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Navn:	Merete Gjerde Olsen og Eirill Einarsdatter Haflan

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Master Thesis

Tailoring the Consumer Connection: The Role of Personalized Packaging and Gender in Influencing FMCG Purchase Intentions Across Product Categories

"How does the presence or absence of personalized packaging, combined with gender (male vs female) and product category (hedonic vs utilitarian), interact with perceived hedonic value to influence consumer purchase intention in the FMCG market?"

Supervisor:
Anders Gustafsson

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Campus:
BI Oslo

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Eirill Haflan   Merete Gjerde Olsen

Table of Contents

Executive Summary

Inspired by the increased use of personalized packaging as a marketing tool within the fast-moving consumer goods (FMCG) market, this thesis examines the impact of personalized packaging communication on consumer purchase intention. Through this exploration, we delve into the interaction between personalized packaging, gender, product category (hedonic vs utilitarian), and perceived hedonic value, thereby offering a comprehensive understanding of how these factors interact to influence buying decisions in the market. Hence, the study aims to answer the following research question:

"How does the presence or absence of personalized packaging, combined with gender (male vs female) and product category (hedonic vs utilitarian), interact with perceived hedonic value to influence consumer purchase intention in the FMCG market?"

Further, the literature review sets the foundation for the research's hypothesis, methodology and analysis. Based on previous findings, we propose that personalized packaging will increase consumers' purchase intention, and the perceived hedonic value of the product will mediate the relationship. Further, we suggest that product categories can be delved into a bidimensional division; utilitarian and hedonic products, where the product categories operate as a moderator. Additionally, gender is hypothesized to moderate the relation, where females are more positively affected by the concept. Lastly, we believe that there is a moderated mediation effect between the variables.

Furthermore, to answer the hypotheses, we conducted a regression analysis and a moderator-, mediation-, and moderated mediation analysis using the PROCESS macro, respectively, model 1, 4 and 8, v.4.2 (Hayes, 2022) for SPSS. Our findings discovered an isolated impact of personalized packaging on the intention to purchase, along with a mediating effect of perceived hedonic value. It also revealed a gender-based effect, indicating that females react more favorably to personalized packaging. However, contrary to our expectations, the type of product (utilitarian vs hedonic) did not influence any relationships. Further, we discuss the findings, the limitations of the research, along with opportunities within the field.

1.0 Introduction

Envision yourself perusing the aisles of your local grocery store when you suddenly spot a coffee bag that reads, "For those who love the dawn", speaking directly to your early bird soul. Could you just walk past without making it yours? If so, would your co-worker of the opposite gender be able to walk past? If not, you've just experienced the influence of personalized packaging communication, and a potential gender effect. The concept of personalized packaging has become increasingly popular, especially within the fast-moving consumer goods (FMCG) market, for example seen in the successful 'Share a Coke' campaign by The Coca-Cola Company, where Coke bottle labels were personalized with popular first names (McDarby et al., 2018).

According to Nielsen data, an average grocery store in Norway typically carries around 6,520 unique products (Fosse, 2020), making it more important than ever to employ effective strategies to differentiate products and capture consumers' attention. Research finds that up to 90% of our buying decisions, depending on the category, are irrational (Omnibus, 2022). This indicates that simple cues on the package, or even a meaningful sentence, could stir up feelings, guiding your choice at the store shelf. In order to capture consumers' attention, effective packaging solutions are crucial (Rundh, 2016).

It is becoming common for manufacturers to use different types of personalized packaging to enhance the consumer's impression of their brands (Future Market Insights, Inc., 2022). Historically, this market has grown with an annual growth rate of 6.6% from 2018 to 2022. Looking ahead, it's predicted to nearly double in worth within the next decade, forecasted to reach a total value of $60.39 billion (Future Market Insights, Inc., 2022). This underscores the importance and potential of the concept.

With marketing being a dynamic field, a comprehensive understanding of gender differences can be the cornerstone for designing impactful packaging and compelling marketing materials. The use of gender roles in advertising has a long history, and its application is still prevalent today (Eisend, 2010; Åkestam et al., 2021). Careful consideration of gender-specific preferences, motivations, and decision-making styles

can significantly elevate the allure of products and stimulate potential purchase intentions (Fischer & Arnold, 1994; Meyers-Levy & Loken, 2015). Exploring these gender variances not only offers key insights into the mindset of consumers but also enhances the ability to craft effective and personalized marketing strategies.

In the vast landscape of product offerings, two categories often stand out in their relevance to consumer behavior: hedonic and utilitarian products. Utilitarian products, those serving practical needs, and hedonic products, those catering to pleasure and enjoyment, represent broad categories capturing a diversity of products that consumers regularly encounter. Investigating these two distinct categories allows us to encompass a wide range of consumer goods while gaining insights into the differential impact of personalized packaging communication on diverse product types.

Further, the literature presents a notable gap in terms of research and defining the different concepts of personalized packaging. Literature refers to it, among other things, as personalized packaging and custom packaging solutions (Pathak, 2019). Therefore, for the purpose of clarity and consistency in this master thesis, we will refer to the concept, characterized by the replacement of a brand logo or name with a personalized quote or message on the product packaging, as "personalized packaging" communication.

1.1 The Concept of Personalized Packaging Communication

Due to the lack of literature within the specific marketing field, and to fully comprehend the concept of "personalized packaging" communication, it is essential to explore its historical and current applications within the industry. We will draw on a range of cases from both international and Norwegian contexts to illustrate the concept's real-world implementation.

A variety of brands within the hedonic product category have utilized the power of personalized packaging, with Coca Cola's "Share a Coke" initiative being a notable example. This innovative campaign printed individual names on their bottles,

fostering a sense of personal connection. Other brands have also embraced this strategy to connect with their audience. Troika, a Norwegian chocolate brand, replaced its usual name with engaging phrases like "Jakt meg" (Hunt me) and "Elsk meg" (Love me), offering a unique interaction with consumers. Similarly, New Energy used motivational messaging to reinforce its brand identity, while Kvikk Lunsj, associated with outdoor adventures, opted to wish its consumers a "God Tur" (have a nice trip). Last but not least, the Snickers campaign "You're not you when you're hungry" leveraged personalized packaging communication to deliver a relatable, memorable message, such as "Hangry", "Cranky", and "Sleepy".

Figure 1 - Examples of personalized packaging within the hedonic category

Similarly, in the utilitarian product category, several brands have employed personalized packaging. Prior, for example, has replaced its logo on the Breakfast Eggs with "God morgen" (Good morning), creating a cozy link to morning routines and nutritious breakfasts. Further, to embrace the holiday spirit, Tine Milk changed its logo for a heartwarming "God Jul" (Merry Christmas), fostering an immediate connection with seasonal cheer and festive family gatherings. On a more playful note, Lano Soap targeted its young audience by substituting its logo with fun-loving nicknames like "Tøffen" (Tough Guy) and "Prinsessa" (Princess). This creative approach amplifies a sense of imagination, making the brand more engaging for children.

Figure 2 - Examples of personalized packaging within the utilitarian category

1.2 Research Question

To address the gap in the literature, our study will aim to examine the effect of using personalized packaging on customer purchase intention. Further, we will examine if there are any significant differences between hedonic vs utilitarian products and gender differences. This is an interesting research field, as previous research has shown that women tend to have more hedonic decision-making than men (Mehta, 2020). Further, research has shown that the type of information that is most effective on the packaging of hedonic products may be different than for utilitarian products (Fenko et al., 2016).

The concept of personalized packaging appears to be under-researched, particularly in relation to its influence on product choice and consumer behavior. Existing literature focuses on similar concepts as the usage of popularity (e.g. best seller) and scarcity cues (e.g. limited edition) in promotion efforts (Das et al., 2018; Deval et al., 2013; Steinhart et al., 2014). However, little is known about the influence that such product personalization has on consumer choice (McDarby et al., 2018).

Therefore, this master thesis will focus on the effect of personalized packaging on purchase intention within the FMCG market, with a specific focus on gender and product category (hedonic and utilitarian). The research aim is to examine the following research question:

"How does the presence or absence of personalized packaging, combined with gender (male vs female) and product category (hedonic vs utilitarian), interact with perceived hedonic value to influence consumer purchase intention in the FMCG market?"

2.0 Literature Review

Our literature review provides an overview of how product characteristics, specifically personalized packaging communication, influence consumer purchase intentions. It introduces the relevant literature that substantiates our hypotheses, contextualizing previous studies within this field. Our research particularly highlights the difference in the effects of personalized packaging on hedonic versus utilitarian products and further examines the role of gender.

In our research, personalized packaging is posited as the independent variable (IV), which we believe has a direct impact on the dependent variable (DV), purchase intention. We further theorize that perceived hedonic value operates as a mediator, hypothesized to underlie the process through which personalized packaging affects purchase intention. Finally, gender and product categories serve as moderators, potentially influencing the strength and direction of the relationship between personalized packaging and purchase intention. Lastly, we propose the following conceptual model that explores our research question:

Figure 3 - Conceptual Model
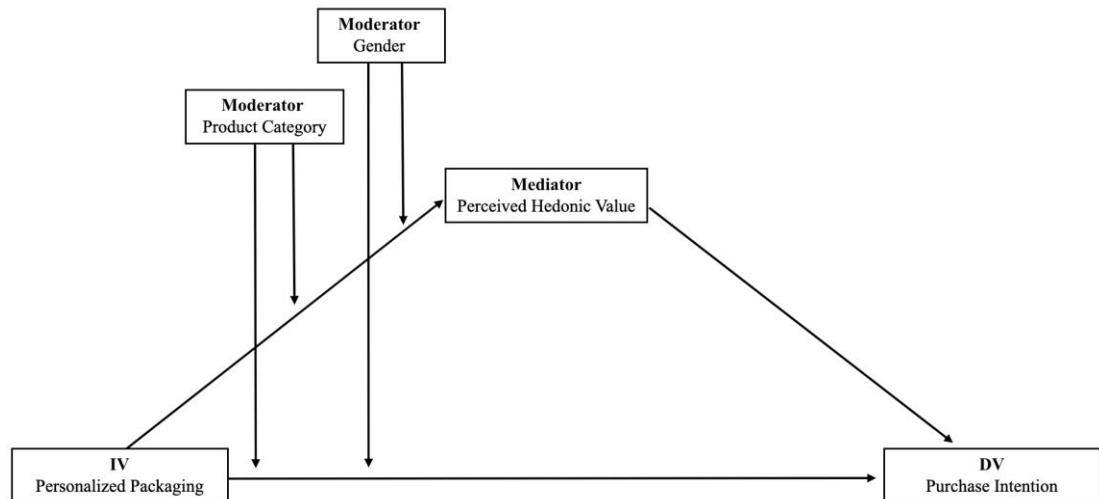
2.1 Personalized Packaging and Purchase Intention

Packaging refers to the direct-contact container that houses the product, providing protection, preservation, and identification while also facilitating its handling and marketing (Ampuero & Vila, 2006; Giovannetti, 1995). Keller (1998) views packaging as an attribute separate from the product itself, identifying it as one of the five key elements of a brand. Product and packaging design is particularly effective because it can provoke a sense of visual pleasure (Hine 1995; Honea & Horsky 2012; Van Rompay et al., 2014), attract consumer attention in crowded store environments (Schoormans & Robben 1997), and communicate symbolic product and brand qualities (Van Rompay et al., 2014). In addition to these advantages, packaging design is proven to have a great influence on consumers during the critical phase of making a purchase decision, where consumers are highly engaged and actively consider the product packaging (Bloch, 1995, Garber et al., 2000, Hertenstein et al., 2005, Orth and Malkewitz, 2008, Rettie and Brewer, 2000, Schoormans & Robben, 1997). Supporting this, product packaging is closely linked to the purchase intention of a consumer, where over 73% of consumers rely on packaging to assist in their decision-making process at the point of sale (Wells et al., 2007).

In today's self-service market, packaging represents the final chance for producers to influence potential customers prior to their brand choice (Ampuero & Vila, 2006; McDaniel & Baker, 1977). Therefore, all elements of packaging- text, color, design, imagery, and personification - must be strategically combined to engage consumers in a visual sales negotiation during their product purchasing process (Ampuero & Vila, 2006; McNeal & Ji, 2003). Particularly when consumers have not yet made a purchase decision, these elements are especially important (Silayoi & Speece, 2007). This is confirmed by Solomon (2012), stating that the presentation of a product holds greater influence on consumers' attention than the product itself (Venter et al., 2011).

There is a growing expectation among consumers that products or brands have a sense of individuality beyond their utility (Chae et al.,2020). Delving further into the concept of packaging attributes, previous research has found that personalized product design positively impacts attitudinal brand assessment for highly brand-

conscious customers (Langner et al., 2017). However, the topic of personalized packaging remains understudied, and other concepts have been proposed to explain similar effects. For example, the psychological phenomenon, the self-congruity effect, states that an individual's perception of a product or brand aligning with their own identity or values leads to positive brand attitudes and intentions to purchase (Aguirre-Rodriguez et al., 2012). Further, the name-letter effect suggests that consumers are more likely to favor brands or product names that contain letters that mirror their own, ultimately affecting purchase decisions (Brendl et al., 2005; Nuttin, 1985).

Additionally, activation theory suggests that certain stimuli can trigger specific responses in individuals (Andrews et al., 1998, Berry et al., 2015). In the context of personalized packaging and purchase intention, activation theory suggests that when consumers encounter personalized packaging, it serves as a cue that activates related concepts, such as positive associations and personalized experiences, leading to increased purchase intention through the spread of activation in their memory network (Keller, 1993). Based on previous research, we find it reasonable to believe that consumers will be positively affected by the presence of personalized packaging, which in turn increases purchase intention. Therefore, we propose the following hypothesis:

H1 - Personalized packaging has a positive effect on purchase intention.

2.2 The Role of the Product Categories - Hedonic vs Utilitarian

The dual nature of consumers' attitudes towards products, consisting of both hedonic and utilitarian aspects, finds its origins in the work of Hirschman and Holbrook (1982), which proposed that attitudes towards product categories are inherently bi-dimensional.

On a regular day-to-day basis, consumers naturally engage with both hedonic and utilitarian products, often classifying them as one or the other (Khan et al., 2005; Longoni & Cian, 2022). Hedonic goods are defined as those that provide more

experiential consumption, such as designer clothes, sports cars, and luxury watches. These products are associated with pleasure, fun, and excitement (Hirschman & Holbrook, 1982; Strahilevitz & Myers, 1998; Wertenbroch & Dhar, 2000). On the other hand, utilitarian goods are primarily instrumental and functional, such as microwaves, minivans, and personal computers. They are designed to serve a specific practical purpose (Hirschman & Holbrook, 1982; Strahilevitz & Myers, 1998; Wertenbroch & Dhar, 2000;).

Supermarkets dedicate increasingly expansive spaces to a wider range of products designed to cater to consumers' hedonic shopping inclinations, such as clothing, home decor, and cosmetics (Weitz & Whitfield, 2010; Yim et al., 2014). Simultaneously, these stores preserve sections filled with grocery items in compact grid layouts, primarily catering to utilitarian necessities (Sloot et al., 2005; Teed et al., 2010; Yim et al., 2014). This substantiates Holbrook and Hirschman's work (1982) of dividing product categories into two separate categories: hedonic and utilitarian products.

Both utilitarian and hedonic products deliver unique benefits to the consumer (Batra and Ahtola, 1991; Hirschman and Holbrook, 1982; Mano and Oliver, 1993; Okada, 2005). However, previous research argued that consumers place more emphasis on the hedonic aspect compared to the utilitarian one, but this only occurs once a product reaches a "necessary" functional level (Chitturi et al., 2007). Additionally, Kivetz & Simonson (2002a) found that consumers assign more importance to the utilitarian element over the hedonic one unless they feel that they've "earned the right to indulge". However, Okada et al. (2005) argue that there is no superior choice between the categories, even after all costs and benefits are considered (Okada, 2005).

During the decision-making process for purchases, consumers often attribute considerable importance to the hedonic characteristics of a product (Chitturi et al., 2007). Individuals opting for hedonic purchases often look for elements of surprise, novelty, excitement, and diversity in their shopping experience (Arnold et al., 2003; Li et al., 2020; Novak et al., 2003). Buying decisions related to utilitarian products are pragmatic and purpose-oriented, aiming to make the most optimal choice (Li et al., 2020; Novak et al., 2003). Further, research indicates that utilitarian and hedonic product categories respond differently to distinct types of marketing communication

(Garrido-Morgado et al., 2021). It is reasonable to argue that additional elements of enjoyment, like personalized packaging communication, may influence purchase decisions differently between the two categories, with a greater effect on hedonic products. Therefore, we hypothesize the following:

H2 - Product category moderates the relationship between personalized packaging and purchase intention, where the increase of purchase intention is higher for hedonic products than utilitarian products.

2.3 Gender Differences in Purchase Decisions

Defining gender

In marketing, gender is often used to segment consumers. Gender refers to the socially constructed roles, behaviors, expressions, and identities that a society considers appropriate for males and females (World Health Organization [WHO], n.d.). It can vary across cultures and time, and is often influenced by factors such as biology, culture, and socialization. In this research, we will be using the binary definition of gender, where we will be only studying males and females, as the World Health Organization (WHO) defines gender as "the socially constructed roles, behaviors, expressions, and identities that a society considers appropriate for men and women" (WHO, n.d.).

Gender differences

Research suggests that gender plays a significant role in shaping how individuals evaluate products in terms of differing in their information-processing strategies (Meyers-Levy & Sternthal, 1991). Males and females differ in the characteristics they consider important when evaluating products (Holbrook, 1986; Meyers-Levy & Sternthal, 1991; Painter & Granzin, 1976). Krugman's (1966) research revealed that females tend to engage in more extensive cognitive processing of advertisements than males, even when the ad content is perceived as being gender-neutral (Krugman, 1966; Meyers-Levy & Sternthal, 1991). Kempf & Smith (1998) found that females

tend to process information more comprehensively and holistically, considering multiple product attributes and alternatives. In contrast, males are more likely to be specific and focus on the object of interest when purchasing a product (Meyers-Levy, 1988; Rahman, 2019) and be more selective in their information processing, focusing on a few key features and simplifying decision-making (Kempf & Smith, 1998).

Mehta (2020) highlighted the differences in decision-making styles between males and females in their research findings. They found that females scored higher than males on hedonism, novelty orientation, and price value consciousness. This suggests that when making purchase decisions, females tend to prioritize pleasure and new experiences (Noble et al., 2009). These findings can have implications for marketers and retailers in their efforts to appeal to female consumers, by emphasizing the hedonic aspects of their products (Meyers-Levy & Loken, 2015), for example, personalized packaging communication. Females are more likely to value emotional connections with products and brands and appreciate hedonic aspects of the shopping experience (Fischer & Arnold, 1994). Additionally, females may be more affected by packaging messaging if the message is hedonic (Batra & Ahtola, 1991).

Research indicates that males typically exhibit a more goal-oriented, utilitarian approach to shopping, focusing on efficiency and seeking out functional product attributes (Fischer & Arnold, 1994). Furthermore, some studies suggest that males tend to be more sceptical of information provided on the packaging and are more likely to rely on personal experience and word-of-mouth recommendations (Gill et al., 1988; Meyers-Levy & Loken, 2015; Viswanathan & Childers, 1999;). To summarize, these findings suggest that females are more prone to purchase products that have personalized packaging communication, and we hypothesize the following:

H3 - Gender moderates the relationship between personalized packaging and purchase intention, where females have a higher purchase intention than males.

2.4 Perceived Hedonic Value

According to previous research, consumer decisions are influenced by perceived utilitarian and hedonic values. In the context of consumer decision-making, hedonic goods are often driven by affective, experiential factors and are more susceptible to the influence of situational and contextual cues (Dhar & Wertenbroch, 2000). On the other hand, utilitarian products are evaluated based on cognitive, rational considerations, such as cost-benefit analysis and efficiency (Okada, 2005). In the context of personalized packaging communication as being a hedonic communication tool (Hirschman & Holbrook, 1982; Strahilevitz & Myers, 1998; Wertenbroch & Dhar, 2000), our research will focus on perceived hedonic value.

Previous research found that when more hedonic products were personalized, it significantly reduced the selection of less hedonic products (McDarby et al., 2018). As consumers engage in exploring store shelves and discovering new products, their shopping experience becomes more enjoyable, leading to an increase in the perceived hedonic value. Additionally, the perceived hedonic value is more subjective and individual than utilitarian and is usually obtained by entertainment and playfulness, such as personalized packaging communication (Kazakeviciute & Banyte, 2012). These findings suggest that personalized packaging communication enhances the perceived hedonic value.

Lee et al. (2009) found that hedonic value and satisfaction significantly influence consumers' purchase intention (Kazakeviciute & Banyte, 2012). As supported by Wang (2017), the hedonic benefits of retail packaging have more impact on consumer purchase intention than utilitarian benefits (Wang, 2017). Since hedonic communication has a positive effect on purchase intention, it is reasonable to believe that personalized packaging communication will have a positive effect on purchase intention compared to the absence. This indicates that an increase in perceived hedonic value can lead to a rise in purchase intention. Therefore, we present the following hypothesis:

H4 - *Perceived hedonic value mediates the relationship between personalized packaging and purchase intention, where higher perceived hedonic value increases purchase intention.*

The previous discussion suggests that personalized packaging might increase purchase intention and that products are typically perceived as more hedonic in the presence of personalized packaging communication. Considering the clear division of products into two key categories—hedonic and utilitarian, as indicated by several studies, we predict that the product category could operate as a moderator in this relationship. Consequently, we expect different outcomes from hedonic and utilitarian product categories. Given these considerations, we propose the following hypothesis:

H5 - *The effect of personalized packaging on purchase intention through perceived hedonic value is moderated by product category.*

Previous research found that females are more likely to engage in experiential shopping, valuing emotional connections with products and brands and therefore appreciating the hedonic aspects of the products and shopping experience (Fischer & Arnold, 1994). Finally, based on the previous discussion, we hypothesized that gender plays a significant role in the relation between personalized packaging and purchase intentions, particularly in relation to hedonic value. Therefore, we argue that gender moderates the relationship between personalized packaging communication and purchase intention through perceived hedonic value, where females perceive products as more hedonic than males. Hence, we propose the following hypothesis:

H6 - *The effect of personalized packaging on purchase intention through perceived hedonic value is moderated by gender, where females perceive higher hedonic value in the presence of personalized packaging.*

2.5 Hypothesis

The literature review conducted above shed light on previous research in the field of consumer behavior, specifically focusing on personalized packaging, purchase

intention, and different product categories (hedonic and utilitarian). Our objective was to gain more knowledge about possible differences related to gender and product categories among consumers and to discover potential explanations behind these variations. We present the conceptual model, including all hypotheses:

Figure 4 - Conceptual model including hypotheses

Summarization of hypothesis:

H1 - *personalized packaging communication has a positive effect on purchase intention*

H2 - *Product category moderates the relationship between personalized packaging and purchase intention, where the increase of purchase intention is higher for hedonic products than utilitarian products.*

H3 - *Gender moderates the relationship between personalized packaging and purchase intention, where females have a higher purchase intention than males.*

H4 - *Perceived hedonic value mediates the relationship between personalized packaging and purchase intention, where higher perceived hedonic value increases purchase intention.*

H5 - *The effect of personalized packaging on purchase intention through perceived hedonic value is moderated by product category.*
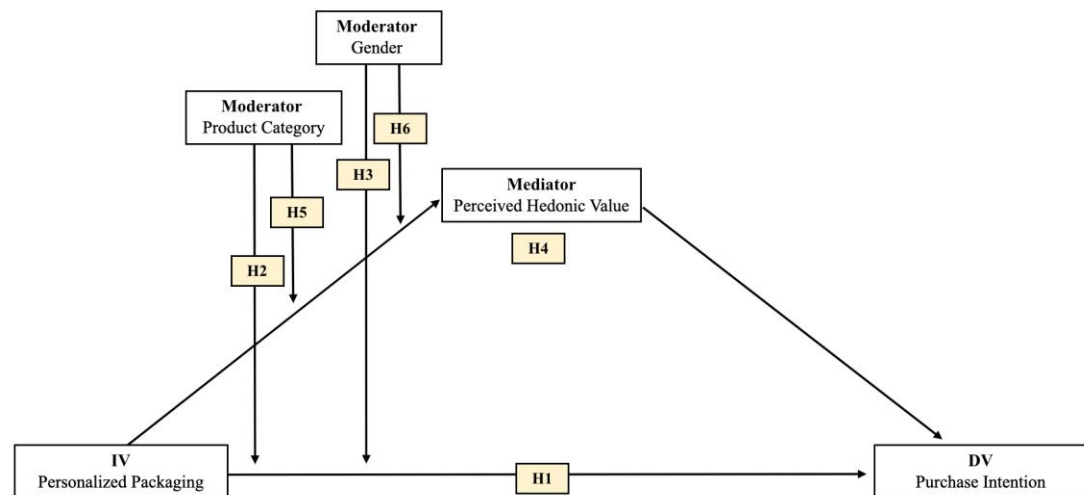
H6 - *The effect of personalized packaging on purchase intention through perceived hedonic value is moderated by gender, where females perceive higher hedonic value in the presence of personalized packaging.*

3.0 Methodology

In the following study, our primary objective is to examine consumers' interpretations of personalized packaging communications, specifically focusing on diverse product categories, namely hedonic and utilitarian products. Additionally, the study strives to uncover any potential gender-related differences in consumers' reactions to these products. To address our research questions and validate our hypotheses, we implemented an online experimental survey. The following methodology section offers a detailed elaboration of our research ethics, sample selection, formative research and main study.

3.1 Research Ethics and GDPR

In the research study, we ensured that the respondents, demographic data and personal information were anonymized. Protecting the privacy of individual respondents was of utmost importance in the study, and the necessary steps were taken to ensure that this was upheld in a thorough manner. We made sure that we processed the data according to BI's requirements (BI, 2023). Before answering the study, all respondents were informed about the purpose of the survey and how the answers would be used.

3.2 Sample Selection

Participants for the study were collected through our social media network, distributing the online survey on our profiles on Facebook, Instagram, Snapchat and

LinkedIn, using the non-probability sampling method, convenience sampling. In addition, we also distributed QR codes to people in the local area. Recognizing that a convenience sample may not accurately represent a specific population, its usage still presents notable benefits; time and budget constraints (Malhotra, 2020).

In addition, we sought to leverage the benefits of snowball sampling by encouraging respondents to share our survey within their respective social networks. This approach broadened our reach beyond our immediate network, as the initial group of respondents were requested to refer the study to individuals who fit the criteria for participation (Malhotra, 2020). The primary strength of snowball sampling lies in its ability to identify the desired traits within the population, enhancing the external validity of the study increasing it generalizability. Furthermore, it results in a considerably low sampling variance and costs (Malhotra, 2020).

Gripsrud et al. (2017) point out that determining the precise number of respondents in a non-probability sample lacks a statistical basis. However, they propose that a benchmark of approximately 200 units is a standard initiation point for convenience sampling, advocating for 20-50 observations within each subgroup (Gripsrud et al., 2017). Guided by this advice, we set our objective of securing 50 observations per experimental group, necessitating a minimum of 200 observations in total. Further, it was essential to maintain a balance between females and males in this context, as our survey specifically aims to analyze and understand gender differences. Without such balance, the results could be skewed and potentially misleading. Finally, we accounted for the probability of unreliable respondents. In order to fulfil these requirements, we aimed to collect at least 300 respondents.

3.3 Formative research

3.3.1 Selection of Products

Since the study aims to examine the difference between the utilitarian and hedonic product categories, we chose one product within each product category; chocolate and laundry detergent.

Our decision to select chocolate as the hedonic product in our study is informed by previous empirical research. Chocolate is frequently classified as a hedonic product category (Baltas et al., 2017; Crowley et al., 1992; Khan & Dhar, 2010; O'curry & Strahilevitz, 2001). It is associated with sensory pleasure, enjoyment, and indulgence, making it a prime example of a product consumed for pleasure rather than necessity. The consumption of chocolate is typically motivated by desires for fantasy, fun, and sensory pleasure, making it an ideal candidate for studying hedonic consumption patterns (O'Curry & Strahilevitz, 2001).

The choice of laundry detergent as the utilitarian product stimulus in our study is substantiated by previous research findings. Holbrook (1980) argued that consumers searching for laundry detergent would be primarily driven by utilitarian consumption motivations (Holbrook, 1980; Yim et al., 2014). In accordance with results from previous studies, laundry detergent was identified as a highly utilitarian product. It was strongly associated with practicality and functionality and was typically viewed as a necessary item for maintaining cleanliness and hygiene in the household (Leclerc et al., 1994). Conversely, it scored low in hedonic attributes, indicating it's not commonly associated with pleasure or sensory enjoyment (Leclerc et al., 1994).

In the survey, we made a conscious decision to use products that were unfamiliar to the participants. The rationale behind this decision was to remove any pre-existing bias or opinions that could potentially skew the results. We ensure this by choosing foreign products with unfamiliar logos and names. This was to ensure avoiding the mere exposure effect, where people have a tendency to favor familiar products and thereby increasing the external validity (Liao et al., 2011). Further, we stripped away some of the extraneous communication to avoid any distractions that could interfere with the stimulus and participants' perception of the product.

3.3.2 Pre-test

Pre-testing involves testing the questionnaire on a small group of respondents to identify and address any potential issues or problems (Malhotra, 2020). A one-question, low-threshold Qualtrics survey was conducted to obtain gender-neutral

stimuli as the personalized packaging communication. Respondents (N=24) were asked to evaluate the perceived gender neutrality of 17 different quotes (Appendix 1). All quotes were measured on a closed-ended scale, providing the respondents with three alternative responses: "yes", "no", and "don't know". In order to avoid unwanted variance or bias in the data by forcing respondents to choose a side, we included a "don't know" option (Webster, 2021).

We chose to include some attention checks, questions purposely designed to spot inattentive responses of distinctly gendered terms in our survey as a strategy to verify the authenticity of responses (Abbey & Meloy, 2017; Meade & Craig, 2012; Van Dam et al., 2010). Examples of these were; "Macho Påfyll" (Macho Refuel) and "Fruefavoritt" (Lady's Favorite). By observing how participants reacted to non-neutral language, we could better assess the validity of their responses and the reliability of our data. This approach helped to confirm that the responses we received were genuine and trustworthy.

The findings revealed that, for chocolate, the phrase "Kos deg" (Enjoy yourself) and "Godbit" (Tasty bite) were deemed the most gender-neutral, while for cleaning detergents, "Ren Glede" (Pure Happiness) and "Renhet for deg" (Purity for you) was considered the most gender-neutral (Appendix 1).

3.3.3 Focus group

We employed a focus group (N=5) as a critical instrument to refine the design, messaging of our products, and the clarity of our survey questions. This group's insights guided iterative modifications to our chocolate and laundry detergent packaging, focusing on visual appeal and personalized messaging. Their feedback also facilitated adjustments to the survey questions, ensuring they were clear, comprehensible, and easier to complete, increasing the reliability of the study (Malhotra, 2020). This comprehensive approach shaped our final product designs and survey structure.

First, the focus group expressed that the color of the chocolate was less appealing, prompting us to make changes to that element. Additionally, the focus group deliberated on the choice of messages displayed on the chocolate bar. Based on the pre-test, we presented the two most gender-neutral options, "Godbit" (Tasty Bite) and "Kos deg" (Enjoy yourself). The participants pointed out that "Godbit" (Tasty Bite) could potentially be interpreted as the name of the chocolate itself rather than a form of personalized communication. To avoid any confusion, we opted for the alternative message, "Kos deg" (Enjoy yourself), ensuring that the packaging communication was clearly understood as intended.

For the laundry detergent alternatives, the focus group concluded that incorporating a personal pronoun such as "You" (Deg) was suitable to ensure consistency with the chocolate and prevent potential discrepancies in emotional response. Hence, both products were given a personal pronoun in their personalized packaging communication. As a result, the product design for the laundry detergent incorporated the quote "Renhet for deg" (Purity for you).

Further, the focus group was essential in assessing the effectiveness of our survey and identifying any potential issues. For instance, we decided to modify the Likert scale from a 7-point to a 5-point scale. We found that on mobile devices or tablets, distinguishing between the outer points on a 7-point scale could be challenging, leading to random selection by the respondents. By consistently using a 5-point Likert scale throughout our study, we ensured a standardized measurement across different conditions, which enhances the reliability of our data and findings (Litwin, 1995). Furthermore, the focus group noticed that it was rather obvious which words in our questionnaire were related to hedonic and which were utilitarian aspects. To avoid any bias this might introduce, we altered the order of the questions.

4.3.4 Personalized Packaging Stimuli

Our stimuli involved adding specific text to the packaging of our products. For the chocolate, we used the phrase "Kos deg" (Enjoy Yourself), while for the laundry detergent, we used the phrase "Renhet for deg" (Purity for You). These phrases were

intended to add an element of personalized communication to the product packaging. For products without this added stimuli, the packaging simply stated "Sjokolade" (Chocolate) and "Vaskemiddel" (Laundry Detergent), offering a straightforward identification of the product type.

Figure 5 - Final conditions

3.4 Main study

3.4.1 Research Design

To test the research question and hypotheses, we conducted a survey-based experiment. This is a flexible, time-efficient and low-cost tool. We used an online questionnaire, a self-administered survey, which allowed for anonymity and facilitated quick and easy distribution to a larger population with almost immediate

availability of responses, increasing the generalizability of the study (Malhotra, 2020). We designed the questionnaire using Qualtrics.

To validate our hypotheses and collect quantitative data, our main study was carried out as an experiment with a 2 (personalized packaging: with vs without) x 2 (product category: hedonic vs utilitarian product) between-within subjects' designs (mixed factorial design). This allows for valid comparison between groups and managing potential effects such as maturation and history as all participants have approximately the same experience within the same passage of time. Thereby, increasing the internal validity of the study (Rosenstein, 2019). Figure 6 illustrates our main experiment's four treatment conditions in a 2x2 matrix.

Figure 6 - 2x2 Mixed Factorial Design

		Product Cateogry	
		Hedonic	*Utilitarian*
Personalized Packaging	*With*	**Condition 1.1**	**Condition 2.1**
	Without	**Condition 1.2**	**Condition 2.2**

3.4.2 Experiment Manipulation

With a total sample size of 313 respondents, with over 140 responses to each treatment group ($n_{1.1}$ = 149, $n_{1.2}$ = 164, $n_{2.1}$ = 172, $n_{2.2}$ = 141). Each participant was exposed to both conditions, 1 and 2. However, within each condition, they were randomly assigned to either subgroup (.1, .2), with or without personalized packaging communication. The order of exposure to the product category, as well as whether the product came with or without communication, was randomized to ensure unbiased results and systematic differences between groups, increasing the internal validity (Malhotra, 2020).

3.4.3 Questionnaire Development

The data for the study was collected through a survey-based experiment, using Qualtrics Survey Software as a tool to create and distribute the survey. The first section of the online questionnaire presented an overall introduction to the study and a consent form, ensuring compliance with GDPR regulations. Participants that did not consent to the form were sent directly out of the survey.

Furthermore, participants were asked to rate both "laundry detergent" and "chocolate" based on eight dimensions on a hedonic/utilitarian scale, using a 5-point Likert scale. Following this, participants were presented with two of four conditions (both hedonic and utilitarian). To control for order bias, the order and stimulus of products presented to the participant were randomized (Malhotra, 2020), and all other measurements and scales were kept constant. Below each product, participants were asked to indicate their level of agreement with four statements measuring purchase intention on a 5-point Likert scale.

Participants were then asked to rate the perceived hedonic and utilitarian value of the presented product on the same hedonic/utilitarian scale. After completing the two blocks, participants were asked to fill out general demographic questions, which were an essential part of the study as we examined gender effects. Additionally, the demographic information was valuable for observing potential skewness in the data set (Appendix 2).

3.4.4 Scale development

In order to effectively operationalize the constructs, we employed modifications of existing measurement scales to assess both the dependent variable, independent variable, and mediating variable; Purchase Intention, Product Category and Perceived Hedonic Value. The chosen scales, which have exhibited a satisfactory degree of reliability in previous studies, have been thoughtfully adapted and tailored to suit the context of our study, thereby enhancing the survey's impact and increasing the internal validity (Appendix 3).

For the independent variable and mediating variable, we modified the scale developed by Bathra and Ahtola (1991). Based on the results of three studies, they suggested scales that can reliably and validly assess hedonic and utilitarian components. The items selected to measure the utilitarian component of brand attitudes were useful/useless, valuable/worthless, beneficial/harmful, and wise/foolish; items selected to measure the hedonic component of brand attitude were pleasant/unpleasant, nice/awful, happy/sad and agreeable/disagreeable. Importantly, to improve the validity of the study for our Norwegian participants, all measurements were translated into Norwegian and tailored to fit the nuances of the language.

For the dependent variable, Purchase Intention, we modified the scale developed by Martins et al. (2019; Hsu & Lin, 2015; Kumar et al., 2009) and research by Spears & Singh (2004) (Appendix 3). The statements measuring purchase intention were; "test", "purchase", "purchase to others", and "interesting". Purchase intentions were measured using the four different statements converted to questions. We wanted to ensure that we captured purchase intention as accurately as possible.

3.4.5 Data cleaning

During the data cleaning process in SPSS, we performed several steps to ensure the quality of the dataset. We started out with a total of 460 respondents. First, we excluded 103 incomplete responses and 11 respondents who did not consent. Further, we did a consistency check where we removed 17 respondents with unreliable answers, such as consistent extreme values. We did this to ensure a more accurate and representative statistical analysis, as outliers can significantly skew the results (Malhotra, 2020). Finally, in order to maintain data accuracy, we omitted 16 respondents who took less time than naturally expected to read and completing the survey, requiring a minimum of 1.5 minutes. After these removals and adjustments, we were left with a total of 313 respondents (N=313) (Appendix 4).

Next, we undertook a thorough process of refining the text responses to align them with fitted alternatives presented in our survey. We applied this process across all

demographic questions, considering that the majority offered an open-text response option. This way, we ensured the integrity and consistency of our data while accommodating for the diversity of responses (Malhotra, 2020). We expanded the dataset by creating binary variables for each condition that participants were subjected to, doubling the original dataset's size (N = 626). This extensive process of data cleaning and preparation was necessary to conduct our analyses in a precise and meaningful way.

4.0 Analysis and Results

In the subsequent section, we will examine and present a number of analyses of the proposed hypotheses. We employed the statistical software SPSS for the statistical analyses. The PROCESS macro in SPSS, which we are using in multiple of our analyses, has been employed in numerous studies to examine mediating and moderating models. In these instances, the macro demonstrated superior statistical testability (Chen et al., 2021; Yang X. J. et al., 2020; Lian et al., 2021).

4.1 Factor Analysis

As a starting point, we conducted a factor analysis. This method is particularly effective when dealing with several numbers of variables. It helps to identify underlying relationships and reduces the number of correlated variables to a manageable level (Malhotra, 2020). For the dependent variable (purchase intention) and mediating variable (perceived hedonic value), conducting the analysis was appropriate to ensure consistency, that all questions were measuring the same underlying construct and making it manageable in further analysis.

To confirm the suitability of factor analysis for our data, we examined several assumptions. Firstly, we assessed sampling adequacy using the Kaiser-Meyer-Olkin (KMO) measure, which yielded a value of .772 (Appendix 5), comfortably above the recommended threshold of $> .5$ (Malhotra, 2020), indicating the appropriateness of the analysis. Additionally, Bartlett's test of sphericity was carried out, producing

significant results (χ^2 (66) = 1944.687, p < .001) with a p-value > .05, further substantiating the appropriateness of the factors analysis.

To decide on the number of factors to be extracted, we utilized a combination of criteria: Kaiser's rule, total variance explained and the scree plot. Firstly, applying Kaiser's rule, only factors with eigenvalues > 1 should be retained (Malhotra, 2020). The examination of eigenvalues indicated three components (Appendix 5). Moreover, the chosen factors should explain more than 60% of the total variance, which was satisfied as components one to three cumulatively accounted for 69.47% of the variance (Appendix 5).

The explained variance in the eigenvalues had a substantial increase from components one to three, with rises of 30.35%, 21.99%, and 17.14%, respectively, and a diminishing increase to the fourth component (Appendix 5). The scree plot suggests the existence of an 'elbow' or a leveling-off point at the fourth component (Appendix 5), substantiating the use of three components. This decision, in addition to the prior determination, supports a three-component solution (Malhotra, 2020).

In an effort to optimize our data and clarify the factor structure, we applied the Orthogonal rotation method to our dataset. This ensured the factors were entirely uncorrelated post-rotation. A comparison between the Component Matrix and the Rotated Component Matrix (Appendix 5) reveals that our data achieves greater clarity through the application of the Orthogonal method with varimax rotation.

To optimize our data and clarify the factor structure, we followed a varimax rotation procedure where the orthogonal method of rotation was used to minimize the number of variables with high loadings to one single factor (Malhotra, 2020). The rotation provided a clear distinction of the factors for each component (Appendix 5), offering more manageable data for further analysis.

Reliability Test - Cronbach's Alpha

Finally, we assessed the reliability of our survey questions using Cronbach's alpha. A high alpha coefficient indicates that the questions are measuring the same construct,

while a low coefficient suggests otherwise. The Cronbach's alpha coefficient (=α) varies from 0 to 1, where a value of .6 or less indicates unsatisfactory internal consistency reliability (Malhotra, 2020). The findings reveal that all components exceeded Cronbach's alpha value of .6 (Table 1), thereby indicating a satisfactory level of internal consistency reliability.

Table 1 - Reliability Analysis - Cronbach's Alpha

Reliability Statistics

	Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
Purchase intention	.920	.921	4
Utilitarian Product - Hedonic Value	.814	.818	4
Hedonic Product - Hedonic Value	.766	.790	4

To summarize and continue with our analysis, we found justification to proceed with combining the variables that have been assessed through multiple questions in our study. Importantly, we found that the factors explaining perceived hedonic value are measured by the same questions for both product categories. The finalized, merged variables are as follows; purchase intention (Q1 + Q2 + Q3 + Q4), perceived hedonic value for utilitarian product (Q5 + Q6 + Q7 + Q8) and perceived hedonic value for hedonic product (Q9 + Q10 + Q11 + Q12). See Appendix 6.

4.2 Hypothesis Tests

4.2.1 Regression Analysis

In order to test H_1, a regression analysis was conducted to confirm a potential direct effect of personalized packaging on purchase intention (Appendix 7). In the following analysis, personalized packaging was treated as a dummy variable, which allowed us to quantify the binary categorical variable and effectively use it in the analysis (Malhotra, 2020). The presence of personalized packaging was coded as 1, and the absence was coded as 0.

The results of the regression analysis revealed a statistically significant relationship between personalized packaging and purchase intention ($F(1, 624) = 10.684$, $p = .001$), where the presence of personalized packaging had a significant positive effect on purchase intention ($B = .293$, $p = .001$). Therefore, it is a significant difference between the purchase intention without (M=2.700) and with (M=3.213) personalized packaging (Appendix 7). These findings support the hypothesis that the effect of personalized packaging has a positive effect on purchase intention.

Therefore, we accept H₁.

Figure 7 - Visualization of the personalized packaging effect, mean value
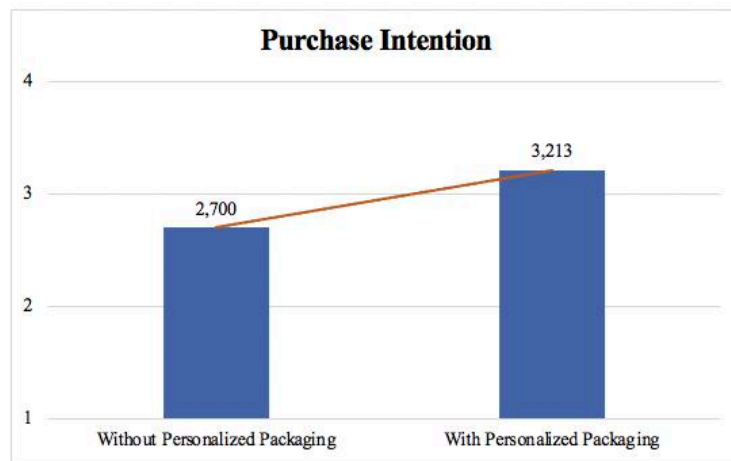
4.2.2 Moderation Analysis

We carried out two separate moderator analyses to examine the isolated effect of personalized packaging on purchase intention accounting for the moderators (product category and gender). In order to test the moderating effects, we applied PROCESS

macro, model 1, v.4.2 (Hayes, 2022) for SPSS.

4.2.2.1 Product Category

Exploring the descriptive statistics, we observe an increase in mean value of purchase intention when personalized packaging is present across both product categories, hedonic products (without M=2.6915, Std=1.0834, with M=3.0480, Std=1.2953) and utilitarian products (without M=2.4268, Std=.9184, with M=2.6057, Std=1.0940). It seems to be a small difference to which degree they increase, with a slightly greater increase for hedonic products.

Figure 8 – Visualization of the personalized packaging effect across product categories, mean value
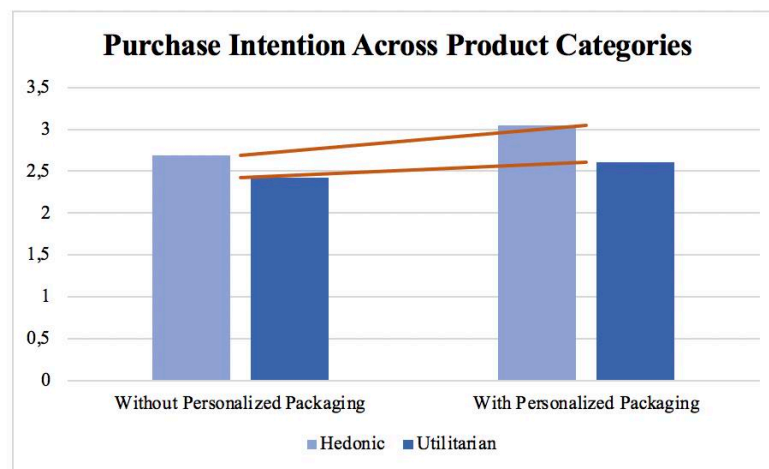
The results from the PROCESS moderation analysis indicate that the overall model has a statistically significant effect on purchase intention (p =.0000), although the amount of variance explained by the predictors is relatively small, accounting for 4,3% (R^2 = .043, p = .0000). The coefficients indicate that personalized packaging has a positive effect on purchase intention, but with the expanded model, the findings are not statistically significant (p = 0.1549). On the other hand, the product category

has a significant positive effect on purchase intention (B = 0.2647, p = 0.0382), which suggests that hedonic products have a greater impact on purchase intention compared to utilitarian products.

However, the interaction term, which represents the interaction between personalized packaging and product type, is not significant (p = 0.3186). Therefore, the results do not support the hypothesis that product category moderates the relationship between personalized packaging and purchase intention (Appendix 8).

Therefore, we reject H$_2$.

4.2.2.2 Gender

When exploring the descriptive statistics with SPSS compare means, we observe an increase in mean value of purchase intention when personalized packaging is present for both genders across both categories. The increase is greater for females (**hedonic**: without M=2.6216, Std=1.0314, with M=3.1869, Std=1.3250 // **utilitarian**: without M=2.4103, Std=.9128, with M=2.6944, Std=1.1799) than males ((**hedonic**: without M=2.7687, Std=1.1409, with M=2.8596, Std=1.2381 // **utilitarian**: without M=2.4479, Std=.9316, with M=2.5000, Std=.9802). This provides an indication that females are more affected by personalized packaging than males. (Appendix 4)

Figure 9 – Visualization of the personalized packaging effect across genders, mean value

29
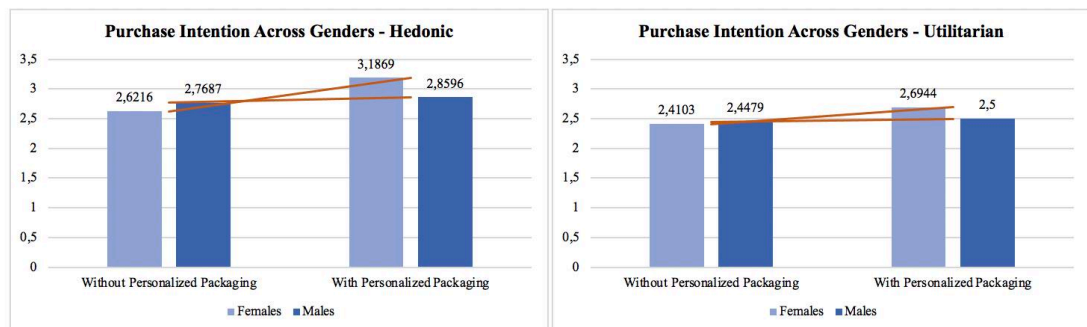
When examining gender as a moderator, the PROCESS analysis revealed the following results. The model accounted for approximately 2.54% of the variation in purchase intention (R^2 = .0254, p = .0011). Notably, personalized packaging had a statistically significant effect (B = .4608, p = .0001), meaning that the presence of personalized packaging increases purchase intention. The direct effect of gender (males = 1, females =0) was not significant (B = .0980, p = .4468). However, there was a statistically significant interaction effect between personalized packaging and gender (B = -.3771, p = .0367). This implies that the impact of personalized packaging on purchase intention varies by gender, where females have a higher purchase intention than males, notably on a 5%-level.

Hence, the conditional effects reveal that the effect of personalized packaging on purchase intention is statistically significant for females (B = .4608, p < .0001) but not for males (B = .0837, p = .5322). This implies that females are more likely than males to increase their purchase intention in response to personalized packaging (Appendix 9).

Therefore, we accept H₃.

4.2.3 Mediation Analysis

In order to test the mediating effect of perceived hedonic value on the relationship between personalized packaging and purchase intention, we applied PROCESS macro, model 4, v.4.2 (Hayes, 2022) for SPSS. The three-variable system framework introduced by Baron & Kenny (1986) served as the foundational guideline for testing our hypotheses, evaluating path (a), (b), and (c').

Their model proposes two causal pathways leading to the outcome variable: a direct influence from the independent variable (c') and the effect of the mediator on the dependent variable (b). Additionally, it outlines a path from the independent variable to the mediator (a). For the model to fully reach a mediation effect, it is necessary for the two indirect paths to show significance, with the direct path being insignificant. If

both indirect and direct paths exhibit statistical significance, it indicates the presence of partial mediation (Baron & Kenny, 1986).
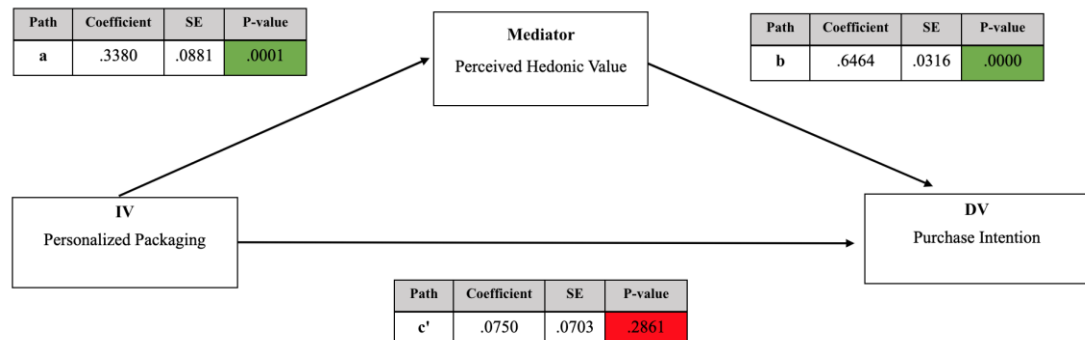
In the model, path (a) demonstrates a significant positive effect in the presence of personalized packaging on the perceived hedonic value of the product (B= .3380, p = .0001). This implies that the presence of personalized packaging increases perceived hedonic value. Further, in path (b), there is a substantial significant impact (B= .6464, p = .0000), meaning that an increase in perceived hedonic value leads to a favorable increase in consumers' purchase intention.

The total indirect effect (a*b) reveals a significant positive effect of perceived hedonic value on the relationship between personalized packaging on purchase intention (B= .2185, SE = .0584, 95% CI = .1031, .3150). As a result, personalized packaging increases the perceived hedonic value of the product, and this, in turn, increases consumers' purchase intentions.

Furthermore, the direct effect (c') of personalized packaging was found to be statistically insignificant (B= .0750, p = .2861). This means that in the presence of the mediator, the direct effect of personalized packaging on purchase intention is not significant. In total, the results reveal a significant total indirect effect (c) but not a significant direct effect. Hence, we have evidence for full mediation (Appendix 10).

Therefore, we accept H₄.

Figure 10 - Regression coefficients for H₄

Path	Coefficient	SE	P-value
a	.3380	.0881	.0001

Mediator
Perceived Hedonic Value

Path	Coefficient	SE	P-value
b	.6464	.0316	.0000

IV
Personalized Packaging

DV
Purchase Intention

Path	Coefficient	SE	P-value
c'	.0750	.0703	.2861

31

4.2.4 Moderated Mediation Analysis

To explore the connections between the variables proposed in hypotheses H_5 and H_6, we carried out two distinct moderated mediation analyses. The PROCESS macro model 8, v.4.2 (Hayes, 2022) for SPSS allows us to test the moderating effect of one moderator variable (either gender or product category) on the relationship between the independent variable (personalized packaging) and the dependent variable (purchase intention).

4.2.3.1 Product Category

Our analysis confirmed a significant indirect effect of personalized packaging on purchase intention through the perceived hedonic value. This effect was significant for both hedonic (B= .1750, 95% CI = .0028, .3552) and utilitarian products (B=.2143, 95% CI = .0755, = .3610). These findings suggest that the effect of personalized packaging on purchase intention is influenced by the perceived hedonic value of the product, regardless of whether the product is hedonic or utilitarian in nature. Additionally, the product category has a significant effect on the perceived hedonic value, where hedonic products increase perceived hedonic value (B=1.149, SE = .1091, p = .0000).

However, it is important to note that the index of moderated mediation was not significant (index = -.0392,9 5% CI= -.2647, .1840). This indicates that the product category (hedonic or utilitarian) does not moderate the mediating process. In other words, the mediating role of the perceived hedonic value in the relationship between personalized packaging and purchase intention remains consistent regardless of the product category. Hence, we do not find evidence for a moderated mediation effect for product category and perceived hedonic value (Appendix 11).

Therefore, we reject H_5.

4.2.3.2 Gender

Our analysis confirmed a significant indirect effect of personalized packaging on purchase intention through perceived hedonic value. We found that this indirect effect varied based on gender. For females, the indirect effect of personalized packaging on purchase intention was found to be significant (B= .3627, 95% CI = .2068, .5194). This indicates that when personalized packaging is present, females are more likely to perceive higher hedonic value across both product categories, which, in turn, leads to higher purchase intention.

On the other hand, for males, the indirect effect was noticeably smaller, and its confidence interval includes zero (B= .0416, 95% CI = -.1235, = .2047), suggesting that the effect of personalized packaging on purchase intention via perceived hedonic value, was not influential for males. Notably, the index of moderated mediation was significant (Index = -.3211, 95% CI = -.5441, -.0967), providing statistical evidence that the indirect effect of personalized packaging on purchase intention through perceived hedonic value was indeed moderated by gender (Appendix 12).

Therefore, we accept H6.

4.3 Summary of Results

Table 2 - Summary of results

Tested hypotheses	Results
H1 - personalized packaging communication has a positive effect on purchase intention	**Accept**
H2 - Product category moderates the relationship between personalized packaging and purchase intention, where the increase of purchase intention is higher for hedonic products than utilitarian products.	**Reject**
H3 - Gender moderates the relationship between personalized	**Accept**

packaging and purchase intention, where females have a higher purchase intention than males	
H4 - Perceived hedonic value mediates the relationship between personalized packaging and purchase intention, where higher perceived hedonic value increases purchase intention.	**Accept**
H5 - The effect of personalized packaging on purchase intention through perceived hedonic value is moderated by product category.	**Reject**
H6 - The effect of personalized packaging on purchase intention through perceived hedonic value is moderated by gender, where females perceive higher hedonic value in the presence of personalized packaging.	**Accept**

5.0 Discussion

The aim of this thesis was to delve deeper into the understudied area of personalized packaging communication, contributing to the scholarly discourse and enhancing the understanding of the concept. This concept, though widely adopted in contemporary marketing practice, is still without a universally accepted definition or formal nomenclature in the academic field. This gap in terminology reflects a broader lack of extensive research and understanding surrounding this innovative marketing approach. Given the rise in the number of companies increasingly leveraging this concept in their marketing strategies, our exploration and analysis hold significant potential for practical applications. More specifically, this thesis aimed to answer the overall research question:

"How does the presence or absence of personalized packaging, combined with gender (male vs female) and product category (hedonic vs utilitarian), interact with perceived hedonic value to influence consumer purchase intention in the FMCG market?"

To answer this question, our study provides insights into how personalized packaging affects purchase intention both directly and indirectly, revealing significant results. The hedonic and utilitarian product categories do not have a significant effect on the relation between personalized packaging and purchase intention. However, our study finds that gender has an effect on both of these aspects.

We first hypothesized that personalized packaging increases purchase intention (H_1), where our analysis provided significant results, confirming the hypothesis. Across all four conditions, respondents generally had an increase in purchase intention when personalized packaging was present. This builds on previous findings, highlighting that product packaging elements, such as personalized packaging, are important in consumers' decision-making at the point of sale (Silayoi & Speece, 2007). This indicates that industries should consider utilizing the concept in their marketing strategies.

The study also contributes to findings highlighting the importance of product packaging as producers' final chance to influence consumers in their purchase decision (Ampuero & Vila, 2006; McDaniel & Baker, 1977). Previous research has focused on similar product attributes, whereas our study contributes to more specific knowledge of personalized packaging.

We do recognize that personalized packaging explained a relatively small portion of the variance in consumers' purchase intention, suggesting the existence of other influential factors that are not captured in the current model. Substantiating previous studies, all elements of packaging - text, color, design, imagery, and personification - must be strategically combined to engage consumers in a visual sales negotiation during their product purchasing process (Ampuero & Vila, 2006; McNeal & Ji, 2003). Additionally, respondents might perceive the personalized message differently. However, the chosen messages were carefully chosen to increase the generalizability and fit the product type.

Further, building on the academic findings, we hypothesized that the product category would moderate the relationship between personalized packaging and purchase

intention (H$_2$). Our analysis did not find statistical evidence proving this moderating effect, and therefore we cannot state that there is a difference in increased purchase intention between the two categories in the presence of personalized packaging communication. This result was somewhat surprising as previous research finds that consumers view products bidimensional, dividing them into two categories: hedonic and utilitarian (Hirschman and Holbrook, 1982), where the categories respond differently to distinct types of marketing communication (Garrido-Morgado et al., 2021). Hence, the study contributes to the body of literature by challenging established mindsets regarding the different effects of product categories with the use of marketing tools. Considering that this effect is mostly observed in the market on hedonic products, it is interesting to consider that it might have a similar effect on utilitarian products. Managers may need to reconsider their approach to promoting utilitarian products, potentially employing techniques traditionally used for hedonic products.

A potential explanation for the seemingly contradictory findings might lie in the specific product choices within each category. While the selections were made thoughtfully, drawing from prior research that classified chocolate as hedonic (Baltas et al., 2017; Crowley et al., 1992; Khan & Dhar, 2010; O'curry & Strahilevitz, 2001) and laundry detergent as utilitarian (Holbrook 1980; Yim et al., 2014), a more diverse range of products might have yielded differing outcomes, thereby enriching the scope of our results. Moreover, the high ratio of variables relative to respondents in our data set represents a limitation, potentially compromising the robustness of the results. Because of this, the preferences and buying behaviors of those who, for example, either dislike chocolate or do not purchase laundry detergent could be unevenly distributed according to the conditions.

Next, we hypothesized that gender moderates the relationship between personalized packaging and purchase intention, where females have a higher purchase intention than males (H$_3$). Here, we found significant evidence supporting the hypothesis. This is not surprising, as several studies have found that males and females differ in the characteristics they consider important when evaluating products (Holbrook, 1986; Painter & Granzin, 1976; Meyers-Levy & Sternthal, 1991). Females have a tendency

to prioritize pleasure and new experiences (Noble et al., 2009) and emphasize the hedonic aspects of products (Meyers-Levy & Loken, 2015), like personalized packaging. This contributes to the body of literature, confirming established theories and providing new knowledge within the specific field of personalized packaging communication. Brands or products specifically targeting females will seemingly benefit more from applying personalized packaging communication in their marketing strategy.

Importantly, our results indicate some degree of uncertainty regarding the significance level in relation to the size of the dataset. Also, there is a noticeable, although not substantial, gender imbalance in our dataset and across all four conditions. While this skew is not particularly prominent, it could have an impact on our results, considering the size of the dataset and thereby affecting the ecological validity of the study. Therefore, the results should be interpreted with caution when considering implications.

Moving forward, we hypothesized that perceived hedonic value would positively mediate the relationship between personalized packaging and purchase intention (H4). The mediation effect was confirmed to be statistically significant, arguing that personalized packaging increases the perceived hedonic value of a product, ultimately influencing purchase intention positively. This is consistent with previous empirical findings suggesting that new impressions and products increase hedonic value (Kazakeviciute & Banyte, 2012), where hedonic benefits have an increased impact on consumer purchase decisions (Wang, 2017). Our findings support existing literature while providing a unique focus on personalized packaging in relation to hedonic value, an aspect that has not been extensively probed before. Our findings offer valuable insights for both academia and industry. They highlight personalized packaging's potential to increase perceived hedonic value and further influence purchase decisions, presenting a promising field for innovative marketing strategies and offering new pathways for further exploration.

Further, we hypothesized that the effect of personalized packaging on purchase intention through perceived hedonic value was moderated by the product categories

(H_5). We assumed that hedonic and utilitarian products would differ in their influence on the relationship. However, recognizing a gap in the literature leaves uncertainty about the specific direction of this influence. Despite these expectations, our study found no statistically significant evidence of the proposed moderating mediation effect. We remain uncertain as to why the expected effect was not evident in our findings. Referring to H_2, the product category did not moderate the relation between personalized packaging communication and purchase intention. When considering these findings together, they suggest that the product category did not have a significant influence in the context of our study.

Lastly, our final hypothesis proposed that the effect of personalized packaging on purchase intention through perceived hedonic value would be moderated by gender, with females perceiving higher hedonic value in the presence of personalized packaging (H_6). Our analysis found significant evidence supporting this hypothesis. Interestingly, our study confirms that females respond better to marketing tools such as personalized packaging regardless of the product type. This aligns with expectations as similar findings have been presented in prior literature. Mehta (2020) discovered that females tended to have higher hedonism scores compared to males. Furthermore, if a message is hedonic, it may have a more significant impact on females when presented through packaging (Batra & Ahtola, 1991). Again, our study contributes to existing literature broadening the field with extensive research on the unique topic of personalized packaging communication.

5.1 Theoretical Implications

This research enriches the scholarly discourse on personalized packaging communication by examining how this concept, alongside several influencing factors, impacts purchase intention. To the best of our knowledge, this topic has received surprisingly limited scholarly attention. This gap in the academic discourse is notable, particularly when considering the rising prominence of personalized packaging in practical marketing applications, especially in the fast-moving consumer goods

(FMCG) market.

Firstly, the research enhances our understanding of the impact of personalized packaging on purchase intention. By demonstrating a significant positive effect of personalized packaging on purchase intention, this study reinforces the importance of packaging personalization as a marketing tool. This contributes to the broader literature on packaging effects and consumer behavior by providing empirical evidence of the effectiveness of personalized packaging.

Further, the study underscores the gender differences in response to personalized packaging, highlighting a more significant purchase intention among females. This finding prompts further research into the socio-cultural and psychological factors driving such disparities. The research also emphasizes the mediating role of perceived hedonic value in the relationship between personalized packaging and purchase intention, extending existing theoretical frameworks and serving as a potential explanation for increased purchase intention. Surprisingly, these findings suggest that the impact of personalized packaging goes beyond specific product categories, indicating its universal appeal.

The study also introduces a moderated mediation model, contributing methodologically to the literature and offering a framework for further research. In essence, this study contributes to the theoretical discourse around personalized packaging, gender differences, perceived hedonic value, and their collective impact on consumer behavior, unveiling new paths for scholarly exploration.

5.2 Managerial Implications

Our study provides valuable insights for brand managers and strategic decision-makers who are interested in understanding consumer behavior and responses to product attributes. As the market for personalized packaging is projected to nearly double within the next decade (Future Market Insights, Inc., 2022), marketers can benefit from a deeper understanding of this topic. This knowledge can help allocate

marketing budgets and resources more effectively and capture the attention of consumers in an increasingly competitive marketplace.

Primarily, the positive relationship between personalized packaging and purchase intention suggests that businesses should consider investing in personalized packaging as a strategy to enhance customer engagement and drive sales. According to Byron Sharp, it is important for brands to stand out when communicating with potential customers (Byron Sharp, 2010). Personalized packaging will capture attention on the shelf and provide an engaging consumer experience, thereby potentially fostering stronger brand recognition and loyalty. Here, it is crucial for companies to make strategic decisions when selecting appropriate messages that align with their products and target audience. Given that personalized packaging communication positively impacts perceived hedonic value, which in turn influences purchase intention, it would be strategic to tailor the messaging to maximize perceived hedonic value.

Contrary to expectations, our findings suggest that the impact of personalized packaging is not contingent on the two distinct product categories of utilitarian and hedonic. This implies that the results can be applied to a wider range of product selections than initially assumed, indicating broader generalizability. Hence, multiple product types within the FMCG market can consider adopting personalized packaging strategies. By recognizing the potential benefits of the concept across diverse product offerings, businesses have the opportunity to enhance customer appeal and drive engagement within their respective markets.

Further, managers should acknowledge the gender differences consistently found through our study. Our findings suggest that females are more affected by personalized packaging than males, indicating a higher potential for success when utilizing the concept of products targeting females. Building on this, managers could conduct low threshold marketing studies to identify the type of messages that aligns best with their target audience and products, also potentially finding words which align better with males.

Overall, while personalized packaging communication is just one aspect of a product's marketing mix, these results indicate that it can play a significant role in influencing consumer behavior, particularly in the case of perceived hedonic products.

5.3 Social Implications

Our findings shed light on how personalized packaging influences consumer behavior, strengthening the need for consumer education and awareness about marketing practices. This research can provide a unique opportunity for consumers to critically examine their own purchasing behaviors. As consumers become more aware of how personalized packaging might disproportionately influence females, they can challenge themselves to make more conscious decisions, moving beyond the influence of packaging and focusing more on the product's intrinsic value

Moreover, our findings emphasize gender differences in response to personalized packaging, underlining a potential social bias inherent in consumer behavior. We found that females are more influenced by personalized packaging than males, which could stimulate a broader societal discussion about gender dynamics in consumption patterns. The awareness and understanding generated by this research might encourage individuals and societies to challenge existing gender norms and biases in their own purchasing patterns.

The ethical implications of our research are profound, particularly for the field of marketing and advertising. Given that personalized packaging has a differential impact on genders, with females found to be more affected, marketers might need to re-evaluate their strategies. The results of this study highlight the need to ensure marketing tactics are not exploiting these tendencies or reinforcing harmful gender stereotypes, promoting a conversation about the ethical guidelines surrounding the use of personalized packaging.

6.0 Limitations and Further Research

6.1 Limitations

While our study provides meaningful insights and contributes to the existing body of literature, it is essential to acknowledge that the study has its limitations that should be recognized. Our first limitation is the scarcity of prior research studies focusing on personalized packaging. Given that referencing and building upon previous studies forms the foundation of any literature review and subsequently informs the research question, this has impacted the theoretical foundation of our work (Malhotra, 2009). Consequently, the range of previous research pertinent to our topic has been significantly restricted and thereby limited our theoretical foundation to some extent.

Another limitation is the use of non-probability convenience sampling in our study. The participants in our study were selected primarily for their accessibility and ease of recruitment due to resource constraints, and therefore the results cannot be generalized to the entire population (Malhotra, 2020). In relation to our sampling techniques, the application of snowball sampling may inherently skew the demographic and psychographic traits of our sample. These characteristics are likely to reflect a greater similarity to the individuals who initially referred them rather than who would typically occur by random chance (Malhotra, 2020).

Further, a limitation of our study pertains to the demographic skewness of our dataset. The sample predominantly consisted of younger respondents and did not adequately represent the older, unemployed, or retired demographics. Despite a balanced distribution between students and employed individuals, this does not accurately mirror the broader social structure (Appendix 13). Consequently, this lack of representativeness might limit the generalizability of our results to these underrepresented groups.

Furthermore, our choice to conduct an experiment using a survey may introduce additional limitations to our study. In this controlled setting, participants are not experiencing a real-life buying situation, which may affect the authenticity of their

responses and the external validity of the study. They are not making actual purchases of chocolate or laundry detergent and are not physically interacting with the actual products. This lack of tangibility and real-world context could lead to discrepancies between their stated intentions in the survey and their actual behavior in a genuine purchasing scenario. Hence, while surveys provide valuable insights, they may not fully replicate the complexity and spontaneity of consumer behavior in a real-world setting (Roe & Just, 2009). This limitation is significant as numerous studies highlight a substantial gap between purchase intention and actual purchase behavior (Ohtomo & Hirose, 2007). To address this concern, further research could implement a field experiment in real market conditions, potentially offering a more accurate reflection of consumer behavior (Malhotra, 2020).

Another limitation inherent to our experimental survey design is the absence of non-verbal cues. The online format of the survey, while convenient, eliminates the ability to observe participants' body language, which could provide an additional, nuanced understanding of their reactions and responses to personalized packaging (Carson, 2001). In addition, the sample may have been biased toward those who are more comfortable with technology or who spend more time online. Furthermore, the fact that respondents took the survey at different times of the day could also have influenced their responses. Variations in mood, alertness, and other factors related to the time of day may impact participants' perceptions and judgments, thereby introducing potential bias into our findings (Carson, 2001). For example, people are not wanting chocolate in the morning or cleaning detergent on a Saturday night.

An additional limitation in our research is the strength of the manipulation employed, which may account for some of the non-significant results we observed, especially regarding product categories. The products examined within each category were limited to chocolate and laundry detergent, which were sourced from abroad, with the aim of reducing pre-existing bias. However, this approach may present limitations as these are not typical products consumers would purchase locally. It can be argued that consumers may have stronger preferences for products they are familiar with and have a relationship with, thereby potentially affecting their responses in the study.

Employing fictional brands and products may result in less authentic settings and behaviors, consequently diminishing the ecological validity of the experiment (Schmuckler, 2001). Hence, the applicability of our findings to a real-life purchasing scenario could be considered a limitation in terms of generalizability. While acknowledging the limitations of our study, it's important to note that the visual appeal of our product representations may not have been as tempting as possible, potentially impacting respondents' purchase intentions. However, in terms of ensuring experimental control, the products with and without manipulation were identical, apart from the specific element of personalization being studied.

Another limitation was the use of one single message on each product instead of comparing messages. By offering a variety of messages instead, consumers can select the one that aligns best with their preferences and values. This strategy potentially increases the likelihood of capturing consumer attention and cultivating a positive brand-consumer relationship. Furthermore, if a particular message fails to resonate with a consumer, having alternative options available to enhance the overall appeal and customization potential of the packaging might lead to greater consumer satisfaction and engagement. This approach aligns with current market campaigns that provide consumers with a diverse range of options and choices.

6.2 Further Research

Building upon our findings, there are numerous directions for further research to explore the complex dynamics of personalized packaging and its impact on consumer behavior. While our study sheds significant light on the role of personalized packaging across product categories, gender and perceived hedonic value in influencing consumer purchase behavior, there remain gaps in our understanding that could be addressed by further research.

Further research can delve into exploring the impact of personalized packaging across a broader range of demographic groups. Our study was somewhat limited in terms of

the demographic composition of our respondents. A more diverse sample, incorporating a wider age range, more balanced gender representation, and a more diverse range of income levels and occupations, could provide a more comprehensive understanding of the role of the concept in different demographic contexts. Additionally, as this study only represented Norwegians, countries, cultural and regional variations in responses to personalized packaging can be examined. Such demographic-specific insights could be highly valuable for marketers looking to target specific customer segments with personalized packaging strategies.

In addition, a detailed examination of gender differences in response to personalized packaging communication presents a rich opportunity for further research. Our investigation indicated that females were more influenced by personalized packaging, yet it is plausible that these effects could vary depending on the style or content of the communication. Investigating whether other factors, including age, cultural influences, or product category, interact with gender to influence responses to personalized packaging could provide nuanced insights. This exploration could help marketers fine-tune their strategies, enhancing their ability to captivate their target audience and drive purchase intention more effectively.

There exists potential for expanding the scope beyond evaluating purchase intention as the primary outcome variable. It would be insightful for subsequent studies to delve into the broader implications of personalized packaging communication on different aspects of consumer behavior. For instance, a deeper investigation could be undertaken to assess if enhanced personalized engagement actually strengthens the relationships between brands and consumers. Additionally, the exploration could extend to evaluating any potential adverse effects on the brand that may arise from the deployment of highly personalized communication strategies.

In our research, we found that product categories did not play a significant role in the context of personalized packaging communication. However, this aspect of the study offers a valuable direction for further research. Building upon these suggestions, further research should also strive to incorporate a broader group of both hedonic and utilitarian products. By including a more diverse range of products in these

categories, researchers can gain a more complex understanding of how personalized packaging communication impacts consumer behavior across different product categories. Simultaneously studying multiple product types will also enable a comparison of effects, providing additional depth to the understanding of the interplay between product type and personalized marketing tactics.

Our findings revealed that perceived hedonic value mediates the relationship between personalized packaging and purchase intention. This suggests a pathway through which personalized packaging influences consumers' desire to purchase. Further research should continue to explore this relationship and consider the potential influence of other mediators that might drive increased purchase intention. For instance, perceived value in terms of product utility, the perceived uniqueness of the product, perceived trust, or the emotional resonance a consumer feels with personalized packaging could all serve as potential mediators.

By broadening the research scope in these directions, a more comprehensive understanding of the multifaceted impacts of personalized packaging communication can be achieved. This approach would certainly contribute to a richer body of knowledge in this field.

7.0 Conclusion

To conclude, our research significantly contributes to the growing body of literature on personalized packaging. Capturing consumer attention has become more challenging than ever before, given the overwhelming range of products and stimuli that consumers are exposed to on a daily basis. Therefore, in our thesis, we introduced the concept of personalized packaging, as there exists a gap within the literature and field of marketing. The study provides valuable insights into the consumers' attitudes towards the relationship between personalized packaging, perceived hedonic value and purchase intention across gender and product categories, which can be leveraged by marketers to better appeal to their target audiences.

Although the lack of previous studies on personalized packaging may have restricted the breadth of our theoretical foundations and the generalizability of our results, they have also highlighted new avenues for further research. The study found an isolated effect of personalized packaging on purchase intention, in addition to a meditation effect of perceived hedonic value. The study also reveals a gender effect, where females are more positively affected by personalized packaging. Lastly, contradictory to our assumptions, the product category (hedonic vs utilitarian) did not affect any relations. Our study highlights the need for further research in areas that were beyond our research scope or could not be sufficiently addressed due to identified limitations.

We truly believe that our findings provide a solid foundation for further exploration and innovation in the realm of personalized packaging. By shedding light on gender differences and their influence on consumer preferences across various product categories, our study opens up exciting possibilities for marketers seeking to enhance their packaging strategies. Furthermore, our research contributes to filling the gap in the understudied literature on personalized packaging, offering valuable insights and paving the way for more targeted and effective marketing campaigns. With these discoveries in hand, we are confident that our work will inspire further research and drive the industry closer to realizing the full potential of personalized packaging in engaging consumers and driving brand loyalty.

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9.0 Appendices

Appendix 1 - Pre study questionnaire with results

Pre-Study Results			
Respondents (n=24)			
Question	*Imagine that the following statements are communicated on a product in the grocery store. Do you perceive these statements as gender-neutral*? *By gender-neutral, it means statements that can appeal to both genders."*		
Quote	**Response alternative**		
	"Yes"	**"No"**	**"Don't know"**
"Kos deg" (enjoy yourself)	92 %	8 %	0 %
"Spis meg" (eat me)	75 %	21 %	4 %
"Vask meg" (wash me)	75 %	21 %	4 %
"Macho påfyll" (macho refuel)	8 %	92 %	0 %
"Søt fristelse" (sweet temptation)	67 %	33 %	0 %
"Delikate dråper" (delicate drops)	38 %	58 %	4 %
"Fruefavoritt" (lady's favorite)	12 %	88 %	0 %
"Turbotøy" (turbo fabric)	29 %	67 %	4 %
"Bløte tider" (soft times)	42 %	42 %	16 %
"Min luksus" (my luxury)	83 %	17 %	0 %
"Livets godbit" (the delight of life)	92 %	4 %	4 %
"Søte øyeblikk" (sweet moments)	54 %	42 %	4 %
"Daglig dose glede" (daily dose of joy)	96 %	0 %	4 %
"Ren glede" (pure joy)	100 %	0 %	0 %
"Renhet for deg" (purity for you)	96 %	4 %	0 %
"Lykkevask" (happiness wash)	46 %	46 %	8 %
"Ren fryd" (pure delight)	83 %	17 %	0 %

Appendix 2 - Survey Questions

Q1 Kjære deltaker,

Takk for at du tar deg tid til å delta i vår undersøkelse. Dette er en del av vår masteroppgave i Master of Science in Business (major in Marketing) ved Handelshøyskolen BI.

Undersøkelsen vil ta omtrent 5 minutter å gjennomføre. Vi ber deg om å lese gjennom spørsmålene grundig, og gi din ærlige mening. Dette vil være til stor hjelp og verdi for vår masteroppgave.

Undersøkelsen vil gjennomføres anonymt, og alle svarene vil bli behandlet med konfidensialitet. Dataen er kun tilgjengelig for de som står ansvarlige for spørreundersøkelsen, og all data vil bli permanent slettet innen utgangen av året 2023.

Vi setter stor pris på deltagelsen og at du tar deg tid til å hjelpe oss med vår studie.

Dersom du skulle ha noen spørsmål angående spørreundersøkelsen kan vi kontaktes på:

mgjerdeolsen@gmail.com
eirill.haflan@gmail.com

Jeg samtykker til at den innsamlede dataen fra spørreundersøkelsen kan brukes i den nevnte masteroppgaven.

○ Ja (1)

○ Nei (2)

NB! Bla til høyre for å se hele skalaen dersom du besvarer undersøkelsen på telefonen.

- -

Q2 Ranger produktkategorien "vaskemiddel" på en skala fra 1 til 5 på følgende åtte dimensjoner:

	1	2	3	4	5	
	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	
Upraktisk	○	○	○	○	○	Praktisk
Ikke herlig	○	○	○	○	○	Herlig
Ikke funksjonell	○	○	○	○	○	Funksjonell
Ikke nytende	○	○	○	○	○	Nytende
Ikke hjelpsom	○	○	○	○	○	Hjelpsom
Ikke engasjerende	○	○	○	○	○	Engasjerende
Unødvendig	○	○	○	○	○	Nødvendig
Kjedelig	○	○	○	○	○	Spennende

- -

Q3 Ranger produktkategorien "sjokolade" på en skala fra 1 til 5 på følgende åtte dimensjoner:

	1	2	3	4	5	
	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	
Upraktisk	○	○	○	○	○	Praktisk
Ikke herlig	○	○	○	○	○	Herlig
Ikke funksjonell	○	○	○	○	○	Funksjonell
Ikke nytende	○	○	○	○	○	Nytende
Ikke hjelpsom	○	○	○	○	○	Hjelpsom
Ikke engasjerende	○	○	○	○	○	Engasjerende
Unødvendig	○	○	○	○	○	Nødvendig
Kjedelig	○	○	○	○	○	Spennende

Q4 Her ser du et vaskemiddel, besvar spørsmålene under.

X→

Q5 I hvilken grad er du enig i følgende utsagn på en skala fra (1) uenig til (5) enig

	(1) Uenig (1)	(2) Litt uenig (2)	(3) Nøytral (3)	(4) Litt enig (4)	(5) Enig (5)
Jeg ville prøvd dette produktet (1)	○	○	○	○	○
Jeg ville kjøpt dette produktet (2)	○	○	○	○	○
Jeg ville kjøpt dette produktet til noen andre (3)	○	○	○	○	○
Produktet ser interessant ut (4)	○	○	○	○	○

⤭

Q6 Ranger produktet du observerer ovenfor på en skala fra 1 til 5 på følgende åtte dimensjoner:

	1	2	3	4	5	
	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	
Upraktisk	○	○	○	○	○	Praktisk
Ikke herlig	○	○	○	○	○	Herlig
Ikke funksjonell	○	○	○	○	○	Funksjonell
Ikke nytende	○	○	○	○	○	Nytende
Ikke hjelpsom	○	○	○	○	○	Hjelpsom
Ikke engasjerende	○	○	○	○	○	Engasjerende
Unødvendig	○	○	○	○	○	Nødvendig
Kjedelig	○	○	○	○	○	Spennende

Q7 Her ser du et vaskemiddel, besvar spørsmålene under.

Q8 I hvilken grad er du enig i følgende utsagn på en skala fra (1) uenig til (5) enig

	(1) Uenig (1)	(2) Litt uenig (2)	(3) Nøytral (3)	(4) Litt enig (4)	(5) Enig (5)
Jeg ville prøvd dette produktet (1)	○	○	○	○	○
Jeg ville kjøpt dette produktet (2)	○	○	○	○	○
Jeg ville kjøpt dette produktet til noen andre (3)	○	○	○	○	○
Produktet ser interessant ut (4)	○	○	○	○	○

Q9 Ranger produktet du observerer ovenfor på en skala fra 1 til 5 på følgende åtte dimensjoner:

	1	2	3	4	5	
	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	
Upraktisk	○	○	○	○	○	Praktisk
Ikke herlig	○	○	○	○	○	Herlig
Ikke funksjonell	○	○	○	○	○	Funksjonell
Ikke nytende	○	○	○	○	○	Nytende
Ikke hjelpsom	○	○	○	○	○	Hjelpsom
Ikke engasjerende	○	○	○	○	○	Engasjerende
Unødvendig	○	○	○	○	○	Nødvendig
Kjedelig	○	○	○	○	○	Spennende

Q10 Her ser du en sjokolade, besvar spørsmålene under.

X→

Q11 I hvilken grad er du enig i følgende utsagn på en skala fra (1) uenig til (5) enig

	(1) Uenig (1)	(2) Litt uenig (2)	(3) Nøytral (3)	(4) Litt enig (4)	(5) Enig (5)
Jeg ville prøvd dette produktet (1)	○	○	○	○	○
Jeg ville kjøpt dette produktet (2)	○	○	○	○	○
Jeg ville kjøpt dette produktet til noen andre (3)	○	○	○	○	○
Produktet ser interessant ut (4)	○	○	○	○	○

⤫

Q12 Ranger produktet du observerer ovenfor på en skala fra 1 til 5 på følgende åtte dimensjoner:

	1	2	3	4	5	
	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	
Upraktisk	○	○	○	○	○	Praktisk
Ikke herlig	○	○	○	○	○	Herlig
Ikke funksjonell	○	○	○	○	○	Funksjonell
Ikke nytende	○	○	○	○	○	Nytende
Ikke hjelpsom	○	○	○	○	○	Hjelpsom
Ikke engasjerende	○	○	○	○	○	Engasjerende
Unødvendig	○	○	○	○	○	Nødvendig
Kjedelig	○	○	○	○	○	Spennende

Q13 Her ser du en sjokolade, besvar spørsmålene under.

Q14 I hvilken grad er du enig i følgende utsagn på en skala fra (1) uenig til (5) enig

	(1) Uenig (1)	(2) Litt uenig (2)	(3) Nøytral (3)	(4) Litt enig (4)	(5) Enig (5)
Jeg ville prøvd dette produktet (1)	○	○	○	○	○
Jeg ville kjøpt dette produktet (2)	○	○	○	○	○
Jeg ville kjøpt dette produktet til noen andre (3)	○	○	○	○	○
Produktet ser interessant ut (4)	○	○	○	○	○

Q15 Ranger produktet du observerer ovenfor på en skala fra 1 til 5 på følgende åtte dimensjoner:

	1	2	3	4	5	
	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	
Upraktisk	○	○	○	○	○	Praktisk
Ikke herlig	○	○	○	○	○	Herlig
Ikke funksjonell	○	○	○	○	○	Funksjonell
Ikke nytende	○	○	○	○	○	Nytende
Ikke hjelpsom	○	○	○	○	○	Hjelpsom
Ikke engasjerende	○	○	○	○	○	Engasjerende
Unødvendig	○	○	○	○	○	Nødvendig
Kjedelig	○	○	○	○	○	Spennende

Q16 Vennligst oppgi din alder

_____

- -

Q17 Hvilket kjønn identifiserer du deg med?

○ Mann (1)

○ Kvinne (2)

○ Annet (3) _____

- -

Q18 Hva er din høyeste fullførte utdanning?

○ Grunnskole (1)

○ Videregående (2)

○ Bachelorgrad (3)

○ Mastergrad (4)

○ PhD (5)

○ Annet (6) _____

- -

Q19 Hva er din arbeidsstatus?

○ I arbeid (1)

○ Student (2)

○ Arbeidsledig (3)

○ Permitert (4)

○ Pensjonert (5)

○ Annet (6) _____

- -

Q20 Hva er din sivilstatus?

○ Singel (1)

○ Gift (2)

○ Samboer (3)

○ Skilt (4)

○ Enke/enkemann (5)

○ I et forhold (6)

○ Annet (7) _____

Appendix 3 - Scale Development

Variable	Scale	Measurement	Reference
Perceived hedonic/utilitarian value	1 - 5	Rate the product category "____" on a scale from 1 to 5 on the following eight dimensions. 1. impractical - practical 2. not delightful - delightful 3. not functional - functional 4. not enjoyable - enjoyable 5. not helpful - helpful 6. not engaging - engaging 7. unnecessary - necessary 8. boring - exciting	Batra & Ahtola (1991); Osgood et al., (1957)
Purchase intention	1 - 5	To what extent do you agree with the following statements on a scale from (1) disagree to (5) agree. 1. I would like to try this product. 2. I would like to buy this product. 3. I would like to buy this product for someone else. 4. The product looks interesting.	(Martins et al., 2019; Hsu & Lin, 2015; Kumar et al., 2009) Spears & Singh (2004)

Appendix 4 - Description, demographics and conditions

Respondents		n= 303										
	Male	Female										
Gender	46 %	57 %										
	140	173										
	18-24	25-34	35-44	45-54	55+	Mean	Std.dev					
Age	33 %	44 %	5 %	7 %	14 %							
	99	133	16	22	43	32,4	13,79					

Condition	Without Personalized Communication	Mean	Std.dev	With Personalized Communication	Mean	Std.dev	No Condition	Mean	Std.dev
Perceived Hedonic Value	Hedonic Product	3,0408	0,8832	Hedonic Product	3,2703	1,1864	Hedonic Product	4,1781	0,6755
	Utilitarian Product	1,8918	0,8098	Utilitarian Product	2,1728	0,8407	Utilitarian Product	2,3427	0,9462
Purchase intention	Hedonic Product	2,6915	1,0834	Hedonic Product	3,0480	1,2953			
	Utilitarian Product	2,4268	0,9184	Utilitarian Product	2,6057	1,0940			

Gender		PI_Hed_W	PI_Util_WO	PI_Util_W	PI_Hed_WO
0	Mean	3.1869	2.4103	2.6944	2.6216
	N	99	92	81	74
	Std. Deviation	1.32497	.91281	1.17991	1.03139
1	Mean	2.8596	2.4479	2.5000	2.7687
	N	73	72	68	67
	Std. Deviation	1.23813	.93158	.98021	1.14093
Total	Mean	3.0480	2.4268	2.6057	2.6915
	N	172	164	149	141
	Std. Deviation	1.29533	.91844	1.09405	1.08341

Appendix 5 - Factor Analysis

KMO and Bartlett's Test

KMO and Barlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.772
Bartlett's Test of Sphericity	Approx. Chi-Square	1944.687
	df.	66
	sig.	<.001

Total Variance Explained

Total Variance Explained

	Initial Eigenvalues		
Component	Total	% of Variance	Cumulative %
1	3.642	30.349	30.349
2	2.638	21.980	52.329
3	2.057	17.139	69.468
4	.893	7.441	76.909
5	.608	5.070	81.980
6	.435	3.629	85.609
7	.401	3.338	88.947
8	.341	2.842	91.790
9	.339	2.823	94.613
10	.278	2.317	96.930
11	.250	2.084	99.014
12	.118	.986	100.000

Scree Plot
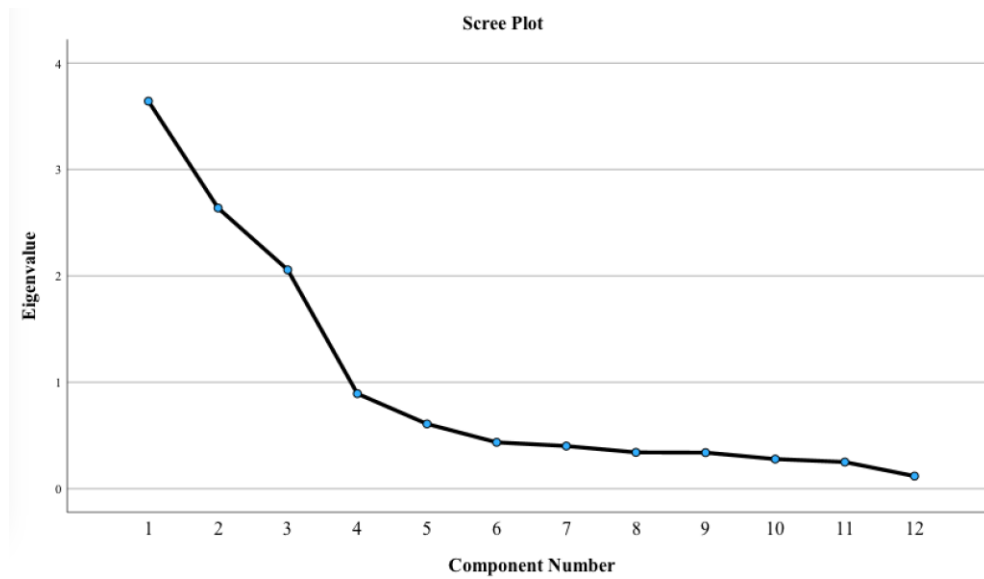
Rotated Component Matrix

Rotated Component Matrix

	Component		
	1	2	3
	Purchase Intention	Utilitarian Product - Hedonic Value	Hedonic Product - Hedonic Value
Q1 Purchase	.924		
Q2 Test	.910		
Q3 Interessting	.887		
Q4 Purchase others	.846		
Q5 Utilitarian Product - Engaging		.829	
Q6 Utilitarian Product - Delightful		.818	
Q7 Utilitarian Product - Enjoyable		.806	
Q8 Utilitarian Product - Exciting		.758	
Q9 Hedonic Product - Delightful			.837
Q10 Hedonic Product - Enjoyable			.782
Q11 Hedonic Product - Exciting			.766
Q12 Hedonic Product - Engaging			.720

Appendix 6 - Final Components

Q1 Purchase
Q2 Test
Q3 Interessting
Q4 Purchase others
Purchase Intention

Q5 Utilitarian Product - Engaging
Q6 Utilitarian Product - Delightful
Q7 Utilitarian Product - Enjoyable
Q8 Utilitarian Product - Exciting
Utilitarian Product - Hedonic Value

Q9 Hedonic Product - Delightful
Q10 Hedonic Product - Enjoyable
Q11 Hedonic Product - Exciting
Q12 Hedonic Product - Engaging
Hedonic Product - Hedonic Value

Appendix 7 - Regression Analysis (H_1)

Descriptive Statistics

	Mean	Std. Deviation	N
Purchase Intention (PI)	2.6997	1.13158	626
Personalized Packaging (PC)	.5128	.50024	626

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
PI Hedonic Product, without PC	141	1.00	5.00	2.6915	1.08341
PI Hedonic Product, with PC	172	1.00	5.00	3.0480	1.29533
PI Utilitarian Product, without PC	164	1.00	5.00	2.4268	.91844
PI Utilitarian Product, with PC	149	1.00	5.00	2.6057	1.09405

Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95,0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	2.549	.064		39.647	<.001	2.423	2.675
	Personalized Packaging	.293	.090	.130	3.269	.001	.117	.470

ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	13.472	1	13.472	10.684	.001[b]
	Residual	786.818	624	1.261		
	Total	800.290	625			

Regression Analysis – Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.130	.017	.015	1.12291	.017	10.684	1	624	.001

Appendix 8 - Moderator Analysis (H₂)

Moderator Analysis - Model 1
Product Category

	Coeff	SE	t	p	LLCI	ULCI
Constant	2.4268	.0866	28.0074	.0000	2.2567	2.5970
Personalized Packaging	.1789	.1256	1.4243	.1549	-.0678	.4255
Product Category	.2647	.1274	2.0767	.0382	.0144	.5149
Interaction	.1776	.1779	.9981	.3186	-.1718	.5270

Model Summary

R	R-sq	MSE	F	df1	df2	p
.2073	.0430	1.2313	9.3120	3.0000	622.0000	.0000

Appendix 9 - Moderator Analysis (H₃)

Moderator Analysis - Model 1
Gender

	Coeff	SE	t	p	LLCI	ULCI
Constant	2.5045	.0869	28.8168	.0000	2.3338	2.6752
Personalized Packaging	.4608	.1205	3.8238	.0001	.2241	.6974
Gender	.0980	.1287	.7612	.4468	-.1548	.3508
Interaction	-.3771	.1801	-2.0940	.0367	-.7308	-.0234

Model Summary

R	R-sq	MSE	F	df1	df2	p
.1595	.0254	1.2539	5.4119	3.0000	622.0000	.0011

Conditional effects of the focal predictor at values of the moderator

Gender	Effect	SE	t	p	LLCI	ULCI
Female=0	.4608	.1205	3.8238	.0001	.2241	.6974
Male=1	.0837	.1338	.6250	.5322	-.1792	.3465

Appendix 10 - Moderator Analysis (H₃)

Relationship	Total Effect	Direct Effect	Indirect Effect	Conf. Interval		T-statistic	Conclusion
				Lower	Upper		
Personalized Packaging → Perceived Hedonic Value → Purchase Intention	.2935 (.0011)	.0750 (.2861)	.2185	.1031	.3350	3.7432	Full Mediation

Appendix 11 - Moderator Mediation Analysis (H₄)

Indirect Relationship	Direct Effect	Indirect Effect (SE)	Confidence Interval		T-value
			Lower	Upper	
Utilitarian Product	.2143	.0728	.0755	.3610	2.944
Hedonic Product	.1750	.0901	.0028	.3552	1.942

Reporting Moderated Mediation

	Direct Relationships	Unstandardized Coefficient	T-values
IV - Mediator	Personalized Packaging → Perceived Hedonic Value	.2811	2.615
Mediator - DV	Perceived Hedonic Value → Purchase Intention	.7623	21.473
Iv - DV	Personalized Packaging → Purchase Intention	-.0354	-.370
IV*Moderator - Mediator	Personalized Packaging * Product Category → Perceived Hedonic Value	-.0515	-.338
IV*Moderator - DV	Personalized Packaging * Product Category → Purchase Intention	.2168	1.607

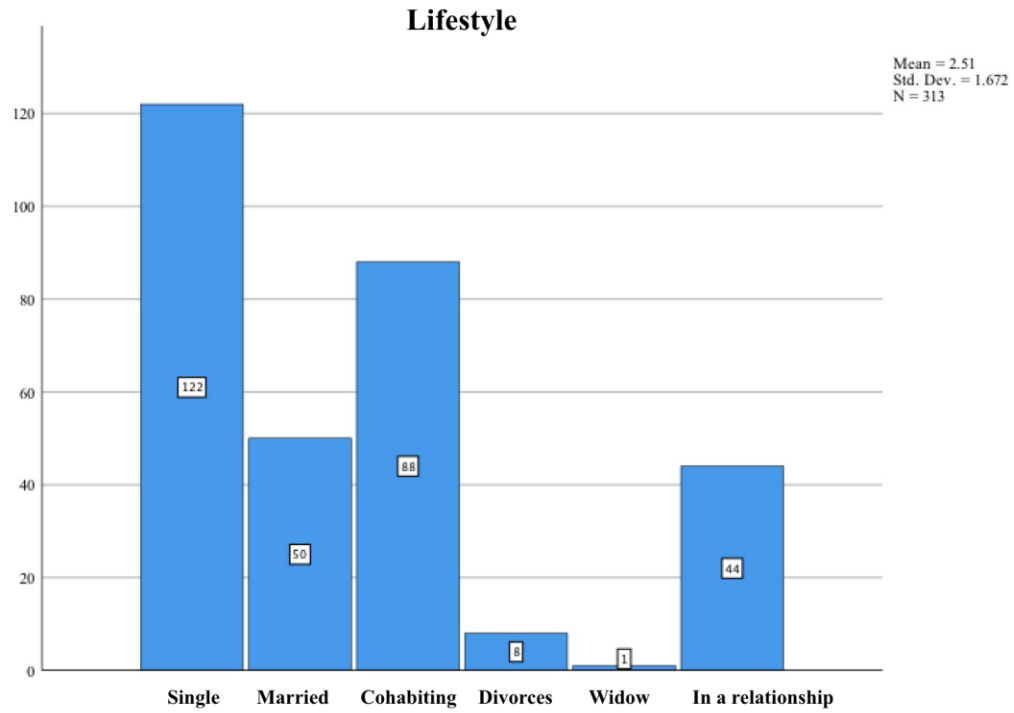*Appendix 12 - Moderator Mediation Analysis (H₅)*

Indirect Relationship	Direct Effect	Indirect Effect (SE)	Confidence Interval		T-value
			Lower	Upper	
Female	.3627	.0792	.2068	.5194	4.5795
Male	.0416	.0836	-.1235	.2047	.4976

Reporting Moderated Mediation

	Direct Relationships	Unstandardized Coefficient	T-values
IV - Mediator	Personalized Packaging → Perceived Hedonic Value	.5612	4.7565
Mediator - DV	Perceived Hedonic Value → Purchase Intention	.6463	20.3660
Iv - DV	Personalized Packaging → Purchase Intention	.0981	1.0316
IV*Moderator - Mediator	Personalized Packaging * Gender → Perceived Hedonic Value	-.4968	-2.8176
IV*Moderator - DV	Personalized Packaging * Gender → Purchase Intention	-.0560	-.3987

Appendix 13 - Demographics Main Study

Demographic distribution - lifestyle

Lifestyle

Mean = 2.51
Std. Dev. = 1.672
N = 313

Single: 122
Married: 50
Cohabiting: 88
Divorces: 8
Widow: 1
In a relationship: 44

Demographic distribution - employment

Employment

Mean = 1.63
Std. Dev. = .846
N = 313

Working: 158
Student: 138
Unemployed: 2
Permitted: 7
Retired: 7
Other: 1

Education

Mean = 3.19
Std. Dev. = .783
N = 313

Primary School	High School	Bachelor's Degree	Master's Degree	PhD	Other
1	57	144	104	5	2