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The Impact of Co-Creation on Brand Image in Skincare

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ABSTRACT

Title: The Impact of Co-Creation on Brand Image in Skincare

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In recent years, the skincare market has become increasingly competitive, highlighting the importance for companies to employ differentiating strategies in order for brands and their products to stand out from the competition.

To address this challenge, the present study elaborates on the existing literature concerning the effect of co-creation on behavioural attitudes, exploring the influence on brand image, and further investigating the perceived innovativeness in this context. In order to achieve this objective, a between-subject study with 89 participants was conducted to understand how co-creation impacts the brand image within the skincare segment, analysing the type of innovation that has a more positive influence on the perceived innovativeness of co-creation, and how that variable is affected by the consumer's hedonic purchase motivations.

The results show a direct and positive effect of co-creation on the brand image, emphasizing the significance of collaborative product development in shaping consumer perceptions. Furthermore, the study deepens the knowledge of perceived innovativeness in this context, with the identification of two dimensions within the perceived innovativeness of co-creation: social and hedonic. The impact of perceived innovativeness on the brand image demonstrates the importance of innovation, as well as product novelty, for the consumer. Additionally, product involvement was identified as an influencing variable in the perceived innovativeness of co-created products, establishing that high levels of product involvement increase the perceived innovativeness of co-created products. These findings provide valuable insights for the skincare segment and extend the current academic studies regarding co-creation, innovation and brand image.

Keywords: co-creation; brand image; innovation; hedonic consumption; perceived innovativeness

SUMÁRIO

Título: O Impacto da Co-Criação na Imagem de Marca em Cuidados de Pele

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Nos últimos anos, o mercado de cuidados de pele tem-se tornado cada vez mais competitivo, realçando a importância para as empresas em utilizarem estratégias de diferenciação para que as marcas destaquem.

Para responder a este desafio, o presente estudo desenvolve a literatura existente sobre o efeito da co-criação nas atitudes comportamentais, explorando a influência na imagem da marca e investigando a percepção de inovatividade neste contexto. Foi realizado um estudo com 89 participantes para compreender o impacto da co-criação na imagem da marca no segmento de cuidados de pele, analisando o tipo de inovação que tem uma influência mais positiva na inovatividade percebida da co-criação e como essa variável é afectada pelas motivações de compra hedónicas do consumidor.

Os resultados mostram um efeito direto e positivo da co-criação na imagem da marca, sublinhando a importância do desenvolvimento colaborativo de produtos na formação das percepções dos consumidores. O estudo aprofunda também o conhecimento da inovatividade percebida neste contexto, identificando duas dimensões dentro da inovatividade percebida da co-criação: social e hedónica. O impacto da inovatividade percebida na imagem da marca demonstra a importância da inovação, bem como da novidade do produto, para o consumidor. O envolvimento do produto foi identificado como uma variável que influencia a percepção da inovatividade dos produtos co-criados, estabelecendo que níveis elevados de envolvimento do produto aumentam a percepção da inovação dos produtos co-criados. Estas conclusões fornecem informações valiosas para o segmento de cuidados de pele e alargam os actuais estudos sobre co-criação, inovação e imagem de marca.

Keywords: co-criação; imagem de marca; inovação; consumo hedónico, percepção de inovatividade

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1. Introduction

The skincare market was worth \$15,70 billion in 2023 (Statista Market Forecast, 2023). The market value of the skincare segment indicates fierce competition with consumers becoming increasingly demanding for products that meet their needs and deliver the promised results. In addition to product efficacy, consumers rely on testimonials from peers and key opinion leaders when choosing the most suitable product (Xiong et al., 2021; Zhang et al., 2021). The market is driven by brand image that relies on trust and consumer perceptions of innovation (Fatma & Khan, 2023; Xiong et al., 2021) as a result, companies in the skincare market need to continuously strive for innovation and develop new products that meet consumers' needs. Younger consumers are entering the skincare market at a faster rate than the growth of older consumers (Zhang et al., 2021), and, since this segment is known to have higher brand-switching intentions (Sahay & Sharma, 2010), brands struggle to find ways to engage with younger audiences.

Therefore, in this growing brand image-driven market (Statista Market Forecast, 2023), which depends on consumer views of innovation and trust, brands need to find a competitive edge to stay relevant. This means that brands must use strategies to increase their market size to not lose the market to the competition. Having a clear understanding of consumers' perceptions of innovation is crucial for skincare companies to develop products that stand out in the market and meet consumers' needs and expectations. Customers are more likely to purchase, pay a higher price and recommend products perceived as innovative because consumers perceive them as more appealing and effective (Schreier et al., 2012). This is particularly important in the skincare market, where consumers are willing to spend more for products that provide unique benefits and demonstrate innovation (Yadav & Pathak, 2016). Thus, in this dynamic market, companies that can innovate and introduce new products that cater to consumers' shifting needs increasing their perception of innovation towards the brand, are more likely to have positive outcomes in consumer behaviour towards their brands (Schreier et al., 2012, Szymanski, et al., 2007).

However, there are additional elements that influence customer behaviour, researchers have shown that consumption can be motivated by hedonic and utilitarian reasons which impact their purchasing behaviour (Babin et al., 1994; Herabadi et al. 2009, Hirschman & Holbrook, 1982;

Okada, 2005; Voss et al., 2003). In contrast to utilitarianism, where product attributes seem to be more instrumental and functional, hedonism consumption is associated with "sensory, experiential product attributes." (Batra & Ahtola, 1991; Hirschman & Holbrook, 1982). These two distinct constructs help consumers in the decision-making process by allowing them to choose between products depending on the nature of the consumption dimension – either hedonic or utilitarian (Dhar & Wertenbroch, 2000). Okada (2005) found that the justification effect can help explain the different motivations for consumption. Consumers are more likely to justify their purchase of hedonic goods using emotional and pleasure-based justifications, whereas utilitarian purchases are more likely to be justified using functional and necessity-based justifications. This highlights the importance of understanding the role of justification in consumer decision-making, due to the influence of the perceived value of a product based on utilitarian or hedonic attributes. Also suggests that the justification effect can influence consumers' perception of the innovative aspects of a product, as they may associate innovation more strongly with the attributes that align with their justifications, in this case when consumers justify their purchase using emotional and pleasure-based reasons, they may perceive the product as having higher hedonic innovativeness value.

In this context, exploring effective approaches that align with consumers' emotional connections and personal attachments to products can be instrumental. By implementing strategies that actively involve current consumers and tap into their insights, companies have the opportunity to build trust through shared needs and preferences. This collaborative approach not only instils a sense of ownership and satisfaction among consumers (Prahalad & Ramaswamy, 2004), but the way the product is developed can change positively the perception of innovation of the product from the consumer point of view.

Consumers often start by custom-create products for themselves because they want to have the right product that meets their needs and then make them available to the firm for wider commercialization. Many scholars argue in favour of this democratization of innovation because they see the benefits that both parties (companies and consumers) can take from this user-centred innovation process (Franke & Schreier, 2010; Prahalad & Ramaswamy, 2004; Von Hippel, 2009). For the broader market, those that buy the product but do not take part in the co-creation process, co-created skincare product generates positive behavioural attitudes, namely purchase intention and brand image (Fuchs & Schreier, 2010; Lee et al., 2019) since

collaboration with customers to address actual skin issues due to the need for consumer validation concept. Co-creation in the skincare industry ultimately leads to the creation of value in products that better meet consumers' needs and preferences.

Perceived innovation has been studied in the context of co-creation in past literature (Frow et al., 2015; Piller et al., 2010; Schreier et al., 2012), in which it was established the positive impact of perceived innovation on consumer behaviour intentions (e.g. purchase intentions). However, it is important to understand the nature of the perceived innovativeness when a consumer is confronted with the co-created product, as well as comprehend how the different dimensions of perceived innovativeness impact brand image differently. According to Roehrich (1994), there are two aspects of innovativeness: hedonistic innovativeness and social innovativeness (Snyder & Fromkin, 1980; Berlyne, 1960), distinguished by the emotional and social aspects of consumption, thus, it confirms that stimuli are an important dimension for innovation. If Roehrich's research is applied to the study of co-creation products it could help in understanding the nature of perceived innovativeness of co-created products, and it would allow the study of social identification that highlights a dimension of perceived innovativeness and can, thus, be used by companies to enact favourable behavioural attitudes towards skincare products.

The research tries to understand whether co-creation can influence different dimensions of perceived innovation which might appeal more to some types of consumption based on the identification effect enacted by co-creation with consumers. Due to the presence of empirical evidence, that co-creation has a positive effect on the company's perceived innovation and brand authenticity in the mind of the consumers (Van Dijk et al., 2014), there is a possible assumption that brand image can be enhanced by communicating the innovation strategy (co-creation) that the company employs.

This study can also provide insights into the factors that influence consumer perception of skincare brands and how co-creation can be used as a strategy to enhance brand image in this segment of the cosmetic industry. The results can be useful for skincare brands looking to improve their brand image through co-creation strategies and can contribute to the existing literature on co-creation and brand image in the context of the skincare segment.

2. Literature Review and Conceptual Framework

2.1 Literature Review

2.1.1 Innovation

The concept of economic innovation was introduced by Schumpeter (1942) as the explanation of economic structural cycles: waves of innovation affect the economic system, causing the old economic structure to collapse and a new one to emerge (Schumpeter, 1942). Due to the diversity of disciplines innovation encompasses, innovation has been defined from different perspectives (Baregheh et al., 2009), however more recent literature emphasizes the improvement of products and services themselves leading to enhanced quality (Malerba & Brusoni, 2007). Kimberly (1981) identifies different stages of innovation: (1) innovation as a process, (2) as a product, program, or service and (3) as an attribute of organizations. By introducing these stages of innovation, companies can adapt to changing market conditions, create value, and achieve, as well as maintain, a competitive advantage (Zahra & Covin, 1994), since innovation can help companies differentiate themselves from competitors and enter new markets (Brem & Viardot, 2017). In addition, companies that invest in innovation can create new products and services that generate revenue, while also improving efficiency and reducing costs (Hogan & Nagle, 2005; Zahra et al. 2014). Further, innovation is also intimately linked with creativity, Cropley et al., (2011) referred to “value in innovation” as the process between creativity and innovation and how that can create value for the final product.

However, innovation scholars defend that the importance of innovation is not determined by its newness, but rather by how new the innovation appears to the person or group considering adopting it (Rogers, 1995). Consumers are more likely to adopt innovations that are perceived as new or novel because the products provide them with the opportunity to try something different, exciting, and valuable (Hirschman & Holbrook, 1982). So, this concept of a psychological construct that reflects the subjective perception of an innovation's novelty, rather than its objective newness in terms of time or technology, can be leveraged to create and deliver value to consumers. Agarwal and Karahanna (2000) studied the effect of user experiences of innovation on attitude towards products while introducing the notion of cognitive absorption as a mediator in this relationship. In this study, absorption is characterized as reflecting the consumer's capacity to engage in cognitive activities (e.g processing and assimilating new

information) and is influenced by playfulness and personal innovation. The concept of absorption is linked with social influence through the adoption of innovation as personal innovativeness and social influence must also be considered in determining consumer attitudes towards new products (Amoroso & Lim, 2015; Lu et al., 2005). These notions further evidence the existence of a personal construct within innovation (Kelly, 1955) that is influenced by exciting and emotional incentives towards novelty products as well as external influence for innovation adoption.

2.1.2. Co-creation as a Source of Innovation

Innovation as the process of introducing new products or services in the market, (Kimberly, 1981; Schumpeter, 1942) refers to modifications made to the methodology or process to increase efficiency (Kahn, 2018). The process itself can impact the way the innovation is created and how is perceived by consumers (Tödtling et al., 2009).

The product creation process can originate from different sources, the most traditional process is in-house product creation, involving the development of new products or services with the company's own resources. However, this approach can be expensive, time-consuming, and may lead to a lack of fresh perspectives and new ideas (Trott, 1998). In light of this, companies try to innovate by inviting new sources of ideas in the product creation process such as outsourcing, co-creation, and open innovation. (Bogers et al., 2010; Laursen & Salter, 2005; Nishikawa et al., 2017).

Co-creation can be viewed as an innovation process where consumers are involved in different stages of product creation and development. This source of innovation involves a collaborative approach to innovation that leverages the collective knowledge and creativity of customers, suppliers, and other stakeholders (Prahalad & Ramaswamy, 2004). As the organization responsible for developing and launching the product or service, the company acts as a facilitator in the co-creation process providing resources, tools, and support to participating consumers. For the company, co-creation can lead to increased consumer loyalty and engagement, and improved products due to better insight into consumers' needs, while reducing the risk of product failure by incorporating feedback from consumers (Carbonell et al., 2009; Ramaswamy, 2008). However, companies may struggle to balance the needs and preferences

of participating consumers with their own objectives or fail to understand consumers' latent needs (Franke et al., 2009).

The people that actively participate in the co-creation process by providing feedback, ideas, and insights about their needs and solutions are denominated as participating consumers (Chang & Taylor, 2016). When introducing the customer-active paradigm, Von Hippel (1978) highlighted the importance of the participating consumer in the creation of new products. According to Etgar (2008), consumers can be involved in the co-production process in five different stages: development of antecedent conditions, development of motivations, calculation of the co-production cost-benefits, activation (engagement in the actual performance co-creation), and generation of outputs and evaluation of the process. These consumers are often highly engaged and invested in the co-creation process, leading to more meaningful feedback (Mahr et al., 2014). For the consumer, participating in the creation process infuses a feeling of loyalty toward the brand (Sawhney et al., 2005; Sheth et al., 2000), however, these consumers may not be representative of the larger consumer population, and they might feel resentment if the product fails or doesn't end up being introduced to the market.

Consumers who do not actively participate in the co-creation process but benefit from the products can be nominated as observing consumers. Their perspective towards the final co-created product will differ from the perspectives of the company and the consumers that participated in the product development. Observing consumers perceive companies that foster customer empowerment in new product development as more customer-oriented (Brady & Cronin, 2001). Additionally, observing consumers may show a higher purchase intention, an increase in willingness to pay, and a higher likelihood of recommending the brand to other customers due to the "innovation effect of user design" resulting from co-creation (Costa & Vale, 2018; Schreier et al., 2012). Co-creation increases customer satisfaction, brand loyalty, and product development, all of which can better meet the needs of consumers. (Füller, 2010).

Previous research has shown that the study of co-creation has attracted interest due to its potential to foster innovation, customer engagement and company performance (Afuah & Bastian, 2010; Franke et al., 2009; Nishikawa et al., 2017; Ramaswamy, 2008). Schreier et al. (2012) identified 4 characteristics that assist consumers' innovation perception to assign innovation attributions to companies fostering co-creation, the first relates to greater idea flow, the straight being in the number of people contributing to a creative innovation (Troy, et al.,

2001; Valacich et al., 1995); secondly the diverse background and skills will affect creativity due to diversity of idea and perspectives of different people (Mannix & Neale, 2005; Robinson & Dechant, 1997); the user factor also influences innovation due to the identification construct of products being developed by people that consumers identify themselves with (Von Hippel, 2009), and believe having shared needs and insights about the products; lastly the lack of constraints normally associated with professionally designed products (e.g. following structured guidelines imposed by the company) allows for a freedom of design (Schreier et al., 2012). Co-creation has been found to positively impact the company's performance by increasing the speed and effectiveness of product development (Nambisan & Nambisan, 2008; Prahalad & Ramaswamy, 2004) as well as improving brand awareness and reputation (Füller, 2010; Nambisan & Nambisan, 2008).

2.1.3. Brand Image

Brand image is the perception that consumers have of a brand and is influenced by several factors, including product quality, perceived value, and innovation (Aaker, 1995). According to Keller (1993), this notion of brand image can be determined by the level of brand awareness and unique brand associations the consumer established from recalling memories associated with past interactions with the brand (e.g. advertising). Research has consistently shown that companies with a strong brand image are more likely to experience higher levels of customer loyalty and be more financially stable (Keller, 1993; Keller & Lehmann, 2006), therefore, companies need to focus on developing and maintaining a positive brand image, which can be achieved through successful communication and brand positioning (Keller, 1993).

According to Aaker (1995) and Kapferer (2008), the brand's image strategy should begin with building the brand identity in order to establish how a company wants to be perceived by its customers as well as the values and characteristics it wants to communicate through its products or services. Customer loyalty and consumer satisfaction are strong indicators of consumer behavioural intention (Zhang, 2015), both impacted by brand image differently. While satisfaction is enhanced by the consumer's self-image (Jamal & Goode, 2001) due to its inherent connection to the consumer's own evaluation of the shopping experience (Fornell, 1992), customer loyalty derives from the approval of a brand that evolves into repeated purchasing of a brand's products (Keller, 1993) positively enforcing the consumer's perception

of the brand (Zhang, 2015). These two constructs (loyalty and satisfaction) originate from the consumer's opinion of a product or service (Zhang, 2015).

The essential role brand perceptions play in developing brand loyalty and influencing consumer behaviour can be attributed to emotional and symbolic value and the self-expression consumers elicit from the brand (Aaker, 1999). One of the components of brand image is the perceived authenticity of a brand (Holt, 2002), this notion is linked with how brands appear to be “genuine, real, and/or true” (Beverland & Farrelly, 2010). Since co-creation is an innovative approach focused on the consumer (Füller, 2010) and high perceived authenticity positively influences the brand image (Holt, 2002; Liao et al., 2012; Xu et al., 2022), brands that foster co-creation strategies are likely to strengthen their brand image from the consumer's perspective. Furthermore, by increasing product development quality and product efficacy, a co-creation strategy can impact consumer satisfaction, loyalty and build a brand identity around consumer-centric innovation ultimately impacting the brand image (Füller, 2010). The involvement of consumers in the creative process can, thus, potentially incentive competitive advantage due to differentiating the brand from competitors, by emphasizing the innovation strategy as unique and consumer centered.

H1: Consumers develop more favourable behavioural intentions (i.e. positive brand image) toward brands fostering co-creation (vs. developed by professionals).

2.1.4. Perceived Innovativeness

Co-creation has already been established as an innovation process involving the collaboration of consumers in product creation (Prahalad & Ramaswamy, 2004). The impact on the brand is influenced by how consumers perceive the co-created products, as co-creation is used as a source of innovation, and has been confirmed to affect the perceived innovativeness of the product as well as the brand image (Prahalad & Ramaswamy, 2004; Schreier et al., 2012).

In order to explore how communicating that a new product was the result of a co-creation process influences how consumers perceive the innovation, the concept of perceived innovativeness needs to be explored further. Perceived innovativeness is a critical factor in the success of a new product launch and influences consumer behaviour. The value drawn from innovation itself manifests in different ways (1) enhanced convenience saves time and effort

(Carrigan & Szmigin, 2006), (2) greater choice increases consumers' autonomy and freedom, (3) increased affordability improves the standard of living. (Hogan & Nagle, 2005; Schiffman & Kanuk, 2007). However, the value from the perception of innovation has a direct impact on consumer behaviour, such as (1) improved quality enhances consumers' satisfaction and loyalty (Choi & Lee, 2003) and (2) novelty and excitement stimulate curiosity and enjoyment, contributing to emotional and social well-being (Arnould & Thompson, 2005).

People perceive the innovativeness of products differently, differently according to individual factors such as prior knowledge, experience, expectations, familiarity, cultural and social influences, individual attitudes, preferences, and cognitive biases shape how individuals perceive innovation (Roehrich, 1994). Kelly (1955) defines personal constructs as cognitive structures and mental frameworks people use to understand and evaluate the world around them. This concept of personal constructs varies between individuals, as they are influenced by individual experiences, knowledge, expectations, cultural context, and biases (Kelly, 1955). Therefore, recognizing the diversity of perceptions and personal constructs as well as understanding the sensitivity to external factors is important when measuring and analyzing the innovativeness of products.

Arnould & Thompson (2005) pioneered the studies on the social, emotional, and symbolic aspects of consumption. In 1994, Roehrich developed a scale to understand how consumers measure the perceived innovativeness of a product, introducing two components of innovativeness: hedonist innovativeness, related to the need for stimulation (Berlyne, 1960); and social innovativeness related to the need for uniqueness (Snyder & Fromkin, 1980). According to Roehrich's (1994) research, the hedonic innovativeness dimension explains the motivation to adopt innovations for hedonic reasons, such as novelty appreciation. Innovativeness can be defined as "a tendency to be attracted to, and buy new products" and helps answer the question: Why are we attracted to a new product rather than a known product?

Arnould (1989) observes that social rewards and social differentiation may both stimulate new product adoption and help shape consumers' self-identity. Past literature established that the social motivations for purchase are closely related to the symbolic meaning that products hold for consumers (Belk, 1988; Hirschman, 1980). The social dimension of co-creation allows consumers to feel a sense of belonging, being motivated to purchase a product co-created with a group of people consumers identify themselves with or want to belong to (Sawhney et al.,

2005), this motivation has also been identified as an enhancer of the perceived social status of consumers (Prahalad & Ramaswamy, 2004). The status elevation element can be particularly relevant in the context of luxury skincare products, where consumers often seek to express their social status and wealth through their purchasing decisions (Dubois & Laurent, 1994). Co-creation can provide a social dimension to the product by allowing consumers to create unique and exclusive products that meet their needs.

Dahl et al., (2015) introduce this concept of social identification to co-creation by observing consumers, while Fuchs et al. (2013) had previously studied this effect on participating consumers. Consumers develop a social identification with products and companies that adopt co-creation innovation strategies, this social identification occurs when consumers perceive the brand as representing values, beliefs, or characteristics that align with their own self-concept or desired social identity but is attenuated when consumers feel dissimilar to others that participated in the co-creation process (Dahl et al., 2015).

As argued, perceived hedonic innovativeness has a strong emotional component (Berlyne, 1960; Roehrich, 1994). This concept refers to an individual's inclination or propensity to seek and adopt new products or experiences primarily for the sake of enjoyment, pleasure, or novelty (Belk, 1988; Hirschman, 1980). Individuals with high levels of hedonic innovativeness are more likely to embrace new and unconventional products or experiences, even if they may not necessarily provide substantial practical benefits. These consumers motivated by the desire to engage in pleasurable and novel experiences, enhance their enjoyment, and express their individuality (Roehrich, 1994). Although Roehrich (1994) made the distinction between the hedonic and social dimensions, in which the sense of product uniqueness relates to social motivations, the social factor is also very present in hedonic consumption which might influence the way the innovativeness is perceived. By introducing these notions in co-creation strategies, this study can understand how co-creation products are perceived from these two perspectives and comprehend if co-creation drawing from social identification and resulting in a more diverse group of users, will elicit in consumer's higher perceived innovativeness which will contribute positively to brand image.

H2a: The positive effect of co-created new products on brand image is mediated by higher perceived innovativeness ability in the co-created new product than in a new product internally developed by the firm.

H2_b: The positive effect of co-created new products on brand image is mediated by higher perceived innovativeness ability in the co-created new product than in a new product internally developed by the firm. The mediation effect is explained by higher perceived hedonic innovativeness of co-created new products than in a new product internally developed by the firm.

2.1.5. Motivation of Purchase

Hedonic motivations are those associated with pleasure, comfort, sensory experiences, and consumers tend to engage in more emotional decision-making when making these types of purchases. Hedonic purchases can include luxury goods, entertainment, and experiences, and they are often associated with high levels of arousal and excitement. Consumer behaviour towards hedonic purchases is often driven by factors such as emotional mood (Hirschman & Holbrook, 1982), compulsive shopping (Horváth & Adigüzel, 2018), adventure, gratification, role, value, social, and idea shopping motivation (Arnold & Reynolds, 2003). Utilitarian purchases, on the other hand, are motivated by practical needs and tend to involve more rational decision-making processes (Babin & Attaway, 2000). The purchase of utilitarian products is frequently influenced by factors such as functionality, quality, and price. Before making a purchase decision, consumers typically engage in more extensive information searches and evaluations of alternatives to ensure that the product meets their functional needs. According to Batra and Ahtola (1991), a distinction that can be made between these two motivations of consumer evaluation is whether the consumers assess “how useful or beneficial the object is” (utilitarian motivation) or “how pleasant and agreeable” the associated feelings towards the object are (hedonic motivation).

However, a product isn't just one or the other; even within the same product category, distinct products can have different levels of hedonic or utilitarian features and there are benefits to both choices (Crowley et al., 1992). Studies discovered that there is a guilt associated with hedonic consumption and therefore individuals have the desire to consume hedonistic products (Khan & Dhar, 2006; Kivetz & Simonson, 2002; Okada, 2005), however, hedonic consumption is hindered by the relative difficulty of justification. This justification effect suggests that individuals indulge in hedonic consumption to a greater extent when the "decision context enables them to justify their choice" (Okada, 2005).

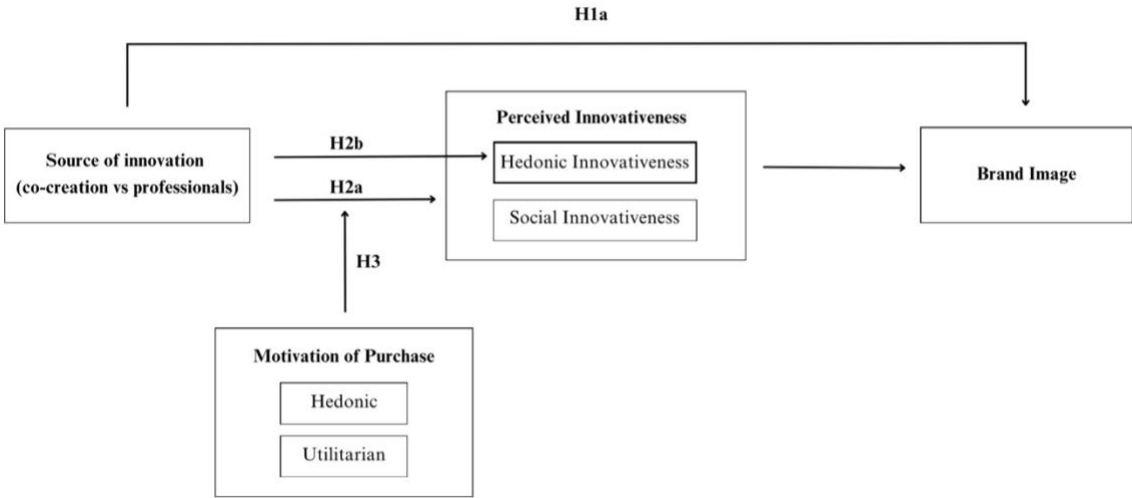
However, hedonic purchases can be motivated by social status and the desire to impress others (Hirschman & Holbrook, 1982), as well as the need for self-expression, as consumers use these types of purchases to communicate their identity and personality to others (Belk, 1988). Although Roehrich (1994) made the distinction between the hedonic and social dimensions, in which the sense of product uniqueness relates to social motivations, the social factor is also very present in hedonic consumption which might influence the way the innovation is perceived.

Hedonic motivations heighten consumers' sensitivity to novel and unique experiences (Hirschman & Holbrook, 1982). When consumers engage with a co-created product, the feeling that the brand has developed a product with their needs in mind enhances the emotional connection with the product (Prahalad & Ramaswamy, 2004). The notion of co-creation, which emphasizes collaboration, uniqueness, and the involvement of consumers, aligns with the emotional appeal that a product was designed with consumers for the consumers making this novelty exciting and appealing to the hedonic nature of purchasing.

H3: The positive effect of co-created new products on consumers' perceived innovation will be higher for consumers with hedonic consumption motivations than for consumers with utilitarian consumption motivations.

2.2 Conceptual Framework

Figure 1- Conceptual Framework



3. Methodology

The research was conducted using an experimental study design, which allows researchers to manipulate one or more variables in a controlled environment to measure the effects of the independent variables on a specific outcome (Morrison, 2004). This design enables researchers to establish a cause-and-effect relationship between variables.

To test the hypotheses a study was developed through an online questionnaire, this allows a higher reach of respondents, flexibility to answer the survey online, as well as easier data collection and analysis (Evans & Mathur, 2005).

The main objective of this dissertation is to understand how co-creation impacts the brand image within the skincare segment. Additionally, the study explored the type of innovation that has a more positive influence on the perceived innovativeness of co-creation, and how that variable is impacted by the purchase motivations.

3.1 Data collection

The data was collected through an online survey using a convenience sampling method in which the selection of participants was based on their accessibility, which could be due to factors such as location, availability, or willingness to participate (Dornyei, 2007).

To ensure the validity and reliability of the data, the survey was pre-tested with a small sample of participants before being finalized and distributed, this test also evaluated respondents understanding of questions and details were modified according to the feedback from the initial questionnaire. In addition, measures were taken to protect the privacy and confidentiality of participants, such as using anonymous responses and secure data storage methods. The data collection method allowed for efficient and convenient data collection, while also ensuring the quality and reliability of the data.

The study followed a 2 (source of innovation: co-creation vs professionally developed) x 2 (consumption motivation: hedonic vs utilitarian) between-subject design. The survey was distributed on social media, amongst friends and student groups to reach a wide target audience. The questionnaire had 92 respondents, with 89 valid respondents that had an average age of

22,4 and a median age on an interval between 25-34 years old, 55.05% of respondents were female and 49,95% were male.

3.2 Method

First participants were greeted and welcomed. After, they were presented with a new product launched in the market – a facial serum. In one scenario, the product was presented as co-created, and the other presented the same product but as a traditionally developed (developed by the company only). Survey participants were randomly assigned to one of the two scenarios.

At the beginning of the survey, participants were asked questions to determine their level of interest in the skincare segment. After this, they were presented with one of the two product scenarios - in which a new facial serum with a special formula is being released in the market. - and asked to complete a manipulation check to confirm their understanding of the product's origin (“Consumers were involved in the creation of the facial serum”). After the manipulation check, participants were asked a series of questions related to the focus of this study, presented in the next section (3.3 Measure). These questions covered topics such as level of involvement, perceived innovativeness, brand image, motivation of purchase, and demographic information.

3.3 Measure

The survey data was gathered by using a seven-point Likert scale. To measure the understanding of both scenarios (the presence of a co-created product in the first group and a product developed by professionals presented in the second) was introduced a manipulation check after the scenario description “Consumers were involved in the creation of the facial serum” (1= strongly disagree to 7 = strongly agree). The scenario with the co-created product described the company as Brand A while the scenario with the product developed by professionals described as Brand B for an easier analysis of the data later.

Product involvement in the skincare segment was measured by 3 items: 1) “How often do you use skincare products” (1= Never to 7 = Everyday); 2) “How frequently do you buy skincare products?” (1= Never to 7 = Very Frequently); and 3) “How interesting do you find skincare products?” (1= Very Uninteresting to 7 = Very Interesting). These items were adapted using scales of Thompson and Malaviya (2013). To analyze the perceived innovation two scales from previous literature were adapted into one scale with eight items (e.g., “I like to test and try the

latest trends in the skincare world”), the scale of Schreier (2012) was adapted and integrated with the translated and adapted scale of Roehrich (1994). By using Schreier's (2012) scale we can analyse the perceived innovation, however with the conjunction of Roehrich's (1994) scale is possible to gather information regarding the two dimensions of social and hedonic innovativeness. The scale followed a seven-point Likert scale (1 = strongly agree to 7= strongly disagree).

To study the dependent variable brand image the survey incorporated the adapted scale of Martínez Salinas and Pina Pérez (2009), which is a scale adapted from Martin and Brown, (1990); Aaker (1996); Weiss et al. (1999) and Villarejo (2002); this construct had seven items (e.g., The Brand is reliable) with a seven-point Likert scale (1 = strongly agree to 7= strongly disagree) to understand the respondent’s vision of the brand. In this section, an attention check was introduced to check if the respondents were answering the questionnaire attentively. The scale of Voss et al., (2003) was used to understand the motivation of purchase towards skincare products, whether they originate more from utilitarian or hedonic consumption motives, this scale contained 6 items (e.g., useful).

Control variables were also measured at the end of the questionnaire. These regarded age (measured by age groups from “under 18” to “85 older”), gender (Male, Female, non-binary/third gender and Prefer not to say) as well as income (measured by only income groups ranging from <500 to >3501).

The following table summarizes the constructs, items and scales used in the development of the questionnaire.

Table 1- Constructs

| Construct | Item | Scale |
|----------------------------------|---|---------------------------|
| Product Involvement | How often do you use skincare products? | Thompson & Malaviya, 2013 |
| | How frequently do you buy skincare products? | |
| | How interesting do you find skincare products? | |
| Perceived innovativeness* | I am usually among the first to try new products that address my skin conditions. S | Roehrich, (1994) and |

| | | |
|-------------------------------|---|--|
| | New skincare products excite me. H | Schreier et al. (2012) |
| | I try new skincare products before my friends. S | |
| | I hear about new skincare trends regarding my skin's needs faster than most people I know. S | |
| | I am very curious about skincare products. H | |
| | I like to test and try the latest trends in the skincare world. S | |
| | I think the brand has the ability to develop really innovative products that thrill me. H | |
| | The brand is in the position to derive very original product ideas for me to be the first to try. S | |
| | I think the brand can create very interesting new skincare products that I would buy just to see what it's worth. H | |
| Brand image | Brand X is reliable. | Martínez Salinas & Pina Pérez, (2009); |
| | Brand X is likeable. | |
| | Brand X doesn't disappoint its customers. | |
| | Brand X's products are necessary. | |
| | Brand X's products have high quality. | |
| | Brand X is innovative. | |
| | Brand X has a personality that distinguishes itself from competitors | |
| Motivation of purchase | Useful | Voss, et al., 2003 |
| | Exciting | |
| | Necessary | |
| | Enjoyable | |
| | Functional | |
| | Pleasant | |

**The social (S) and hedonic (H) dimensions distinguished by Roerich (1994) are identified at the end of each item. This identification wasn't revealed to the respondents.*

3.4 Data Analysis

Manipulation check

Firstly, the manipulation check was performed to confirm that the respondents fully understood the scenarios presented. To measure the manipulation, check an analysis of variances (ANOVA) was performed on the source of innovation scenario ($M_{\text{co-created}}=6,83$; $M_{\text{professionals}}=1,33$; $p<.001$) and confirmed, within the 95% confidence level, that the respondents perceived the differences between the co-created and professionally created products (Table 2). The manipulation check question was presented with the following scale “Consumers were involved in the creation of the facial serum” (1= strongly disagree to 7 = strongly agree).

Table 2 - Manipulation Check

| | Source of Innovation | | ANOVA Test |
|---------------------------|----------------------|--------------------------|------------|
| | Co-created | Professionally Developed | |
| | Mean | Mean | |
| Manipulation Check | 6,83 | 1,33 | <.001 |

Measures

Testing the scales in the data set is imperative to assure the items used in each variable are statically reliable and can, therefore, be averaged into one scale. The scale reliability is measured by Cronbach’s alpha which should be above .7 to represent statistically respectable reliability (DeVellis, 1991; George & Mallery, 2018).

The Cronbach’s Alpha for the scale “Product involvement” was accessed using the 3 items, indicating a value of .687, which according to DeVelis 1991 is minimally accepted ($>.65$ = minimally acceptable). Each of the items had an item-total correlation between .531 and .539 which are low thresholds, however, removing an item from the scale would lower both the Cronbach’s alpha and the item-total correlations, thus no items were removed from the scale (Table 5).

The perceived innovativeness Cronbach’s alpha incorporated 9 items with a value of .884, indicating that the reliability is significant, and the item-total correlations for these items varied between .519 and .757. While the scale ensures internal consistency ($>.7$), Roehrich's (1994) research indicates that the scale is divided into two dimensions: hedonic and social innovativeness, following his rationale, the results were expected to identify two distinct dimensions. A factorial analysis was performed to confirm if the separate hedonic and social dimensions’ items have factor loadings indicating that they load on the same construct, meaning that they could be grouped.

The results show two distinct groups representing clearly the social and hedonic dimensions Roehrich (1994) distinguished (Table 3). After performing a varimax with Kaiser rotation, the items from the social dimensions show a stronger correlation with each other (e.g. “I am usually among the first to try new products that address my skin’s condition” and “The brand is in a position to deliver very original product ideas for me to be the first to try” have a correlation of .690) and the same effect happens within the hedonic dimension items. The determinant value is .11 ($>.005$), which indicated that the items are related. The KMO test is .880 and the Bartlett’s test of sphericity is $<.001$ which shows statistical significance, after analysing the communities (all of them $>.5$), we can confirm that a good amount of information is being extracted, avoiding the need to delete an item from the scale. According to the rotated matrix, the items divide themselves into two distinct factors with loadings $>.6$, representing a good correlation of each item with the corresponding factor (Table 3). Two new variables were created according to the factor’s loadings (Social_Inovativeness and Hedonic_Inovativeness).

Table 3- Perceived Innovation Factor analysis

| Perceived Innovation’s Components | Factor Analysis | |
|--|--|---|
| | <i>Item</i> | <i>Rotated loadings within correspondent factor (Varimax with Kaiser)</i> |
| Social Innovativeness (1) | I try new skincare before my friends. | .806 |
| | I hear about new skincare trends regarding my skin’s needs faster than most people I know. | .719 |
| | I like to test and try the latest trends in the skincare world. | .883 |

| | | |
|-----------------------------------|---|------|
| | The brand is in the position to derive very original product ideas for me to be the first to try. | .753 |
| | I am usually among the first to try new products that address my skin conditions. | .673 |
| Hedonic Innovativeness (2) | New skincare products excite me. | .796 |
| | I am very curious about skincare products. | .740 |
| | I think the brand has the ability to develop really innovative products that thrill me. | .824 |
| | I think the brand can create very interesting new skincare products that I would buy just to see what it's worth. | .620 |

With the two new variables, a new reliability test was performed to ensure consistency within the new variables. The social dimension presented and Cronbach's alpha of .876 ($>.7$) with item-total correlations between .628 and .656 (Table 5), which is an improvement from the item-total correlation of the scale perceived innovativeness before the separation of the two dimensions. The hedonic dimensions' Cronbach's alpha was .801 ($>.7$) and its item-total correlations were within an interval of .556 and .656 (Table 5). Despite two values being $<.7$, according to the analysis, Cronbach's alpha would decrease if an item was deleted, due to the importance of all of the items and no increase detected of Cronbach's alpha, it was decided not to delete the items with an item-total correlations bellow .6.

For the brand image, an initial reliability analysis revealed a Cronbach's alpha of .850 ($>.7$) and item-total correlations within a wide interval of .518 and .779. In the original scale from Martínez Salinas and Pina Pérez, (2009) after a factor analysis, the authors divided the scale into two dimensions (functional image and reputation), however when performing a factorial analysis with the present study's data there was only one component presented, leaving no evidence of two statistically different groups. As a result, from the scale reliability, the item "Brand X doesn't disappoint its customers" was removed due to a low item-total correlation ($.518 <.7$), resulting in a new Cronbach's alpha of .841 ($>.7$) and a slight change in item-total correlation scores with an interval of [.532 - .717] (Table 5).

The motivation of purchase was measured by 6 items and with a low Cronbach alpha ($0,562 <.7$). This effect might be explained by the fact that this scale was created with two dimensions (hedonic and utilitarian), and the respondents with hedonic motivation will respond

differently to the scale than someone with utilitarian motivations. Thereafter, a factor analysis was conducted to statistically verify the two dimensions: hedonic and utilitarian (Table 4). According to the factor analysis, the stronger correlations correspond to the items relating to one of the pre-identified dimensions (hedonic or utilitarian) in past literature (Batra & Ahtola, 1991; Hirschman & Holbrook, 1982; Voss, et al., 2003). In this scale, the two dimensions are divided into 3 hedonic items (exciting, enjoyable and pleasant) as well as 3 utilitarian items (useful, necessary and functional). Interestingly, as expected, some correlations between hedonic and utilitarian items are negative (e.g. enjoyable vs functional = -.230 correlation).

Table 4- Consumption Motivation

| Consumption Motivations Components | Factor Analysis | |
|---|------------------------|---|
| | <i>Item</i> | <i>Rotated loadings within correspondent factor (Varimax with Kaiser)</i> |
| Hedonic Motivations (1) | Useful | .846 |
| | Necessary | .824 |
| | Functional | .815 |
| Utilitarian Motivations (2) | Exiting | .799 |
| | Enjoyable | .814 |
| | Pleasant | .841 |

In order to confirm that the two dimensions are statistically different the determinant was also analysed (determinant = .172), indicating that the items are related (>0,005). The KMO test presented as .611 and the Bartlett's test of sphericity as <.001 which shows statistical significance. From the Varimax with Kaiser matrix, there were 2 components extracted, which explained 68% of the variance. According to the matrix, the items divide themselves into two distinct factors with factor loadings >.799, indicating a very good correlation with the dimensions (Table 4). After the factorial analysis, two new variables were created (hedonic_motivations and utilitarian_motivations) and a new scale reliability test was performed to assume scale consistency on both new scales. The hedonic dimension presented a Cronbach's alpha of .773 and the utilitarian .757, which indicated a good scale reliability (Table 5).

Table 5 - Reliability Analysis

| Construct | Reliability Analysis | | |
|-------------------------------|---|----------------------------------|------------------|
| | Item | Corrected Item-Total Correlation | Cronbach's Alpha |
| Product Involvement | How often do you use skincare products? | .531 | .687 |
| | How frequently do you buy skincare products? | .539 | |
| | How interesting do you find skincare products? | .539 | |
| Social Innovativeness | I try new skincare before my friends. | .628 | .876 |
| | I hear about new skincare trends regarding my skin's needs faster than most people I know. | .669 | |
| | I like to test and try the latest trends in the skincare world. | .790 | |
| | The brand is in the position to derive very original product ideas for me to be the first to try. | .730 | |
| | I am usually among the first to try new products that address my skin conditions. | .714 | |
| Hedonic Innovativeness | New skincare products excite me. | .656 | .810 |
| | I am very curious about skincare products. | .593 | |
| | I think the brand has the ability to develop really innovative products that thrill me. | .556 | |
| | I think the brand can create very interesting new skincare products that I would buy just to see what it's worth. | .653 | |
| Brand Image | Brand X is reliable. | .636 | .841 |
| | Brand X is likeable. | .618 | |
| | Brand X's products are necessary. | .532 | |
| | Brand X's products have a high quality. | .565 | |
| | Brand X is innovative. | .717 | |
| | Brand X has a personality that distinguishes itself from competitors. | .640 | |

| | | | |
|--------------------------------|------------|------|------|
| Hedonic Motivations | Exiting | .576 | .757 |
| | Enjoyable | .572 | |
| | Pleasant | .611 | |
| Utilitarian Motivations | Useful | .632 | .772 |
| | Necessary | .603 | |
| | Functional | .588 | |

Results

H1: Consumers develop more favourable behavioural intentions (i.e. positive brand image) toward brands fostering co-creation (vs. developed by professionals).

The one-way ANOVA revealed that the source of innovation (co-created product vs non-co-created product) influenced the brand image ($p < .001$). It was also possible to analyse the perceived difference between the new co-created product and the product developed by the firm's professionals. Results show a significant higher brand image for co-created products than for non-co-created products ($M_{\text{professionals}} = 4,77$; $M_{\text{co-creation}} = 5,52$; $p < .001$). Due to the results, H1a is not rejected.

Table 6 - ANOVA (source of innovation / brand image)

| | Source of Innovation | | ANOVA Test |
|--------------------|----------------------|--------------------------|------------|
| | Co-created | Professionally Developed | |
| | Mean | Mean | |
| Brand Image | 5,52 | 4,77 | <.001 |

H2a: The positive effect of co-created new products on brand image is mediated by higher perceived innovativeness ability in the co-created new product than in a new product internally developed by the firm.

To test H2a a mediation analysis was conducted using the Process, within Spss (Hayes, 2012). The mediation analyses for H2_a, where we stated that the positive effect of co-created new

products on brand image is mediated by higher perceived innovativeness ability, was performed with source of innovation as the independent variable (co-created or firm), the dependent variable is brand image and perceived innovation as the mediator. The results showed that the independent variable (source of innovation) ($p < .001$), and the mediator (perceived innovation) had a significant impact on the dependent variable ($p < .001$), the indirect effect of the independent variable (source of innovation) through the mediator (perceived innovation) was not significant ($\beta = .1263$; $p > .05$). Hence, perceived innovation does not mediate the relationship between the source of innovation and perceived innovativeness. H2_a is rejected, the mediation analysis summary is presented in Table 7.

Table 7- Mediation Analysis: Perceived Innovativeness

| Mediation | Total Effect | Direct Effect | Indirect Effect | Confidence Interval | | t-statistics | Conclusion |
|---|------------------|------------------|-----------------|---------------------|-------------|--------------|--------------|
| | | | | Lower Bound | Upper Bound | | |
| Source of innovation ↓ Perceived innovation ↓ Brand Image | -.7500 (.000) | -.8035 (.000) | .0535 | -.1114 | .2382 | -5.4645 | No Mediation |

H2_b: The positive effect of co-created new products on brand image is mediated by higher perceived innovativeness ability in the co-created new product than in a new product internally developed by the firm. The mediation effect is explained by higher perceived hedonic innovativeness of co-created new products than in a new product internally developed by the firm.

This second mediation follows a model with a relationship between the independent variable (source of innovation) and the dependent variable (brand image) being mediated by the variable hedonic innovativeness. In this model the independent variable and mediator both have a significant impact on the brand image ($p < .00$ and $p < .05$ respectively), however, the effect of the source of innovation (co-creation vs professionals) on the mediator (hedonic innovativeness) is not significant ($p > .05$) (Table 8). This means that despite the direct

interaction of the source of innovation and brand image, the mediation of hedonic innovativeness is not statistically significant, thus H3 is rejected.

Table 8 – Mediation Analysis: Perceived Hedonic Innovativeness

| Mediation | Total Effect | Direct Effect | Indirect Effect | Confidence Interval | | t-statistics | Conclusion |
|--|------------------|------------------|-----------------|---------------------|-------------|--------------|--------------|
| | | | | Lower Bound | Upper Bound | | |
| Source of innovation ↓ High hedonic innovativeness ↓ Brand Image | -.7500 (.000) | -.7117 (.000) | -.0383 | -.1699 | .0941 | -4.316 | No Mediation |

H3: The positive effect of co-created new products on consumers’ perceived innovation will be higher for consumers with hedonic consumption motivations than for consumers with utilitarian consumption motivations.

Although moderation alters the base relationship, the moderation in this model was supported by strong literature basis and could validate the presence of opposing effects, thus the moderation effect will be tested to study whether the effect holds.

Moderation was tested by using Process Model 1 (Hayes, 2012) and showed a significant model (model summary: $p < .05$). However, with perceived innovativeness as an outcome, the interaction effect was not significant ($\beta = .2194$; $t = 1.2136$; $p > .05$). Results show a significant effect between the consumers that are motivated by hedonic consumption on perceived innovativeness ($\beta = .5264$; $p < .001$), the interaction between co-created products and hedonic motivations did not show a significant effect on perceived innovativeness ($\beta = .1277$; $p > .05$), (Table 8). Thus, the results do not support a moderation effect by hedonic motivations. These results suggest that despite influencing perceived innovativeness, the hedonic motivations do not moderate the relationship.

Table 9 - Moderation Analysis: Hedonic Motivation

| | Coefficient | t-statistics | P-value | Conclusion |
|---------------------------------|-------------|--------------|---------|---------------|
| Model Summary | _____ | _____ | <.001 | |
| Outcome Perceived | | | | |
| Innovativeness: | _____ | _____ | _____ | |
| Source of Innovation | .1277 | .7443 | >.05 | No Moderation |
| Hedonic Motivation | .5264 | 5.8174 | <.001 | |
| Interaction (source vs hedonic) | .2194 | 1.2136 | >.05 | |

Further Findings

Previous research has shown that consumer involvement has a significant impact on product evaluations and brand image (Park and Lessig, 1981; Zaichkowsky, 1985). In this study product involvement was measured to understand the relationship the respondents had with the skincare segment, afterwards, the product involvement was studied more closely. Involvement is referred to a consumer's degree of interest in a certain product (Solomon, 2001), meaning that there are different levels of involvement (Petty et al., 1983; Petty and Cacioppo, 1996; Zaichkowsky, 1985). Due to the influence product involvement has on consumer behaviour, a consumer highly involved in skincare products with a stronger basis of knowledge might perceive the innovation differently than consumers with little to no knowledge of that segment. When studying the perceived innovativeness of co-created products, the notion of involvement can have a powerful influence on the outcomes. Therefore, a second moderation analysis was performed to understand if product involvement can be a moderator for the way co-created products' innovativeness is perceived in the mind of the consumer. This concept was theorized to moderate co-creation because, due to more information searching and complex evaluations of alternatives during purchase decision-making (Richins & Bloch, 1986), consumers with high skincare product involvement are more likely to perceive co-created products in that product category as more innovative.

The moderation exhibited a significant model ($p < .05$) provided by the significant interaction effect ($\beta = -.5878$; $p < .01$), the variable product involvement moderates the relationship between the independent variable source of innovation and the variable perceived innovativeness. With the outcome “perceived innovativeness”, the product involvement ($p < .000$) and interaction effect ($p < .05$) were statistically significant at a 95% confidence level, while the source of innovation was significant on a 90% confidence level ($p < .1$). The coefficient of the source of innovation was positive ($\beta = .1103$) which means that consumers display higher perceived innovativeness for co-created new products. The source of innovation presents a positive coefficient ($\beta = .1103$), and the interaction effect has a negative coefficient ($\beta = -.5878$). According to the coding of the variables (co-creation: 0; professionals: 1), a negative moderation means that the relationship between source of innovation and perceived innovativeness is strengthened by high levels of involvement. Thus, the product of involvement is a moderator.

Table 10 - Moderation Analysis: Product Involvement

| Outcome Perceived Innovativeness | Coefficient | P-value | Conclusion |
|--|--------------------|----------------|-------------------|
| Source of Innovation | .1103 | .5441 | |
| Product Involvement | .4409 | .0002 | Moderation |
| Interaction (source vs involvement) | -.5878 | .0200 | |

4. General Discussion

The results of this study provide interesting findings in the field of brand image and innovation applied to the skincare industry. First, co-creation is a relevant innovation strategy for brand image. The study showed a positive influence on brand image when consumers learn that a new product was developed in collaboration with other users.

Secondly, the study aimed to investigate the role of perceived innovativeness on brand image when a brand communicates that a new product was co-created. On this sphere, the results did not indicate higher perceived innovativeness and the social and individual dimensions were not enacted by co-creation. Besides the overall value of co-creation as an innovation method, consumer perception of innovativeness may be influenced by external factors, for example, customer engagement (Yen et al., 2020) rather than solely relying on the presence of co-creation itself. The findings of the present study indicate that the association between co-creation and perceived innovativeness ability can be context dependent.

Thirdly, when investigating the perceived innovativeness dimensions of innovation (social and hedonic), it was not possible to find evidence of perceived innovativeness being strengthened by the hedonic dimension in the co-created scenario. One reason for it might be the way the respondents interpreted Roehrich's (1994) scale. The scale refers to the individual's own personal constructs of how they perceive innovativeness in a broad context and measures the nature of that extended perception (whether social or hedonic). Therefore, respondents might have not projected the perception of innovativeness to the new product itself as evidenced in established literature (Füller, 2010; Prahalad & Ramaswamy, 2004; Schreier et al., 2012). This factor could also explain the fact that, although the source of innovation was identified in both scenarios, statistically there was no significant difference in perceived innovativeness of the co-created product vs a professionally developed one.

Finally, analyzing the influence of consumption motivations on co-created products evidenced that, despite not moderating the effect between the source of innovation and perceived innovativeness, hedonic motivations impact the perceived innovativeness variable. This might indicate that the embracement of unconventional and new product experiences associated with hedonism (Belk, 1988; Hirschman, 1980) is weighing positively on the receptivity of novelty products. In further instigations, the variable product involvement was tested as a moderator

for the model. This moderation showed that high levels of product involvement perceive products communicated as co-creation with a higher perceived innovation (vs professionally developed).

Previous empirical evidence had already established how highly product-involved consumers tend to develop emotional connections (Laurent & Kapferer, 1985), personal attachments, and strong brand preferences (Zaichkowsky, 1985). This research has gone beyond to draw the link between perceived innovation and brand image as well as the direct positive effect co-creation has on the image of skincare brands.

Therefore, skincare brands should adopt co-creation as a source of innovation to drive positive attitudes towards their product's perception and consequently, their brand image.

4.1 Managerial and Academic Implications

Managerial

The study implies that products communicated as co-created change the way observing consumers have a positive effect on the skincare brand's image, proving added value to this segment. Skincare brands can leverage the concept of innovation by actively involving consumers in the co-creation process. By engaging consumers and creating products in collaboration with users, skincare brand managers can enhance the image of their brands and strengthen their connection with consumers.

The research also shows the flexibility of hedonism, connecting the influence of hedonic motivation of purchase with the impact of hedonic perceived innovativeness. Because skincare is a segment with high hedonic consumption, brands need to leverage the way consumers are involved with products and how they might perceive its innovation to achieve positive behavioural attitudes. As a growing and highly competitive market, skincare brands need to invest in co-creation innovation strategies to a customer-centric brand image in order to create value in their products and brands and differentiate themselves.

Academic

This study holds significant academic implications as it contributes to the existing literature regarding co-created products (Etgar, 2008; Frow et al., 2015; Füller, 2010; Prahalad & Ramaswamy, 2004; Schreier et al., 2012), introducing the dimensions of social and hedonic innovativeness (Roehrich, 1994) into co-created perceived innovativeness.

One notable implication is the role of perceived innovativeness in influencing consumers' perception of brand image by emphasizing the co-creation aspect of the product. Additionally, this study also builds upon existing research on perceived innovation (Schreier et al., 2012), by highlighting that innovativeness for consumers is not solely enacted through social and hedonic perceived innovativeness. It sheds light on the notion that co-creation can lead to higher innovation ability, not only due to the outcome but also because of the involvement of consumers in the co-creation process, resulting in the creation of high-quality products.

For innovation scholars interested in the study of co-creation, this research establishes product involvement as a boundary condition for the favourable acceptance and perception of the communication of new co-created products. The study reveals that when consumers are more involved with skincare products, they tend to perceive higher levels of innovativeness in the co-created products.

The research also introduces the dimensions of social and hedonic innovativeness into co-created innovation. By exploring the concept of innovativeness and how it extends to brand image, it enriches the understanding of co-created product studies. Additionally, the presence of the social identification variable in co-creation and perceived innovativeness strengthens the connection between these concepts, providing further insights into the dynamics of co-created products.

4.2 Limitations and Further Research

It is important to acknowledge that this study focused on skincare products, especially serums. The findings and actions observed in these products may not be generalizable to other skin care products or categories. Thus, future research should consider conducting similar studies with multiple skin care products to determine if the same effects are observed.

The sample size in this study was limited by financial constraints and the reliance placed on personal contacts such as friends and family as participants through personal platforms such as social media and message groups. While attempts were made to diversify the sample in terms of age the majority of participants had ages between 18 and 34 years, a more comprehensive and representative sample would increase the significance of the findings. Future studies should aim to include a larger and more diverse sample to gain a more comprehensive understanding of the impact of co-creation on the image of skincare brands.

The use of an online survey as the primary data collection method raises concerns regarding the validity and authenticity of participant responses. People may respond based on intentions rather than actual behaviours, which can lead to response bias (Carrington et al., 2010). To mitigate this issue, future studies could incorporate field experiments or observational studies using real skincare products to validate and complement the findings obtained through self-reported surveys.

Additionally, while this study focused on the perception of innovativeness, it is important to recognize that perceptions of quality may also influence brand image. Similarly, exploring the relationship between co-creation and quality perceptions, as well as its effect on price perception and willingness to pay could provide valuable insights into the potential economic impact of co-created products compared to professionally developed products.

Lastly, it would be interesting to build upon previous research on the sense of guilt associated with hedonic consumption (Okada, 2005) and examine the potential effects of co-creation on consumers' guilt associated with hedonic purchases. Further studies on how co-creation, as the source of innovation of a product, leads to a higher perception of quality and, most importantly, of innovation (Schreier et al., 2012; Prahalad & Ramaswamy, 2004) could investigate whether the change in perception of co-created products acts as a justification for hedonic purchases. This analysis could shed light on the ways co-creation mitigates guilt and influences consumer judgments when it comes to hedonic products.

5. References

- Aaker, D. A. (1995, December 12). Building Strong Brands. Free Press. 67-102, 339-358.
- Aaker, D. A. (1996, April). Measuring Brand Equity Across Products and Markets. *California Management Review*, 38(3), 102–120.
- Aaker, J. (1999) The malleable self: the role of self-expression in persuasion. *Journal of Marketing Research*, 36, 45-57.
- Afuah, A. (1998) *Innovation Management: Strategies, Implementation, and Profits*. Oxford University Press, New York.
- Agarwal, R., & Karahanna, E. (2000, December). Time Flies When You're Having Fun: Cognitive Absorption and Beliefs about Information Technology Usage. *MIS Quarterly*, 24(4), 665.
- Amoroso, D. L., & Lim, R. A. (2015, December 30). Exploring the Personal Innovativeness Construct: The Roles of Ease of Use, Satisfaction and Attitudes. *Asia Pacific Journal of Information Systems*, 25(4), 662–685.
- Arnould, E. J. (1989, June). Book Review Section and Communications. *Journal of Macromarketing*, 9(1), 57–59.
- Arnould, E., & Thompson, C. (2005, March). Consumer Culture Theory (CCT): Twenty Years of Research. *Journal of Consumer Research*, 31(4), 868–882.
- Arnold, M. J., & Reynolds, K. E. (2003, January). Hedonic shopping motivations. *Journal of Retailing*, 79(2), 77–95.
- Babin, B. J., Darden, W. R., & Griffin, M. (1994, March). Work and/or Fun: Measuring Hedonic and Utilitarian Shopping Value. *Journal of Consumer Research*, 20(4), 644.
- Babin, B. J., & Attaway, J. S. (2000, August). Atmospheric Affect as a Tool for Creating Value and Gaining Share of Customer. *Journal of Business Research*, 49(2), 91–99.

- Baregheh, A., Rowley, J., & Sambrook, S. (2009, September 4). Towards a multidisciplinary definition of innovation. *Management Decision*, 47(8), 1323–1339.
- Batra, R., & Ahtola, O. (1991). Measuring the hedonic and utilitarian sources of consumer attitudes. *Marketing Letters*, 2(2), 159-170.
- Belk, R. W. (1988, September 1). Possessions and the Extended Self. *Journal of Consumer Research*, 15(2), 139–168.
- Berlyne, D. E. (1960). *Conflict, Arousal and Curiosity*. New York: McGraw Hill.
- Beverland, M., & Farrelly, F. J. (2010, June 10). What Does It Mean to Be Design-led? *Design Management Review*, 18(4), 10–17.
- Bogers, M., Afuah, A., & Bastian, B. (2010, January 26). Users as Innovators: A Review, Critique, and Future Research Directions. *Journal of Management*, 36(4), 857–875.
- Brady, M. K., & Cronin, J. J. (2001). Customer orientation: Effects on customer service perceptions and outcome behaviors. *Journal of Service Research* 3 (3): 241–51.
- Brem, A., & Viardot, E. (2016, December 20). *Revolution of Innovation Management: The Digital Breakthrough Volume 1*. Palgrave Macmillan.
- Carbonell, P., Rodríguez-Escudero, A. I., & Pujari, D. (2009, September). Customer Involvement in New Service Development: An Examination of Antecedents and Outcomes. *Journal of Product Innovation Management*, 26(5), 536–550.
- Carrington, M., Neville, B. A., & Whitwell, G. J. (2010, May 6). Why Ethical Consumers Don't Walk Their Talk: Towards a Framework for Understanding the Gap Between the Ethical Purchase Intentions and Actual Buying Behaviour of Ethically Minded Consumers. *Journal of Business Ethics*, 97(1), 139–158.
- Carrigan, M., & Szmigin, I. (2006, September 1). “Mothers of invention”: maternal empowerment and convenience consumption. *European Journal of Marketing*, 40(9/10), 1122–1142.

- Chang, W., & Taylor, S. A. (2016, January). The Effectiveness of Customer Participation in New Product Development: A Meta-Analysis. *Journal of Marketing*, 80(1), 47–64.
- Choi, B., & Lee, H. (2003, May). An empirical investigation of KM styles and their effect on corporate performance. *Information & Management*, 40(5), 403–417.
- Costa, C., & Coelho do Vale, R. (2018, March 12). To tell or not to tell? The impact of communicating consumer participation in new product development. *Journal of Product & Brand Management*, 27(2), 158–171
- Cropley, D.H., Kaufman, J.C. and Cropley, A.J. (2011) Measuring Creativity for Innovation Management. *Journal of Technology Management & Innovation*, 6.
- Crowley, A. E., Spangenberg, E. R., & Hughes, K. R. (1992, July). Measuring the hedonic and utilitarian dimensions of attitudes toward product categories. *Marketing Letters*, 3(3), 239–249.
- Dahl, D. W., Fuchs, C., & Schreier, M. (2015, August). Why and When Consumers Prefer Products of User-Driven Firms: A Social Identification Account. *Management Science*, 61(8), 1978–1988.
- DeVellis, R. F. (1991). *Scale Development: Theory and Applications* (Applied Social Research Methods Series, Vol. 26). Newbury Park, CA: Sage Publications.
- Dhar, R., & Wertenbroch, K. (2000). Consumer choice between hedonic and utilitarian goods. *Journal of Marketing Research*, 37(1), 60–71
- Dornyei, Z. (2007). *Research Methods in Applied Linguistics*. Oxford: Oxford University Press.
- Dubois, B., Czellar, S., & Laurent, G. (2005, April). Consumer Segments Based on Attitudes Toward Luxury: Empirical Evidence from Twenty Countries. *Marketing Letters*, 16(2), 115–128.
- Etgar, M. (2008). A descriptive model of the consumer co-production process. *J. of the Acad. Mark. Sci.* 36, 97–10.

- Evans, J. R., & Mathur, A. (2005, April 1). The value of online surveys. *Internet Research*, 15(2), 195–219.
- Fatma, M., & Khan, I. (2023, March 27). Impact of CSR on Customer Citizenship Behavior: Mediating the Role of Customer Engagement. *Sustainability*, 15(7), 5802.
- Fornell, C. (1992). A National Customer Satisfaction Barometer: The Swedish Experience. *Journal of Marketing*, 56, 6- 21.
- Franke, N., Keinz, P., & Steger, C. J. (2009, September). Testing the Value of Customization: When Do Customers Really Prefer Products Tailored to Their Preferences? *Journal of Marketing*, 73(5), 103–121.
- Franke, N., & Schreier, M. (2010). Why Customers Value Self-Designed Products: The Importance of Process Effort and Enjoyment. *Journal of Product Innovation Management*, 27(7), 1020–1031.
- Frow, P., Nenonen, S., Payne, A., & Storbacka, K. (2015, January 22). Managing Co-creation Design: A Strategic Approach to Innovation. *British Journal of Management*, 26(3), 463–483.
- Fuchs, C., & Schreier, M. (2010, December 16). Customer Empowerment in New Product Development. *Journal of Product Innovation Management*, 28(1), 17–32. <https://doi.org/10.1111/j.1540-5885.2010.00778.x>
- Fuchs, C., Prandelli, E., Schreier, M., & Dahl, D. W. (2013, September). All That is Users Might Not be Gold: How Labeling Products as User Designed Backfires in the Context of Luxury Fashion Brands. *Journal of Marketing*, 77(5), 75–91.
- Füller, J. (2010, February). Refining Virtual Co-Creation from a Consumer Perspective. *California Management Review*, 52(2), 98–122.
- George, D., & Mallery, P. (2018). Reliability analysis. In *IBM SPSS Statistics 25 Step by Step* (pp. 249-260). Routledge.
- Hayes, A. F. (2012). PROCESS: A versatile computational tool for observed variable mediation, moderation, and conditional process modeling.

- Herabadi, A.G., Verplanken, B. and Van Knippenberg, A. (2009). Consumption experience of impulse buying in Indonesia: Emotional arousal and hedonistic considerations. *Asian Journal of Social Psychology*, 12: 20-31.
- Hirschman, E. C. (1980, December). Innovativeness, Novelty Seeking, and Consumer Creativity. *Journal of Consumer Research*, 7(3), 283.
- Hirschman, E. C., & Holbrook, M. B. (1982). Hedonic Consumption: Emerging Concepts, Methods and Propositions. *Journal of Marketing*, 46(3), 92–101.
- Hogan, J., & Nagle, T. T. (2005, November 1). *The Strategy and Tactics of Pricing: A Guide to Growing More Profitably*.
- Holt, D. B. (2002, June). Why Do Brands Cause Trouble? A Dialectical Theory of Consumer Culture and Branding. *Journal of Consumer Research*, 29(1), 70–90.
- Horváth C., Adıgüzel F., (2018). Shopping enjoyment to the extreme: Hedonic shopping motivations and compulsive buying in developed and emerging markets. *Journal of Business Research*, 86, 300 – 310.
- Jamal, A. and Goode, M.M. (2001). Consumers and Brands: A Study of the Impact of Self-Image Congruence on Brand Preference and Satisfaction. *Marketing Intelligence & Planning*, 19, 482-492.
- Kahn, K. B. (2018, May). Understanding innovation. *Business Horizons*, 61(3), 453–460.
- Kapferer, J. N. (2008, March 1). *The New Strategic Brand Management: Creating and Sustaining Brand Equity Long Term*.
- Keller, K. L. (1993, January). Conceptualizing, Measuring, and Managing Customer- Based Brand Equity. *Journal of Marketing*, 57(1), 1.
- Keller, K. L., & Lehmann, D. R. (2006, November). Brands and Branding: Research Findings and Future Priorities. *Marketing Science*, 25(6), 740–759. <https://doi.org/10.1287/mksc.1050.0153>

- Kelly, G. A. (1955). *The psychology of personal constructs*. Vol. 1. A theory of personality. Vol. 2. Clinical diagnosis and psychotherapy. W. W. Norton.
- Khan, U., & Dhar, R. (2006, May). Licensing Effect in Consumer Choice. *Journal of Marketing Research*, 43(2), 259–266.
- Kimberly, J. R. (1981). Managerial innovation. In P. C. Nystrom & W. H. Starbuck (Eds.), *Handbook of organizational design*. New York: Oxford University Press, 84-104
- Kivetz, R., & Simonson, I. (2002, May). Earning the Right to Indulge: Effort as a Determinant of Customer Preferences toward Frequency Program Rewards. *Journal of Marketing Research*, 39(2), 155–170.
- Laurent, G., & Kapferer, J. N. (1985, February). Measuring Consumer Involvement Profiles. *Journal of Marketing Research*, 22(1), 41.
- Laursen, K., & Salter, A. (2005). Open for innovation: the role of openness in explaining innovation performance Amon U.K. manufacturing firms. *Strategic Management Journal*, 27(2), 131–150.
- Lee, J. E., Goh, M. L., & Mohd Noor, M. N. B. (2019, December 9). Understanding purchase intention of university students towards skin care products. *PSU Research Review*, 3(3), 161–178.
- Liao, S. H., Wu, C. C., Widowati, R., & Chen, M. Y. (2012). Relationships between brand awareness and online word-of-mouth: an example of online gaming community. *International Journal of Web Based Communities*, 8(2), 177.
- Lu, J., Yao, J. E., & Yu, C. S. (2005, September). Personal innovativeness, social influences and adoption of wireless Internet services via mobile technology. *The Journal of Strategic Information Systems*, 14(3), 245–268.
- Mahr, D., Lievens, A., & Blazevic, V. (2014, October 4). The Value of Customer Cocreated Knowledge during the Innovation Process. *Journal of Product Innovation Management*, 31(3), 599–615.

- Malerba, F. & Brusoni, S., Eds. (2007). *Perspectives on Innovation*. Cambridge University Press, Cambridge.
- Mannix, E., & Neale, M. A. (2005, October). What Differences Make a Difference? *Psychological Science in the Public Interest*, 6(2), 31–55.
- Mohr, L. A., & Webb, D. J. (2005, March 23). The effects of corporate social responsibility and price on consumer responses. *Journal of Consumer Affairs*, 39(1), 121–147.
- Morrison, G. (2004). Experimental Research Methods. In *Handbook of Research on Educational Communications and Technology* (2nd ed.) 021–1042. Routledge.
- Nambisan, P., Nambisan, S., (2008, March). How to Profit from a Better Virtual Customer Environment. *MIT Sloan Management Review* 49(3):53 -61
- Nishikawa, H., Schreier, M., Fuchs, C., & Ogawa, S. (2017). The Value of Marketing Crowdsourced New Products as Such: Evidence from Two Randomized Field Experiments. *Journal of Marketing Research*, 54(4), 525–539.
- Okada, E. M. (2005, February). Justification Effects on Consumer Choice of Hedonic and Utilitarian Goods. *Journal of Marketing Research*, 42(1), 43–53.
- Park, C. W., & Lessig, V. P. (1981, September). Familiarity and Its Impact on Consumer Decision Biases and Heuristics. *Journal of Consumer Research*, 8(2), 223.
- Petty, R. E., & Cacioppo, J. T. (1996). *Attitudes and persuasion: Classic and contemporary approaches*. Westview Press. (1), 1-36
- Petty, R. E., Cacioppo, J. T., & Schumann, D. (1983, September). Central and Peripheral Routes to Advertising Effectiveness: The Moderating Role of Involvement. *Journal of Consumer Research*, 10(2), 135.
- Piller, F. T., Ihl, C., & Vossen, A. (2010). A Typology of Customer Co-Creation in the Innovation Process. *SSRN Electronic Journal*.
- Prahalad, C., & Ramaswamy, V. (2004, May 1). Co-creation experiences: The next practice in value creation. *Journal of Interactive Marketing*, 18(3), 5–14.

- Ramaswamy, V. (2008, September). Co-creating value through customers' experiences: the Nike case. *Strategy & Leadership*, 36(5), 9–14.
- Richins, M. L., & Bloch, P. H. (1986, September). After the New Wears off: The Temporal Context of Product Involvement. *Journal of Consumer Research*, 13(2), 280.
- Robinson, G., & Dechant, K. (1997, August). Building a business case for diversity. *Academy of Management Perspectives*, 11(3), 21–31.
- Roehrich, G. (1994, June). Innovativités hédoniste et sociale: proposition d'une échelle de mesure. *Recherche Et Applications En Marketing (French Edition)*, 9(2), 19–42.
- Roehrich, G. (2004) Consumer innovativeness: Concepts and measurements. *Journal of Business Research*, (57) 6, 671-677
- Rogers, E. M. (1995, July 6). *Diffusion of Innovations*, 4th Edition.
- Martínez Salinas, E., & Pina Pérez, J. M. (2009, January). Modeling the brand extensions' influence on brand image. *Journal of Business Research*, 62(1), 50–60.
- Sahay, A., & Sharma, N. (2010, January). Brand Relationships and Switching Behaviour for Highly Used Products in Young Consumers. *Vikalpa: The Journal for Decision Makers*, 35(1), 15–30.
- Sawhney, M., Verona, G., & Prandelli, E. (2005, August 1). Collaborating to create: The Internet as a platform for customer engagement in product innovation. *Journal of Interactive Marketing*, 19(4), 4–17.
- Schiffman, L. G. and Kanuk, L. L. (2007). "Consumer Behavior," 9th Edition, Prantice-Hall, Upper Saddle River, 296-298, 325-326.
- Schreier, M., Fuchs, C., & Dahl, D. W. (2012, September). The Innovation Effect of User Design: Exploring Consumers' Innovation Perceptions of Firms Selling Products Designed by Users. *Journal of Marketing*, 76(5), 18–32.
- Schumpeter, J.A. (1942). *Capitalism, Socialism and Democracy*. Vol. 36, Harper & Row, New York, 132-145.

- Sheth, J. N., Sisodia, R. S., & Sharma, A. (2000, January 1). The Antecedents and Consequences of Customer-Centric Marketing. *Journal of the Academy of Marketing Science*, 28(1), 55–66.
- Skin Care - Worldwide | Statista Market Forecast. (2023). Retrieved 10 March 2023, from <https://www.statista.com/outlook/cmo/beauty-personal-care/skin-care/worldwide>.
- Snyder CR, Fromkin HC. (1980) Uniqueness: the human pursuit of difference. New York: Plenum , 1980.
- Solomon, M. R. (2001). *Consumer Behavior: Buying, Having, and Being*. Prentice
- Szymanski, D. M., Kroff, M. W., & Troy, L. C. (2007, February 3). Innovativeness and new product success: insights from the cumulative evidence. *Journal of the Academy of Marketing Science*, 35(1), 35–52.
- Thompson, D. V., & Malaviya, P. (2013, May). Consumer-Generated Ads: Does Awareness of Advertising Co-Creation Help or Hurt Persuasion? *Journal of Marketing*, 77(3), 33–47.
- Tödting, F., Lehner, P., & Kaufmann, A. (2009, January). Do different types of innovation rely on specific kinds of knowledge interactions? *Technovation*, 29(1), 59–71.
- Trott, P. (1998). *Innovation Management and New Product Development*. Prentice Hall.
- Troy, L. C., Szymanski, D. M., & Rajan Varadarajan, P. (2001). Generating new product ideas: An initial investigation of the role of market information and organizational characteristics. *Journal of the Academy of Marketing Science*, 29(1), 89–101.
- Valacich, J. S., Wheeler, B. C., Mennecke, B. E., & Wachter, R. (1995). The effects of numerical and logical group size on computer-mediated idea generation. *Organizational Behavior and Human Decision Processes*, 62(3), 318-329.
- Van Dijk, J., Antonides, G., & Schillewaert, N. (2014, January). Effects of co-creation claim on consumer brand perceptions and behavioural intentions. *International Journal of Consumer Studies*, 38(1), 110–118.

- Villarejo-Ramos, Á.F., Ph., D., Rondán-Cataluña, F.J., & Sánchez-Franco, M.J. (2007). Direct and indirect effects of marketing effort on brand awareness and brand image,
- Von Hippel, E. (1978, July). A customer-active paradigm for industrial product idea generation. *Research Policy*, 7(3), 240–266.
- Von Hippel, E. (2009, March 1). Democratizing Innovation: The Evolving Phenomenon of User Innovation. *International Journal of Innovation Science*, 1(1), 29–40.
- Voss, K. E., Spangenberg, E. R., & Grohmann, B. (2003, August). Measuring the Hedonic and Utilitarian Dimensions of Consumer Attitude. *Journal of Marketing Research*, 40(3), 310–320.
- Weiss, H. M., Suckow, K., & Cropanzano, R. (1999). Effects of justice conditions on discrete emotions. *Journal of Applied Psychology*, 84(5), 786–794.
- Xiong, L., Cho, V., Law, K. M., & Lam, L. (2021, May 7). A study of KOL effectiveness on brand image of skincare products. *Enterprise Information Systems*, 15(10), 1483–1500.
- Xu, J. B., Prayag, G., & Song, H. (2022, October). The effects of consumer brand authenticity, brand image, and age on brand loyalty in time-honored restaurants: Findings from SEM and fsQCA. *International Journal of Hospitality Management*, 107, 103340.
- Yadav, R. and Pathak, G.S. (2016). Young Consumers' Intention towards Buying Green Products in a Developing Nation: Extending the Theory of Planned Behavior. *Journal of Cleaner Production*, 135, 732-739.
- Yen, C. H., Teng, H. Y., & Tzeng, J. C. (2020, July). Innovativeness and customer value co-creation behaviors: Mediating role of customer engagement. *International Journal of Hospitality Management*, 88, 102514.
- Zahra, S.A. and Covin, J.G. (1994) The Financial Implications of Fit between Competitive Strategy and Innovation Types and Sources. *The Journal of High Technology Management Research*, 5, 183-211.

- Zahra, S. A., Wright, M., & Abdelgawad, S. G. (2014, February 24). Contextualization and the advancement of entrepreneurship research. *International Small Business Journal: Researching Entrepreneurship*, 32(5), 479–500.
- Zaichkowsky, J. L. (1985, December). Measuring the Involvement Construct. *Journal of Consumer Research*, 12(3), 341.
- Zhang, Y. (2015). The Impact of Brand Image on Consumer Behavior: A Literature Review. *Open Journal of Business and Management*, 03(01), 58–62.
- Zhang, Ling, & Chen. (2021). Gen Z Skincare Report: Brand CXPower™ in the Now Consumer Era. In Deloitte. Retrieved May 26, 2023, from <https://www2.deloitte.com/content/dam/Deloitte/cn/Documents/consumer-business/deloitte-cn-cb-brand-customer-experience-in-now-consumer-en-210927.pdf>