted from Xie (2005) with minor changes in the order of the questions. Likert-type scales have been widely used to measure self-efficacy since they simply ask how well the person thinks he or she can do a task (Bandura, 1977). The three items measured were: "I know what to do to prepare the coffee", "I feel that I possess the necessary skills to prepare the coffee", "I feel capable to prepare the coffee".

For *the perceived level of task difficulty* we employed one item, "The coffee preparation task ahead is difficult" and applied a seven-point Likert agreement scale.

*Attitude toward failure*, as the last variable of perceived risk measurement, was borrowed from Xie (2005) with minor changes in wording. On a seven-point Likert agreement scale, participants expressed how they agree or disagree with the following statement: "Failing to prepare the coffee to my friend's expectations would make me feel unpleasant".

The factor analysis of the self-efficacy, task difficulty, and attitude towards failure items based on the sample (N=78) generated a Cronbach's alpha of .72. The item measuring the attitude towards failure ("Failing to prepare the coffee to my expectations would make me feel unpleasant.") displayed low values of correlation with the total score, which is why we subsequently removed the item and did not include it into the composite measure of perceived risk. The remaining four scale items showed significantly higher reliability with Cronbach's alpha of .876 and were combined into a single composite measure of perceived risk.

Values of two items, "The coffee preparation task ahead is difficult." and "Failing to prepare the coffee to my expectations would make me feel unpleasant." were reversed, so that lower overall score of the perceived risk composite indicates higher risk.

## 4.4.2.2 Taste 1 (Pre-condiments)

*Taste of the outcome before adapting it for the recipient (identical across all experimental conditions), from the perspective of self-producer*, was measured by "Please rate the taste of the coffee you have prepared" on one-item, seven-point semantic differential scale. The type of the scale used was bipolar, ranging from "very bad taste" to "very good taste". We used the semantic differential scale since it represents one of the most commonly used techniques to measure attitudes (Spielberger, 2004, p. 247), and provides a good basis for comparing images of two or more items, particularly adjectives (Management Study Guide, n.d.).

## 4.4.2.3 Condiments

For *condiments* that participants used we included a multiple choice question starting "Which coffee condiments did you use to flavor the coffee?," followed by a list of five possible answers: "Milk", "Sugar", "Artificial Sweetener", "Cinnamon", and "None of the above".

The answers were not used in the analysis but serve as a tool that would make the respondents fully aware of the condiment choices they had made.

## 4.4.2.4 "Gift Giving"

*Reasoning behind the particular choice of condiments* was measured on three-item, sevenpoint Likert agreement scale. The items were inspired by Belk (1977), who described various possible messages to be conveyed by a consumption object, in our case scenario coffee:

- 1. the giver's perception of the recipient ("The way I have prepared the coffee is the way my friend drinks it"),
- 2. the giver's self-concept ("The way I have prepared the coffee is the way I usually drink it"),
- 3. and the giver's ideal self-concept ("The way I have prepared the coffee reflects the way I want to be perceived").

*Reasoning behind the assumed friend's evaluation* was measured by an open question "Why do you think he/she would give the coffee this particular evaluation?" in order to come up with motives that would explain the particular evaluation.

## 4.4.2.5 Taste 2 (Post-condiments)

*Taste of the self-production outcome adapted to the recipient, evaluated by the self-producer* from the perspective of the recipient, was measured by "Assume the position of the friend you have prepared the coffee for. Remember he/she does not know any details about the coffee preparation. How do you think he/she would evaluate the taste?" in the "preparation for a friend" condition, while the "preparation for self" condition used a statement "Please evaluate the taste of the coffee after adding the condiments." We employed one-item, seven-point semantic differential scale ranging from "very bad taste" to "very good taste".

## 4.4.2.6 Self-production Effort

*Self-production effort* was measured on a seven-point Likert agreement scale borrowed from Troye & Supphellen (2012) and used two items: *perceived difficulty* ("The coffee preparation

demanded a lot from me") and *perceived contribution* ("I made a considerable contribution to the final quality of the prepared coffee").

Factor analysis based on the sample (N=80) gave a Cronbach's alpha of .4, suggesting low reliability of the scale with our sample. This may occur with measures with a low number of items (i.e. less than 10). The value of Pearson product-moment correlation coefficient between the two items based on the entire sample (N=80) was calculated at .26. According to the SPSS Correlation output, the correlation was significant at the 0.05 level, therefore we combined the two items into single composite measure of "self-production effort." This is in line with Briggs and Cheek (1986), who recommend an optimal range for the inter-item correlation of .2 to .4.

#### 4.4.2.7 Outcome Satisfaction

*Outcome satisfaction evaluated by the self-producer* from the perspective of the recipient was measured by a single item: "My friend would be very satisfied with the coffee I have prepared" when the self-producer was preparing the outcome for a friend and "I am satisfied with the coffee I have prepared." when preparing for themselves. A seven point Likert scale was employed.

#### 4.4.2.8 Outcome Evaluation

The *outcome evaluation* variable was based on three previously described items – "Taste 1," "Taste 2," and "outcome satisfaction."

The value of Cronbach's alpha based on the entire sample (N=80) was calculated at .73, which suggests the scale can be considered reliable within our respondent sample. Thus we combined the three items into one composite measure of outcome evaluation.

### 4.4.2.9 Process Enjoyment

*Process enjoyment* was measured by two items inspired by items measuring outcome evaluation in Troye and Supphellen's study (2012): "I liked the process of the coffee preparation" and "I found the process of the coffee preparation interesting". A seven-point Likert agreement scale was included.

The process enjoyment composite measure was made up from both items with Cronbach's alpha of .8.

## 4.4.2.10 Goal Relevance

A developed eight-item, seven-point Likert scale for measurement of "goal relevance" variable was inspired by Troye and Supphellen (2012) and Xie (2005) and measured self-producer's as well as his or her friend's perspective. Eight created statements with which the respondents had to agree or disagree were:

- 1. Attitude toward coffee: "I like coffee"
- 2. Frequency: "I drink coffee often" and "I prepare coffee for others often."
- Interest in self-production domain: "I am very interested in brewing coffee", "I am willing to spend a lot of time brewing coffee", "I am willing to spend a lot of money on coffee brewing".
- 4. Importance of coffee taste per se: "I think taste is an important attribute of coffee."

The factor analysis (N=76) gave a Cronbach's alpha of .93 for all the items, which we subsequently combined into a single composite variable measuring goal relevance.

The questionnaire additionally included four equivalent items asking about the friend's preferences. Friend's goal relevance was not evaluated in the data analysis. The four "dummy" items were intended to serve as a priming tool so the self-producer fully distinguishes their friends' preferences from their own and were formulated as follows:

- 1. Attitude toward coffee: "The friend I have prepared the coffee for likes coffee"
- 2. Frequency: "The friend I have prepared the coffee for drinks coffee often" and "The friend I have prepared the coffee for prepares coffee for others often."
- 3. Interest in self-production domain: "The friend I have prepared the coffee for is very interested in brewing coffee", "The friend I have prepared the coffee for is willing to spend a lot of time brewing coffee", "The friend I have prepared the coffee for is willing to spend a lot of money on coffee brewing".
- 4. Importance of coffee taste per se: "The friend I have prepared the coffee for thinks taste is an important attribute of coffee."

Two *demographic variables* (age and sex) were included in the study questionnaire in order to give us a better understanding of our respondents.

# 4.5 Sampling

Estimating the required sample size in an experimental design is one of the most important aspects to show desired results (Patel, Doku and Tennakoon, 2003). In fact, the choice of

sample size requires balancing the increased information and precision that results from bigger samples and the reduced time and cost that result from smaller samples (Patel, Doku and Tennakoon, 2003).

Our aim was to gather 100 people that would be divided into the four following groups of 25 participants:

- Low self-production, prepare a coffee for yourself control group
- High self-production, prepare a coffee for yourself control group
- Low self-production, prepare a coffee for someone else treatment group
- High self-production, prepare a coffee for someone else treatment group

Out of all sampling procedures that are available to researchers, we have decided to apply a convenience sampling. In fact, we chose the participants at our convenience, i.e. people to which we had easy access and who volunteered to be a part of the experiment as a result of the promotion tools. The main advantage of convenience sampling was that conducting an experiment is expensive and time consuming per se, however, by using a sample of population that is convenient, the costs and time were greatly reduced. On the other hand, using convenience sampling led to limitation in generalization. In fact, the sample is not representative of the population and therefore the results of the study cannot speak for the entire population. Nevertheless, this type of sampling is most suitable for, and most used in experiments (Kowalczyk, n.d.).

We did not employ any specific preconditions that would have to be met in order to take a part in the experiment. In fact, everyone could participate irrespective of gender, age, nationality, background, or coffee likes/dislikes, which, as we assumed, could result in greater sample heterogeneity.

However, in order to get sufficient number of participants, our strategy aimed primarily at attracting students living in Hatleberg, a student dormitory area adjacent to Norwegian School of Economics. The experiment took place at a reception area where artificial "laboratory conditions" were arranged. We supposed the location of the experiment would be most suitable and interesting especially for the Hatleberg residents.

We got in touch with participants via online social platform (i.e. Facebook) by creating an event named "The Coffee Experiment" where we specified the dates, times and location of the experiment. We posted the event on "Hatleberg Events" group as well as "NHH Exchange

Students Spring 2014" group. Besides, we sent the individual invitations to our friends via private messages. Last but not least we made posters, which presented the experiment, and posted them individually on the entrance doors of Hatleberg's blocks. Although the event certainly reached a significant number of people via Facebook and other tools employed, we managed to get only 15 participants who registered to attend the event. Therefore, we had to include other recruitment tools in order to get a desired number of participants. We started recruiting people that came to the reception of C block personally which turned out to be very successful, and we managed to end up with a total sample of 80 respondents.

The sample was quite homogenous with regard to education background and age since it mainly consisted of bachelor and master students from Norwegian School of Economics (NHH). The respondents were, however, heterogeneous in their nationalities, which resulted in recruiting participants from 18 different countries. Our final sample consisted of 53 males (66.3 per cent) and 27 females (33.8 per cent), giving a total of 80 respondents. The range of ages was from 19 to 32, with a mean of 23.13 and standard deviation of 2.82.

# 5 Results of Study 1

We tested the research hypotheses H1-H7 using such statistical analysis tools such as t-tests, ANOVA/ANCOVA and descriptive statistics (descriptives and frequencies). T-tests were used to look into differences in mean values of continuous variables, ANOVA/ANCOVA was implemented to identify the main and interaction effects of the manipulated variables and resulting differences in means of continuous variables of interest. Finally, descriptives and frequencies were used to evaluate the mean values as well as most frequent response type with regards to H5.

# 5.1 Hypotheses Testing

## 5.1.1 Test of H1

H1: Self-producer is more likely to evaluate the self-production outcome with lower outcome evaluation score when preparing an outcome for someone else (compared to for oneself).

## T-test Results

To test the H1, an independent-samples t-test was conducted to compare the outcome evaluation scores for self-producers preparing the self-production outcome for themselves or for a friend. There was no significant difference in outcome evaluation scores for production for himself or herself (M=13.38, SD=3.67) and others [M=13.33, SD=2.89; t(80)=.068, p=.95]. The magnitude of the differences in the means was extremely small (eta squared=.00006).

To rule out the possibility of having overlooked any possible effects of the made for myself versus made for a friend condition, we decided to conduct additional series of t-tests for all the three measures of outcome evaluation separately. There were no significant differences for production for himself or herself and others in any of the scores of the three items forming the composite measure of outcome evaluation (Taste1, Taste 2, and outcome satisfaction; used separately as the test variables).

# Summary H1

As noted above, the results clearly show no significant differences in outcome evaluations when self-producing for oneself compared to for someone else. This leads to a conclusion that the first hypothesis has to be rejected.

## 5.1.2 Test of H2

H2: Low level of self-production is preferred more (in terms of higher outcome evaluation scores) when a self-producer prepares an outcome for someone else.

## Two-way ANOVA Results - Outcome evaluation

A 2 by 2 between-groups analysis of variance was conducted to assess the impact of selfproduction for oneself or a friend on self-production outcome evaluation for self-producers preparing the self-production outcome under high and low self-production conditions. The independent variables were recipient (self, a friend) and level of self-production (high versus low). The dependent variable was scores on outcome evaluation composite measure.

There were neither a significant interaction effect [F (1,76)=.458, p=.50], nor statistically significant main effects [recipient: F (1,76)=.005, p=.95; self-production level: F (1,76)=1.655, p=.20]. These results suggest that there are no differences in outcome evaluations between the four groups with different self-production conditions with regards to the recipient of the self-production outcome or the level of self-production.

## Summary H2: Outcome evaluation

These results suggest that there are no differences in outcome evaluations between the four groups with different self-production conditions with regards to the recipient or the level of self-production. To rule out the possibility of having overlooked any possible effects of self-production level and the recipient, we decided to conduct additional series of ANOVAs for all the three measures of outcome evaluation separately.

# Two-way ANOVA Results - Taste evaluation of the black coffee (Taste 1)

A two-way between-groups analysis of variance was conducted to look into the impact of the level of self-production and to explore additional effects of the recipient of the outcome on evaluation of the self-production task outcome (i.e. the taste of black coffee prior to adding any condiments), as measured on a bipolar 7-point rating scale ranging from "very bad taste" to "very good taste." Subjects were assigned into two groups with different levels of self-production in the self-production task (Group 1: Low self-production, Group 2: High self-production). Although the main effect for the self-production level did not reach statistical significance at the 5% level of significance [F(1, 76)= 3.538, p=.06] and exhibited a small effect size (partial eta squared=.04), it is important to note that the main effect still qualifies as

marginally significant (p<.1). The main effect for the outcome's recipient [F(1, 76)=.809, p=.37] and the interaction effect [F(1, 76)=.007, p=.94] showed no signs of statistical significance.

Mean taste evaluation (Taste 1) of the self-produced outcome was higher under high self-production ( $M_{high SP} = 4.10$ , SD=1.36) than low self-production conditions ( $M_{low SP} = 3.53$ , SD=1.36).

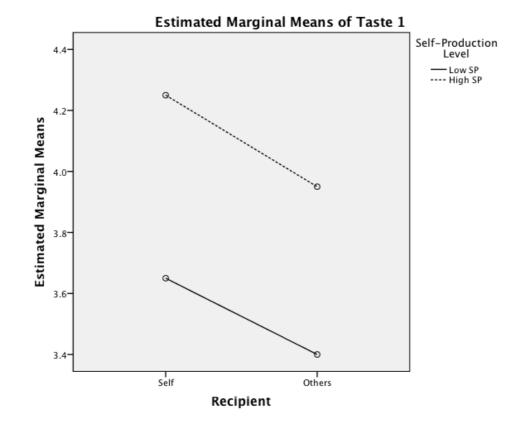


Figure 1: Taste 1 evaluation by self-production level and outcome recipient

#### Summary H2: Taste evaluation of the black coffee (Taste 1)

The results confirm the effects of self-production on outcome evaluation that had been reported in the previous research (Troye and Supphellen, 2012). Participants who were preparing the coffee from scratch (high self-production conditions) evaluated the final outcome more positively than those who just poured an already prepared coffee from the coffee thermos (low self-production conditions).

*Two-way ANOVA Results – Taste evaluation of the coffee with added condiments (Taste 2)* 

A 2 by 2 between-groups analysis of variance was conducted to assess the impact of selfproduction outcome recipient on the taste evaluation of the coffee after adding or rejecting to add any of the available condiments, i.e. self-production outcome with no fixed outcome adapted to the recipient's coffee taste preferences (single self-production outcome evaluation measure). The independent variables were self-production outcome recipient (self, a friend) and level of self-production (high versus low). The dependent variable was scores on the Taste 2 item of the outcome evaluation composite measure.

There were no statistically significant main effects [recipient: F (1,76)=.008, p=.93; self-production level: F (1,76)=.195, p=.66], there was a marginally significant interaction effect at a 10 per cent level of significance [F (1,76)=2.819, p=.10] with small effect size (partial eta squared=.04).

Means of the taste evaluations (Taste 2) of the self-produced outcome can be found in Table 1, for their graphic representation see Figure 2.

	Low Self-Production	High Self-Production
Recipient –Self	M=4.35, SD=1.66	M=4.95, SD=1.10
Recipient –Others	M=4.80, SD=1.00	M=4.45, SD=1.19

Table 1: Mean scores of taste evaluations with standard deviations (Taste 2)

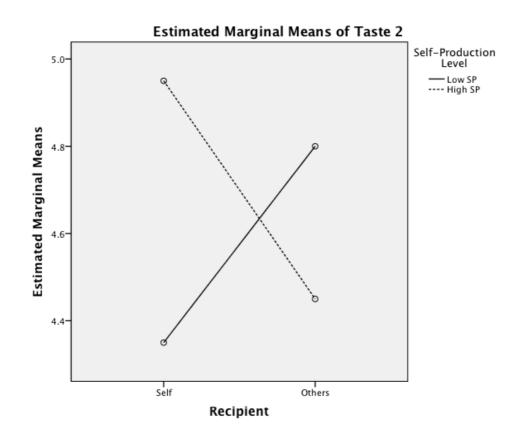


Figure 2: Taste 2 evaluation by self-production level and outcome recipient

#### Summary H2: Taste evaluation of the coffee with added condiments (Taste 2)

The results suggest that self-producers, who prepare an outcome for different recipients (self or a friend) evaluate the taste of coffee after adding condiments (Taste 2) differently based on the self-production level of the self-production task. The self-producers preparing the outcome for themselves seem to evaluate Taste 2 more positively when producing under high self-production conditions, while the self-producers adapting the outcome for a friend evaluated Taste 2 more positively under the low self-production conditions. We can confirm H2 only with regard to Taste 2 where the hypothesized effect was observed.

#### Two-way ANOVA Results – Outcome Satisfaction

A two-way between-groups analysis of variance was conducted to explore the impact of selfproduction level and self-production outcome recipient on levels of satisfaction with the outcome measured on a 7-point Likert scale. There was no statistically significant main effect for self-production level [F(1, 76)=.599, p=.44]. The main effect for outcome recipient [F(1, 76)=.599, p=.44] and the interaction effect [F(1, 76)=.000, p=1.00] did not reach statistical significance either. These results indicated that the mean scores for the self-production outcome satisfaction were not significantly different from each other among the groups.

# Summary H2: Satisfaction with the overall self-production task outcome

These results indicated that the mean scores for the self-production outcome satisfaction were not significantly different from each other among the groups. As a result, we conclude that satisfaction with the overall self-production task outcome per se does not have significant impact on the proposed hypothesis.

# 5.1.3 Test of H3

H3: Perceived risk mediates the effect of outcome recipient on the outcome evaluation.

# 5.1.3.1 Test of H3a

H3a: The self-producer is more likely to report higher perceived risk when preparing an outcome for someone else.

# T-test Results

To test the H3a, an independent-samples t-test was conducted to compare the perceived risk scores for self-producers preparing the self-production outcome for themselves or for a friend. There was a significant difference in perceived risk scores for production for himself or herself (M=19.26, SD=4.34) and others [M=16.67, SD=4.32; t(76)=2.640, p=.01]. The magnitude of the differences in the means was moderate (eta squared=.08). Since lower score means higher perceived risk, the self-producers preparing the outcome for others reported higher perceived risk.

# 5.1.3.2 Test of H3b

H3b: The self-producers with higher perceived risk are more likely to evaluate the outcome more negatively.

# T-test Results

To test the H3b, an independent-samples t-test was carried out to compare the outcome scores for self-producers reporting higher or lower risk. There was no significant difference in outcome evaluation scores for self-producers reporting lower risk (M=13.43, SD=3.38) and higher risk [M=13.22, SD=3.27; t(76)=-.263, p=.79]. The magnitude of the differences in the means was extremely small (eta squared=.0009).

Additional t-tests for the three items forming the outcome evaluation composite variable as dependent variables (Taste 1, Taste 2, Outcome Satisfaction) yielded similar results.

# Summary H3

Since a self-producer perceived a risk to be higher when preparing an outcome for someone else compared to for oneself, we accept the hypothesis H4a.

We did not observe any differences in outcome evaluations scores for self-producers who were preparing the outcome for someone else and who reported either lower or higher risk. This brings us to a conclusion that while the perceived risk is significantly higher when preparing an outcome for someone else, it has no impact on how a self-producer evaluates the final outcome. As a result, H3b is rejected.

# 5.1.4 Test of H4

H4: Self-producers preparing the outcome for someone else with lower preference knowledge are more likely to evaluate the outcome evaluation more negatively.

# T-test Results

To test the H4, an independent-samples t-test was performed to compare the outcome scores for self-producers reporting higher or lower preference knowledge of a friend. There was no significant difference in outcome evaluation scores for self-producers reporting lower preference knowledge (M=13.06, SD=1.84) and higher preference knowledge [M=13.50, SD=3.45; t(36.611)=-.520, p=.61]. The magnitude of the differences in the means was extremely small (eta squared=.007).

Additional t-tests for the three items forming the outcome evaluation composite variable as dependent variables (Taste 1, Taste 2, outcome satisfaction) yielded similar results.

# Summary H4

We reject H4 since the outcome evaluation scores did not differ with regard to reported, higher and lower preference knowledge as we had assumed.

# 5.1.5 Test of H5

H5: The strongest determinant of the message to be conveyed by the act of giving the self-production outcome to a friend is the self-concept the giver would ideally like to project.

#### Descriptive Statistics Results – Message conveyed by the outcome

Do determine which self-reported message to be conveyed by the coffee with added (or rejected) condiments was the strongest, we had a look at the means of the self-reported values of the four items forming the "Gift Giving" section of the questionnaire.

The strongest determinant according to our results was the perception of the recipient denoted by "The way I've prepared the coffee is the way he/she usually drinks it." with a mean value of 4.98 (SD=1.78), followed by ideal self expression (M=4.48, SD=1.72) and ideal self expression (M=3.88, SD=2.19).

The differences between the mean values were compared using a t-test with the level of self-production (high versus low self-production) as the grouping variable. There was a significant difference between reported ideal self-expression values under the low self-production conditions ( $M_{low SP}$ =4.65, SD=1.95) and the high self-production group [ $M_{high SP}$ =3.10, SD=2.17; t(37.576)=2.371, p=.02]. The magnitude of the differences in the means was moderate to large (eta squared=.13). The other scores did not differ significantly.

The perception of the recipient was also the most frequently stated reason for using/not using the particular condiments in the open question section of the questionnaire, reported by 18 respondents out of all respondent preparing the self-production outcome for a friend (N=40). Other reasons stated did not reoccur with more than three respondents.

## Summary H5

The results clearly indicate that the perception of recipient represented the strongest determinant of the message to be conveyed by the act of giving a coffee. This automatically rejects H5.

The significant difference between the ideal self expression values might have been caused by the misconception of the statement – i.e. confusing "The way I've prepared the coffee is the way I usually drink it" for "I don't usually prepare coffee this way," since the statement did not clearly distinguish between the coffee brewing part and the adding condiments part of the self-production process (the gift giving questionnaire section was supposed to measure the latter since it was the same for both high and low self-production groups). We believe this to be true mainly because the high self-production condition procedure involved steps numerous

respondents responded to with statements suggesting that they usually do not prepare coffee using the instruments provided.

# 5.1.6 Test of H6

H6: Goal relevance does not influence outcome evaluations with regards to H1 and H2.

# 5.1.6.1 Test of H6a

H6a: Self-producer evaluates the outcome with a lower outcome evaluation score when preparing an outcome for someone else irrespective of how a self-producing task is relevant for self-producer's goal pursuit.

# One-way ANCOVA Results – Outcome evaluation

There was no need to test H6a, since the test of H1 has already established that there are no significant differences between the outcome evaluation between the groups self-producing the outcome for themselves and for others.

Moreover, a one-way ANCOVA with recipient as the independent variable, outcome evaluation as the dependent variable and goal relevance as a covariate showed no signs of a significant relationship between the covariate and the dependent variable, while controlling for the independent variable (p=.74), while the main effect for recipient was not significant either [F(1, 70)=.515, p=.48]. Additional analyses for the three items forming the outcome evaluation composite variable as dependent variables (Taste 1, Taste 2, outcome satisfaction) yielded similar results.

# 5.1.6.2 Test of H6b

H6b: Low level of self-production is preferred (in terms of higher outcome evaluation scores) more when preparing an outcome for someone else irrespective of how a self-producing task is relevant for self-producer's goal pursuit.

# Two-way ANCOVA Results – Taste evaluation of the coffee with added condiments

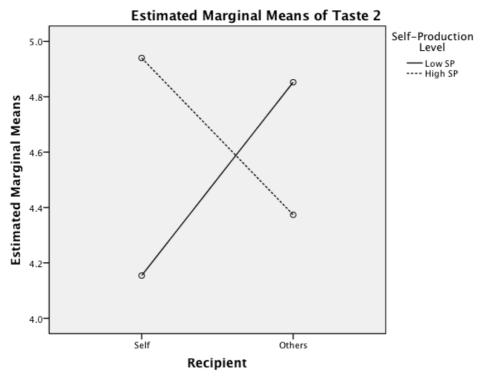
The test of H2 has shown that low level of self-production is preferred more when preparing an outcome for someone else only with regards to Taste 2 (i.e. taste evaluation of the coffee with added condiments).

For this reason, a 2 by 2 between-groups analysis of covariance was conducted to assess the impact of self-production outcome recipient on the taste evaluation of the coffee after adding

or rejecting to add any of the available condiments, i.e. self-production outcome with no fixed outcome adapted to the recipient's coffee taste preferences (single self-production outcome evaluation measure). The independent variables were self-production outcome recipient (self, a friend) and level of self-production (high versus low). The dependent variable was scores on the Taste 2 item of the outcome evaluation composite measure. Scores on the goal relevance composite measure were used as a covariate to control for individual differences.

Preliminary checks were conducted to ensure that there was no violation of the assumptions of normality, linearity, homogeneity of variances, homogeneity of regression slopes, and reliable measurement of the covariate. After adjusting for goal relevance scores, there was yet again a significant interaction effect [F (1,69)=4.490, p=.04], with a moderate effect size (partial eta squared=.06). There were no statistically significant main effects [recipient: F (1,69)=.046, p=.83; self-production level: F (1,69)=.267, p=.61]. Furthermore, there was no significant relationship between the covariate and the dependent variable, while controlling for the independent variables, i.e. the covariate was not significant (p=.84).

There were no correlations between goal relevance and the dependent variables of interest or manipulation checks. Goal relevance was correlated only with two independent variables - perceived risk (Pearson's r = .63) and preference match (Pearson's r = .66). Perceived risk and preference match were intercorrelated (Pearson's r = .46), but also showed no correlation with other variables.



Covariates appearing in the model are evaluated at the following values: Goal Relevance = 33,1351

#### Figure 3: Taste 2 evaluation by self-production level and outcome recipient with goal relevance as a covariate

#### Summary H6

Firstly, results from H1 showed no significant differences in outcome evaluations between groups that prepared an outcome for either themselves or someone else. This automatically leads to rejection of H6a. Moreover, further tests of H6a did not demonstrate any relationship between recipient as the independent variable, outcome evaluation as dependent variable and goal relevance as covariate, which further supports the H6a rejection.

The preferences for low self-production were statistically significant only with regard to Taste 2 evaluations when a self-producer was preparing an outcome for someone else. Therefore, we included goal relevance as a covariate into this relationship and found no significant relationship. This, however, supports H6b and implies that irrespective of how a self-producing task is relevant for self-producer's goal pursuit, a self-producer would prefer low self-production level when preparing an outcome for someone else.

# 5.1.7 Summary for H1-H6

Hypothesis	Confirmed/not confirmed
H1: Self-producer is more likely to evaluate the self-	Not confirmed.
production outcome with lower outcome evaluation	
score when preparing an outcome for someone else.	
H2: Low level of self-production is preferred more (in	Confirmed with regard to Taste 2 (evaluation
terms of higher outcome evaluation scores) when a	of coffee after adding condiments)
self-producer prepares an outcome for someone else.	of conce after adding containents)
H3: Perceived risk mediates the effect of outcome	Not confirmed.
recipient on the outcome evaluation.	
H3a: The self-producer is more likely to report higher	Confirmed.
perceived risk when preparing an outcome for	
someone else.	
H3b: The self-producers with higher perceived risk	Not confirmed.
are more likely to evaluate the outcome more	
negatively.	
H4: Self-producers preparing the outcome for	Not confirmed.
someone else with lower preference knowledge are	
more likely to evaluate the outcome evaluation more	
negatively.	
H5: The strongest determinant of the message to be	Not confirmed.
conveyed by the act of giving the self-production	
outcome to a friend is the self-concept the giver would	
ideally like to project.	
H6: Goal relevance does not influence outcome	Not confirmed.
evaluations with regards to H1 and H2.	
H6a: Self-producer evaluates the outcome with a	Not confirmed.
lower outcome evaluation score when preparing an	
outcome for someone else irrespective of how a self-	
producing task is relevant for self-producer's goal	
pursuit.	
H6b: Low level of self-production is preferred (in	Confirmed with regard to Taste 2 (evaluation
terms of higher outcome evaluation scores) more	of coffee after adding condiments)
when preparing an outcome for someone else	
irrespective of how a self-producing task is relevant	
for self-producer's goal pursuit.	
Table 2: Summary H1-H6	

Table 2: Summary H1-H6

The findings clearly demonstrate that we did not manage to confirm most of the hypotheses proposed. By further investigation of the existing data we, however, ended up with alternative hypotheses and conceptual model (Study 2) that are to be discussed subsequently.

# 6 Study 2: Effects of Self-Production Effort and Process Enjoyment on Outcome Evaluation

The previously stated and analysed hypotheses dealt primarily with the manipulated variables' effect on outcome evaluation as the dependent variables of interest. In this section, we describe further analysis investigating the impact of the manipulated variables on process enjoyment and self-production effort (manipulation checks). We tested the three process hypotheses (H7–H9) on the data obtained in Study 1.

In Troye and Supphellen's study (2012), the manipulation of self-production effort was successful, with self-producers carrying out the task in the high self-production condition reporting higher levels of effort than the self-producers in the low self-production group. We believe to find identical main effect of self-production within our sample, irrespective of who is the recipient of the self-production outcome:

*H7:* Self-producers producing the outcome in the high self-production condition are more likely to report higher self-production effort than the ones in the low self-production condition regardless of the outcome recipient.

Since we expect similar impacts of self-production level in the group preparing for themselves and a friend, we split the hypothesis into two:

H7a: Self-producers producing the outcome in the high self-production condition are more likely to report higher self-production effort than the ones in the low self-production condition when preparing the outcome for oneself.

*H7b:* Self-producers producing the outcome in the high self-production condition are more likely to report higher self-production effort than the ones in the low self-production condition when preparing the outcome for a friend.

With regards to process enjoyment, we used a study by Dahl and Moreau (2007) as the basis for our assumptions. In the study, participants were asked to create self-produced outcomes (i.e. bake cookies) with either fixed or no target outcome (i.e. the participants were either asked to decorate the cookies in a particular way or decorate them as they pleased). Participants in all conditions received instructions for carrying out the task. In the no target outcome condition, participants with higher skill levels reported higher task enjoyment than those with lower skill levels.

We believe the conditions of our experiment are reasonably familiar as all of our participants were instructed before carrying out the self-production task, there was no specific target outcome and even though there was no measurement of the respondents' skill levels, the self-production level manipulation did, however, require less skill levels in the low self-production condition and more skills in the high self-production condition. Considering these assumptions, we formulated the following hypothesis:

H8: Self-producers are more likely to upgrade process enjoyment evaluations under high level of self-production than under low level of self-production regardless of the outcome recipient.

In the same manner as H7, we split the hypothesis into two sub-hypotheses:

H8a: Self-producers are more likely to upgrade process enjoyment evaluations under high level of self-production than under low level of self-production when preparing the outcome for oneself.

H8b: Self-producers are more likely to upgrade process enjoyment evaluations under high level of self-production than under low level of self-production when preparing the outcome for a friend.

# 6.1 Test of H7

H7: Self-producers producing the outcome in the high self-production condition are more likely to report higher self-production effort than the ones in the low self-production condition regardless of the outcome recipient.

H7a: Self-producers producing the outcome in the high self-production condition are more likely to report higher self-production effort than the ones in the low self-production condition when preparing the outcome for oneself.

H7b: Self-producers producing the outcome in the high self-production condition are more likely to report higher self-production effort than the ones in the low self-production condition when preparing the outcome for a friend.

# 6.1.1 Two-way ANOVA Results – Self-Production Effort

We performed a two-way between-groups analysis of variance was to look into the impact of self-production level and self-production outcome recipient on levels of perceived self-production effort. There was no statistically significant main effect for self-production level

[F(1, 76)=1.166, p=.28], main effect for outcome recipient [F(1, 76)=1.854, p=.18] or interaction effect [F(1, 76)=2.119, p=.15], suggesting that the mean scores for the perceived self-production effort were not significantly different from each other among the groups.

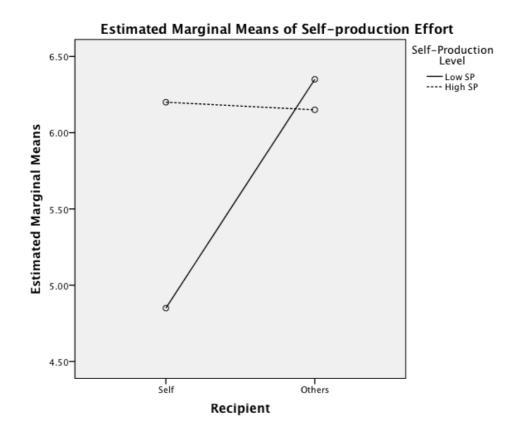


Figure 4: Self-production effort by self-production level and outcome recipient

The self-production effort by self-production level and outcome recipient plot depicted in Figure 4 indicated potential significant differences in the self-production effort scores between the high and the low self-production groups when the self-producer was also the recipient of the outcome. Moreover, there was a potential difference in effort scores between the groups preparing the outcome for themselves and somebody else in the high self-production condition.

After splitting the data sample into two groups based on the self-production outcome recipient, there was a marginally significant difference in the perceived self-production effort scores between the groups preparing the self-production outcomes for themselves ( $M_{high SP, self} = 6.20$ , SD=2.30;  $M_{low SP, self} = 4.85$ , SD=2.68; F(1, 38) =2.913, p=.10) with a moderate effect size (partial eta squared = 0.07). There were no significant differences between high and low self-production groups when the self-producer was preparing the outcome for a friend ( $M_{high SP, others} = 6.15$ , SD=2.01;  $M_{low SP others} = 6.35$ , SD=2.48; F(1, 38) =.079, p=.78).

Splitting the data into two groups based on self-production level as the grouping variable identified a marginally significant difference between the groups preparing the outcome for themselves ( $M_{low SP, self} = 4.85$ , SD=2.68) and for someone else ( $M_{low SP, others} = 6.35$ , SD=2.48) in the low self-production condition (F(1, 38) =3.378, p=.07). There were no significant differences between groups preparing for themselves and a friend in the high self-production condition ( $M_{high SP, self} = 6.20$ , SD=2.31;  $M_{low SP, others} = 6.15$ , SD=2.01; F(1, 38) =.005, p=.94).

# 6.2 Test of H8

H8: Self-producers are more likely to upgrade process enjoyment evaluations under high level of self-production than under low level of self-production regardless of the outcome recipient.

H8a: Self-producers are more likely to upgrade process enjoyment evaluations under high level of self-production than under low level of self-production when preparing the outcome for oneself.

H8b: Self-producers are more likely to upgrade process enjoyment evaluations under high level of self-production than under low level of self-production when preparing the outcome for a friend.

# 6.2.1 Two-way ANOVA Results – Self-Production Process Enjoyment

A two-way between-groups ANOVA was conducted to compare scores of process enjoyment with self-production recipient and level of self-production as independent variables. There was a statistically significant main effect for self-production level [F(1, 76)=4.224, p=.04]. The main process enjoyment values were significantly higher under high self-production conditions ( $M_{high SP} = 9.98$ ) than low self-production conditions ( $M_{low SP} = 8.65$ , p<.05). The main effect for outcome recipient [F(1, 76)=1.265, p=.26] and the interaction effect [F(1, 76)=.940, p=.34] did not reach statistical significance.

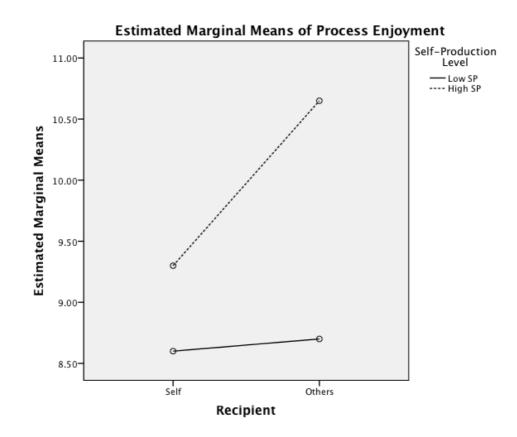


Figure 5: Process enjoyment evaluation by self-production level and outcome recipient

Further analysis has shown that the significant differences between the process enjoyment scores caused by the main effect of self-production level seem to apply only to the group preparing the self-production outcome for a friend ( $M_{high SP, others} = 10.65$ , SD=2.30;  $M_{low SP, others} = 8.70$ , SD=2.81; F(1, 38)=5.763, p=.02), with moderate to large effect size (eta squared .13), meaning 13.2 per cent of variance in process enjoyment is explained by the self-production level when preparing the self-production outcome for others. There were no significant differences between high and low self-production groups when the self-producer was also the recipient of the outcome ( $M_{high SP, self} = 9.30$ , SD=3.10;  $M_{low SP, self} = 8.60$ , SD=3.23; F(1, 38)=.489 p=.49).

#### 6.2.2 Summary H7 and H8

The tests of H7 and H8 revealed that the differences between high and low level of selfproduction with regards to self-production process enjoyment and the self-production effort scores in fact depend on outcome recipient. According to the results of the H7 test, selfproducers preparing the outcome for themselves are more likely to report higher or lower perceived self-production effort based on higher or lower level of self-production respectively. The test of H8 showed that self-producers preparing the outcome for others, on the other hand, seem to experience higher process enjoyment when preparing under higher level of self-production and lower process enjoyment in the low self-production condition.

## 6.3 Standard Multiple Regression

The findings in the previous section led us to develop additional research question to be looked into:

How do process enjoyment and self-production effort relate to the outcome evaluation?

More specifically:

Does a higher process enjoyment or self-production effort score translate to higher outcome evaluation score?

In order to shed light on the relationships between the variables, a standard multiple regression was performed between outcome evaluation as the dependent variable and process enjoyment and self-production effort as independent continuous variables. Analysis was performed using IBM SPSS Regression and Explore for evaluation of assumptions.

The two independent variables, process enjoyment and perceived contribution exhibited a certain level of relationship with the dependent variable, i.e. correlation of .3 and above. Furthermore, the correlation between the independent variables was not too high (Pearson's r=.19), therefore both of the variables were retained. There were no indications of multicollinearity.

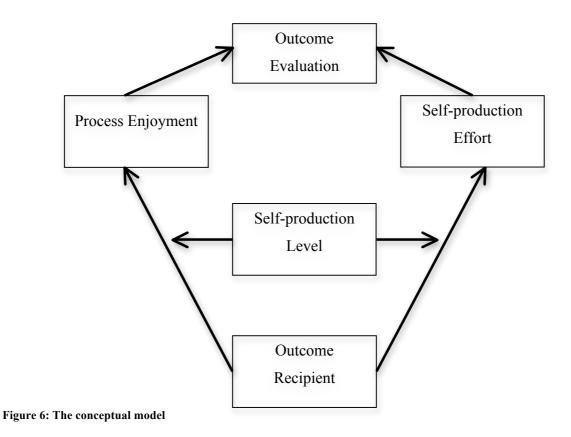
Evaluation of regression assumptions confirmed that there was no need to transform the variables to reduce skewness, reduce the number of outliers, or improve the normality, linearity, and homoscedasticity of residuals. The individual points of the Normal Probability Plot of the regression standardized residuals formed a reasonably straight diagonal line from bottom left to top right, while the standardized residuals were roughly rectangularly distributed, with most of the scores concentrated in the centre in the Scatterplot of the standardized residuals. With the use of a p < .001 criterion for Mahalanobis distance no outliers among the cases were found. There were no cases with missing data and no suppressor variables were found, N = 80.

Appendix I displays a table with the correlations between the variables (Pearson's r), the unstandardized regression coefficients (B) and intercept, the standardized regression coefficients ( $\beta$ ), the semipartial correlations ( $sr_i^2$ ),  $R^2$ , and adjusted  $R^2$ .

R for regression was significantly different from zero, F(2, 80) = 7.096, p = .001, with  $R^2$  at .156 and 95% confidence limits from .016 to .296. The adjusted value of  $R^2$  of .134 indicates that 13.4% of the variability in outcome evaluation scores is predicted by process enjoyment and self-production effort. For the two regression coefficients, both of which differed significantly from zero, 95% confidence limits were calculated. The confidence limits for process enjoyment were 0.042 to 0.495, and those for self-production effort were 0.068 to 0.646.

The two IVs in combination contributed another .03 in shared variability. Altogether, 15.6% (13.4% adjusted) of the variability in outcome evaluations was predicted by knowing scores on these two IVs. The size and direction of the relationships suggest that the self-production outcome is evaluated more highly among consumers who have enjoyed a particular self-production task more and believe they have made more effort while partaking in a self-production task. Between those two, however, the self-production effort is slightly more important, as indicated by the squared semipartial correlations.

Based on the insights listed above, we proposed the following model:



To see how exactly process enjoyment and self-production effort influence outcome evaluation, we checked the Pearson correlations between process enjoyment, self-production

effort and the three items forming the outcome evaluation composite measure ("Taste 1" – taste evaluation of the black coffee before adding condiments, "Taste 2" – taste evaluation of the coffee after adding condiments, and "outcome satisfaction").

From all the outcome evaluation items, it was only outcome satisfaction that exhibited (medium-sized) correlations significant at the 0.01 level with both process enjoyment (Pearson's r =.38) and self-production effort (Pearson's r =.32), while outcome satisfaction was correlated significantly at the 0.01 level with Taste 1 (Pearson's r =.39) and Taste 2 (Pearson's r =.51). For the complete table of bivariate correlations, see Appendix J. These facts led us to believe that outcome satisfaction may mediate the effects of process enjoyment and self-production effort.

Therefore we formulated the following hypothesis:

H9: Outcome Satisfaction mediates the positive effects of process enjoyment and selfproduction effort on taste evaluations.

We executed another standard multiple regression, this time between outcome satisfaction as the dependent variable and process enjoyment and self-production effort as independent continuous variables. The procedure was analogous to the aforementioned standard multiple regression.

The table in Appendix K lists the newfound correlations between the variables (Pearson's r), the unstandardized regression coefficients (B) and intercept, the standardized regression coefficients ( $\beta$ ), the semipartial correlations ( $sr_i^2$ ),  $R^2$ , and adjusted  $R^2$ .

R for regression was significantly different from zero, F(2, 80) = 10.188, p < .001, with  $R^2$  at .209 and 95% confidence limits from .057 to .361. The adjusted value of  $R^2$  of .189 suggests that 18.9% of the variability in outcome evaluation satisfaction is predicted by process enjoyment and self-production effort, a slight improvement from the impact of the independent variables on outcome evaluation as a whole. In this case, process enjoyment had a bigger impact than self-production effort judging from the squared semipartial correlations.

# 6.4 Test of H9

H9: Outcome Satisfaction mediates the positive effects of process enjoyment and selfproduction effort on taste evaluations.

#### 6.4.1 Sobel Tests Results – Outcome Satisfaction as a Mediator

To find out whether outcome satisfaction indeed mediates the positive effects of process enjoyment and self-production effort on the taste evaluation variables, we have conducted a series of Sobel tests (for an overview of the Z-scores and their respective p-values, see Appendix L).

When it comes to mediation of positive effects of process enjoyment on taste evaluations (Taste 1 and Taste 2) with outcome satisfaction as the mediator, the Sobel test statistic was significant (Z-value = 2.47, p < .05 and Z-value = 2.87, p < .05 for Taste 1 and Taste 2 respectively). More precisely, process enjoyment significantly influenced outcome satisfaction ( $\beta$  = .378, p < .05), which subsequently had a significant effect on Taste 1 ( $\beta$  = .389, p < .05) and on Taste 2 ( $\beta$  = .505, p < .05).

The Sobel test statistic was also significant with self-production effort as the independent variable, outcome satisfaction as the mediator and taste evaluations Taste 1 (Z-value = 2.29, p < .05) and Taste 2 (Z-value = 2.52, p < .05) as the dependent variables. In a similar fashion to the previous independent variable, self-production effort significantly influenced outcome satisfaction ( $\beta$  = .324, p < .05). As mentioned above, outcome had a significant effect both on Taste 1 and on Taste 2.

Follow-up analyses revealed that the mediation effects seemingly work both ways, i.e. while process enjoyment and self-production effort improve the taste perception evaluations through outcome satisfaction, the self-production outcome taste affects the evaluations of process enjoyment and self-production effort. Although the positive effects of Taste 2 (outcome adapted to recipient's preferences) on self-production effort do not seem to be mediated by outcome satisfaction according to Sobel test (Z-value = 1.82, p = .07).

Based on these additional insights, we propose the following extended model:

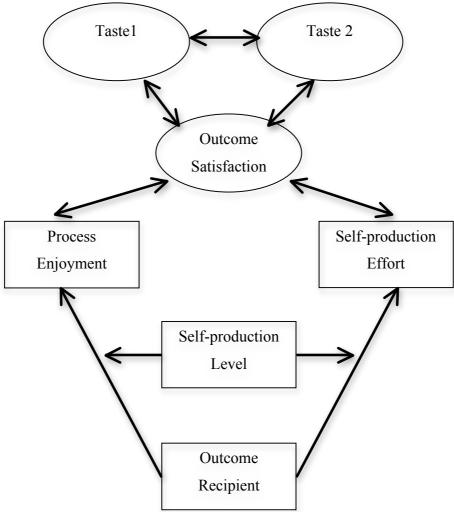


Figure 7: The conceptual model - extended

#### 6.4.2 Summary H9

According to the results of Sobel tests, outcome satisfaction does indeed mediate the positive effects of process enjoyment and self-production effort on taste evaluations within our sample.

Furthermore, the mediation effects of outcome satisfaction appear to apply both ways, which means that not only higher reported process enjoyment and self-production increase the taste evaluation scores, but higher taste evaluation scores may increase the perceived felt process enjoyment and self-production effort. The only exception is the positive effect of Taste 2 on self-production effort, which does not appear to be mediated by outcome satisfaction. This inconclusive result may however be caused by the respondent sample not being large enough, as Sobel test does not provide good results with smaller sample sizes (Preacher, 2014).

# 6.5 Summary for H7-H9

Hypothesis	Confirmed/not confirmed
H7a: Self-producers producing the outcome in the	Inconclusive (Confirmed with a marginally
high self-production condition are more likely to	significant p-value).
report higher self-production effort than the ones in	
the low self-production condition when preparing the	
outcome for oneself.	
H7b: Self-producers producing the outcome in the	Not confirmed.
high self-production condition are more likely to	
report higher self-production effort than the ones in	
the low self-production condition when preparing the	
outcome for a friend.	
H8a: Self-producers are more likely to upgrade	Not confirmed.
process enjoyment evaluations under high level of	
self-production than under low level of self-production	
when preparing the outcome for oneself.	
H8b: Self-producers are more likely to upgrade	Confirmed.
process enjoyment evaluations under high level of	
self-production than under low level of self-production	
when preparing the outcome for a friend.	
H9: Outcome Satisfaction mediates the positive effects	Confirmed.
of process enjoyment and self-production effort on	
taste evaluations.	
Table 3. Summary H7-H0	

Table 3: Summary H7-H9

The summary table clearly shows that only some of our hypotheses in Study 2 were confirmed. The most significant takeaway from Study 2 is that outcome satisfaction seems to mediate the positive effects of both process enjoyment and self-production effort on evaluations of taste perceptions. The scores of process enjoyment and self-production effort are likely to be enhanced by higher level of self-production, although the effects of self-production level seem to be dependent on the self-production outcome recipient – i.e. higher self-production level seems likely to increase perceived self-production effort only when the self-producer is also the recipient of the outcome, while outcome process enjoyment appears to be upgraded by self-production level when the self-production outcome is intended for someone else. These findings may have important implications, as further discussed in section 7.3 Managerial Implications.

# 7 General Discussion and Implications

# 7.1 Summary of Findings

This section offers a definitive overview of the findings from both Study 1 and Study 2.

## 7.1.1 Study 1

We expected the self-producers to evaluate the self-production outcome intended for someone else with lower outcome evaluation scores compared to the ones preparing the outcome for themselves.

According to the results, there were neither significant differences between the groups with different outcome recipients in terms of outcome evaluation scores, nor differences in groups in scores of any of the three items forming the outcome evaluation composite measure (Taste 1, Taste 2 or outcome satisfaction).

This result may have been caused by no apparent influences of perceived risk associated with the outcome recipient and goal relevance of the self-producer on outcome evaluations within our respondent sample.

According to H2, we predicted the self-producers to give higher outcome evaluation in the low self-production condition when preparing an outcome for a friend. The hypothesis was not confirmed, therefore we resorted to split the outcome evaluation composite measure into the three items forming it and to test them separately.

The results of ANOVA with Taste 1 as the dependent variable did not confirm our hypothesis, as it has only shown marginally significant main effect for the self-production manipulation. These results partially support Troye and Supphellen's findings (2012), where they concluded that high self-production had a positive effect on taste perceptions.

There was a marginally significant interaction effect in analysis of variance results with Taste 2 as dependent variable, which confirmed our hypothesis – when preparing an outcome for a friend; taste evaluations of Taste 2 (outcome adapted to the recipient's individual preferences) were in fact higher under low level of self-production. This result, however, does not appear to be caused by the higher perceived risk when preparing an outcome for a friend as we had assumed.

As it turned out, even though self-producer were more likely to report higher perceived risk when preparing an outcome for someone else (rather than themselves), higher perceived risk did not translate into lower outcome evaluation scores, nor did lower preference knowledge of the recipient.

Furthermore, goal relevance showed no signs of influence on evaluation scores either. As a matter of fact, neither outcome evaluation nor the three items forming it exhibited significant correlation with perceived risk, preference match or goal relevance. The three independent variables were significantly correlated only between themselves with no further impact on the dependent variables. This may have been caused by using inadequate stimulus (i.e. coffee) for our research purposes (for further discussion of this matter, see section Limitations and Future Research).

Last but not least, we had a look at the message to be conveyed by the act of giving the selfproduction outcome to a friend. We did not find support that would link our experiment with Belk's findings in the area of gift giving (1977).

# 7.1.2 Study 2

The second study was based on the same data set as Study 1 and dealt with the impact of the manipulated variables on process enjoyment and self-production effort.

The results have shown that self-producers are likely to report higher self-production effort under high self-production conditions, which seem to apply only when preparing the outcome for themselves and not for a friend. In contrast, self-producers preparing the outcome for their friends reported a significantly higher process enjoyment scores in the high self-production experimental condition, while there were no significant differences in process enjoyment scores between the two groups preparing the self-production outcome for themselves.

Self-production in combination with outcome recipient affect perceived self-production effort and process enjoyment, which in turn influence outcome satisfaction scores. Judging from our findings, outcome satisfaction mediates the positive effects of self-production effort and process enjoyment on taste evaluations of the self-production outcomes.

# 7.2 Theoretical Implications

The conducted experiment and proposed hypotheses have primarily focused on finding the answers to the research questions stated at the beginning of the thesis:

*RQ1:* Does the knowledge about WHO is going to be the recipient of an outcome influence self-producer's outcome evaluation?

*RQ2*: Does the knowledge about WHO is going to be the recipient of an outcome influence the preferred level of self-production (high/low self-production)?

In RQ1, we hypothesized that self-production for someone else would lead to more negative outcome evaluations and that this effect would be primarily caused by higher perceived risk and lower knowledge about the recipient's preferences. The results, however, showed different conclusions.

- There were no significant differences in outcome evaluations scores when selfproducers were preparing an outcome for themselves compared to for someone else. Secondly, we did not observe any statistical differences in neither outcome evaluation scores for self-producers reporting lower and higher risk nor in outcome evaluation scores for self-producers reporting lower preference knowledge and higher risk (Note: See the full results in section "Test of H3" and "Test of H4").
- 2. Perceived risk did not mediate the effects of recipient of the self-production outcome on the outcome evaluation. Although, self-producers reported higher risk when selfproducing for someone else (Note that this finding is consistent with the theory of Hart (1976) who claimed that people are more conservative and rate the overall perceived risk severity as much greater when making decision for someone else than when making decisions for themselves), it had no impact on the outcome evaluation.
- 3. Preference knowledge showed no impact on the outcome evaluation.

We assume the relationship between these two variables (perceived risk and preference match) and outcome evaluations was not observed since self-producers were given an option to choose any of their friends. In fact, except for the single condition that a chosen friend has to drink coffee, we did not provide any further specifications. As a result, the self-producers most likely chose the friend whose coffee preferences they knew best (supposedly almost as well as their own ones). Moreover, we suppose that the self-producer naturally decided for a friend that would be most benevolent to potential failure and hence the social risk (risk of embarrassment) would be mitigated significantly. All in all, the self-producer most likely

decided to "play it safe" by a deliberate choice of a friend what resulted in no significant differences in outcome evaluations between the groups.

With regard to RQ2, we primarily assumed that self-producers would prefer low selfproduction conditions when preparing an outcome for someone else (H2). Additionally, we investigated the links between this assumption and goal relevance as a covariate.

We came to following conclusions and theoretical implications:

- Self-producers preparing coffee for themselves and for someone else would prefer high self-production conditions on the basis of higher evaluation scores of Taste 1 (the taste of the black coffee), which confirmed the findings of Troye and Supphellen (2012). Similar to their study, we believe these effects occurred as a result of holding the quality of the outcome constant (i.e. the taste of black coffee) across different production levels. As a result, all evaluative variations represented a clear evidence of self-producer's bias. In other words, self-production most likely led to creation of links between the self and the outcome, and these links were further responsible for transferring of affect from the self to the outcome (Troye and Supphellen, 2012).
- 2. Self-producers that were guided to prepare a coffee for someone else would prefer low self-production conditions on the basis of higher evaluation scores of Taste 2 (taste of the black coffee after customization). We believe that this could be a result of low self-production conditions. In fact, before adding condiments, self-producers tasted and evaluated the black coffee (Taste 1) that had been only poured from the coffee thermos in the chosen cup. As a result, compared to high self-production effort (i.e. they did not realize they had already done something) and the evaluation reflected purely their taste perceptions. We believe that it was the possibility of adding the condiments that played the core role under low self-production conditions (i.e. self-producers realized their contribution) and enhanced the evaluation of customized outcome significantly. Under high self-production conditions, on the other hand, adding condiments was apparently perceived just as the additional procedure and did not contribute to enhancement of the customized outcome that significantly.
- 3. There was no significant relationship between goal relevance and Taste 2, supporting our hypothesis according to which the extent to which the given self-production task is relevant to a self-producer's goal pursuit is irrelevant when self-producing for someone

else. This is also consistent with our theoretical assumptions, which claimed that selfproducer's goal relevance would not matter since he or she will most likely expect that the recipient does not need to be fully informed about, or might not fully comprehend and appreciate, the effort behind the self-produced outcome.

# 7.3 Managerial Implications

The most important managerial implications arose from the tests of H7-H9 in Study 2. The self-producers producing an outcome for themselves seem to perceive higher levels of self-production effort under higher self-production level, which increase the outcome satisfaction, which in turn improve taste evaluations. According to the results, same increase in taste evaluations is likely to occur when self-producers prepare an outcome for someone else and perceive higher process enjoyment under higher self-production conditions. All of this leads us to believe that the recipient plays an important part in evaluation of self-production outcomes.

The bottom line is that according to our results, higher self-production does seem to enhance taste perceptions evaluations, in line with the presented theory. The important insight is, however, that the self-production level appears to influence different variables depending on whom the outcome is prepared for. This does not necessarily mean that products, which are commonly consumed by the same person that has prepared them should require more effort while the ones that are suitable to be shared with friends should only focus on as enjoyable self-production process as possible.

What may be a good strategy is to communicate these aspects of self-production. When advertising a product that a consumer is likely to self-produce for their own consumption, emphasizing the self-mastery-related, effortful aspects of the self-production task may generate higher outcome evaluation scores. In contrast, when advertising a product commonly thought of as to be shared with other persons in social situations, making it clear that the selfproduction process linked to that particular product is enjoyable would be likely to create higher taste evaluations of the outcome. Nevertheless, in order to definitively validate these insights, more research needs to be carried out in this matter.

## 8 Limitations and Future Research

We are aware of the fact that the conducted study has certain limitations that need to be discussed. Since most of our initial hypotheses were not confirmed, we realize the weaknesses and propose improvements and extensions for more sound future outcomes.

#### Sample Size

One possible reason of that few, statistically significant results could be the small sample size. In fact, we ended up with a total number of 80 participants who were further divided into four groups of only 20 people. This, in turn, could have resulted in considerable within-cell variances. Hence, an overall recommendation would be to increase the number of respondents in order to reach significant results for used tests and comparisons.

#### Self-production Treatment

Another explanation could be that high self-production treatment was not designed well enough to be sufficiently demanding. Similarly, low self-production treatment might have been perceived as not involving at all since it did not demand almost any effort. We believe that these limitations emerge from characteristics of the stimulus per se since they did not allow us to adjust the particular treatments in a more sophisticated way than we did. For this reason, future research may require a self-production treatment that would result in more clearly distinguished reported self-production effort levels and thus provide a more representative picture of the processes that occur while preparing a self-produced outcome.

## **Recipient Treatment**

Our decision to use a scenario-based procedure, where the respondents were asked to recall a friend for whom they were producing the coffee definitely has its drawbacks. As noted in "General Discussion" section, participants could have intentionally decided for a friend that represented the least risky choice in terms of preferences and benevolence. Actual presence of a recipient as well as feedback from the recipient could influence the findings considerably.

## Developed Stimulus

Another reason for insignificant statistical scores might be related to the stimulus developed. We decided to conduct the experiment with a coffee mainly due to financial and time constraints. We are, however, aware that are several reasons why coffee might not have been the appropriate stimulus. Firstly, coffee represents a very general, day-to-day self-production situation and does not require that much effort as many other self-production tasks do. Secondly, although we used a gustatory stimulus, which is supposedly more ambiguous, the outcome might not have been ambiguous enough to allow the processes that these kinds of effects require.

Moreover, the hypothesized effects of perceived risk might have shown to be statistically insignificant also as a result of the inappropriate choice of stimulus. Firstly, preparation of coffee certainly does not require extremely special skills or competences that would increase the fear of failing in the performance. Secondly, there is no doubt that coffee is rather generic and relatively inexpensive product. This, in turn, could reduce the self-producer's anxiety of financial losses, since he or she most likely realized that even if failing, the outcome could be easily reproduced. The future research should therefore incorporate a more complex stimulus.

# Self-Producers

We believe that self-producers that participated in the actual experiment also contributed to several, mention-worthy limitations. First of all, since the majority of all participants has been studying at NHH, it is very likely that they have already heard of, or learned about the effects of self-production investigated by Troye and Supphellen (2012) and adjusted the ratings accordingly. Secondly, the experiment included also several self-producers that do not drink coffee at all. This could have resulted in untruthful and misleading outcome evaluations.

# Convenience Sampling

We decided to use a convenience sample since it seemed to be the most reasonable option for this kind of exploratory quantitative research. However, we are aware of the fact that if the results of this study are to be extrapolated to the entire population, another study, which will use a more representative sample, needs to be conducted.

# Sensory Information

The experiment concerned the impact of the process enjoyment scores and the self-production effort scores on taste evaluations of the outcome. The sensory information is however extremely unlikely to be processed separately. Concerning coffee preparation in specific, it is very difficult to separate gustatory, olfactory and even visual stimuli that are processed simultaneously. It may therefore be important to investigate the effects on other sensory stimuli evaluations, as proposed in Troye and Supphellen's research (2012).

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### Appendix

### Appendix A: Instructions for the Low Self-Production/Self Condition

Dear respondent,

In this experiment you will prepare a coffee while using tools, coffee and condiments provided, followed by a short questionnaire.

Please carefully read subsequent instructions before you begin:

- 1. The coffee you are about to make is for you.
- 2. Pick any single cup from those provided.
- 3. Pour preferred amount of coffee from the coffee thermos into the chosen cup.
- 4. Evaluate the taste.
- 5. Add any amount or combination of condiments.
- 6. Fill out a short questionnaire.

### **Appendix B: Instructions for the Low Self-Production/Friend Condition**

Dear respondent,

In this experiment you will prepare a coffee while using tools, coffee and condiments provided, followed by a short questionnaire.

Please carefully read subsequent instructions before you begin:

- 1. Think of and pick one of your best friend about whom you know that he/she drinks coffee.
- 2. The coffee you are about to make is for this person.
- 3. Pick any single cup from those provided.
- 4. Pour preferred amount of coffee from the coffee thermos into the chosen cup.
- 5. Evaluate the taste.
- 6. Add any amount or combination of condiments.
- 7. Fill out a short questionnaire.

### **Appendix C: Instructions for the High Self-Production/Self Condition**

Dear respondent,

In this experiment you will prepare a coffee while using tools, coffee and condiments provided, followed by a short questionnaire.

Please carefully read subsequent instructions before you begin:

- 1. Think of and pick one of your best friends about whom you know that he/she drinks coffee.
- 2. The coffee you are about to make is for this person.
- 3. Place the prepared amount of coffee beans into the coffee grinder.
- 4. Press the button and grind the coffee beans for ten seconds.
- 5. Put the ground coffee into the coffee maker.
- 6. Pour two deciliters of boiled water (up to the label) into the coffee maker.
- 7. Mix five times with the coffee spoon.
- 8. Cover the coffee maker with the lid and wait three minutes.
- 9. Pour the coffee from the coffee maker over into the coffee thermos.
- 10. Pick any single cup from those provided.
- 11. Pour preferred amount of coffee from the coffee thermos into the chosen cup.
- 12. Evaluate the taste.
- 13. Add any amount or combination of condiments.
- 14. Fill out a short questionnaire.

### **Appendix D: Instructions for the High Self-Production/Friend Condition**

Dear respondent,

In this experiment you will prepare a coffee while using tools, coffee and condiments provided, followed by a short questionnaire.

Please carefully read subsequent instructions before you begin:

- 1. The coffee you are about to make is for you.
- 2. Place the already prepared amount of coffee beans into the coffee grinder.
- 3. Press the button and grind the coffee beans for ten seconds.
- 4. Put the ground coffee into the coffee maker.
- 5. Pour two deciliters of boiled water (up to the label) into the coffee maker.
- 6. Mix five times with the coffee spoon.
- 7. Cover the coffee maker with the lid and wait for three minutes.
- 8. Pour the coffee from the coffee maker over into the coffee thermos.
- 9. Pick any single cup from those provided.
- 10. Pour preferred amount of coffee from the coffee thermos into the chosen cup.
- 11. Evaluate the taste.
- 12. Add any amount or combination of condiments.
- 13. Fill out a short questionnaire.

## Appendix E: Questionnaire for the Low Self-Production/Self Condition

#### **Default Question Block**

#### Please answer to the following statements.

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
I know what to do to prepare the coffee.	0	0	0	0	0	0	0
I feel that I possess the necessary skills to prepare coffee.	0	0	0	0	0	0	0
I feel capable to prepare the coffee.	0	$\circ$	$\circ$	0	$\odot$	0	0
The coffee preparation task ahead is difficult.	0	0	0	0	0	0	0
Failing to prepare the coffee to my expectations would make me feel unpleasant.	0	0	0	0	0	0	0

### Please rate the taste of the coffee you've poured.

Very bad taste

#### Which condiments did you use to flavor your coffee?

- 🔲 Milk
- Sugar
- Artificial sweetener
- Cinnamon
- None of the above

#### Please evaluate the taste of the coffee after adding the condiments.

Very bad taste

#### Please answer to the following statements.

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
The coffee preparation demanded a lot from me.	0	0	0	0	0	0	0
I made a considerable contribution to the final quality of the prepared coffee.	0	0	0	0	0	0	$\bigcirc$
I am satisfied with the coffee I have prepared.	0	0	0	0	0	0	0
I liked the process of the coffee preparation.	0	0	0	0	0	0	0
I found the process of the coffee preparation interesting.	0	$\bigcirc$	$\circ$	$\odot$	$\bigcirc$	$\bigcirc$	$\circ$

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
I like coffee.	0	0	0	0	0	0	0
I drink coffee often.	0	$\odot$	$\odot$	$\odot$	$\odot$	$\bigcirc$	$\odot$
l prepare coffee for myself often.	0	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\circ$
I prepare coffee for others often.	0	$\circ$	$\odot$	$\odot$	$\circ$	$\odot$	$\odot$
I am interested in coffee brewing.	0	$\bigcirc$	$\bigcirc$	$\odot$	$\bigcirc$	$\bigcirc$	$\circ$
I am willing to spend a lot of time brewing coffee.	0	$\circ$	$\circ$	$\odot$	$\circ$	$\bigcirc$	0
I am willing to spend a lot of money on coffee brewing.	0	$\circ$	$\circ$	$\circ$	$\bigcirc$	$\circ$	0
I think taste is an important attribute of coffee.	0	0	$\circ$	$\odot$	$\circ$	$\bigcirc$	0

Please fill out your personal information.

Male

Female

#### Age

E-mail address

## Appendix F: Questionnaire for the Low Self-Production/Friend Condition

#### **Default Question Block**

#### Please answer to the following statements.

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
I know my friend's coffee taste preferences well.	0	0	0	0	0	0	0
I think my friend would evaluate the prepared coffee more critically than I would (given he/she doesn't know how the coffee was prepared).	0	0	0	0	0	0	0
I know what to do to prepare the coffee.	0	0	0	$\odot$	0	$\bigcirc$	$\circ$
I feel that I possess the necessary skills to prepare coffee.	0	0	0	0	0	0	0
I feel capable to prepare the coffee.	0	0	0	0	0	0	0
The coffee preparation task ahead is difficult.	0	0	0	0	0	0	0
Failing to prepare the coffee to my friend's expectations would make me feel unpleasant.	0	0	0	0	0	0	0

#### Please rate the taste of the coffee you've poured.

Very bad taste

#### Which condiments did you use to flavor your coffee?

- 📄 Milk
- 🔲 Sugar
- Artificial sweetener
- Cinnamon
- None of the above

Why have you used those particular condiments? Please respond to the following statements. Please remember, the coffee you've prepared is intended for your friend.

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
The way I've prepared the coffee is the way he/she usually drinks it.	0	0	0	0	0	0	0
The way I've prepared the coffee is the way he/she should drink it.	0	0	0	0	0	0	0
The way I've prepared the coffee is the way I usually drink it.	0	0	0	0	0	0	0
The way I've prepared the coffee reflects the way I want to be perceived.	0	0	0	0	0	0	0

## Why have you not used any condiments? Please respond to the following statements. Please remember, the coffee you've prepared is intended for your friend.

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
The way I've prepared the coffee is the way he/she usually drinks it.	0	0	0	0	0	0	0
The way I've prepared the coffee is the way he/she should drink it.	0	0	0	0	0	0	0
The way I've prepared the coffee is the way I usually drink it.	0	0	0	0	0	0	0
The way I've prepared the coffee reflects the way I want to be perceived.	0	0	0	0	0	0	0

Try to assume the position of the friend you have prepared the coffee for. Remember he/she does not know any details about the coffee preparation. How do you think he/she would evaluate the taste of the coffee?

Very bad taste

Why do you think he/she would give the coffee this particular evaluation?

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
The coffee preparation demanded a lot from me.	0	0	0	0	0	0	0
I made a considerable contribution to the final quality of the prepared coffee.	0	0	0	0	0	0	0
My friend would be very satisfied with the coffee I have prepared.	0	0	0	0	0	$\odot$	0
Without knowing any details about how I have prepared the coffee, my friend would appreciate the gesture of me giving him/her coffee.	0	0	0	0	0	0	0
I am satisfied with the coffee I have prepared.	0	0	0	0	0	0	0
I liked the process of the coffee preparation.	0	0	0	0	0	0	0
I found the process of the coffee preparation interesting.	0	0	0	0	0	0	0

## Please answer to the following statements. If you don't know the exact answer, please estimate.

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
The friend I have prepared the coffee for likes coffee.	0	0	0	0	0	0	0
The friend drinks coffee often.	$\circ$	$\odot$	$\circ$	$\odot$	$\circ$	$\bigcirc$	$\circ$
The friend prepares coffee for him-/herself often.	$\circ$	0	0	$\odot$	0	$\bigcirc$	$\circ$
The friend prepares coffee for others often.	0	0	0	0	$\bigcirc$	$\bigcirc$	0
The friend is very interested in coffee brewing.	0	0	0	0	0	0	0
The friend is willing to spend a lot of time brewing coffee.	0	0	0	0	0	0	0
The friend is willing to spend a lot of money on coffee brewing.	0	0	0	0	0	0	0
The friend thinks taste is an important attribute of coffee.	0	0	0	0	0	0	0

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
I like coffee.	0	0	0	0	0	0	0
I drink coffee often.	0	$\odot$	$\odot$	$\odot$	$\bigcirc$	$\bigcirc$	$\odot$
I prepare coffee for myself often.	0	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
I prepare coffee for others often.	0	$\circ$	$\odot$	$\odot$	$\bigcirc$	$\bigcirc$	$\circ$
I am interested in coffee brewing.	0	0	0	$\circ$	0	$\bigcirc$	0
I am willing to spend a lot of time brewing coffee.	0	0	0	0	0	0	0
I am willing to spend a lot of money on coffee brewing.	0	$\circ$	$\circ$	$\circ$	$\bigcirc$	$\circ$	$\circ$
I think taste is an important attribute of coffee.	0	$\circ$	0	0	$\odot$	0	0

Please fill out your personal information.

Male

Female

#### Age

E-mail address

## Appendix G: Questionnaire for the High Self-Production/Self Condition

#### **Default Question Block**

#### Please answer to the following statements.

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
I know what to do to prepare the coffee.	0	0	0	0	0	0	0
I feel that I possess the necessary skills to prepare coffee.	0	0	0	0	0	0	0
I feel capable to prepare the coffee.	0	$\circ$	$\circ$	0	$\odot$	0	0
The coffee preparation task ahead is difficult.	0	0	0	0	0	0	0
Failing to prepare the coffee to my expectations would make me feel unpleasant.	0	0	0	0	0	0	0

### Please rate the taste of the coffee you've prepared.

Very bad taste

#### Which condiments did you use to flavor your coffee?

- 🔲 Milk
- Sugar
- Artificial sweetener
- Cinnamon
- None of the above

#### Please evaluate the taste of the coffee after adding the condiments.

Very bad taste

#### Please answer to the following statements.

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
The coffee preparation demanded a lot from me.	0	0	0	0	0	0	0
I made a considerable contribution to the final quality of the prepared coffee.	0	0	0	0	0	0	$\bigcirc$
I am satisfied with the coffee I have prepared.	0	0	0	0	0	0	0
I liked the process of the coffee preparation.	0	0	0	0	0	0	0
I found the process of the coffee preparation interesting.	0	$\bigcirc$	$\circ$	$\odot$	$\bigcirc$	$\bigcirc$	$\circ$

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
I like coffee.	0	0	0	0	0	0	0
I drink coffee often.	0	$\odot$	$\odot$	$\odot$	$\odot$	$\bigcirc$	$\odot$
l prepare coffee for myself often.	0	$\bigcirc$	$\bigcirc$	$\odot$	$\bigcirc$	$\bigcirc$	$\bigcirc$
I prepare coffee for others often.	0	$\circ$	$\odot$	$\odot$	$\circ$	$\circ$	$\bigcirc$
I am interested in coffee brewing.	0	$\bigcirc$	$\bigcirc$	$\odot$	$\bigcirc$	$\bigcirc$	$\circ$
I am willing to spend a lot of time brewing coffee.	0	$\circ$	$\circ$	$\odot$	$\circ$	$\bigcirc$	0
I am willing to spend a lot of money on coffee brewing.	0	$\circ$	$\circ$	$\circ$	$\bigcirc$	$\circ$	0
I think taste is an important attribute of coffee.	0	0	0	$\odot$	$\circ$	$\bigcirc$	0

Please fill out your personal information.

Male

Female

#### Age

E-mail address

## Appendix H: Questionnaire for the High Self-Production/Friend Condition

#### **Default Question Block**

#### Please answer to the following statements.

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
I know my friend's coffee taste preferences well.	0	0	0	0	0	0	0
I think my friend would evaluate the prepared coffee more critically than I would (given he/she doesn't know how the coffee was prepared).	0	0	0	0	0	0	0
I know what to do to prepare the coffee.	0	0	$\circ$	$\circ$	0	$\bigcirc$	0
I feel that I possess the necessary skills to prepare coffee.	0	0	0	0	0	0	0
I feel capable to prepare the coffee.	0	0	0	0	0	0	0
The coffee preparation task ahead is difficult.	0	0	0	0	0	0	0
Failing to prepare the coffee to my friend's expectations would make me feel unpleasant.	0	0	0	0	0	0	0

#### Please rate the taste of the coffee you've prepared.

Very bad taste

#### Which condiments did you use to flavor your coffee?

- 🔲 Milk
- 🔲 Sugar
- Artificial sweetener
- Cinnamon
- None of the above

Why have you used those particular condiments? Please respond to the following statements. Please remember, the coffee you've prepared is intended for your friend.

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
The way I've prepared the coffee is the way he/she usually drinks it.	0	0	0	0	0	0	0
The way I've prepared the coffee is the way he/she should drink it.	0	0	0	0	0	0	0
The way I've prepared the coffee is the way I usually drink it.	0	0	0	0	0	0	0
The way I've prepared the coffee reflects the way I want to be perceived.	0	0	0	0	0	0	0

## Why have you not used any condiments? Please respond to the following statements. Please remember, the coffee you've prepared is intended for your friend.

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
The way I've prepared the coffee is the way he/she usually drinks it.	0	0	0	0	0	0	0
The way I've prepared the coffee is the way he/she should drink it.	0	0	0	0	0	0	0
The way I've prepared the coffee is the way I usually drink it.	0	0	0	0	0	0	0
The way I've prepared the coffee reflects the way I want to be perceived.	0	0	0	0	0	0	0

Try to assume the position of the friend you have prepared the coffee for. Remember he/she does not know any details about the coffee preparation. How do you think he/she would evaluate the taste of the coffee?

Very bad taste

Why do you think he/she would give the coffee this particular evaluation?

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
The coffee preparation demanded a lot from me.	0	0	0	0	0	0	0
I made a considerable contribution to the final quality of the prepared coffee.	0	0	0	0	0	0	0
My friend would be very satisfied with the coffee I have prepared.	0	0	0	0	0	$\odot$	0
Without knowing any details about how I have prepared the coffee, my friend would appreciate the gesture of me giving him/her coffee.	0	0	0	0	0	0	0
I am satisfied with the coffee I have prepared.	0	0	0	0	0	0	0
I liked the process of the coffee preparation.	0	0	0	0	0	0	0
I found the process of the coffee preparation interesting.	0	0	0	0	0	0	0

## Please answer to the following statements. If you don't know the exact answer, please estimate.

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
The friend I have prepared the coffee for likes coffee.	0	0	0	0	0	0	0
The friend drinks coffee often.	$\circ$	$\odot$	$\circ$	$\odot$	$\bigcirc$	$\odot$	$\circ$
The friend prepares coffee for him-/herself often.	$\circ$	0	0	$\odot$	0	$\odot$	$\circ$
The friend prepares coffee for others often.	0	0	0	$\circ$	0	0	0
The friend is very interested in coffee brewing.	0	0	0	0	0	0	0
The friend is willing to spend a lot of time brewing coffee.	0	0	0	0	0	0	0
The friend is willing to spend a lot of money on coffee brewing.	0	0	0	0	0	0	0
The friend thinks taste is an important attribute of coffee.	0	0	0	0	0	0	0

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
I like coffee.	0	0	0	0	0	0	0
I drink coffee often.	0	$\odot$	$\odot$	$\odot$	$\odot$	$\bigcirc$	$\odot$
l prepare coffee for myself often.	0	$\bigcirc$	$\bigcirc$	$\odot$	$\bigcirc$	$\bigcirc$	$\bigcirc$
I prepare coffee for others often.	0	$\circ$	$\odot$	$\odot$	$\odot$	$\bigcirc$	$\odot$
I am interested in coffee brewing.	0	$\bigcirc$	$\circ$	$\odot$	$\bigcirc$	$\odot$	$\bigcirc$
I am willing to spend a lot of time brewing coffee.	0	$\circ$	$\circ$	$\odot$	$\circ$	$\bigcirc$	$\circ$
I am willing to spend a lot of money on coffee brewing.	0	$\circ$	$\circ$	$\circ$	$\bigcirc$	$\circ$	$\circ$
I think taste is an important attribute of coffee.	0	$\bigcirc$	$\circ$	$\odot$	$\circ$	$\odot$	$\circ$

Please fill out your personal information.

Male

Female

#### Age

E-mail address

# Appendix I: Standard Multiple Regression of Process Enjoyment and Perceived Contribution Variables on Outcome Evaluation

	Outcome	Process	Self-	В	β	sr <sup>2</sup>
	Evaluation	Enjoyment	Production			(unique)
	(DV)	(IV)	Effort (IV)			
Process	.30	1.00	.19	.279	.25	.06
Enjoyment						
(IV)						
Self-	.31	.19	1.00	.357	.26	.07
production						
Effort (IV)						
				Intercept =		
				8.650		
Means	13.35	9.31	5.89			
Standard	3.28	2.95	2.41			
deviations						
						$R^2 = .156^a$
						Adjusted
						$R^2 = .134$
						R** =
						.395
**n < 01	<b>I</b>			<b>I</b>	I	<b>I</b>

\*\**p* < .01

a. Unique variability = .13, shared variability = .03, 95% confidence limits from .016 to .296.

# Appendix J: Bivariate Correlations of Taste 1, Taste 2, Outcome Satisfaction, Process Enjoyment and Self-Production Effort - SPSS Output

		Taste 1	Taste 2	Outcome Satisfaction	Process Enjoyment	Self-production Effort
Taste 1	Pearson Correlation	1	.541**	.389**	.158	.138
	Sig. (2-tailed)		.000	.000	.162	.222
	N	80	80	80	80	80
Taste 2	Pearson Correlation	.541**	1	.505**	.177	.285*
	Sig. (2-tailed)	.000		.000	.117	.010
	Ν	80	80	80	80	80
Outcome Satisfaction	Pearson Correlation	.389**	.505**	1	.378**	.324**
	Sig. (2-tailed)	.000	.000		.001	.003
	Ν	80	80	80	80	80
Process Enjoyment	Pearson Correlation	.158	.177	.378**	1	.185
	Sig. (2-tailed)	.162	.117	.001		.101
	Ν	80	80	80	80	80
Self-production Effort	Pearson Correlation	.138	.285*	.324**	.185	1
	Sig. (2-tailed)	.222	.010	.003	.101	
	Ν	80	80	80	80	80

### Correlations

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

\*. Correlation is significant at the 0.05 level (2-tailed).

# Appendix K: Standard Multiple Regression of Process Enjoyment and Perceived Contribution Variables on Outcome Satisfaction

	Outcome	Process	Self-	В	β	sr <sup>2</sup>
	Satisfaction	Enjoyment	Production			(unique)
	( <b>D</b> V)	(IV)	Effort (IV)			
Process	.38	1.00	.19	.160	.33	.10
Enjoyment						
(IV)						
Self-	.32	.19	1.00	.156	.26	.07
production						
Effort (IV)						
				Intercept =		
				2.498		
Means	4.90	9.31	5.89			
Standard	1.42	2.95	2.41			
deviations						
						$R^2 = .209^a$
						Adjusted
						$R^2 = .189$
						R** =
						.457

\*\**p* < .01

a. Unique variability = .17, shared variability = .04, 95% confidence limits from .057 to .361.

IV	Mediator	DV	Z-score	p-value	
Process	Outcome	Taste 1	2.47	0.01	
Enjoyment	Satisfaction	Taste T	2.47	0.01	
Process	Outcome	Taste 2	2.87	0.00	
Enjoyment	Satisfaction	Taste 2	2.07	0.00	
Self-production	Outcome	Taste 1	2.29	0.02	
Effort	Satisfaction		2.29	0.02	
Self-production	Outcome	Taste 2	2.52	0.01	
Effort	Satisfaction	1450 2 2.52		0.01	
Taste 1	Outcome	Process	2.45	0.01	
Taste T	Satisfaction	Enjoyment	2.43	0.01	
Taste 2	Outcome	Process	2.70	0.01	
Taste 2	Satisfaction	Enjoyment	2.70	0.01	
Taste 1	Outcome	Self-production	2.19	0.03	
	Satisfaction	Effort	2.19	0.05	
Taste 2	Outcome	Self-production	1.82	0.07	
	Satisfaction	Effort	1.02	0.07	

Appendix L: Results of Sobel tests regarding outcome satisfaction as the mediating variable