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**PASITIKĖJIMAS PREKĖS ŽENKLU PO
VERTIKALIŲ PREKĖS ŽENKLO
IŠPLĖTIMŲ HEDONISTINĖSE IR
UTILITARINĖSE PRODUKTŲ
KATEGORIJOSE**

**BRAND TRUST AFTER VERTICAL
EXTENSIONS OF BRAND IN HEDONIC
AND UTILITARIAN PRODUCT
CATEGORIES**

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INTRODUCTION

The dynamic nature of the business world leads to the fact that many organizations strive to be the first to gain consumer trust in the brand and develop further relationships with customers. These relationships imply a sense of reliability and confidence that organizations provide to meet the changing demands of consumers (Haudia et al., 2022).

According to scholars, brands serve as a representation of a retailer's commitment to its customers, as consumers expect to receive certain experiences from new products and services they purchase (Murphy, Laczniak, Bowie, & Klein, 2005; as cited in Bhargava & Bedi, 2022). To meet these expectations, organizations must fulfill the ever-changing wants and desires of consumers by introducing new offerings such as brand extensions; investing time and effort, improving customer experience (Olaleye, Sekhampu, Lekunze, & Khumalo, 2025) and satisfaction. As a result of implementation of brand extension strategies, organizations will be able to maintain business stability and "competitive differentiation" (Munteanu, 2015) and build relationships with their target audience. Additionally, brand extension helps avoid unnecessary costs and reduces the amount of effort required compared to creating a brand from scratch (Riley, Pina & Bravo, 2015; as cited in Kuo & Liao, 2025).

Current market trends show that a significant number of companies are capitalizing on their existing brand portfolio to ensure their financial stability. Undoubtedly, since it is equally important for organizations to capture a larger "slice" of market share, they are implementing the extension strategy to gain the attention of consumers, which indicates an increase in sales (Hyland, 2023) and leads to an increase in revenue sources.

As Aaker and Keller (1990) stated, brand extension is an appealing strategy for organizations that are facing "the reality of high new product failure rates", as the existing brand awareness of the parent brand makes market entry easier. Research shows that only half of the extensions introduced to the market survive after three years (Taylor, 2004), meaning that organizations should focus on the factors that ensure the possible success of the extension.

By introducing new brand extensions, organizations also achieve increased market penetration, reach new audience segments, or re-engage an existing consumer base by converting their intentions into the sales.

Some authors have divided brand extensions into vertical and horizontal extensions (Hameed, Saleem, Rashid, & Aslam, 2014). Doust and Esfahlan (2011) described horizontal extension as the use of the current brand name while launching a new product or service in the same or a different category for the organization. According to the authors, vertical extension is the introduction of new products or services within a related category, but at different price and quality levels, which can be

described as upward or downward extension (Kushwaha, 2012; as cited in Pasla & Wicaksono, 2024). In order to increase brand outreach, gain credibility, attract potential consumers, and increase loyalty among existing customers, organizations implement vertical brand extension strategies as part of a brand growth strategy. Statistically, eight out of ten new product launches are brand extensions (Keller 2008, as cited in Chmielewski, 2013; Simms, 2005), which indicate the popularity of this approach.

In the matter of vertical brand extensions in both product categories, consumers' trust in the brand must be maintained to uphold the brand's reputation and achieve the company's financial goals. For the extensions of hedonic product category, emotional bond with consumers must be sustained for further success, while consumer expectations regarding quality and functionality must be taken into account for extensions in the utilitarian product class (Kim, Lavack, & Smith, 2001).

Ozretic-Dosen, Brlic, and Komarac, (2018) in their work emphasized the importance of brand trust for acceptance of the brand and its extensions among the intended audience. For a more complete understanding of consumer trust in a brand, attributes such as credibility, reputation and competence should be considered (Ngo, Liu, Moritaka, & Fukuda, 2020; Afzal, Khan, Rehman, Ali, & Wajahat, 2010). Afzal et al. (2010) review brand reputation through the lens of "trustworthiness, integrity, and honesty", that can be analyzed over a period of time.

Meanwhile, consumer perception of a brand's capability to consistently deliver on its promises can be stated as brand credibility. In addition, the authors emphasize brand competence as the skill of organization in addressing consumers' problems (Butler & Cantrell, 1984; Butler, 1991, as cited in Afzal et al., 2010), by delivering the required solutions.

It is equally important to organize effective management of brand trust attributes to increase customer retention and loyalty, as well as to obtain further positive evaluation of brand extensions from the target audience.

Brand trust plays a pivotal role in shaping consumer attitudes towards a new product or service, as a result, brands with higher levels of consumer trust make the most of new brand extensions (Reast, 2005).

Previous research literature mainly examines the impact of hedonic and utilitarian value on consumer's brand trust (Osei, Owusu, & Kankam-Kwarteng, 2024), the impact of congruence between the parent brand and its extension on the brand equity of extension (Prados-Peña & Barrio-García, 2021), factors contributing to the success of the extension (Peng, Bijmolt, Völckner, & Zhao, 2023), factors influencing the subsequent purchase of a new extension (Brännström & Staffansson, 2013), customers' evaluation of an extension based on perceived fit and tie (Shokri & Alavi, 2019),

the fit between the line extension and its parent brand (Schmitz, Brexendorf, & Fassnacht, 2023), and other related findings.

Nevertheless, existing research points out a gap in the study of the impact of vertical brand extension on consumer brand trust in both utilitarian and hedonic product categories that has not been comprehensively explored to date.

To fill this gap in the literature, this thesis aims to find the answer to the following question, which defines **the problem of this paper**: How do vertical brand extensions affect consumer trust in the brand in hedonic and utilitarian product categories?

The aim of this thesis is to determine the influence of vertical brand extensions on brand trust and to explain their effects in hedonic and utilitarian contexts. To achieve this aim, the following **research objectives** are set:

1. To conduct the literature analysis and review the concept of vertical brand extensions, the concept of brand trust, its attributes and factors that impact it, and concepts of hedonic and utilitarian product categories
2. To review marketing theory that explain the relationship between vertical brand extensions and brand trust
3. To develop a theoretical model that explains the impact of vertical brand extensions on brand trust, considering both product categories
4. To establish a methodological framework for empirical research, aiming to conduct surveys to explore the impact of vertical brand extensions on consumer brand trust
5. To conduct the analysis of the collected data, examining the relationships between key factors such as brand trust and perceived risk, brand reputation, perceived extension quality, following vertical extensions in both product categories
6. To provide conclusions and practical recommendations for brand and marketing managers.

By addressing these objectives, this thesis will provide both theoretical knowledge and practical insights to the management of brand trust following vertical brand extensions in both product categories.

The methods deployed by the paper. A systematic literature review will be conducted to analyze the existing academic literature, which will ensure comprehensive analysis of research on the topic of the study. The empirical part of the study will be based on a quantitative approach to data collection. Four online questionnaires will be used. The collected data will be analyzed using SPSS

software. Regression analysis, independent sample t-test, and moderation analysis will be used to test the hypotheses.

The use of artificial intelligence. In this paper, artificial intelligence tools will be used solely for supportive purposes, including text editing, improving academic writing style, and ensuring compliance with formatting requirements.

The structure of the paper. The first part of the paper will include a review of the scientific literature on brand trust, vertical brand extensions, taking into account the direction of extension (upward/downward), and hedonic and utilitarian product categories. Based on the literature review, a conceptual research model with corresponding hypotheses will be formulated, which will serve as a methodological section of the paper. A quantitative data collection method will be then applied, including a pilot study and four questionnaires. To test the hypotheses, a regression analysis will be employed. The final section of the paper will present the key findings of this study.

1. THE CONCEPT OF VERTICAL BRAND EXTENSIONS

1.1 Understanding vertical brand extensions

More and more organizations around the world are deciding to implement brand extension strategies as it increases the overall brand value (Kazmi & Rashidi, 2015). They have begun to use brand extensions as a strategic approach in expanding their market reach and maintaining their brand position within the market (Dekkers & Forselius, 2007; Vezzetti, Violante, & Marcolin, 2014; as cited in Pasla & Wicaksono, 2024). At the same time, consumers influence the economy through their purchasing decisions, which encourage brands to meet their needs by offering customized extensions. These brand extensions also help companies strengthen their overall brand image and perception by consumers (Kazmi & Rashidi, 2015).

As a result of interactions with brands, customers develop emotional and physical attitudes, which, in turn, lead to the creation of associations with the brand. As Aaker (1996) has clearly stated, brand associations are determined by brand identity, which can be described as the company's goal of positioning in the consumer's mind. Organizations can ensure successful brand extension by implementing proper brand association management and successfully delivering on the brand promises to users, which will enhance consumer trust in the brand.

From a business context, it is more profit-making and cost-effective to introduce products under the original brand name rather than to launch a completely new brand. These are the main motivating factors for an organization to reduce its costs, reduce time and resources (Chmielewski, 2013) and optimize its revenues by implementing a brand extension strategy.

According to Alavinasab, Soltani, and Alimohammadi (2017), brand extension is a strategy aimed at creating a successful brand to introduce a new or modified product or service to the market.

Another reason why organizations often choose brand extensions is the constantly changing nature of consumer wants and needs (Patel, Mandal, & Joshi, 2014), which are shaped by technological advances, trends in social media, environmental or economic issues. As a consequence, consumers now prefer products with the highest possible quality and they seek the best value for money.

Many organizations, in order to survive in the intense competitive environment, ensure business growth, and keep relevance in the market, constantly focus on developing their brand portfolio. They rely on loyal consumers who are familiar with the parent brand (Chmielewski, 2013) or have experience with it, which leads to a certain level of faith or positive perception of the new offering by these users. Additionally, by linking extensions to the parent brand's overall concept and

existing associations of consumers, organizations can ensure the successful execution of extension (Bhat & Reddy, 2001) and gain a competitive advantage.

As consumer perception of the parent brand influences the success of brand extensions (Ozretic-Dosen et al., 2018), it is important to examine how these perceptions influence future evaluations of consumers. During initial interactions with a new brand extension, consumers tend to evaluate how closely the product matches their perception of the original brand, which leads to new associations or a new predicted way for consumers to relate to the extension in the future. (Zimmer & Bhat, 2004). These associations are crucial for consumer evaluation of the extension, as organizations do not invest as much in the recognition of the new offering as they would in a brand created from scratch (Bhat & Reddy, 2001). Furthermore, these associations can result in the positive outcomes, such as positive evaluation of the parent brand and increase of brand value (Keller & Sood, 2003; as cited in Doust & Esfahlan, 2011), or in the negative outcomes, such as a dilution of the parent brand's image (Zimmer & Bhat, 2004; as cited in Doust & Esfahlan, 2011).

According to the scholars' work, brand extension can be divided into several categories (line, horizontal, co-branding, franchise, vertical, etc.), while this paper focuses on the basic classification of line and vertical extension, giving priority to the latter (Hameed et al. 2014; Reast, 2005; Kazmi & Rashidi, 2015; Brännström & Staffansson, 2013; Kim et al., 2001).

Vertical brand extension is defined by the authors as “introducing a similar brand in the same product category, but usually at a different price or quality point” (Brännström & Staffansson, 2013; as cited in Kim et al., 2001; Aaker & Keller, 1992; Sullivan, 1990). On the other hand, line extension is defined as “current brand name is used to enter a new market segment in its product class” (Aaker & Keller, 1990), which may be offered by organizations in the form of “new flavors, new packaging options, or new sizes” (Aaker, 1996).

Vertical extensions are further classified into upscale extensions (also known as upward or step-up), which refer to products with higher price points and quality than the parent brand; and downscale extensions (also known as downward or step-down), which include products with lower price points and quality (Alavinasab et al., 2017). In addition, vertical extensions can be classified based on the product category or the value placed by the customers into hedonic (prestige, pleasure or emotion-oriented), or utilitarian (function-oriented) products (Osei et al., 2024; Chaudhuri & Holbrook, 2001; Chang, Hsu, Chen, Shiau, & Xu, 2023; Voss, Spangenberg, & Grohmann, 2003; Overby & Lee, 2006; Kim & Lavack, 1996).

In practice, step-down extensions are often used in utilitarian product categories rather than in the hedonic class because of the potential damage to consumers' perception of the brand as a luxury

or prestige item. This is why organizations are cautious about downscale extensions in the hedonic product category, due to the potential negative impact on consumer perception. Nevertheless, recent research shows that the success of downward extensions is linked to consumers' perception of the quality of the parent brand (Zeng, Lee, & Heung, 2019).

Nonetheless, there are cases that are worth mentioning as step-down extensions examples in this category, such as the more affordable Armani Exchange line, owned by one of the largest fashion groups, the Armani Group, or the more accessible Miu Miu clothing, owned by the luxury fashion house Prada.

The major disadvantage of vertical brand extensions is the risk of internal conflict with the parent brand, resulting in reduced sales volumes of parent brands. However, organizations still implement these strategies despite the shortcomings and focus on offering products at different prices or quality to gain a larger market share.

Recent studies have analyzed the relationship between brand trust and vertical brand extensions, and also examined the various aspects that shape these relationships. Reast (2005), found that consumer trust which is based on "performance satisfaction", leads to a higher likelihood of trying a new brand offering. In line with this, the authors emphasized the important role of trust in "consumer brand extension attitude" (Anwar, Gulzar, Sohail, & Akram, 2011). In contrast, Brännström and Staffansson (2013) claim that consumers' trust in the core brand was less important than "the perceived quality of extensions" in determining subsequent attitudes toward new brand extensions.

Additionally, Hem, Chernatony and Iversen (2003) emphasized that perceived fit and similarity between an extension and the original brand, can contribute to positive evaluation and acceptance of the new brand extension. Similarly, Aaker and Keller (1990) also highlighted the positive impact of perceived fit between the core brand and the extension on the consumers' evaluation of the latter. In contrast to these studies, Milberg, Sinn, and Goodstein (2010) found that in competitive environments, higher familiarity and awareness of the parent brand may play a more important role in the success of an extension, compensating for even low levels of perceived fit.

In summary, although previous research has analyzed various aspects that influence consumer trust in a brand and play a role in the success of extension, this paper aims to fill the gap by examining the nature and category of new offerings, which has not previously been considered comprehensively. In doing so, this paper will use previously analyzed factors such as brand fit (Milberg et al., 2010, Shokri & Alavi, 2019), customer attitude towards extension (Sahin & Ergin, 2016), which have been shown to impact brand trust and is necessary to provide a more comprehensive analysis.

1.2 Impact of vertical downscale and upscale brand extensions on consumers

Vertical brand extensions can be divided into upscale and downscale based on differences in quality and price, with higher levels in upscale and lower levels in the latter (Doust & Esfahlan, 2011; Kim et al., 2001; Kim & Lavack, 1996; Randall, Ulrich, & Reibstein, 1998; Goetz, Fassnacht, & Rumpf, 2014). Due to differences in price or quality level compared to the parent brand, consumer reactions towards extensions may differ as people tend to reconsider the parent brand's image (Kim et al., 2001) or compare new extensions with the core brand's attributes. Consumers generally tend to evaluate downscale extension as risky due to the perceived belief that "lower price may be associated with lower quality" (Dall'Olmo, Pina, & Bravo, 2011). However, the same step-down extension may receive positive feedback from customers due to its lower price compared to the parent brand.

Looking from a different angle, it is important to consider the consumer purchasing behavior, which is influenced by such distinctive factors as "psychological" (motivation, past experience), "social" (family, friends), "economic" (income level, savings), or "cultural factors" (Ramya & Ali, 2016). In order to ensure the successful introduction of a new product or service as part of the extension strategy in both directions (upscale or downscale), these factors must be taken into account as they significantly shape subsequent consumer behavior.

As a strategic tool for attracting a new audience, downscale brand extensions are aimed to capture price-sensitive consumers, switchers, or those who are looking for affordable alternatives. The popularity of downward extension can be justified by the fact that brands want to earn more by increasing the size of the company's customer base (Mendoza, 2011; as cited in Zeng et al., 2019). This strategy can help keep a brand relevant, particularly during times of economic crisis or uncertainty when consumer confidence declines and they act as budget-conscious by spending less and saving more money.

Recent trends in consumer purchasing behavior show that more and more shoppers are choosing offerings with acceptable quality and lower price, thereby abandoning luxury brands, which also justifies the excessive popularity of online shopping (Temu, Trendyol, AliExpress, etc.) and downward extension strategy.

Step-down extension may have negative consequences in the form of dilution of the core brand image (Dall'Olmo et al., 2011), which is especially relevant for the hedonic product category, whose consumer value uniqueness and high quality. Buyers of hedonic product class perceive and value the brand as a symbol of prestige, valuing its "status and high quality" (Kim & Lavack, 1996), so a subsequent down-scale extension, with lower quality, may damage this perception by being seen as a departure from the original identity.

According to the authors, in order to reduce potential risk and avoid brand dilution, it is proposed to use the technique of distancing the extension name from the main brand name (Kim & Lavack, 1996; Dall’Olmo et al., 2011). Procter and Gamble, a corporation with a very rich brand portfolio, actively implements this approach in brand development to avoid brand risks by having in the same category laundry detergent Tide and lower-priced offerings like Gain or Ariel, separated from its core brand associations.

Additionally, consumers who prefer the practical value more when purchasing a product are likely to evaluate a step-down extension of the utilitarian category positively if it meets their expectations, leading to increased trust and loyalty.

A decline in the quality of an upward extension may have a negative impact on the perception of the core brand (Goetz et al., 2014), which can result in a further loss of consumer trust in the overall brand. As a backup plan, to prevent any risks of reducing consumer trust or loyalty or possible confusion in perception of the extension, step-down extension communication should be consistent with the overall brand image and identity, despite lower price or quality levels of new offerings. In contrast, upscale extensions can be viewed as the product introduction with “a higher quality level and price point” than the parent brand (Kim & Lavack, 1996), that is targeted at the top-tier consumers of the market (Dall’Olmo et al., 2011).

Consumers who value emotional experiences more than practical value prefer step-up extension’s offers; thus, they are willing to pay extra for high quality or personalized products. As an enhanced version of the core product (Dall’Olmo et al., 2011), upscale extensions with higher quality may also lead to consumers’ misperceptions or doubts about the parent brand’s identity, as they wonder why the core brand initially lacks the same quality as the extension, which may result in the overestimation of the entire brand (Kim & Lavack, 1996). Authors also pointed out the risk of affecting the image of the parent brand, especially if the difference in quality between the core brand and its extension is large (Kim & Lavack, 1996; Randall et al., 1998; as cited in Muroyiwa, Abratt, & Mingione, 2017).

To get the most out of the upscale extension strategy, many organizations choose to implement it during periods of economic prosperity to ensure brand growth. To further enhance the impact of this strategy, brands can use social influence (influencers, bloggers, media, word-of-mouth communication) to strengthen the overall image and encourage subsequent use of premium offers. A study by Goetz et al. (2014) highlights the negative impact of step-up extension on consumer assessment of the core brand, which can be considered a major drawback of this strategy. Additionally, if consumers begin to view the new offering as “too exclusive or less accessible and

affordable” depending on the product category (hedonic or utilitarian), this might impact sales and consumer trust in the brand’s ability to introduce new offerings. In contrast, as an advantage organizations can benefit from upscale extensions by offering new products or services to existing consumers, retaining them as active buyers (Aaker 1997; as cited in Goetz & Fassnacht, 2015), providing better quality or additional innovative features that will play a role in building a good brand reputation.

Since the criteria for a successful extension are to receive positive feedback from customers, which from a business perspective means increased sales and revenue, it is important to properly organize the implementation of the extension in both directions and take into account various factors that influence consumer behavior and their attitude toward new offers. Despite the common belief that step-down extensions may damage the core brand image, a solution can be found that will meet the needs of consumers and the dynamics of their behavior regarding extensions in both directions and ensure long-term brand growth. Additionally, the research indicates that perceived quality and fit between core brand and its extensions, are main factors which consumers evaluate during extension assessment (Dens & Pelsmacker, 2009).

To conclude, in order to guarantee the success of an extension in both directions, it is important to ensure high perceived fit between the core brand and its extension (Lee & Yoon, 2022) or to have an extension that is close in category or usage to the parent brand. For positive assessment of step-up extensions by consumers, a clear value proposition and communication of the new offering’s distinctive features might be helpful, while in case of downscale extension, addressing consumer concerns about quality and preventing possible brand dilution (Dall’Olmo et al., 2011) may lead the organization to the desired outcome.

1.3 Impact of brand congruence on brand extensions

When evaluating a new brand extension, consumers usually tend to benchmark core brand attributes such as quality, price, features, and other factors to further evaluate new offerings. Therefore, as an influential factor during these evaluations, brand congruence has a great impact on brand extension (Festinger, 1964; as cited in Yuan, Liu, Luo, & Yen, 2016), thus it can affect consumers’ thoughts and beliefs about the brand. Many authors define brand congruence as the fit (“match”) or inconsistency (“mismatch”) between the core brand and its extension (Yuan et al., 2016; Carter & Curry, 2011; Salinas & Perez, 2009). As a key element of extension success, brand congruence established that the core identity of the brand matches the new proposed extension.

As stated by Carter and Curry (2011), consumers evaluate brand extension in terms of two aspects, such as “functional fit” (“category fit”), which describes the similarity of physical

characteristics or the ability to meet the same needs, and “image fit”, which refers to the continuity between the concept and associations of the parent brand and its extension (Carter & Curry, 2011; Salinas & Perez, 2009).

If consumer evaluation of the compatibility of a brand and its extension is positive, this may lead to increased brand value in the eyes of consumers, which ultimately leads to increased consumer trust and further positive evaluations of the extension. In contrast, negative aspects such as brand dilution (Salinas & Perez, 2009) occur when buyers form an image of an extension that is different from the core brand, resulting in consumers’ expectations of the brand not being met and their further dissatisfaction. Additionally, low congruence between the parent brand and its extension may also have a negative effect on consumers’ attitude towards the core brand (Salinas & Perez, 2009).

As stated by Yuan et al. (2016), consumers increasingly pay attention to and value brand congruence in the process of evaluating brand extensions. The similarity between the brand and its extensions means to consumers that the brand is reliable and trustworthy, making it easier for the consumer to accept a new brand extension or make a future purchase decision. On the other hand, inconsistency between two can weaken the brand reputation. The results of study by Carter and Curry (2011) show that for an extension to benefit from parent brand congruence, the new offering must have “low functional fit and high image fit with a high quality parent”.

A higher level of congruence between a brand and its new extension leads to favorable evaluations by consumers and the transfer of positive associations from the parent brand to the extension (Martin, Stewart, & Matta, 2005; Völckner & Sattler, 2006; as cited in Musante, 2007). Therefore, maintaining this fit between the two will enhance brand credibility and lead to higher extension purchase intent.

In conclusion, the impact of brand congruence on consumer perception of an extension is dual-faceted. On the one hand, because of the fit between the parent brand and its extension, the consumer may transfer positive associations from the brand to the new offering (Völckner & Sattler, 2006), thereby influencing the final decision regarding the extension. On the other hand, incongruence can lead to a decrease in brand value, weakening trust in the brand, thereby preventing the potential success of the new extension.

2. THE CONCEPT OF BRAND TRUST

2.1 Defining brand trust and its attributes

Consumer trust in a brand can be viewed from two perspectives. From one side, consumers rely on the past experiences (Afzal et al., 2010) and observations that have been formed during interactions with the brand, and on the other side, they expect the brand to deliver on its promises to customers. Trust is “expectation from others on specific tasks” that will be performed at a certain level of risk and to the extent of their own willingness (Afzal et al., 2010).

Brand trust can be viewed as the consumer's belief in a brand's ability to perform certain tasks (Erciş, Ünal, Candan, & Yıldırım, 2012). This belief is accompanied by a certain level of risk that the consumers are willing to take in exchange for products or services that will solve their problems, satisfy their needs and meet their quality/price expectations. Typically, positive interactions with a brand lead to a favorable emotional reaction from the consumer, which strengthens their belief in the brand's reliableness (Erciş et al., 2012; as cited in Poerwadi, Suyanto, Hidayat, Purwadi, & Zainal, 2019).

Brand trust, as a central pillar in most relationships, has a reinforcing effect on brand loyalty (Anwar et al., 2011). Thus, trust can be seen as the basis for future value exchange relationships between the organization and its customers. Plus, the authors noted a certain level of challenge in achieving customer satisfaction without earning their trust, demonstrating the impact of trust on consumer satisfaction (Erciş et al., 2012). To ensure this satisfaction, the brand must be consistent in its offerings and match the needs and preferences of its customers, bridging the gap between them.

Consumer loyalty, which indicates the probability of their intention to switch to an alternative brand (Haudia et al., 2022) and brand trust can change their buying intention, leading to growing market share (Chaudhury & Holbrook, 2001; as cited in Anwar et al, 2011).

Brand trust arises from the consumer's belief that “the brand will fulfill certain functions” (Erciş et al., 2012), such as consistency in product quality, transparency in communication and offering innovative solutions to fill gaps in consumer needs.

Brand trust should be analyzed in terms of the combination of consumers' emotions, beliefs, cognitive attitudes, and perceptions of the brand, which in turn influence their decision to continue or stop interacting with the brand. To ensure positive results, organizations should focus on developing brand trust, which will ultimately strengthen the brand's image in the market (Afzal et al., 2010). In addition, brand trust helps to reduce consumers' perception of risk in times of economic instability.

Factors such as brand reputation, competence and brand credibility can contribute to changes in brand trust (Ngo et al., 2020; Afzal et al., 2010). Brand reputation can be viewed as the consumer's

interpretation of a brand as “good and reliable” (Afzal et al., 2010). Perception of the brand may differ for each institution (consumers, stakeholders, competitors and others), as they evaluate the brand reputation and its components (image, visual identity, ethical behavior, etc.) through the lens of past experiences or current expectations toward the brand.

One of the indicators of high levels of brand reputation is a high level of consumer desire to buy the brand (Afzal et al., 2010). To achieve high levels of interest and demand from customers and enhance brand reputation, approaches such as positive interaction with consumers, advertising, and public relations can be used (Ngo et al., 2020; Lau & Lee, 1999; Afzal et al., 2010). Additionally, recent trends show that many companies are organizing corporate social responsibility (CSR) activities as part of brand management aimed at strengthening the brand reputation and influencing consumer opinion by creating an emotional connection with them.

As Lau and Lee (1999) noted, customers often take into account other people’s positive opinions about a brand before buying it, and if the post-purchase experience satisfies their needs, this leads to the formation of a good reputation, which also increases trust in the brand.

Additionally, if people recommend a brand to others, this is another indicator of a good brand reputation (Afzal et al., 2010).

The overall brand reputation plays a major role in forming consumer trust, especially after brand extension. Thus, a high reputation will increase consumer confidence in new and unfamiliar offerings and mitigate their possible concerns. On the contrary, a poor reputation will lead to high levels of consumer uncertainty about the new offering, which will result in the failure of the new extension strategy. Since the main advantage of brand loyalty is “repeat purchases and recommendations to friends and relatives” (Lau & Lee, 1999), this consumer commitment can lead to positive word-of-mouth communication and further positive interactions with new extensions.

Undoubtedly, a customer-centric approach, feedback management, a strong brand presence and constant consumer engagement will lead to increased levels of consumer loyalty and trust in the brand and its subsequent extensions, emphasizing the reliability of the brand.

According to Erdem and Swait (2004), credibility can be viewed as “the believability of an entity’s intentions at a particular time”. Consumer trust in a brand is influenced by its credibility, which, for example, customers evaluate by examining packaging in terms of safety or quality information (Ngo et al., 2020). The role of credibility in building trust in a brand is crucial as it is seen as a company’s expertise in fulfilling its promises and proving its reliability to buyers. Therefore, if the parent brand is evaluated as credible by the buyer, this can lead to perception of the new brand extension as just as valuable as the core brand.

Brand competence is the ability of a brand to solve consumer problems by meeting evolving demand through product extensions. As Afzal et al. (2010) argue, customers may form an opinion regarding the competency of a company or brand based on their own experience using a product or service or may rely on the opinion of others (word-of-mouth). As brands respond to consumer needs, it makes the brand competent for them and also leads to a favorable evaluation of the new brand extension.

To achieve the desired outcome from a new offering, it is important to gain consumer trust and ensure that the organization delivers value to them. Therefore, it is equally important to note the important role of perceived fit, brand reputation, extension quality, brand fit and strength in building brand trust.

Perceived fit makes a significant contribution to consumers' evaluations of new brand extensions as it helps to narrow the gap between "brands beliefs and new product assessment" (Doust & Esfahlan, 2011). In particular, higher levels of perceived fit will lead to favorable evaluations of new offerings (Aaker & Keller, 1990; as cited in Buil, Chernatony, & Hem, 2009) and strengthen consumers' trust in the brand.

An organization can benefit from perceived fit to maintain a brand's core identity, value, and reputation, and to enhance consumer response to new offerings (Buil et al., 2009). The Gucci Beauty collection is an example of a successful extension of the luxury fashion brand Gucci into the premium skincare category, without compromising the perceived fit between the parent brand and its extension. Low levels of perceived fit will cause consumers to doubt the brand's ability to deliver value and quality products (Aaker & Keller, 1990), which will ultimately lead to lower levels of brand trust and weakened customer loyalty. In order to avoid unpleasant situations and meet customer expectations, brands measure perceived fit through surveys or monitoring the brand's online presence and customer satisfaction levels.

Brand reputation can change consumers' behavior toward a new vertical brand extension because they rely on the overall experiences with the brand and are more likely to try an offering from a familiar brand that they trust. Since consumers have no previous experience with a newly launched extension, they rely on "cues" such as the brand reputation to form a first impression (Joshi & Yadav, 2017). Organizations benefit from the parent brand's reputation during the launch of new products and services, thereby facilitating this process, as the important role of reputation in subsequent success of extensions has been identified by several studies (Hem et al., 2003; Joshi & Yadav, 2017). A great example of this would be the launch of Xiaomi's budget series called Redmi, which leveraged the parent brand's reputation and consumer perception of the brand as a well-known and reliable

technology company. In this case, customers believe that Xiaomi will adhere to the same quality levels and standards in its new offerings as in the base brand.

The high reputation of the core brand provides customers with greater risk protection (Hem et al., 2003) and also implies high levels of customer satisfaction and consumer trust in the brand. Since brand trust can depend on how consumers perceive the brand's reputation, it is necessary to create a reliable brand image that will drive further customer interactions and purchases.

Consumers tend to evaluate a new extension based on a number of characteristics such as the quality of the new offering, its compatibility in terms of performance, features and product reliability. They also may "transfer their perceived quality from the parent brand to the brand's extension" (Zeng et al., 2019). New extensions with low quality can cause potential damage to a brand's reputation, while extensions with high quality can lead to increased consumer trust and perception of the brand as being able to meet their expectations.

Depending on the extension category, consumers' evaluation of the new product or service may differ. For the utilitarian product class, consumers will seek "pragmatic benefits" such as performance-related features, while for the hedonic product category, they will seek "affective benefits" such as emotional satisfaction (Lim & Ang, 2008).

Brand fit can be thought of as the logical alignment between a core brand and its extension. Unlike the consumer's subjective view, namely perceived fit, which indicates the degree "to which the parent brand and its extension share a similarity" (Prados-Peña & Barrio-García, 2021), brand fit encompasses more, including brand consistency, prioritization of brands values, identity and expertise. Brand fit refers to both functional and symbolic similarities as well as sensory attributes between the parent brand and its extension and influences how customers perceive the new extension and form further trust in it. Brand fit can reduce consumer hesitancy about new offerings due to consistency with the parent brand and change consumer behavior by increasing the likelihood of purchase.

As stated by Wymer, Gross, and Helmig (2015), brand strength can be viewed in terms of "familiarity", which refers to the degree to which consumers know a brand; "remarkability", which determines whether a brand is differentiated and viewed as exclusive by consumers, and "attitude", which can be determined by the degree of positive consumer reaction to the brand.

Many customers trust strong brands more because of their high brand visibility, trend- setting ability, strong emotional connection, and competitive advantages or innovative solutions that allow the organization to outperform others. Brand strength as a "fulcrum" (Wymer et al., 2015) could also

lead to increased consumer trust in the new extension of a strong parent brand and thus ensure sustainable growth of the entire brand.

In conclusion, it should be noted that in order to achieve sustainable financial growth, all the mentioned dimensions and attributes that affect consumer trust in a brand and its extensions should be effectively controlled and managed by an organization. Since the first consumer interactions and impressions of new brand extensions are difficult to change, brands should focus on attributes: for brand credibility – to prove their expertise in delivering on its commitments (Erdem & Swait, 2004); for brand reputation – to encourage consumers to recommend the brand to others (Afzal et al., 2010) and for brand competence – to continue to offer consumers the best possible solutions (Afzal et al., 2010). Constantly evaluated by consumers, brands must convince them of their ability to satisfy needs and, thus, maintain their position as a top-of mind player.

2.2. Mediating and moderating variables influencing brand trust

Consumer values and preferences, as well as perceived risk, may act as mediators in the relationship between brand extensions and brand trust. At the same time, market competition, economic conditions, the product category of the extension, and brand reputation may be considered as potential moderators of the relationship between the dependent and independent variables. These variables provide insight into how brand trust is affected by vertical brand extensions in both product categories.

Mediating variables provide insights into how factors such as perceived fit and perceived extension quality influence brand trust by revealing the mental processes that influence consumers' ultimate behaviors.

Park, Macinnis, Priester, Eisingerich, and Iacobucci (2010) clearly stated that brand attachment as an intrinsic need is defined as “attachment as the strength of the bond connecting the brand with the self.” Brand attachment as a psychological connection between a brand and a consumer influences attitudinal loyalty of consumers (Vahdat, Hafezniya, Jabarzadeh, & Thaichon, 2020) and leads to their favorable attitude towards the new brand extension.

Additionally, a strong connection can lead to increased consumer trust in the brand and its extensions. Organizations leverage emotional attachment of consumers to the brand to avoid the risk of failure of new brand extensions (Vahdat et al., 2020; Anwar et al., 2011), as it also helps transform positive consumer perceptions into lasting trust in the brand.

As Doust and Esfahlan (2011) stated, consumers form certain mental images based on a combination of their “functional and emotional values”, which they use to find distinguishing features between brands. Consumer values and preferences help to explain whether vertical brand extensions

align with consumers' expectations and priorities. As a key element of a long-term and fruitful relationship between buyers and brands, value alignment can drive consumer commitment to a brand (Shokri & Alavi, 2019). This alignment can also lead to increased trust, as consumers value relevance and consistency between the new extension and their needs.

Buyers face a certain level of "anxiety" when trying new products or services, which can be named as perceived risk. According to Lu, Pulpetch, & Li (2024) perceived risk is a multidimensional construct that includes factors such as "performance, financial, psychological, social, physical risks, and time risk". The authors also note that perceived risk affects consumers' assessment of a new brand extension; thus, if consumers perceive it as high-risk and rate it as a "wrong purchase", their positive assessment decreases (Srivastava & Sharma, 2011) and trust in the brand also suffers. Conversely, if a consumer perceives a new extension as a "safe deal", it may lead to a higher likelihood of purchasing it and perceiving the brand as reliable and trustworthy. Thus, perceived risk influences the level of consumer trust, where high risk may result in extension failure. In their study, Lu et al. (2024) recommend increasing brand awareness, enhancing brand extension congruity, and increasing consumer trust to reduce the negative effects of perceived risk.

Brands seek to reduce the level of the perceived risk by eliminating concerns about purchasing an extension, particularly in hedonic product categories where consumers have high expectations of brands and expect to avoid unexpected results. It is also worth noting that increased consumer trust in the core brand may contribute to the subsequent success of the new offering, as it reduces the perceived risk of purchasing the new extension (Lu et al., 2024).

Moderator variables shape the direction of the relationship between all variables, indicating how variables can enhance or weaken brand trust. As Munteanu (2015) suggests in his study, in today's dynamic competitive environment, organizations should implement an extension strategy, by prioritizing the uniqueness of offerings and striving for long-term differentiation. Therefore, brands should consider the role of all potential external factors, such as the level of market competition and economic conditions, that influence consumer behavior.

For instance, low availability of alternatives may increase the likelihood of trying new brand offerings, and vice versa, in case of oversupply with many numbers of products, the probability of buying a new extension is low. Economic conditions also influence buyers' decisions, as during economic downturns they become more price sensitive and expect to receive greater benefits from brand extensions.

Finally, the product category of brand extension is one of key contributors influencing the adoption rate of new offerings (Ma, Wang, & Qian, 2021). According to their study, consumers are

more favorable to extensions from the “low conflict” product category with the core brand (Ma et al., 2021). In case of hedonic class buyers, if consumers experience satisfaction in terms of emotions, feelings, they are more likely to accept and trust the extension; while in the utilitarian class, the success of extension depends on the rationality of the offerings and the consistency with consumers’ expectations in terms of functional benefits.

3. HEDONIC AND UTILITARIAN PRODUCT CATEGORIES

3.1 Key characteristics of both product categories

Many authors have divided product consumption into two categories: hedonic “with intangible features” and utilitarian “with tangible features” (Chaudhuri & Holbrook, 2001; Chang, et al., 2023; Voss et al., 2003; Overby & Lee, 2006; Kim & Lavack, 1996). The motivation of hedonic class buyers is related to “the degree to which customers have pleasant experiences” (Chang, et al., 2023). Typically, buyers prefer utilitarian goods because of their practicality in performing everyday tasks, while in hedonic consumption they value the enjoyment and pleasure that they receive.

During the purchasing process, consumers of utilitarian goods prefer to have a list of characteristics and features that they will consider, as they will also look at performance-related issues such as “reliability or durability” (Kim et al., 2001). Meanwhile, buyers of hedonic products expect to experience an adventure full of satisfaction, pleasure and personalization, as prestige-oriented brands imply “luxury and status” (Kim et al., 2001).

According to a study by Chang et al. (2023) on technology retail stores, shoppers are driven not only by utilitarian motives but also by pleasure-oriented experiences such as “control, curiosity, joy, focused immersion”, indicating the importance of hedonic motivations. By that means, as hedonic value becomes more important to consumers, pleasant store ambiance with emotionally rewarding shopping experiences will increase their willingness to buy more (Chang et al., 2023). For instance, tech companies like Apple are implementing this strategy in their stores, offering hands-on interaction, personalized assistance, and a comfortable environment aimed at providing the highest level of consumer experience with the brand.

Some products may possess a combination of hedonic and utilitarian features, as the same sport shoes may have both utilitarian characteristics related to performance and hedonic value as a well-known brand that evoke pleasant feelings (Voss et al., 2003; as cited in Lu, Liu, & Fang, 2016). How the consumers evaluate the products depends on their individual’s perception. Similarly, the widely consumed coffee can be classified either in the utilitarian class, as it provides an energy boost, or in the hedonic class, as it provides a pleasant taste or aroma sensation, depending on the personal preferences or values of the consumer. Consumers who seek “emotionally loaded connections” are more likely to prefer products from the hedonic class (Belk, 1988; Malär, Krohmer, Hoyer, & Nyffenegger, 2011; as cited in Goetz & Fassnacht, 2015), while buyers who value product characteristics and performance such as “reliability and durability” are more likely to prefer utilitarian class products.

3.2 The role of product category in the formation of consumer perception

As Osei et al. (2024) point out, brand trust and customer satisfaction are more influenced by utilitarian values than by hedonic values, which emphasize the importance of consumer perceptions of utilitarian benefits such as “functionality or efficiency”. Similarly, Ryu, Han, and Jang (2010) found that in the restaurant sector, although hedonic motivators are important for consumer satisfaction, utilitarian benefits have a greater impact on consumer attitudes and happiness.

Additionally, Overby and Lee (2006) analyzed online behavior of consumers and found that users were driven more by utilitarian considerations such as “savings and convenience” than by “experiential benefits” of hedonic value. Although these studies found a stronger relationship between customer satisfaction and utilitarian value than hedonic value, I believe this phenomenon may vary by industry and further research will help to clarify it.

Since each consumer has different motivations, personal perspectives, expectations, and past experiences, they may evaluate a product differently, and the same product may be rated as either utilitarian or hedonic for each consumer. To summarize this chapter, brands should consider consumers’ motives and preferences and strengthen the relationship with consumers, as well as communicate the relevant benefits (hedonic/utilitarian) to maintain consumer trust in the brand and its extension.

4. RESEARCH METHODOLOGY FOR MEASURING THE IMPACT OF VERTICAL BRAND EXTENSIONS ON CONSUMER BRAND TRUST

4.1 Signaling theory

Signaling theory is widely implemented in marketing and other fields to explain how each group interprets and receives information differently. The Signaling theory was originally introduced by Michael Spence (1973) to analyze the labor market, where “job seekers” use “the level of education” as a signal of their productivity, and “employers”, who do not have complete information about candidates, interpret this signal as an indicator of the capabilities of new an applicant.

Signaling theory can be used to examine how consumer trust in a brand is formed in response to various signals emitted by an organization during a vertical brand extension.

According to this framework, an organization is defined as a “signaler” that provides “signals” through brand communication (price, quality, advertising, etc.) aimed at reducing consumer hesitations and doubts. Consumers or groups of individuals act as “receivers” of these signals (Connelly, Certo, Ireland, & Reutzel, 2011), interpreting them through the prism of their own values, expectations, and preferences. Signaling theory also offers insight into how brand signals influence the perception of an extension and affect the subsequent levels of trust of consumers.

According to the theoretical model, it can be argued that the signals sent by a brand during a vertical extension (downward/upward) influence how consumers perceive the fit of the extension, its perceived quality, and risk of purchasing the new product. According to Connelly et al. (2011), buyers act as the receivers of signals because they have limited information and would like to obtain more. By interpreting the signals, they form their levels of trust in the new offering.

Signal costs can be defined as the amount paid or “investment” made by the signaler to “make adjustments” (Spence, 1973). In a business context, signal costs can be thought of as the monetary efforts of the organization to ensure the success of new brand extensions through consistent messaging, quality control, and advertising campaigns.

According to Connelly et al. (2011), “receivers can send feedback in the form of counter-signals”, which can be defined as further purchase, increased/decreased trust levels, or complete rejection of the new brand extension.

In conclusion, Signaling theory as a valuable framework, its implementation will provide a deeper understanding of the mechanisms that shape consumer trust after vertical brand extension and help to gain more knowledge about consumer attitudes.

4.2 Purpose, model and hypotheses of the research

Based on the analysis of previous literature and the acquired knowledge, this chapter proposes the methodological part of the research. This section of the paper outlines the aim of the research, the theoretical model, the research methods and the hypotheses that will be used to conduct research and obtain subsequent insights.

Despite previous research aimed at providing information on how brand trust and consumer evaluations of extensions are correlated (Reast, 2005), there is a significant gap in examining the impact of downward and upward extensions on consumer trust following extensions in both product categories.

Problem of the research – to understand how downward and upward vertical brand extensions affects brand trust toward extension across hedonic and utilitarian product categories.

Aim of the research - to examine the impact of vertical brand extensions, both downward and upward, on consumer trust in the brand, taking into account the differences between hedonic and utilitarian product types.

The research model is based on the Signaling theory developed by Spence (1973). The chosen theory allows us to investigate how consumer trust develops, triggered by the different signals that a brand sends during the implementation of an extension. To achieve the main goal of this study, a research model developed on the basis of the analyzed literature will be used. The model will help to examine how a vertical brand extension in both directions (downward or upward), using factors such as perceived fit between the parent brand and the extension, perceived quality of the extension, and perceived risk, moderated by product category type (hedonic or utilitarian) influence consumers' trust in the brand extension. Additionally, hypotheses based on the findings of literature review are proposed to indicate the relationships between variables.

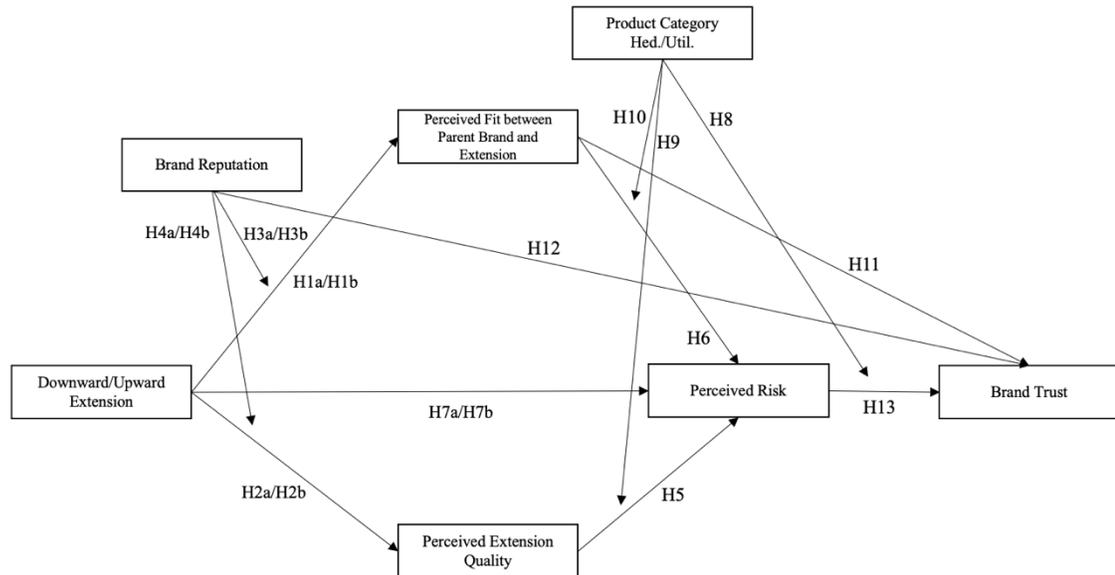
The direction of vertical brand extensions serves as a signal that can lead to different interpretations and affect consumer trust. For example, an upward extension of a mid-range brand may increase consumer doubts, as it contradicts their perception of high quality associated with the brand. This will ultimately lead to a decrease in the level of trust in the brand. In case of a downward extension by a luxury brand, offering a more affordable version in terms of quality and price may lead to a loss of perceived fit between the extension and the core brand, which may reduce consumer confidence. This may therefore potentially lead to a loss of buyers.

The research model illustrates how the dependent variable – brand trust, is impacted by various independent, moderator and mediator variables. The downward or upward vertical extension acts as an

independent variable, and serves as a signal to buyers, influencing the perceived fit and perceived extension quality. Consumers respond to the signals and form their interpretations, which are the mediator variables of this model– perceived fit, perceived extension quality and perceived risk. The product category of the extension (hedonic or utilitarian) acts as moderator, influencing the relationship between the variables. For example, a high level of perceived risk may lead to a decrease in brand trust toward the extension, while low level of risk might enhance the consumer trust.

Finally, the model shows how consumer trust in a brand extension is shaped by complex relationships between the variables (independent, moderator, mediator). The Signaling theory serves as a theoretical framework for understanding how vertical brand extensions influence the consumer responses and their subsequent trust levels.

Figure 1. The Research Model



Source: developed by author, based on the current research

In their study, Völckner and Sattler (2006) found that, among other factors determining the brand extension success, the perceived fit between the parent brand and the extension has a significant impact on it. Additionally, the authors have also suggested that a high level of fit between the core brand and new offerings leads to positive consumer behavior towards new extensions compared to a low level of fit (Buil et al., 2009). In addition, fit also positively changes consumers’ attitudes towards the new offerings (Shokri & Alavi, 2019). Dens and Pelsmacker’s (2009) study also confirm previous findings regarding the positive impact of fit on a buyer’s subsequent evaluation of a new product. However, Chung and Kim

(2014) discovered that a higher level of perceived fit does not result in a favorable evaluation of a downward extension in the context of a luxury brand (Schmitz et al., 2023). Based on these research results, the following hypotheses were proposed for further research:

H1a: A downward brand extension has a negative effect on the perceived fit between the parent brand and the extension.

H1b: An upward brand extension has a positive effect on the perceived fit between the parent brand and the extension.

Since quality attributes help customers evaluate products and distinguish one from another (Brännström & Staffansson, 2013), it is equally important to consider how consumers perceive the quality of a brand's new offering, as this perception will determine their future attitude towards an extension. Furthermore, the author's research has shown that consumers are more likely to buy or recommend a new extension if their perception of the quality of the new offering is high (Brännström & Staffansson, 2013). A recent study by Zeng et al. (2019) argues that customers may transfer the quality perceptions from the core brand to extensions, leading to favorable perception of the extension. To test this, the hypotheses were developed:

H2a: An upward brand extension positively affects the perceived extension quality.

H2b: A downward brand extension negatively affects the perceived extension quality.

As the authors emphasize, a strong brand reputation leads to a reduction in perceived risk and contributes to a favorable evaluation of new brand offerings (Hem et al., 2003; Joshi & Yadav, 2017; Buil et al., 2009). This can lead to enhanced perceived fit and subsequent success of the extension. Buil et al. (2009) highlighted that when consumers perceive high fit between the core brand and the extension, they tend to transfer these quality-related associations to the new product. Since parent brands with a strong reputation reinforce such positive associations, this also influences how customers view the perceived fit between the parent brand and the extension in favorable light. To test this, the following hypotheses were put forward:

H3a: Brand reputation moderates the relationship between a downward extension and the perceived fit.

H3b: Brand reputation moderates the relationship between upward extension and the perceived fit.

H4a: Brand reputation moderates the relationship between downward extension and the perceived extension quality.

H4b: Brand reputation moderates the relationship between upward extension and the perceived extension quality.

Consumers' attitudes toward a brand generally improve if they believe that the brand provides high quality offerings (Dens & Pelsmacker, 2009). Moreover, higher levels of perceived quality reduce perceived risk, thereby positively influencing how consumers view the brand (Aaker, 1991; as cited in Erdem & Swait, 2014). In order to assess this, the following hypotheses were proposed:

H5: Perceived extension quality has a negative effect on perceived risk associated with purchasing the extension.

Buil et al. (2009) suggested in their study that organizations can use perceived fit to improve consumer perception and change their attitudes toward new brand offerings, as well as to increase the overall brand value in the eyes of consumers. Thus, it can be assumed that consumers' acceptance of a new brand extension is influenced by their perception of the fit between the core brand and the new extension. According to recent findings by Lu et al. (2024), the effect of perceived fit on reducing perceived risk has been confirmed. Based on this study, the following hypotheses can be formulated:

H6: Perceived fit between the parent brand and the extension reduces perceived risk associated with purchasing the extension.

In their study, Dall'Olmo, Pina, and Bravo (2013) examined downward brand extension and highlighted its negative impact on the overall brand image. Thus, it can be argued that the low-quality of a product may be perceived by consumers as a "warning signal" that raises doubts about the brand extension, and, in turn, increases the perceived risk of purchasing a new extension. Srivastava and Sharma (2011) highlighted that consumers' anticipation of possible "negative consequences" during product use can be characterized as perceived risk. Lu et al. (2024) considered this risk as an obstacle to business growth and success. Since downward extensions can dilute brand image (Dall'Olmo et al., 2011) and lead to uncertainty, the following hypothesis was proposed to test this assumption:

H7a: A downward brand extension increases perceived risk associated with purchasing the extension.

H7b: An upward brand extension decreases perceived risk associated with purchasing the extension.

Consumer behavior may differ depending on the category of new extensions, whether it is the hedonic or utilitarian values that consumers expect to satisfy. According to the authors, factors related to the product category, such as "conspicuousness and social risk", may influence how consumers evaluate brand extensions (Dall'Olmo et al., 2013; as cited in Schmitz et al., 2023). Based on this, it can be assumed that extensions in the hedonic product class, which are generally more socially visible and have intangible value, may be perceived as riskier than extensions in the utilitarian product class. This perception of

increased risk may have a stronger negative impact on consumer trust in extensions in the hedonic class than in the utilitarian class. Based on this, the following assumption is put forward:

H8: Product category of extension moderates the effect of perceived risk on brand trust, such that the negative impact of perceived risk on brand trust is stronger for extensions in hedonic products and weaker for utilitarian ones.

According to Chang et al. (2023), consumers' utilitarian motivation is based on "the degree to which customers complete the purchase task efficiently". Since customers evaluate brands based on how well products "fulfill their functional needs" (Osei, et al., 2024), it can be argued that attributes related to quality are more important to buyers in utilitarian product categories than in hedonic ones. In contrast, hedonic value is evaluated more subjectively and emotionally, driven by consumers' needs for fun or pleasure (Ryu et al., 2010). Therefore, it can be assumed that the influence of perceived quality in reducing perceived risk is weaker for extensions in the hedonic product category compared to utilitarian ones. The following hypotheses are proposed for testing:

H9: Product category of extension moderates the relationship between perceived extension quality and perceived risk, such that the negative effect of perceived extension quality on perceived risk is stronger for extensions in utilitarian products and weaker for hedonic ones.

H10: Product category of extension moderates the relationship between perceived fit and perceived risk, such that the negative effect of perceived fit on perceived risk is stronger for extensions in utilitarian products and weaker for hedonic ones.

In addition, Völkner and Sattler (2006) highlighted the critical role of perceived fit in simplifying the process by which tangible and intangible associations of the brand are "transferred to the extension". Conversely, Zimmer and Bhat (2004) argued that a poor fit may not harm the brand as whole, because "dissimilar associations will not be transferred back". Therefore, it can be assumed that when consumers perceive a strong fit, they are more likely to form a positive attitude toward a new extension, which, in turn, contributes to increased trust in the new offerings. To test this phenomenon, the following hypothesis is proposed:

H11: Perceived fit between the parent brand and the extension positively influences brand trust.

Afzal et al. (2010) found that brand reputation, defined as consumers' perception of a brand's credibility and reliability, has a positive relationship with consumer trust. In another study, the authors also noted that, along with brand credibility, brand reputation is a significant factor in building brand trust (Ngo et al., 2020). Furthermore, according to previous research, if customers perceive a brand to possess

a strong reputation, this is positively associated with their level of trust in the brand (Lau & Lee, 1999; Ngo et al., 2020; Afzal et al., 2010), and the following hypothesis can be advanced:

H12: Brand reputation has a positive effect on brand trust.

The perceived risk of purchasing is an important factor influencing consumer trust in a new brand extension. Mitchell (1999) emphasizes that perceived risk is an important condition for brand trust to form. In addition, a recent study by Brzozowska-Woś (2018) shows that the perceived risk has a negative impact on consumer trust in a brand, which leads to a decrease in the level of consumer confidence in the new offers and the manufacturer itself. Many authors have investigated the role of perceived risk in consumer behavior towards a new offer, especially its weakening effect on brand trust (Srivastava & Sharma, 2011; Chang & Chen, 2008; Brzozowska-Woś, 2018; Lu et al., 2024). Therefore, the following hypothesis can be proposed:

H13: Perceived risk associated with purchasing an extension decreases brand trust.

4.3 Research design, methods and procedures for data collection, research constructs

The authors who have studied brand extensions and brand trust have mainly used quantitative data collection methods, such as online surveys, as their research methods (Kuo & Liao, 2025; Shokri & Alavi, 2019; Zeng et al., 2019; Lu et al., 2024; Hameed et al., 2014; Ma et al., 2021). In order to gain a comprehensive understanding of this research problem and examine the hypothesis, this study will also use quantitative methods for data collection procedures.

This study will utilize an experimental design to test hypotheses of this paper. A 2x2 factorial experimental design will be used to examine the relationship between variables.

As part of the study, to consider the representativeness of the selected products across both hedonic and utilitarian product categories, a pilot study consisting of three questions will be conducted. The pilot study questionnaire is presented in Annex 2. Based on the result of the pilot study, four main surveys will be conducted to gain a comprehensive understanding of this research problem and examine the hypotheses. To obtain clear responses from the participants, the online surveys will maintain anonymity and will reach the target audience through social media channels and public groups. The survey language will be English.

The first and second questionnaires are designed to measure the respondents' reactions to vertical brand extensions in the hedonic product category, specifically to price reductions (downward) and increases (upwards) for Magnum ice cream. Meanwhile, the subsequent questionnaires are designed to

assess respondents' reactions to the introduction of brand extensions at different price points in utilitarian product categories, specifically Heinz ketchup.

The target audience for the questionnaire is respondents over 18, who had consumed ketchup or ice cream in the past six months and are familiar with the brand mentioned in each survey. Since questionnaires are designed to reach respondents through online channels, respondents are not limited to a specific country.

Since this study uses a 2x2 factorial experimental design with two types of product categories and two types of extensions, they will be coded numerically as 1 and 2 (hedonic, downward - 1; utilitarian, upward - 2). A 7-point Likert type scale was chosen as a rating system, including ratings from 1 – “strongly disagree” to 7 – “agree”. Linear regression analysis, independent sample t-test, and Hayes moderation analysis will be used to test the hypothesis put forward in this paper.

The constructs were selected based on best practices applied in previous related studies. Table 2 in Annex 1 showed the constructs of the questionnaires. Annexes 3-6 contain all four questionnaires that will be used to collect the data.

Each questionnaire consists of 16 questions, starting with three screening questions. At the beginning of the surveys, screening questions regarding age, consumption of the product category (ketchup/ice cream) and familiarity with the brands are asked. Subsequently, respondents are asked about the time of their last purchase of brands mentioned in the survey.

The questionnaires are prepared so that respondents' brand trust and perceived risk will be measured twice: before and after the extension is presented. However, according to the conceptual model of this study, brand reputation will only be measured before the extension is presented.

The question regarding brand trust is based on the construct developed by Lau and Lee (1999) and includes five statements designed to assess consumer trust in the new brand extensions. The following question is aimed to assess brand reputation, which is also taken from the study by Lau and Lee (1999). The seventh question measures the perceived risk associated with purchasing an extension and is adapted from Hem et al. (2003), based on the framework proposed by Kapferer and Laurent (1993). Following these questions, a vertical brand extension scenario is presented (upward/downward product category).

Respondents are questioned, to assess their perception of perceived fit between the core brand and the extension, and a construct developed by Pourazad, Stocchi, and Pare (2019) is used. It includes three statements to assess the alignment of the extension from the consumer's perspective, followed by questions regarding the brand trust and perceived risk associated with purchasing of brand extension.

The eleventh question assesses the perceived quality of the new extension and is based on the construct used in the study by Tong and Hawley (2009), originally adapted from Aaker (1991) and Pappu, Quester, and Cooksey (2005). The final questions in the surveys are designed to assess the respondents' demographic characteristics (gender, age range, country of residence, educational level, income range). All constructs were adapted and revised to meet the goals of this research.

4.4 Sample size and structure of the research

The target audience of this paper is consumers aged 18 years and older who are familiar with brands used in surveys. Respondents will be selected using a non-probability convenience sampling method and the country of respondents is not limited. In addition, no particular requirements apply to the gender or age of respondents. The sample size of 289 participants was established using comparable research techniques based on the sample size estimates of previous studies, as shown in Table 1.

Table 1. *Defining the research sampling method*

No	Author, Years	Type of questionnaire	Sampling	Number of respondents
1	Alavinasab et al., 2017	Not specified	Probability	376
2	Anwar et al., 2011	Not specified	Non-probability	200
3	Chang et al., 2023	Online Questionnaire	Non-probability	307
4	Kuo & Liao, 2025	Online Questionnaire	Non-probability	326
5	Milberg et al., 2010	Offline Questionnaire	Non-probability	278
6	Ozretic-Dosen et al., 2018	Not specified	Non-probability	242
7	Shokri & Alavi, 2019	Online Questionnaire	Not verified	376
8	Zeng et al., 2019	Online Questionnaire	Non-probability	203
The average number			288,5	

Source: based on information derived from the authors' papers

In conclusion, this chapter draws on existing literature and utilizes the chosen data collection method to obtain relevant responses from 289 participants. The four questionnaires used in this paper are consistent with the proposed hypotheses, allowing for their testing after data collection.

5. STATISTICAL ANALYSIS OF THE RESEARCH ON IMPACT OF VERTICAL BRAND EXTENSIONS ON CONSUMER BRAND TRUST

5.1 Results of pilot research

An initial pilot study using a multiple-choice questionnaire was conducted to assess respondents' perceptions of ketchup as a utilitarian product and ice cream as a hedonic one. The results are indicated in the table below (Table 3), showing that of the total of 39 respondents, 79.5% perceived ice cream as representing a hedonic product category. This makes the Magnum ice cream suitable for use in further research.

Table 3. Multiple-choice question for identifying perception of a hedonic product

Product list	Percentage	Count
Bread	5.1%	2
Canned beans	12.8%	5
Carrots	0%	0
Chocolate bar	84.6%	33
Ice cream	79.5%	31
Rice	0%	0

Source: developed by author, based on research data

According to the results of the utilitarian product category, 56.4% of participants perceived ketchup as a product focused primarily on functionality and practical benefits (Table 4). Therefore, the Heinz brand is appropriate for use in the questionnaires.

Table 4. Multiple-choice question for identifying perception of an utilitarian product

Product list	Percentage	Count
Cookies	7.7%	3
Cheese	69.2%	27
Ketchup	56.4%	22
Energy drink	20.5%	8
Candy	5.1%	2
Potato chips	2.6%	1
Pasta	51.3%	20

Source: developed by author, based on research data

Finally, based on the obtained data, a study was conducted using the brands Magnum and Heinz as well-known representatives of the categories.

5.2 Demographic and behavioral characteristics of sample

Within the scope of this paper, four surveys were conducted, collecting 367 responses. Each questionnaire began with three screening questions aimed at collecting data relevant to this study, resulting in 289 responses which were eligible for this research.

Gender distribution of respondents. Respondents were presented with various situations designed to measure their reactions to various low- and high-price vertical brand extension offers of products in the hedonic and utilitarian categories, respectively. It is important to note that as this study conducted four separate surveys, each was aimed to be completed by a unique group of respondents to minimize response bias. The gender distribution of respondents for each survey is presented below. According to the table below (Table 1), 67.5% of respondents were female and 32.5% were male.

Table 5. *Gender distribution of respondents*

Questionnaire	Total	Female	Male
1	75	67.5% (195)	32.5% (94)
2	73		
3	63		
4	78		
Total amount	289		

Source: developed by author based on SPSS results

Age distribution of respondents. Respondents were divided into 5 different age groups. The largest proportion of respondents were in the 26-35 age group (46.36%) and 18-25 age group (40.83%). Only 9.34% of respondents are classified into the 36-45 group. Finally, the proportion of respondents in the 46-55 and 56+ age groups was 2.42% and 1.03%, respectively. It should be noted that respondents under 18 years of age were excluded from this study, as nine participants were unable to participate due to age-related questions asked as a screening question.

Table 6. *Age distribution of respondents*

Age Category	18-25	26-35	36-45	46-55	56+
Count	118	134	27	7	3
Percentage	40.83%	46.37%	9.34%	2.42%	1.04%

Source: developed by author based on SPSS results

Education level of respondents. Nearly half of the respondents held a bachelor's degree (45.33%), while 37.72% had a master's degree. A third group of respondents, approximately 9.34%, had a high

school education. A smaller group of respondents held college diplomas (4.84%). Lastly, eight respondents indicated that they had a doctoral degree, representing 2.77%.

Table 7. *Education level of respondents*

Education	High school	Associate degree (college)	Bachelor's degree	Master's degree	Doctoral degree
Count	27	14	131	109	8
Percentage	9.34%	4.84%	45.33%	37.72%	2.77%

Source: developed by author based on SPSS results

Income level of respondents. Finally, respondents were also grouped based on their average income range after taxes. 26.65% of respondents fell into the “Up to €1000” category. A slightly smaller number of respondents (23.18%) chose not to disclose their income level. The second largest group were participants with an income range from €1001 to €1500, which made 22.84%. Lastly, participants with income levels between €1501 and €2000, and €2001 and above accounted for 11.07% and 16.26%, respectively.

Table 8. *Income level of respondents*

Income	Up to €1000	€1001- €1500	€1501 - €2000	€2001 and more	Prefer not to say
Count	77	66	32	47	67
Percentage	26.65%	22.84%	11.07%	16.26%	23.18%

Source: developed by author based on SPSS results

Behavioral characteristics of respondents. Respondents were asked about their consumption of brands listed in each survey – Magnum ice cream and Heinz ketchup. While 13.5% of respondents indicated they purchased Heinz brand in the current month, only 4.15% of participants had bought Magnum during this month. This may be due to the seasonality of ice cream and consumption habits of buyers, which might indicate that the product is purchased more frequently during the warmer months. In contrast, the percentage of participants who indicated that they bought ketchup and ice cream from these brands within the past three months were approximately the same, 18.7% and 19.37%, respectively. Lastly, participants who selected the option “I haven’t bought from this brand recently” accounted for

27.68% for Magnum and 16.6% for Heinz, further highlighting the possible influence of seasonality on the ice cream category.

Table 9. Behavioral characteristics of respondents

Brand	Metric	Within the past 3 months	This month	I haven't bought from this brand recently
Heinz	Count	54	39	48
	Percentage	18.7%	13.5%	16.6%
Magnum	Count	56	12	80
	Percentage	19.37%	4.15%	27.68%

Source: developed by author based on SPSS results

It is worth noting that, as questionnaires were conducted globally, respondents were primarily from Lithuania, Azerbaijan, the United States, Estonia, etc. To conclude, based on a sample of 289 respondents, a predominance of women (67.5%) and a smaller representation of men (32.5%) can be seen. Most participants were young, holding a Bachelor's or Master's degrees, with low to middle incomes. The majority of participants (161) have bought indicated brands recently or over a 90-day window.

5.3 Assessment of reliability of scales and tests for normality

To assess the consistency of the constructs used in this study, reliability analyses were conducted for each construct. Within this research, brand trust and perceived risk were measured twice: before and after the introduction of the brand extension, and analyses were conducted separately for each. Brand reputation was measured only before the introduction of brand extension, as it plays a moderating role according to the conceptual model.

For perceived risk constructs before and after the experiment, as well as for brand trust before the introduction of the brand extension, negative scales were removed to ensure higher construct reliability. For brand trust after the introduction of the extension, since the reliability was satisfactory, scales were not removed. As these constructs contained reverse-coded statements, resulting in low Cronbach's, which may be caused by respondents' inattention or lack of understanding of statements.

Table 10. Initial reliability analysis of constructs

Scale	Sample size	No. of items per scale	Cronbach alpha
Brand Trust (1) - before	289	5	0.577
Perceived Risk (1) - after	289	6	0.603
Perceived Fit	289	3	0.762
Perceived Quality	289	3	0.825
Brand Reputation	289	6	0.695
Brand Trust (2) - after	289	5	0.788
Perceived Risk (2) - after	289	6	0.723

Source: developed by author based on SPSS results

Since the Cronbach's alpha coefficients for the constructs of brand trust (1), perceived risk (1), and perceived risk (2) were low, a second reliability analysis was conducted, the results of which are presented in Table 11. According to the final reliability analysis, satisfactory levels of Cronbach's alpha were observed, ranging from 0.69 to 0.89. The detailed information regarding reliability analysis is presented in Annexes 7-16.

Table 11. *Final reliability analysis of constructs*

Scale	Sample size	No. of items per scale	Cronbach alpha
Brand Trust (1) - before	289	3	0.899
Perceived Risk (1) - after	289	5	0.764
Perceived Risk (2) - after	289	5	0.825

Source: developed by author based on SPSS results

To test the normal distribution of the variables, the Kolmogorov-Smirnov and Shapiro-Wilk tests were used. The results indicated that all variables deviated from normal distribution, as $p < .05$ was not followed for each construct, as noted in Annexes 17-23. Since the sample size was larger than 40-50 respondents, the requirement for normality assumption ($p < 0.05$) is less significant in this case (Pallant, 2007; as cited in Ghasemi & Zahediasl, 2012).

Furthermore, the statistical measures of Skewness and Kurtosis were applied to test each variable distribution's shape. As shown in the table below (Table 12), the Skewness and Kurtosis values indicate

that overall data are approximately normally distributed, with Skewness ranging from -1 and +1, and Kurtosis within acceptable limits. The exception is the brand reputation variable, which showed high Kurtosis, indicating a peaked distribution. More detailed analysis can be found in Annexes 17-23.

Table 12. *Tests for normality*

Descriptives			
		Statistic	Std. Error
Brand Trust (TRUST1)	Skewness	-,959	,143
	Kurtosis	,367	,286
Brand Reputation (REP1)	Skewness	-,183	,143
	Kurtosis	2,300	,286
Perceived Risk (RISK1)	Skewness	,130	,143
	Kurtosis	-,386	,286
Perceived Fit (FIT1)	Skewness	-,252	,143
	Kurtosis	-,476	,286
Brand Trust (TRUST2)	Skewness	,089	,143
	Kurtosis	-,307	,286
Perceived Risk (RISK2)	Skewness	,296	,144
	Kurtosis	-,165	,286
Perceived Quality (QUAL1)	Skewness	-,424	,144
	Kurtosis	-,470	,286

Source: developed by author based on SPSS results

After checking the reliability of the scales and testing for normal distribution, the obtained results allowed us to move on to the analysis of the hypotheses presented in the next section.

5.4 Analysis of the research hypothesis

5.4.1 Impact of direction of extension (downward, upward) on perceived risk

The independent samples t test was applied to test hypotheses H1a and H1b. For the purposes of analysis, downward extension was classified as 1, upward extension was classified as 2. According to the obtained results, perceived fit was slightly higher for 1 ($M = 4.41$, $SD = 1.25$), compared to 2 ($M = 4.27$, $SD = 1.58$). However, these results were not significant, $t = 0.83$, $p = 0.41$.

Table 13. *Independent samples t test of extension direction (downward, upward) on perceived risk*

Group Statistics					
	direction	N	Mean	Std. Deviation	Std. Error Mean
FIT1	1	138	4,41	1,252	,107
	2	151	4,27	1,576	,128

Source: developed by author based on SPSS results

Furthermore, as shown in Table 13, neither **H1a nor H1b were supported**. The results of SPSS analysis are presented in Annex 24.

5.4.2 Impact of direction of extension (downward, upward) on perceived extension quality

The second hypotheses, H2a and H2b, were tested using the independent samples t test. For the analysis, downward extensions were labeled as 1, and upward brand extensions as 2. Based on the analysis, it was indicated that perceived extension quality was lower for downward extensions ($M = 4.30$, $SD = 1.45$) than for upward extensions ($M = 4.81$, $SD = 1.55$). The result of the independent samples t test indicates a statistically significant difference in perceived extension quality between the directions of brand extensions, $t = -2.86$, $p = 0.005$. Thus, perceived extension quality is significantly higher for upward extensions compared to downward extensions.

Table 14. *Independent-samples t-test analysis: Impact of downward and upward brand extension on perceived extension quality*

Group Statistics					
	direction	N	Mean	Std. Deviation	Std. Error Mean
QUALITY1	1	137	4,3017	1,45459	,12427
	2	151	4,8102	1,55039	,12617

Source: developed by author based on SPSS results

The results presented in Table 14 **support hypotheses H2a and H2b**. The full statistical results of the test are reported in Annex 25.

5.4.3 Impact of brand reputation on the relationship between extension direction and perceived fit

Furthermore, to test the third hypothesis, which proposes that brand reputation moderates the relationship between brand extension direction and perceived fit, the moderation analysis was conducted using the Hayes method (PROCESS, Model 1). Results showed that the overall model was significant, $F = 8.46$, $p < 0.001$, $R^2 = 0.082$.

However, the main effect of brand extension direction on perceived fit was statistically insignificant, $p = 0.300$, and brand reputation also did not demonstrate a significant effect on perceived fit, $p = 0.058$. The interaction between brand extension direction and brand reputation was also insignificant, $p = 0.766$, indicating the absence of a moderator effect of brand reputation.

Table 15. *Model summary of moderation analysis*

R	R2	MSE	F	df1	df2	p
0.286	0.818	1,896	8.460	3	285	0.000

Source: developed by author based on SPSS results

Thus, **H3a and H3b are rejected**, as REP1 neither strengthens nor weakens the relationship between the variables (Table 15). The results are presented in Annex 26.

5.4.4 Impact of brand reputation on the relationship between extension direction and perceived extension quality

A moderation analysis using Hayes' method (PROCESS, Model 1) was conducted, to test if REP1 plays a moderator role in the relationship between extension direction and QUAL1. The resulting model was statistically significant, $F = 12.61, p < 0.001$. Additionally, the results showed that direction of brand extension is a significant predictor of perceived quality, $p = 0.005$, as is brand reputation, $p = 0.002$. Nevertheless, the interaction effect between the direction of brand extension and brand reputation was not significant, $p = 0.12$, indicating the absence of a moderator role of REP1 in this model.

Table 16. *Model summary of moderation analysis*

R	R2	MSE	F	df1	df2	p
0.3429	0.1176	2.0721	12.6127	3	284	0.000

Source: developed by author based on SPSS results

Furthermore, **H4 is rejected** (Table 16). The results of the moderation analysis can be found in Annex 27.

5.4.5 Impact of perceived extension quality on perceived risk

Furthermore, to test the relationship between QUAL1 and RISK2, a linear regression analysis was performed. For this analysis, a post-scenario construct of perceived risk was selected. According to the regression analysis results, the independent variable did not have a significant effect on the dependent variable, $F(1,286) = 1.02, p = 0.315$ and R^2 value was 0.004. Thus, QUAL1 was not a significant predictor of RISK2, $\beta = 0.6, t = 1.01, p < 0.315$.

Table 17. *Regression analysis of perceived quality on perceived risk*

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3,292	,239		13,754	<,001
	QUALITY1	,050	,050	,059	1,007	,315

a. Dependent Variable: RISK2

Source: developed by author based on SPSS results

Contrary to the hypothesis, the relationship between the variables was positive, which provides grounds for **rejecting H5** (Table 17). The regression analysis results are presented in Annex 28.

5.4.6 Impact of perceived fit on perceived risk

Linear regression was performed to determine whether perceived fit negatively impacts perceived risk associated with acquiring a brand extension. The post-scenario perceived risk (RISK2) was used in this analysis. The overall regression model was non-significant ($F(1,286) = 1.13, p = 0.289$) and the R^2 value from the model summary table was 0.04.

According to the results presented in the coefficients table, the independent variable (FIT1) did not significantly impact the dependent variable (RISK2), $\beta = 0.63, t = 1.06, p < 0.289$.

Table 18. *Regression analysis of perceived fit on brand trust*

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3,277	,241		13,572	<,001
	FIT1	,056	,053	,063	1,063	,289

a. Dependent Variable: RISK2

Source: developed by author based on SPSS results

Hence, the test results **do not support H6**, which predicts that perceived fit will reduce perceived risk associated with purchasing an extension (Table 18). A more detailed analysis can be found in Annex 29.

5.4.7 Impact of direction of extension (downward, upward) on perceived risk

To verify hypotheses H7a and H7b, which predict differences in perceived risk depending on the direction of brand extension (downward and upward), the independent samples t test was conducted. The table below shows the results of the analysis, where downward extension was coded as 1, upward extension was coded as 2, and a post-scenario construct of perceived risk is selected. The results of analysis showed that respondents who rated downward brand extensions reported slightly higher levels of perceived risk ($M = 3.63, SD = 1.29, n = 137$), compared to those who rated upward brand extension ($M = 3.42, SD = 1.27, n = 151$). Despite this, the differences identified did not reach statistical significance, $t = 1.38, p = 0.168$.

Table 19. *Independent samples t test of extension direction (downward, upward) on perceived risk*

Group Statistics					
	direction	N	Mean	Std. Deviation	Std. Error Mean
RISK2	1	137	3,63	1,291	,110
	2	151	3,42	1,273	,104

Source: developed by author based on SPSS results

Thus, both hypotheses **H7a and H7b did not receive support** (Table 19). The results of the independent samples t test are reported in Annex 30.

5.4.8 Impact of product category of extension on the relationship between perceived risk and brand trust

To test the hypothesis regarding the moderator role of the product category in the relationship between RISK2 and TRUST2, the moderation analysis was applied. The regression model was statistically significant $p < 0.001$. The analysis results indicated that the main effect of perceived risk on brand trust was insignificant, $p = 0.918$. Meanwhile, the product category had a significant positive effect on brand trust, $p = 0.024$, which suggests a significant difference of TRUST2 between hedonic and utilitarian product categories. The results of moderator analysis revealed that no significant moderator effect, $p = 0.120$. This suggests that the product category does not modify the relationship between perceived risk and brand trust.

Table 20. *Model summary of moderation analysis*

R	R2	MSE	F	df1	df2	p
0.2996	0.0898	1.2073	9.3357	3	284	0.000

Source: developed by author based on SPSS results

Therefore, **H8 is rejected** (Table 20). The detailed results of moderation analysis are provided in Annex 31.

5.4.9 Impact of product category of extension on the relationship between perceived extension quality and perceived risk

Moderation analysis was conducted to analyze the moderator role of product category of extension in relationship between QUAL1 and RISK2. Results showed that the overall model was statistically significant, $p = 0.0004$. Additionally, the results pointed out that perceived quality of extension had a significant effect on perceived risk and positive, $p = 0.0001$. Furthermore, the product category of

extension also had a significant effect on RISK2, $p = 0.040$. Additionally, there is a statistically significant moderation between QUAL1 and product category of extension, $p = 0.0003$.

Analysis also revealed that for utilitarian product categories of extension, which are coded as 1, QUAL1 has a significant positive effect on RISK2, $p = 0.0007$. At the same time, for the hedonic product category of extension, coded as 2, this effect did not reach statistical significance, $p = 0.071$. Thus, despite the statistically significant moderation effect of the product category of extension, the direction of the effect is contrary to the proposed hypothesis. Especially, in the utilitarian product category, higher QUAL1 is associated with an increase in RISK2, not the opposite.

Table 21. *Model summary of moderation analysis*

R	R2	MSE	F	df1	df2	p
0.2504	0.0627	1.5608	6.3341	3	284	0.004

Source: developed by author based on SPSS results

As a consequence, **H9 is not supported** (Table 21). The findings of the moderation analysis are provided in Annex 32.

5.4.10 Impact of product category of extension on the relationship between perceived fit and perceived risk

To verify the tenth hypothesis, the moderation analysis was conducted. The overall model was statistically insignificant, $p = 0.114$. In addition to this, the main effect of FIT1 on RISK2 was also not significant, $p = 0.215$. Moreover, the product category of extension had a significant effect on RISK2, $p = 0.045$, suggesting differences in RISK2 levels across product categories of extension. Above all, the interaction between FIT1 and product category of extension was insignificant, $p = 0.367$, which implies the absence of a moderation effect.

Table 22. *Model summary of moderation analysis*

R	R2	MSE	F	df1	df2	p
0.1440	0.0207	1.6307	2.0033	3	284	0.1137

Source: developed by author based on SPSS results

Thus, the product category of extension does not moderate the relationship between perceived fit and perceived risk, **rejecting H10** (Table 22). The results are provided in Annex 33.

5.4.11 Impact of perceived fit on brand trust

In order to test the relationship between the independent variable (FIT1) and the dependent variable (TRUST2) a simple regression analysis was carried out. The results indicate a positive and statistically significant effect of perceived fit on brand trust ($\beta = 0.404$, $t = 7.48$, $p < 0.001$). The regression model showed $R^2 = 0,163$.

Table 23. *Regression analysis of perceived fit on brand trust*

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3,366	,198		17,034	<,001
	FIT1	,324	,043	,404	7,477	<,001

a. Dependent Variable: TRUST2

Source: developed by author based on SPSS results

The data show that an increase in FIT1 leads to an increase in TRUST2 ($B = 0.324$), **supporting H11** (Table 23). The statistical analysis is shown in Annex 34.

5.4.12 Impact of brand reputation on brand trust

To analyze twelve hypotheses linear regression was applied. For this hypothesis testing the pre-scenario brand trust construct was selected. The results showed that the brand reputation has a significant positive effect on brand trust. The regression model showed $R^2 = 0,209$. The analysis showed that brand reputation is a significant predictor of brand trust, $F(1,287) = 75,848$, $p < 0.001$. The coefficient for the independent variable (REP1) was also significant ($\beta = 0.457$), $t = 8.709$, $p < 0.001$).

Table 24. *Regression analysis of brand reputation on brand trust*

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2,109	,355		5,945	<,001
	REP1	,771	,088	,457	8,709	<,001

a. Dependent Variable: TRUST1

Source: developed by author based on SPSS results

Therefore, an increase in REP1 leads to an increase in TRUST1 ($B = 0.771$), suggesting **support for H12** (Table 24). A detailed analysis is provided in Annex 35.

5.4.13 Impact of perceived risk related with purchasing an extension on brand trust

Linear regression analysis was used to assess the impact of perceived risk (RISK2) associated with acquisition of an extension on the brand trust (TRUST2). The post-scenario constructs were selected for the analysis. The analysis revealed a statistically significant but weak negative correlation between the variables. According to the results, the independent variable (RISK2) is a significant predictor of the dependent variable (TRUST2), $F(1.286) = 19.961, p < 0.001$. The regression model showed $R^2 = 0.065$. The regression coefficient for perceived risk is statistically significant ($\beta = -0.255$), $t = -4.468, p < 0.001$. The results show that for every one unit increase in perceived risk, brand trust decreases by 0.228 units ($B = -0.228$). Thus, **H13 is confirmed**, perceived risk has a significant negative impact on brand trust (Table 25). The results of SPSS analysis are presented in Annex 36.

Table 25. *Regression analysis of perceived risk on brand trust*

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	5,576	,191		29,171	<,001
	RISK2	-,228	,051	-,255	-4,468	<,001

a. Dependent Variable: TRUST2

Source: developed by author based on SPSS results

To summarize the results of hypothesis testing, it can be stated that out of thirteen presented hypotheses, four were confirmed, while the remaining nine were not supported, as shown in the table below.

Table 26. *Overview table of confirmed and rejected hypotheses*

Hypothesis	Results
H1a: A downward brand extension has a negative effect on the perceived fit between the parent brand and the extension.	Rejected
H1b: An upward brand extension has a positive effect on the perceived fit between the parent brand and the extension.	Rejected
H2a: An upward brand extension positively affects the perceived extension quality.	Confirmed
H2b: A downward brand extension negatively affects the perceived extension quality.	Confirmed
H3a: Brand reputation moderates the relationship between a downward extension and the perceived fit	Rejected
H3b: Brand reputation moderates the relationship between upward extension and the perceived fit.	Rejected

H4a: Brand reputation moderates the relationship between downward extension and the perceived extension quality.	Rejected
H4b: Brand reputation moderates the relationship between upward extension and the perceived extension quality.	Rejected
H5: Perceived extension quality has a negative effect on perceived risk associated with purchasing the extension.	Rejected
H6: Perceived fit between the parent brand and the extension reduces perceived risk associated with purchasing the extension.	Rejected
H7a: A downward brand extension increases perceived risk associated with purchasing the extension.	Rejected
H7b: An upward brand extension decreases perceived risk associated with purchasing the extension.	Rejected
H8: Product category of extension moderates the effect of perceived risk on brand trust, such that the negative impact of perceived risk on brand trust is stronger for extensions in hedonic products and weaker for utilitarian ones.	Rejected
H9: Product category of extension moderates the relationship between perceived extension quality and perceived risk, such that the negative effect of perceived extension quality on perceived risk is stronger for extensions in utilitarian products and weaker for hedonic ones.	Rejected
H10: Product category of extension moderates the relationship between perceived fit and perceived risk, such that the negative effect of perceived fit on perceived risk is stronger for extensions in utilitarian products and weaker for hedonic ones.	Rejected
H11: Perceived fit between the parent brand and the extension positively influences brand trust.	Confirmed
H12: Brand reputation has a positive effect on brand trust.	Confirmed
H13: Perceived risk associated with purchasing an extension decreases brand trust.	Confirmed

Source: developed by author based on SPSS results

In their study, the authors found a significant effect of perceived fit on consumer behavior toward a new extension (Shokri & Alavi, 2019). In contrast, this paper did not support the first hypothesis (H1a/H1b), which predicted that the direction of vertical brand extension (downward/upward) will have a negative or positive effect on perceived fit. Thus, this may indicate that perceived fit between the parent brand and the extension is not determined by the direction of the vertical brand extension.

Hypotheses H2a and H2b were confirmed, consistent with the findings of Brännström and Staffansson (2013), who emphasised the role of perceived quality in shaping future buying intentions. Thus, the proposed hypotheses point out the positive impact of upward vertical brand extension on perceived extension quality, suggesting that this impact is higher in case of upward compared to downward brand extension.

Hypotheses H3a/H3b and H4a/H4b, which proposed a moderating role for brand reputation between the extension direction and perceived fit or perceived risk, were rejected. These results contradict a previous study by Hem et al. (2003), which may be due to the fact that FMCG goods used in this study are considered as low-involvement purchases. Unlike categories such as ice cream, which is indulgence-based, or ketchup, which belongs to the condiment category, consumers may pay more attention to factors related to ingredients and taste, rather than fit with the parent brand or purchasing risk.

The fifth hypothesis (H5), concerning the possible negative impact of perceived extension quality on perceived risk, was also not confirmed. Although a prior study by Erdem and Swait (2004) demonstrated that perceived quality and brand credibility lower perceived risk, the hypothesis was not supported in this study. This could be explained by the fact that perceived extension quality may play other roles related to performance perception, but not to risk reduction.

Hypothesis H6, which examined the negative impact of perceived fit on perceived risk, was rejected. Even though this hypothesis is based on study by Lu et al. (2024), who confirmed this impact in their research, differences in product categories, as this paper focuses on fast-moving consumer goods, may influence the results.

The following hypotheses (H7a/H7b), aimed at testing the impact of the direction of vertical brand extension (downward/upward) on perceived risk, were not supported. In contrast to previous studies examining the role of downward extension in consumer evaluation of new offerings (Dall'Olmo et al., 2011), the results of this study indicate that the direction of brand extension (downward/upward) alone is not a sufficient to increase or decrease the perceived risk associated with purchasing an extension.

The eight hypothesis (H8), which emphasizes that the product extension category moderates the effect of perceived risk on brand trust, was rejected. Therefore, it can be assumed that the negative impact of perceived risk on brand trust does not vary by product category.

The moderator role of the product extension category in the relationship between perceived fit and perceived risk, hypothesized in H10, was not supported. Furthermore, the similar moderator role of the product extension category in the relationship between perceived extension quality and perceived risk, as stated in H9, was also not confirmed. Previous research shows that both hedonic and utilitarian values significantly influence consumer behavioral attitudes (Ryu et al., 2010). However, the rejection of hypotheses can be explained by the fact that perceived quality does not have a mitigating effect on perceived risk, which is similar to the results of H5.

Furthermore, hypothesis H11, predicting a positive effect of perceived fit on brand trust, was confirmed. The findings are consistent with research suggesting that perceived fit between a parent brand and its extension facilitates the transfer of trust from the parent brand to the extended product (Völckner & Sattler, 2006). Hypothesis H12, which predicts a positive impact of brand reputation on brand trust, was supported. This therefore aligns with findings by Afzal et al. (2010). The final hypothesis (H13), testing the influence of perceived risk on brand trust, was confirmed. The results are consistent with study by Brzozowska-Woś (2018).

5.5 Limitations of the research, recommendations for future research, practical implementation.

Limitations of the research and recommendations for future research.

1. Regarding the respondents, it should be noted that most were from capital cities, rather than the regions of the countries they indicated. This could be considered a limitation, as in most countries, there is an economic gap between the capital cities and the regions. Since most respondents were under 36 years old, this could also influence the data, as the consumption habits of younger generations may differ from others. Additionally, prevalingly female respondents took part in the study, which could also influence the data. Therefore, future research could focus on older generations, from different economical situations and with gender parity in the number of respondents.

2. This paper focused on fast-moving consumer goods, treating ketchup as a utilitarian product and ice cream as a hedonic one. However, different results may be obtained in other industries or including service-related brands. As well as, the vertical brand extension used in this study was limited to price changes only, and quality changes were outside the scope of this research. Future studies could cover different brands or industries, offering extensions with different levels of price and quality to obtain results.

3. Although well-known and well-established brands were selected for this study, some respondents experienced difficulty with brand recognition. Furthermore, the seasonality of ice cream consumption may have influenced the results. Some respondents mentioned that they did not consume ketchup due to its perceived unhealthiness. Furthermore, future research could focus on products with less seasonality or better perceived healthiness, as some consumers place greater emphasis on healthy choices.

4. Since most reverse-coded statements were not rated as expected in the study, it indicates the limited attention span of respondents who completed the surveys. Future studies could be designed to maintain the attention of participants in order to obtain more relevant results.

5. This paper included analysis of the independent variable perceived quality, but the future research could cover the variables such as brand equity, which could potentially influence brand trust. This paper also examines perceived risk associated with purchasing an extension, however there are several types of perceived risk that could be assessed in future studies (financial, psychological, physical, etc.).

6. Since the data were collected through online questionnaires using a convenience sampling method and respondents were not limited to a certain country or specific market, it is difficult to represent results for a specific consumer group, generation or country.

Practical implementation.

1. Several findings can be highlighted as managerial implication. According to the findings, upward vertical brand extensions have a positive impact on the perceived extension quality. Therefore, companies with a portfolio of strong brands can implement this strategy, while downward brand extensions should be used with caution, as they may affect the perceived extension quality. For product categories where consumers value quality as a key factor in their decision-making, upward extension may be the right strategy for managers to ensure success of new offerings. Furthermore, the fundamental role of perceived fit between the parent brand and the extension, as well as brand reputation, in enhancing brand trust were confirmed. This suggests that managers should maintain the fit between the main brand and the extension, and manage brand reputation to ensure consumer trust in the brand.

2. Based on research findings, the negative impact of perceived risk on brand trust can be highlighted. This should be taken into account by managers in their brand management strategies, as neglecting the consumer perception of risk can impact brand trust. Furthermore, perceived fit must be carefully managed, considering the differences in product category extensions. As the results for utilitarian extension showed, perceived fit plays a significant role, as it can mitigate perceived risk if it is aligned. Therefore, managers should communicate similarities and consistency between the parent brand and the new offerings, emphasizing the practical characteristics that are important for functional products. In conclusion, managers should exercise caution when implementing vertical brand extension strategies, particularly considering the direction of the brand extension and the product category of extension, to manage and minimize perceived risk and maintain brand trust.

CONCLUSIONS AND RECOMMENDATIONS

Overall, vertical brand extensions is one of the most frequently used growth strategies, widely employed by companies to achieve their strategic goals. However, the implementation of such strategies can impact consumer perceptions and trust in the brand. Therefore, vertical brand extensions must be carefully monitored to ensure their long-term effectiveness. In this context, the results of this study, which aimed to examine the influence of vertical brand extensions on brand trust, are presented below.

1. The paper confirmed the perceived risk associated with acquiring a brand extension has a negative impact on brand trust. This finding is consistent with previous studies, which also found a negative effect of perceived risk on consumer trust in the brand (Brzozowska-Woś, 2018; Chang & Chen, 2008). It should be noted that to ensure a successful brand extension strategy, companies need to mitigate perceived risks, as if consumers associate a new offering with a higher level of risk, their trust in both the new extension and the brand's ability to deliver on its promises significantly reduces.

2. Many authors have noted, brand reputation is essential for further enhancing customer satisfaction (Lau & Lee, 1999), and this study also confirmed a positive relationship between brand reputation and brand trust. The results correspond with the findings of Afzal et al. (2010), who mentioned the importance of maintaining a strong reputation to meet the consumer expectations. Companies planning to leverage vertical brand extension, both downward and upward, should review their existing reputation to prevent further damage to consumer trusts.

3. This study also revealed a positive impact of perceived fit on brand trust, suggesting that the greater the degree of similarity between the main brand and its extension, the more trust consumers feel. In their study, Buil et al. (2009) also highlighted the significant role of fit in shaping consumer intentions and evaluations. Furthermore, since high levels of similarity contribute to stronger consumer trust, this should also be taken into account when implementing vertical brand extensions.

4. Since the direction of vertical brand extension has a significant impact on consumer quality perceptions, it is important for companies to carefully manage their extension strategies to ensure long-term success. The study's results showed that upward extensions, with higher price points or quality, have a positive impact on perceived quality, while downward extensions are associated with a decrease in perceived quality. This suggests the need for caution in downward vertical brand extension strategies, as they can lead to a decline in perceived quality or weaken the brand's position.

Furthermore, since respondents' price sensitivity to new brand extensions in the selected product categories (ice cream and ketchup) was lower than expected, future research could explore product categories with higher levels of consumer involvement.

Although most of the proposed hypotheses were not supported, the study's results contribute a deeper understanding of the process of brand trust formation following vertical brand extensions in both hedonic and utilitarian product categories. The absence of a moderator effect for the product category of extension indicates that it has no influence on the relationship between perceived risk, perceived extension quality, perceived fit, and brand trust. Similarly, the absence of a moderator role for brand reputation suggests that customers form brand trust based on overall brand evaluations, rather than modifying their perceptions of fit or extension quality based on direction of the vertical brand extension.

The paper findings propose that, in the context of vertical brand extensions, brand trust formation is a more complex process, which is not solely dependent on the product category. Thus, companies who aim to implement vertical brand extension strategies should adopt a holistic approach which will help to maintain appropriate levels of consumer trust and ensure the further extension success in both hedonic and utilitarian product categories.

To conclude, the results of this study contribute to the existing literature related to brand extension by offering an alternative perspective on the role of perceived fit, perceived extension quality, and brand reputation in shaping consumer brand trust.

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**BRAND TRUST AFTER VERTICAL EXTENSIONS OF BRAND IN HEDONIC AND UTILITARIAN
PRODUCT CATEGORIES**

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Master thesis

Marketing and Integrated Communication

Vilnius University, Faculty of Economics and Business Administration

Supervisor – Dr. Ramūnas Čsas.

Vilnius, 2026

SUMMARY

54 pages, 26 tables, 1 figure, 36 annexes, 99 references

This research aimed to examine the impact of vertical brand extensions on brand trust. The paper consists of literature review, the methodological part with research results, and lastly recommendations and conclusions.

The aim of this thesis is to determine the influence of vertical brand extensions on brand trust and to explain their effects in hedonic and utilitarian contexts. The problem of the research is to understand how downward and upward vertical brand extensions affect brand trust toward extension across hedonic and utilitarian product categories.

The first part included a literature review, which focused on analyzing brand trust and the factors that influence it, vertical brand extensions with both downward and upward directions, and hedonic and utilitarian product categories.

The second part aimed to examine the impact of brand extensions on brand trust in hedonic and utilitarian product categories by conducting the research. A conceptual model based on Signaling theory and a literature review was developed, including the thirteen hypotheses. A quantitative method was chosen for data collection, and a pilot study with three questions was conducted to determine the appropriateness of the products selected for the study. Based on results of the pilot survey, the four subsequent questionnaires, each containing sixteen questions, were conducted to collect the necessary data. A total of 289 responses were collected. SPSS analysis, including regression analysis, independent sample t-test, and moderation analysis were used to test the relationship between variables.

The final section of the paper presents the study's findings, including the limitations, practical recommendations for managers, and opportunities for future research. According to the results of the paper, it can be stated that perceived risk influences brand trust, upward vertical brand extension influences perceived extension quality, perceived fit influences brand trust, brand reputation impacts brand trust.

**PASITIKĖJIMAS PREKĖS ŽENKLU PO VERTIKALIŲ PREKĖS ŽENKLO IŠPLĖTIMŲ
HEDONISTINĖSE IR UTILITARINĖSE PRODUKTŲ KATEGORIJOSE**

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Darbo vadovas – Dr. Ramūnas Časas.

Vilnius, 2026

SANTRAUKA

54 puslapiai, 26 lentelės, 1 paveikslas, 36 priedai, 99 literatūros šaltiniai

Šio tyrimo tikslas buvo ištirti vertikalios prekės ženklo plėtros įtaką prekės ženklo pasitikėjimui. Straipsnį sudaro literatūros apžvalga, metodologinė dalis su tyrimo rezultatais ir galiausiai rekomendacijos bei išvados.

Šio darbo tikslas – nustatyti vertikalios prekės ženklo plėtros įtaką prekės ženklo pasitikėjimui ir paaiškinti jų poveikį hedonistiniame ir utilitariniame kontekstuose. Tyrimo problema – suprasti, kaip vertikali prekės ženklo plėtra žemyn ir aukštyn veikia prekės ženklo pasitikėjimą plėtra hedonistinėse ir utilitarinėse produktų kategorijose. Pirmojoje dalyje buvo atlikta literatūros apžvalga, kurioje daugiausia dėmesio skirta prekės ženklo pasitikėjimo ir jį įtakos turinčių veiksnių analizei, vertikaliems prekės ženklo išplėtimams tiek žemyn, tiek aukštyn, ir hedonistinėms bei utilitarinėms produktų kategorijoms.

Antrojoje dalyje buvo siekiama ištirti prekės ženklo išplėtimo poveikį prekės ženklo pasitikėjimui hedonistinėse ir utilitarinėse produktų kategorijose, atliekant tyrimą. Buvo sukurtas signalizacijos teorija pagrįstas konceptualus modelis ir literatūros apžvalga, įskaitant tryliką hipotezių. Duomenų rinkimui buvo pasirinktas kiekybinis metodas, o bandomasis tyrimas su trimis klausimais, siekiant nustatyti tyrimui pasirinktų produktų tinkamumą. Remiantis bandomosios apklausos rezultatais, buvo atlikti keturi klausimynai, kurių kiekviename buvo šešiolika klausimų, siekiant surinkti reikiamus duomenis. Iš viso surinkti 289 atsakymai. Kintamųjų ryšiui patikrinti buvo naudojama SPSS analizė, įskaitant regresinę analizę, nepriklausomų imčių t testą ir moderavimo analizę.

Paskutinėje straipsnio dalyje pateikiami tyrimo rezultatai, įskaitant apribojimus, praktines rekomendacijas vadovams ir būsimų tyrimų galimybes. Remiantis straipsnio rezultatais, galima teigti, kad suvokiama rizika daro įtaką prekės ženklo pasitikėjimui, vertikali prekės ženklo plėtra į viršų daro įtaką suvokiamai plėtros kokybei, suvokiamas tinkamumas daro įtaką prekės ženklo pasitikėjimui, o prekės ženklo reputacija daro įtaką prekės ženklo pasitikėjimui.

ANNEXES

Annex 1.

Table 2. *Constructs of the questionnaire*

Variables	Description	Source
Trust in the Brand	<ul style="list-style-type: none"> • I trust this brand • This brand cannot be counted on to do its job* • I feel that I can trust this brand completely • I cannot rely on this brand* • I feel secure when I buy this brand because I know that it will never let me down 	Lau & Lee (1999)
Perceived Risk	<ul style="list-style-type: none"> • When I'm in front of the section, I always feel rather unsure about what to pick (uncertainty) • When you buy an , it's easy to make a wrong choice (uncertainty) • It's difficult to know what is the best option in the market (uncertainty) • You risk some negative consequences if you choose a wrong (consequences) • I should be annoyed with myself, if it turned out I'd made the wrong choice when buying (consequences) • It's not so dangerous to make a wrong choice of ---- (consequences)* 	Hem et al. (2003); partly adapted from Kapferer & Laurent, (1993) by authors.
Perceived Fit	<ul style="list-style-type: none"> • This brand would be a good fit with this brand's products/services • This brand would be consistent with this brand's products/services • This brand would be a representative of this brand 	Pourazad, Stocchi, & Pare (2019)

Perceived Quality	<ul style="list-style-type: none"> • I trust the quality of products from X^b • Products from X would be of very good quality • Products from X offer excellent features 	Tong & Hawley (2009), adapted from Aaker, D.A. (1991), Pappu et al., (2005) by authors.
Brand Reputation	<ul style="list-style-type: none"> • This brand has a reputation for being good • This brand has a reputation for being unreliable* • Other people have told me that this brand is not good* • Other people have told me that this brand is reliable • This brand is reputed to perform well • I have heard negative comments about this brand* 	Lau & Lee (1999)

Annex 2. Pilot research questionnaire

Dear respondent,

I'm a Master's student of Vilnius University, Faculty of Economics and Business Administration. Currently I'm conducting a survey to explore product category perception.

The questionnaire is very quick. Your responses will be kept completely anonymous and used for research purposes only. For any additional questions, please contact me at: irana.mammadova@evaf.stud.vu.lt

Thank you for your help!

Questionnaire

1. Please confirm whether you are 18 years old or older.

- Yes
- No

2. A hedonic product is something people buy mainly for fun, pleasure, or enjoyment, not just for practical use. These products make us feel good or give us a nice experience. They are different from useful products, which we buy to do a job or solve a problem.

Please mark which of the following are hedonic products.

- Bread
- Canned beans

- Carrots
- Chocolate bar
- Ice cream
- Rice

3. A utilitarian product is something people buy for its functionality and the practical benefits it can provide. These products help us accomplish tasks and meet everyday needs. They differ from products we use for pleasure or enjoyment.

Please mark which of the following are utilitarian products.

- Cookies
- Cheese
- Ketchup
- Energy drink
- Candy
- Potato chips
- Pasta

Annex 3. Questionnaire 1 - Hedonic product, downward extension (Magnum ice cream)

Dear respondent, good day!

I'm a Master's student of Vilnius University, Faculty of Economics and Business Administration. Currently I'm conducting a survey to explore how vertical brand extensions affect consumer brand trust.

The questionnaire is quick, taking only 7-8 minutes. Your responses will be kept completely anonymous and used for research purposes only. For any additional questions, please contact me at: irana.mammadova@evaf.stud.vu.lt

Please note that some questions may appear similar, but they refer to different scenarios.

Thank you for your support of marketing science!

Questionnaire 1

1. Please confirm whether you are 18 years old or older.

- Yes
- No

2. Have you eaten ice cream in the past 6 months?

- Yes
- No

3. Are you familiar with the Magnum ice cream brand?

- Yes
- No

4. When was the last time you purchased Magnum ice cream?

- This month
- Within the past 3 months
- I haven't bought from this brand recently

5. Please indicate how much you agree with the following statements about the Magnum ice cream brand.

	1	2	3	4	5	6	7
I trust Magnum brand.							
Magnum brand cannot be counted on to do its job.							
I feel that I can trust Magnum brand completely.							
I cannot rely on Magnum brand.							
I feel secure when I buy Magnum brand because I know that it will never let me down.							

6. Please indicate how much you agree with the following statements about the Magnum ice cream brand.

	1	2	3	4	5	6	7
Magnum brand has a reputation for being good.							
Magnum brand has a reputation for being unreliable.							
Other people have told me that Magnum brand is not good.							

Other people have told me that Magnum brand is reliable.							
Magnum brand is reputed to perform well.							
I have heard negative comments about Magnum brand.							

7. Please indicate how much you agree with the following statements about the Magnum ice cream brand.

	1	2	3	4	5	6	7
When I'm standing in front of the Magnum ice cream section, I often feel a bit unsure about which one to pick.							
When you buy a Magnum ice cream, it's easy to make wrong choice.							
It's difficult to know which Magnum ice cream option is truly the best in the market.							
You risk some negative consequences if you choose the wrong Magnum ice cream.							
I would be annoyed with myself if it turned out that I had made the wrong choice when buying a Magnum ice cream.							
It's not so dangerous to make a wrong choice of a Magnum ice cream.							

8. The standard price of Magnum ice cream is €2.50 (₺4.70).
Imagine that Magnum launches a new, cheaper ice cream priced at €1.50 (₺3.70).
Please evaluate the following statements to assess how well the new cheaper Magnum ice cream for €1.50 (₺3.70) fits the Magnum brand.

	1	2	3	4	5	6	7
The new Magnum ice cream for €1.50 (₺3.70) would be a good fit with this brand's products.							

The new Magnum ice cream for €1.50 (3.70€) would be consistent with this brand's products.							
The new Magnum ice cream for €1.50 (3.70€) would be a representative of this brand.							

9. Please indicate how much you agree with the following statements about the Magnum ice cream brand after the introduction of cheaper Magnum ice cream for €1.50 (3.70€).

	1	2	3	4	5	6	7
I trust Magnum brand.							
Magnum brand cannot be counted on to do its job.							
I feel that I can trust Magnum brand completely.							
I cannot rely on Magnum brand.							
I feel secure when I buy Magnum brand because I know that it will never let me down.							

10. Please indicate how much you agree with the following statements about the cheaper Magnum ice cream for €1.50 (3.70€).

	1	2	3	4	5	6	7
When I'm standing in front of the Magnum ice cream section, I often feel a bit unsure about which one to pick.							
When you buy a Magnum ice cream, it's easy to make wrong choice.							
It's difficult to know which Magnum ice cream option is truly the best in the market.							
You risk some negative consequences if you choose the wrong Magnum ice cream.							

I would be annoyed with myself if it turned out that I had made the wrong choice when buying a Magnum ice cream.							
It's not so dangerous to make a wrong choice of a Magnum ice cream.							

11. Please indicate how much you agree with the following statements about the cheaper Magnum ice cream for €1.50 (≈3.70).

	1	2	3	4	5	6	7
I trust the quality of the new Magnum ice cream for €1.50 (3.70€).							
The new Magnum ice cream for €1.50 (3.70€) would be of very good quality.							
The new Magnum ice cream for €1.50 (3.70€) offers excellent features.							

12. Please choose your gender

- Male
- Female

13. Please indicate your age

- 18-25
- 26-35
- 36-45
- 46-55
- 56+

14. Please indicate your country of residence

15. Please indicate your educational level

- High school
- Associate degree (college)
- Bachelor's degree
- Master's degree
- Doctoral degree

16. Please indicate your monthly income range (after taxes)

- Up to €1000
- €1001- €1500
- €1501 - €2000
- €2001 and more
- Prefer not to say

Annex 4. Questionnaire 2 - Hedonic product, upward extension (Magnum ice cream)

Dear respondent, good day!

I'm a Master's student of Vilnius University, Faculty of Economics and Business Administration. Currently I'm conducting a survey to explore how vertical brand extensions affect consumer brand trust.

The questionnaire is quick, taking only 7-8 minutes. Your responses will be kept completely anonymous and used for research purposes only. For any additional questions, please contact me at: irana.mammadova@evaf.stud.vu.lt

Please note that some questions may appear similar, but they refer to different scenarios.

Thank you for your support of marketing science!

Questionnaire 2

1. Please confirm whether you are 18 years old or older.

- Yes
- No

2. Have you eaten ice cream in the past 6 months?

- Yes
- No

3. Are you familiar with the Magnum ice cream brand?

- Yes
- No

4. When was the last time you purchased Magnum ice cream?

- This month
- Within the past 3 months
- I haven't bought from this brand recently

5. Please indicate how much you agree with the following statements about the Magnum ice cream brand.

	1	2	3	4	5	6	7
I trust Magnum brand.							
Magnum brand cannot be counted on to do its job.							
I feel that I can trust Magnum brand completely.							
I cannot rely on Magnum brand.							
I feel secure when I buy Magnum brand because I know that it will never let me down.							

6. Please indicate how much you agree with the following statements about the Magnum ice cream brand.

	1	2	3	4	5	6	7
Magnum brand has a reputation for being good.							
Magnum brand has a reputation for being unreliable.							
Other people have told me that Magnum brand is not good.							
Other people have told me that Magnum brand is reliable.							
Magnum brand is reputed to perform well.							
I have heard negative comments about Magnum brand.							

7. Please indicate how much you agree with the following statements about the Magnum ice cream brand.

	1	2	3	4	5	6	7
When I'm standing in front of the Magnum ice cream section, I often feel a bit unsure about which one to pick.							
When you buy a Magnum ice cream, it's easy to make wrong choice.							
It's difficult to know which Magnum ice cream option is truly the best in the market.							
You risk some negative consequences if you choose the wrong Magnum ice cream.							
I would be annoyed with myself if it turned out that I had made the wrong choice when buying a Magnum ice cream.							
It's not so dangerous to make a wrong choice of a Magnum ice cream.							

8. The standard price of Magnum ice cream is €2.50 (€4.70).

Imagine that Magnum launches a new, expensive ice cream priced at €3.50 (€5.70).

Please evaluate the following statements to assess how well the new expensive Magnum ice cream for €3.50 (€5.70) fits the Magnum brand.

	1	2	3	4	5	6	7
The new Magnum ice cream for €3.50 (€5.70) would be a good fit with this brand's products.							
The new Magnum ice cream for €3.50 (€5.70) would be consistent with this brand's products.							
The new Magnum ice cream for €3.50 (€5.70) would be a representative of this brand.							

9. Please indicate how much you agree with the following statements about the Magnum ice cream brand after the introduction of expensive Magnum ice cream for €3.50 (€5.70).

	1	2	3	4	5	6	7

I trust Magnum brand.							
Magnum brand cannot be counted on to do its job.							
I feel that I can trust Magnum brand completely.							
I cannot rely on Magnum brand.							
I feel secure when I buy Magnum brand because I know that it will never let me down.							

10. Please indicate how much you agree with the following statements about the expensive Magnum ice cream for €3.50 (≈5.70).

	1	2	3	4	5	6	7
When I'm standing in front of the Magnum ice cream section, I often feel a bit unsure about which one to pick.							
When you buy a Magnum ice cream, it's easy to make wrong choice.							
It's difficult to know which Magnum ice cream option is truly the best in the market.							
You risk some negative consequences if you choose the wrong Magnum ice cream.							
I would be annoyed with myself if it turned out that I had made the wrong choice when buying a Magnum ice cream.							
It's not so dangerous to make a wrong choice of a Magnum ice cream.							

11. Please indicate how much you agree with the following statements about the expensive Magnum ice cream for €3.50 (≈5.70).

	1	2	3	4	5	6	7

I trust the quality of the new Magnum ice cream for €3.50 (5.70m).							
The new Magnum ice cream for €3.50 (5.70m) would be of very good quality.							
The new Magnum ice cream for €3.50 (5.70m) offers excellent features.							

12. Please choose your gender

- Male
- Female

13. Please indicate your age

- 18-25
- 26-35
- 36-45
- 46-55
- 56+

14. Please indicate your country of residence

15. Please indicate your educational level

- High school
- Associate degree (college)
- Bachelor's degree
- Master's degree
- Doctoral degree

16. Please indicate your monthly income range (after taxes)

- Up to €1000
- €1001- €1500
- €1501 - €2000
- €2001 and more
- Prefer not to say

Annex 5. Questionnaire 3 - Utilitarian product, downward extension (Heinz ketchup)

Dear respondent, good day!

I'm a Master's student of Vilnius University, Faculty of Economics and Business Administration. Currently I'm conducting a survey to explore how vertical brand extensions affect consumer brand trust.

The questionnaire is quick, taking only 7-8 minutes. Your responses will be kept completely anonymous and used for research purposes only. For any additional questions, please contact me at: irana.mammadova@evaf.stud.vu.lt

Please note that some questions may appear similar, but they refer to different scenarios.

Thank you for your support of marketing science!

Questionnaire 3

1. Please confirm whether you are 18 years old or older.

- Yes
- No

2. Have you used ketchup in the past 6 months?

- Yes
- No

3. Are you familiar with the Heinz ketchup brand?

- Yes
- No

4. When was the last time you purchased Heinz ketchup?

- This month
- Within the past 3 months
- I haven't bought from this brand recently

5. Please indicate how much you agree with the following statements about the Heinz ketchup brand.

	1	2	3	4	5	6	7
I trust Heinz brand.							
Heinz brand cannot be counted on to do its job.							
I feel that I can trust Heinz brand completely.							
I cannot rely on Heinz brand.							
I feel secure when I buy Heinz brand because I know that it will never let me down.							

6. Please indicate how much you agree with the following statements about the Heinz ketchup brand.

	1	2	3	4	5	6	7
Heinz brand has a reputation for being good.							
Heinz brand has a reputation for being unreliable.							
Other people have told me that Heinz brand is not good.							
Other people have told me that Heinz brand is reliable.							
Heinz brand is reputed to perform well.							
I have heard negative comments about Heinz brand.							

7. Please indicate how much you agree with the following statements about the Heinz ketchup brand.

	1	2	3	4	5	6	7
When I'm standing in front of the Heinz ketchup section, I often feel a bit unsure about which one to pick.							
When you buy a Heinz ketchup, it's easy to make wrong choice.							
It's difficult to know which Heinz ketchup option is truly the best in the market.							
You risk some negative consequences if you choose the wrong Heinz ketchup.							
I would be annoyed with myself if it turned out that I had made the wrong choice when buying a Heinz ketchup.							
It's not so dangerous to make a wrong choice of a Heinz ketchup.							

8. The standard price of Heinz ketchup is €3.80 (3.50m).

Imagine that Heinz launches a new, cheaper ketchup priced at €2.80 (2.50m).

Please evaluate the following statements to assess how well the new cheaper ketchup priced at €2.80 (2.50m) fits the Heinz brand.

	1	2	3	4	5	6	7
The new Heinz ketchup for €2.80 (2.50m) would be a good fit with this brand's products.							
The new Heinz ketchup for €2.80 (2.50m) would be consistent with this brand's products.							
The new Heinz ketchup for €2.80 (2.50m) would be a representative of this brand.							

9. Please indicate how much you agree with the following statements about the Heinz ketchup brand after the introduction of cheaper Heinz ketchup for €2.80 (2.50m).

	1	2	3	4	5	6	7
I trust Heinz brand.							
Heinz brand cannot be counted on to do its job.							
I feel that I can trust Heinz brand completely.							
I cannot rely on Heinz brand.							
I feel secure when I buy Heinz brand because I know that it will never let me down.							

10. Please indicate how much you agree with the following statements about the cheaper Heinz ketchup for €2.80 (2.50m).

	1	2	3	4	5	6	7

When I'm standing in front of the Heinz ketchup section, I often feel a bit unsure about which one to pick.							
When you buy a Heinz ketchup, it's easy to make wrong choice.							
It's difficult to know which Heinz ketchup option is truly the best in the market.							
You risk some negative consequences if you choose the wrong Heinz ketchup.							
I would be annoyed with myself if it turned out that I had made the wrong choice when buying a Heinz ketchup.							
It's not so dangerous to make a wrong choice of a Heinz ketchup.							

11. Please indicate how much you agree with the following statements about the cheaper Heinz ketchup for €2.80 (2.50m).

	1	2	3	4	5	6	7
I trust the quality of the new Heinz ketchup for €2.80 (2.50m).							
The new Heinz ketchup for €2.80 (2.50m) would be of very good quality.							
The new Heinz ketchup for €2.80 (2.50m) offers excellent features.							

12. Please choose your gender

- Male
- Female

13. Please indicate your age

- 18-25
- 26-35
- 36-45
- 46-55
- 56+

14. Please indicate your country of residence

15. Please indicate your educational level

- High school
- Associate degree (college)
- Bachelor's degree
- Master's degree
- Doctoral degree

16. Please indicate your monthly income range (after taxes)

- Up to €1000
- €1001- €1500
- €1501 - €2000
- €2001 and more
- Prefer not to say

Annex 6. Questionnaire 4 - Utilitarian product, upward extension (Heinz ketchup)

Dear respondent, good day!

I'm a Master's student of Vilnius University, Faculty of Economics and Business Administration. Currently I'm conducting a survey to explore how vertical brand extensions affect consumer brand trust.

The questionnaire is quick, taking only 7-8 minutes. Your responses will be kept completely anonymous and used for research purposes only. For any additional questions, please contact me at: irana.mammadova@evaf.stud.vu.lt

Please note that some questions may appear similar, but they refer to different scenarios.

Thank you for your support of marketing science!

Questionnaire 4

1. Please confirm whether you are 18 years old or older.

- Yes
- No

2. Have you eaten ketchup in the past 6 months?

- Yes
- No

3. Are you familiar with the Heinz ketchup brand?

- Yes
- No

4. When was the last time you purchased Heinz ketchup?

- This month
- Within the past 3 months
- I haven't bought from this brand recently

5. Please indicate how much you agree with the following statements about the Heinz ketchup brand.

	1	2	3	4	5	6	7
I trust Heinz brand.							
Heinz brand cannot be counted on to do its job.							
I feel that I can trust Heinz brand completely.							
I cannot rely on Heinz brand.							
I feel secure when I buy Heinz brand because I know that it will never let me down.							

6. Please indicate how much you agree with the following statements about the Heinz ketchup brand.

	1	2	3	4	5	6	7
Heinz brand has a reputation for being good.							
Heinz brand has a reputation for being unreliable.							
Other people have told me that Heinz brand is not good.							
Other people have told me that Heinz brand is reliable.							
Heinz brand is reputed to perform well.							

I have heard negative comments about Heinz brand.							
---	--	--	--	--	--	--	--

7. Please indicate how much you agree with the following statements about the Heinz ketchup brand.

	1	2	3	4	5	6	7
When I'm standing in front of the Heinz ketchup section, I often feel a bit unsure about which one to pick.							
When you buy a Heinz ketchup, it's easy to make wrong choice.							
It's difficult to know which Heinz ketchup option is truly the best in the market.							
You risk some negative consequences if you choose the wrong Heinz ketchup.							
I would be annoyed with myself if it turned out that I had made the wrong choice when buying a Heinz ketchup.							
It's not so dangerous to make a wrong choice of a Heinz ketchup.							

8. The standard price of Heinz ketchup is €3.80 (3.50m).

Imagine that Heinz launches a new, expensive ketchup priced at €4.80 (4.50m).

Please evaluate the following statements to assess how well the new expensive ketchup priced at €4.80 (4.50m) fits the Heinz brand.

	1	2	3	4	5	6	7
The new Heinz ketchup for €4.80 (4.50m) would be a good fit with this brand's products.							
The new Heinz ketchup for €4.80 (4.50m) would be consistent with this brand's products.							
The new Heinz ketchup for €4.80 (4.50m) would be a representative of this brand.							

9. Please indicate how much you agree with the following statements about the Heinz ketchup brand after the introduction of expensive Heinz ketchup for €4.80 (4.50m).

	1	2	3	4	5	6	7
I trust Heinz brand.							
Heinz brand cannot be counted on to do its job.							
I feel that I can trust Heinz brand completely.							
I cannot rely on Heinz brand.							
I feel secure when I buy Heinz brand because I know that it will never let me down.							

10. Please indicate how much you agree with the following statements about the expensive Heinz ketchup for €4.80 (4.50m).

	1	2	3	4	5	6	7
When I'm standing in front of the Heinz ketchup section, I often feel a bit unsure about which one to pick.							
When you buy a Heinz ketchup, it's easy to make wrong choice.							
It's difficult to know which Heinz ketchup option is truly the best in the market.							
You risk some negative consequences if you choose the wrong Heinz ketchup.							
I would be annoyed with myself if it turned out that I had made the wrong choice when buying a Heinz ketchup.							
It's not so dangerous to make a wrong choice of a Heinz ketchup.							

11. Please indicate how much you agree with the following statements about the expensive Heinz ketchup for €4.80 (4.50m).

	1	2	3	4	5	6	7
I trust the quality of the new Heinz ketchup for €4.80 (4.50m).							
The new Heinz ketchup for €4.80 (4.50m) would be of very good quality.							
The new Heinz ketchup for €4.80 (4.50m) offers excellent features.							

12. Please choose your gender

- Male
- Female

13. Please indicate your age

- 18-25
- 26-35
- 36-45
- 46-55
- 56+

14. Please indicate your country of residence

15. Please indicate your educational level

- High school
- Associate degree (college)
- Bachelor's degree
- Master's degree
- Doctoral degree

16. Please indicate your monthly income range (after taxes)

- Up to €1000
- €1001- €1500
- €1501 - €2000
- €2001 and more
- Prefer not to say

Annex 7. Reliability analysis – Brand trust (before)

Reliability Statistics	
Cronbach's Alpha	N of Items
,577	5

Item-Total Statistics				
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
I trust Heinz brand.	18,71	15,164	,741	,275
I feel that I can trust Heinz brand completely.	18,97	14,128	,781	,228
I feel secure when I buy Heinz brand because I know that it will never let me down.	19,00	15,100	,694	,294
Heinz brand cannot be counted on to do its job.	21,53	28,930	-,240	,792
I cannot rely on Heinz brand.	18,75	23,816	,041	,671

Annex 8. Reliability analysis – Brand trust (before) with removed statements

Reliability Statistics	
Cronbach's Alpha	N of Items
,899	3

Item-Total Statistics				
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
I trust Heinz brand.	10,07	9,512	,831	,829
I feel that I can trust Heinz brand completely.	10,34	9,615	,781	,872
I feel secure when I buy Heinz brand because I know that it will never let me down.	10,30	9,601	,788	,866

Annex 9. Reliability analysis – Perceived risk (before)

Reliability Statistics	
Cronbach's Alpha	N of Items
,603	6

Item-Total Statistics				
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
It's not so dangerous to make a wrong choice of a Heinz ketchup.	17,96	45,438	-,285	,772
When I'm standing in front of the Heinz ketchup section, I often feel a bit unsure about which one to pick.	16,93	29,241	,436	,515
When you buy a Heinz ketchup, it's easy to make wrong choice.	17,70	27,236	,602	,444
It's difficult to know which Heinz ketchup option is truly the best in the market.	17,04	26,841	,560	,455
You risk some negative consequences if you choose the wrong Heinz ketchup.	17,55	27,991	,504	,483
I would be annoyed with myself if it turned out that I had made the wrong choice when buying a Heinz ketchup.	17,78	31,074	,373	,543

Annex 10. Reliability analysis – Perceived risk (before) with removed statements

Reliability Statistics	
Cronbach's Alpha	N of Items
,764	5

Item-Total Statistics				
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted

When I'm standing in front of the Heinz ketchup section, I often feel a bit unsure about which one to pick.	14,08	27,951	,524	,725
When you buy a Heinz ketchup, it's easy to make wrong choice.	14,76	27,660	,608	,696
It's difficult to know which Heinz ketchup option is truly the best in the market.	14,12	26,676	,611	,693
You risk some negative consequences if you choose the wrong Heinz ketchup.	14,64	27,633	,571	,708
I would be annoyed with myself if it turned out that I had made the wrong choice when buying a Heinz ketchup.	14,76	31,571	,361	,777

Annex 11. Reliability analysis – Perceived fit

Reliability Statistics	
Cronbach's Alpha	N of Items
,762	3

Item-Total Statistics				
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
The new Heinz ketchup for €4.80 (4.50€) would be a good fit with this brand's products.	8,97	9,437	,494	,799
The new Heinz ketchup for €4.80 (4.50€) would be consistent with this brand's products.	8,50	9,029	,652	,617

The new Heinz ketchup for €4.80 (4.50€) would be a representative of this brand.	8,54	8,978	,647	,622
--	------	-------	------	------

Annex 12. Reliability analysis – Perceived quality

Reliability Statistics	
Cronbach's Alpha	N of Items
,825	3

Item-Total Statistics				
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
I trust the quality of the new Heinz ketchup for €4.80 (4.50€).	9,23	9,952	,661	,779
The new Heinz ketchup for €4.80 (4.50€) would be of very good quality.	8,90	10,809	,641	,797
The new Heinz ketchup for €4.80 (4.50€) offers excellent features.	9,28	9,563	,744	,693

Annex 13. Reliability analysis – Brand reputation

Reliability Statistics	
Cronbach's Alpha	N of Items
,695	6

Item-Total Statistics				
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Heinz brand has a reputation for being good.	27,26	26,572	,530	,621
Other people have told me that Heinz brand is reliable.	28,09	27,472	,357	,680

Heinz brand is reputed to perform well.	27,51	26,287	,545	,616
Heinz brand has a reputation for being unreliable.	27,39	28,177	,407	,660
Other people have told me that Heinz brand is not good.	27,40	28,295	,366	,674
I have heard negative comments about Heinz brand.	27,34	28,826	,366	,673

Annex 14. Reliability analysis – Brand trust (after)

Reliability Statistics	
Cronbach's Alpha	N of Items
,788	5

Item-Total Statistics				
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Heinz brand cannot be counted on to do its job.	21,24	27,260	,358	,814
I cannot rely on Heinz brand.	21,15	25,665	,515	,763
I feel that I can trust Heinz brand completely.	21,28	22,382	,737	,689
I trust Heinz brand.	21,15	23,107	,637	,723
I feel secure when I buy Heinz brand because I know that it will never let me down.	21,28	24,164	,602	,735

Annex 15. Reliability analysis – Perceived risk (after)

Reliability Statistics	
Cronbach's Alpha	N of Items
,723	6

Item-Total Statistics				
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
When I'm standing in front of the Heinz ketchup section, I often feel a bit unsure about which one to pick.	16,01	34,006	,505	,669
When you buy a Heinz ketchup, it's easy to make wrong choice.	16,73	34,284	,600	,645
It's difficult to know which Heinz ketchup option is truly the best in the market.	16,24	33,874	,566	,652
You risk some negative consequences if you choose the wrong Heinz ketchup.	16,89	32,324	,707	,611
I would be annoyed with myself if it turned out that I had made the wrong choice when buying a Heinz ketchup.	16,45	32,416	,575	,646
It's not so dangerous to make a wrong choice of a Heinz ketchup.	16,43	46,439	-,060	,828

Annex 16. Reliability analysis – Perceived risk (after) with removed statements

Reliability Statistics	
Cronbach's Alpha	N of Items
,825	5

Item-Total Statistics				
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted

When I'm standing in front of the Heinz ketchup section, I often feel a bit unsure about which one to pick.	13,38	27,401	,563	,808
When you buy a Heinz ketchup, it's easy to make wrong choice.	13,98	28,464	,608	,795
It's difficult to know which Heinz ketchup option is truly the best in the market.	13,51	27,190	,640	,785
You risk some negative consequences if you choose the wrong Heinz ketchup.	14,10	26,756	,697	,769
I would be annoyed with myself if it turned out that I had made the wrong choice when buying a Heinz ketchup.	13,69	26,432	,606	,796

Annex 17. Normality test – Brand trust (before)

Descriptives				
		Statistic	Std. Error	
TRUST1	Mean	5,12	,089	
	95% Confidence Interval for Mean	Lower Bound	4,95	
		Upper Bound	5,29	
	5% Trimmed Mean	5,23		
	Median	5,67		
	Variance	2,279		
	Std. Deviation	1,510		
	Minimum	1		
	Maximum	7		
	Range	6		
	Interquartile Range	2		
	Skewness	-,959	,143	
	Kurtosis	,367	,286	

Tests of Normality	
Kolmogorov-Smirnov ^a	Shapiro-Wilk

	Statistic	df	Sig.	Statistic	df	Sig.
TRUST1	,150	289	<,001	,907	289	<,001
a. Lilliefors Significance Correction						

Annex 18. Normality test – Brand reputation

Descriptives				
			Statistic	Std. Error
REP1	Mean		3,91	,053
	95% Confidence Interval for Mean	Lower Bound	3,80	
		Upper Bound	4,01	
	5% Trimmed Mean		3,92	
	Median		4,00	
	Variance		,802	
	Std. Deviation		,896	
	Minimum		1	
	Maximum		7	
	Range		6	
	Interquartile Range		1	
	Skewness		-,183	,143
	Kurtosis		2,300	,286

Tests of Normality						
	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
REP1	,144	289	<,001	,929	289	<,001
a. Lilliefors Significance Correction						

Annex 19. Normality test – Perceived risk

Descriptives				
			Statistic	Std. Error
RISK1	Mean		3,62	,076
	95% Confidence Interval for Mean	Lower Bound	3,47	
		Upper Bound	3,77	
	5% Trimmed Mean		3,60	
	Median		3,60	
	Variance		1,670	
	Std. Deviation		1,292	
	Minimum		1	
	Maximum		7	

	Range		6	
	Interquartile Range		2	
	Skewness		,130	,143
	Kurtosis		-,386	,286

Tests of Normality						
	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
RISK1	,054	289	,041	,988	289	,018
a. Lilliefors Significance Correction						

Annex 20. Normality test – Perceived fit

Descriptives				
		Statistic	Std. Error	
FIT1	Mean	4,34	,084	
	95% Confidence Interval for Mean	Lower Bound	4,17	
		Upper Bound	4,50	
	5% Trimmed Mean	4,35		
	Median	4,33		
	Variance	2,044		
	Std. Deviation	1,430		
	Minimum	1		
	Maximum	7		
	Range	6		
	Interquartile Range	2		
	Skewness	-,252	,143	
	Kurtosis	-,476	,286	

Tests of Normality						
	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
FIT1	,096	289	<,001	,974	289	<,001
a. Lilliefors Significance Correction						

Annex 21. Normality test – Brand trust (after)

Descriptives			
		Statistic	Std. Error
TRUST2	Mean	4,7694	,06742
		Lower Bound	4,6367

95% Confidence Interval for Mean	Upper Bound	4,9021	
5% Trimmed Mean		4,7713	
Median		4,5000	
Variance		1,314	
Std. Deviation		1,14610	
Minimum		1,00	
Maximum		7,00	
Range		6,00	
Interquartile Range		1,60	
Skewness		,089	,143
Kurtosis		-,307	,286

Tests of Normality						
	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
TRUST2	,161	289	<,001	,964	289	<,001

a. Lilliefors Significance Correction

Annex 22. Normality test – Perceived risk (after)

Descriptives				
		Statistic	Std. Error	
RISK2	Mean	3,5206	,07564	
	95% Confidence Interval for Mean	Lower Bound	3,3717	
		Upper Bound	3,6695	
	5% Trimmed Mean	3,4916		
	Median	3,4000		
	Variance	1,648		
	Std. Deviation	1,28367		
	Minimum	1,00		
	Maximum	7,00		
	Range	6,00		
	Interquartile Range	1,60		
	Skewness	,296	,144	
	Kurtosis	-,165	,286	

Tests of Normality						
	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
RISK2	,084	288	<,001	,982	288	,001

a. Lilliefors Significance Correction

Annex 23. Normality test – Perceived quality

Descriptives				
		Statistic	Std. Error	
QUALITY 1	Mean	4,5683	,08982	
	95% Confidence Interval for Mean	Lower Bound	4,3915	
		Upper Bound	4,7451	
	5% Trimmed Mean	4,6188		
	Median	4,6667		
	Variance	2,324		
	Std. Deviation	1,52434		
	Minimum	1,00		
	Maximum	7,00		
	Range	6,00		
	Interquartile Range	2,33		
	Skewness	-,424	,144	
	Kurtosis	-,470	,286	

Tests of Normality						
	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
QUALITY 1	,100	288	<,001	,963	288	<,001

a. Lilliefors Significance Correction

Annex 24. Independent-samples t-test analysis: Impact of downward and upward brand extension on perceived fit

Group Statistics					
	direction	N	Mean	Std. Deviation	Std. Error Mean
FIT1	1	138	4,41	1,252	,107
	2	151	4,27	1,576	,128

Independent Samples Test						
		t-test for Equality of Means				
	t	df	Significance	Mean Difference	Std. Error	95% Confidence Interval of the Difference

				One-Sided p	Two-Sided p		Difference	Lower	Upper
FIT1	Equal variances assumed	,825	287	,205	,410	,139	,168	-,193	,470
	Equal variances not assumed	,833	281,688	,203	,406	,139	,167	-,189	,467

Independent Samples Effect Sizes					
		Standardizer ^a	Point Estimate	95% Confidence Interval	
				Lower	Upper
FIT1	Cohen's d	1,430	,097	-,134	,328
	Hedges' correction	1,434	,097	-,134	,327
	Glass's delta	1,576	,088	-,143	,319

a. The denominator used in estimating the effect sizes.
Cohen's d uses the pooled standard deviation.
Hedges' correction uses the pooled standard deviation, plus a correction factor.
Glass's delta uses the sample standard deviation of the control (i.e., the second) group.

Annex 25. Independent-samples t-test analysis: Impact of downward and upward brand extension on perceived extension quality

Group Statistics					
	direction	N	Mean	Std. Deviation	Std. Error Mean
QUALITY1	1	137	4,3017	1,45459	,12427
	2	151	4,8102	1,55039	,12617

Independent Samples Test									
		t-test for Equality of Means							
		t	df	Significance		Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
				One-Sided p	Two-Sided p			Lower	Upper
QUALITY1	Equal variances assumed	-2,862	286	,002	,005	-,50845	,17765	-,85811	-,15879

	Equal variance not assumed	-2,871	285,673	,002	,004	-,50845	,17709	-,85703	-,15987
--	----------------------------	--------	---------	------	------	---------	--------	---------	---------

Independent Samples Effect Sizes					
		Standardizer ^a	Point Estimate	95% Confidence Interval	
				Lower	Upper
QUALITY 1	Cohen's d	1,50560	-,338	-,570	-,105
	Hedges' correction	1,50956	-,337	-,569	-,104
	Glass's delta	1,55039	-,328	-,562	-,093

a. The denominator used in estimating the effect sizes.
Cohen's d uses the pooled standard deviation.
Hedges' correction uses the pooled standard deviation, plus a correction factor.
Glass's delta uses the sample standard deviation of the control (i.e., the second) group.

Annex 26. Moderation analysis: Impact of brand reputation on the relationship between extension type and perceived fit

Run MATRIX procedure:

***** PROCESS Procedure for SPSS Version 4.2 *****

Written by Andrew F. Hayes, Ph.D. www.afhayes.com
Documentation available in Hayes (2022). www.guilford.com/p/hayes3

Model : 1
Y : FIT1
X : type
W : REP1

Sample
Size: 289

OUTCOME VARIABLE:
FIT1

Model Summary

R	R-sq	MSE	F	df1	df2	p
,2860	,0818	1,8966	8,4607	3,0000	285,0000	,0000

Model

	coeff	se	t	p	LLCI	ULCI
constant	4,5930	,2600	17,6625	,0000	4,0811	5,1048

type	-,1684	,1623	-1,0378	,3002	-,4879	,1510
REP1	,5274	,2772	1,9026	,0581	-,0182	1,0731
Int_1	-,0546	,1831	-,2982	,7658	-,4150	,3058

Product terms key:

Int_1 : type x REP1

Test(s) of highest order unconditional interaction(s):

	R2-chng	F	df1	df2	p
X*W	,0003	,0889	1,0000	285,0000	,7658

Focal predict: type (X)
Mod var: REP1 (W)

Data for visualizing the conditional effect of the focal predictor:

Paste text below into a SPSS syntax window and execute to produce plot.

DATA LIST FREE/

type REP1 FIT1 .

BEGIN DATA.

1,0000	-,8957	4,0010
2,0000	-,8957	3,8815
1,0000	,0000	4,4245
2,0000	,0000	4,2561
1,0000	,8957	4,8481
2,0000	,8957	4,6307

END DATA.

GRAPH/SCATTERPLOT=

REP1 WITH FIT1 BY type .

***** ANALYSIS NOTES AND ERRORS *****

Level of confidence for all confidence intervals in output:

95,0000

NOTE: The following variables were mean centered prior to analysis:

REP1

----- END MATRIX -----

Annex 27. Moderation analysis: Impact of brand reputation on the relationship between extension type and perceived extension quality

Run MATRIX procedure:

***** PROCESS Procedure for SPSS Version 4.2 *****

Written by Andrew F. Hayes, Ph.D. www.afhayes.com

Model : 1
Y : QUALITY1
X : type
W : REP1

Sample
Size: 288

OUTCOME VARIABLE:
QUALITY1

Model Summary

R	R-sq	MSE	F	df1	df2	p
,3429	,1176	2,0721	12,6127	3,0000	284,0000	,0000

Model

	coeff	se	t	p	LLCI	ULCI
constant	3,8477	,2726	14,1134	,0000	3,3110	4,3843
type	,4761	,1700	2,8008	,0054	,1415	,8106
REP1	,9102	,2898	3,1405	,0019	,3397	1,4807
Int_1	-,2951	,1914	-1,5419	,1242	-,6719	,0816

Product terms key:

Int_1 : type x REP1

Test(s) of highest order unconditional interaction(s):

R2-chng	F	df1	df2	p
X*W	,0074	2,3773	1,0000 284,0000	,1242

Focal predict: type (X)
Mod var: REP1 (W)

Data for visualizing the conditional effect of the focal predictor:

Paste text below into a SPSS syntax window and execute to produce plot.

DATA LIST FREE/

```
type REP1 QUALITY1 .  
BEGIN DATA.  
1,0000 -,8971 3,7719  
2,0000 -,8971 4,5127  
1,0000 ,0000 4,3237  
2,0000 ,0000 4,7998  
1,0000 ,8971 4,8755  
2,0000 ,8971 5,0869  
END DATA.
```

GRAPH/SCATTERPLOT=
 REP1 WITH QUALITY1 BY type .

***** ANALYSIS NOTES AND ERRORS *****

Level of confidence for all confidence intervals in output:
 95,0000

NOTE: The following variables were mean centered prior to analysis:
 REP1

----- END MATRIX -----

Annex 28. Regression analysis: Impact of perceived quality on perceived risk

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,059 ^a	,004	,000	1,284
a. Predictors: (Constant), QUALITY1				

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1,672	1	1,672	1,015	,315 ^b
	Residual	471,245	286	1,648		
	Total	472,918	287			
a. Dependent Variable: RISK2						
b. Predictors: (Constant), QUALITY1						

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3,292	,239		13,754	<,001
	QUALITY1	,050	,050	,059	1,007	,315
a. Dependent Variable: RISK2						

Annex 29. Regression analysis: Impact of perceived fit on perceived risk related to purchasing the extension

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,063 ^a	,004	,000	1,283

a. Predictors: (Constant), FIT1

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1,861	1	1,861	1,130	,289 ^b
	Residual	471,057	286	1,647		
	Total	472,918	287			

a. Dependent Variable: RISK2

b. Predictors: (Constant), FIT1

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3,277	,241		13,572	<,001
	FIT1	,056	,053	,063	1,063	,289

a. Dependent Variable: RISK2

Annex 30. Independent samples t test: Impact of extension type on perceived risk

Group Statistics					
	direction	N	Mean	Std. Deviation	Std. Error Mean
RISK2	1	137	3,63	1,291	,110
	2	151	3,42	1,273	,104

Independent Samples Test									
		t-test for Equality of Means							
		t	df	Significance		Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
				One-Sided p	Two-Sided p			Lower	Upper
RISK	Equal variances assumed	1,382	286	,084	,168	,209	,151	-,089	,507
	Equal variances not assumed	1,381	282,507	,084	,168	,209	,151	-,089	,507

Independent Samples Effect Sizes					
		Standardizer ^a	Point Estimate	95% Confidence Interval	
				Lower	Upper
RISK2	Cohen's d	1,282	,163	-,069	,395
	Hedges' correction	1,285	,163	-,069	,394
	Glass's delta	1,273	,164	-,068	,396

a. The denominator used in estimating the effect sizes.
Cohen's d uses the pooled standard deviation.
Hedges' correction uses the pooled standard deviation, plus a correction factor.
Glass's delta uses the sample standard deviation of the control (i.e., the second) group.

Annex 31. Moderation analysis: Impact of product category of extension on the relationship between perceived extension quality and perceived risk

Run MATRIX procedure:

***** PROCESS Procedure for SPSS Version 4.2 *****

Written by Andrew F. Hayes, Ph.D. www.afhayes.com
Documentation available in Hayes (2022). www.guilford.com/p/hayes3

Model : 1
Y : TRUST2
X : RISK2
W : brand

Sample
Size: 288

OUTCOME VARIABLE:
TRUST2

Model Summary

R	R-sq	MSE	F	df1	df2	p
,2996	,0898	1,2073	9,3357	3,0000	284,0000	,0000

Model

	coeff	se	t	p	LLCI	ULCI
constant	4,3228	,2047	21,1145	,0000	3,9199	4,7258
RISK2	,0162	,1567	,1034	,9178	-,2922	,3246
brand	,2950	,1304	2,2632	,0244	,0384	,5516
Int_1	-,1594	,1022	-1,5592	,1201	-,3606	,0418

Product terms key:

Int_1 : RISK2 x brand

Test(s) of highest order unconditional interaction(s):

R2-chng	F	df1	df2	p
X*W ,0078	2,4311	1,0000	284,0000	,1201

Focal predict: RISK2 (X)

Mod var: brand (W)

Data for visualizing the conditional effect of the focal predictor:

Paste text below into a SPSS syntax window and execute to produce plot.

DATA LIST FREE/

RISK2 brand TRUST2 .

BEGIN DATA.

-1,2837 1,0000 4,8017

,0000 1,0000 4,6179

1,2837 1,0000 4,4341

-1,2837 2,0000 5,3013

,0000 2,0000 4,9129

1,2837 2,0000 4,5245

END DATA.

GRAPH/SCATTERPLOT=

RISK2 WITH TRUST2 BY brand .

***** ANALYSIS NOTES AND ERRORS *****

Level of confidence for all confidence intervals in output:

95,0000

NOTE: The following variables were mean centered prior to analysis:

RISK2

----- END MATRIX -----

Annex 32. Moderation analysis: Impact of product category of extension on the relationship between perceived fit and perceived risk

Run MATRIX procedure:

***** PROCESS Procedure for SPSS Version 4.2 *****

Written by Andrew F. Hayes, Ph.D. www.afhayes.com

Documentation available in Hayes (2022). www.guilford.com/p/hayes3

Model : 1

Y : RISK2

X : QUALITY1
W : brand

Sample
Size: 288

OUTCOME VARIABLE:
RISK2

Model Summary

R	R-sq	MSE	F	df1	df2	p
,2504	,0627	1,5608	6,3341	3,0000	284,0000	,0004

Model

	coeff	se	t	p	LLCI	ULCI
constant	4,0097	,2330	17,2075	,0000	3,5511	4,4684
QUALITY1	,5886	,1512	3,8920	,0001	,2909	,8863
brand	-,3062	,1484	-2,0635	,0400	-,5982	-,0141
Int_1	-,3591	,0977	-3,6748	,0003	-,5514	-,1667

Product terms key:

Int_1 : QUALITY1 x brand

Test(s) of highest order unconditional interaction(s):

	R2-chng	F	df1	df2	p
X*W	,0446	13,5043	1,0000	284,0000	,0003

Focal predict: QUALITY1 (X)
Mod var: brand (W)

Conditional effects of the focal predictor at values of the moderator(s):

brand	Effect	se	t	p	LLCI	ULCI
1,0000	,2296	,0667	3,4444	,0007	,0984	,3608
2,0000	-,1295	,0714	-1,8124	,0710	-,2701	,0111

Data for visualizing the conditional effect of the focal predictor:

Paste text below into a SPSS syntax window and execute to produce plot.

DATA LIST FREE/

QUALITY1 brand RISK2 .
BEGIN DATA.

-1,5243 1,0000 3,3536
,0000 1,0000 3,7036
1,5243 1,0000 4,0535
-1,5243 2,0000 3,5948
,0000 2,0000 3,3974
1,5243 2,0000 3,2000

END DATA.
GRAPH/SCATTERPLOT=
QUALITY1 WITH RISK2 BY brand .

***** ANALYSIS NOTES AND ERRORS *****

Level of confidence for all confidence intervals in output:
95,0000

NOTE: The following variables were mean centered prior to analysis:
QUALITY1

----- END MATRIX -----

Annex 33. Moderation analysis: Impact of perceived fit on brand trust

Run MATRIX procedure:

***** PROCESS Procedure for SPSS Version 4.2 *****

Written by Andrew F. Hayes, Ph.D. www.afhayes.com
Documentation available in Hayes (2022). www.guilford.com/p/hayes3

Model : 1
Y : RISK2
X : FIT1
W : brand

Sample
Size: 288

OUTCOME VARIABLE:
RISK2

Model Summary

R	R-sq	MSE	F	df1	df2	p
,1440	,0207	1,6307	2,0033	3,0000	284,0000	,1137

Model

	coeff	se	t	p	LLCI	ULCI
constant	3,9790	,2373	16,7691	,0000	3,5119	4,4460
FIT1	,2097	,1687	1,2430	,2149	-,1224	,5417
brand	-,3041	,1510	-2,0134	,0450	-,6013	-,0068
Int_1	-,0956	,1057	-,9046	,3665	-,3036	,1124

Product terms key:

Int_1 : FIT1 x brand

Test(s) of highest order unconditional interaction(s):

	R2-chng	F	df1	df2	p
X*W	,0028	,8183	1,0000	284,0000	,3665

 Focal predict: FIT1 (X)
 Mod var: brand (W)

Data for visualizing the conditional effect of the focal predictor:
 Paste text below into a SPSS syntax window and execute to produce plot.

```
DATA LIST FREE/
  FIT1  brand  RISK2  .
BEGIN DATA.
  -1,4320  1,0000  3,5116
  ,0000  1,0000  3,6749
  1,4320  1,0000  3,8383
  -1,4320  2,0000  3,3444
  ,0000  2,0000  3,3709
  1,4320  2,0000  3,3974
END DATA.
GRAPH/SCATTERPLOT=
FIT1 WITH RISK2 BY brand .
```

***** ANALYSIS NOTES AND ERRORS *****

Level of confidence for all confidence intervals in output:
 95,0000

NOTE: The following variables were mean centered prior to analysis:
 FIT1

----- END MATRIX -----

Annex 34. Regression analysis: Impact of perceived fit on brand trust

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,404 ^a	,163	,160	1,050

a. Predictors: (Constant), FIT1

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	61,680	1	61,680	55,909	<,001 ^b
	Residual	316,623	287	1,103		

	Total	378,303	288		
a. Dependent Variable: TRUST2					
b. Predictors: (Constant), FIT1					

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3,366	,198		17,034	<,001
	FIT1	,324	,043	,404	7,477	<,001

a. Dependent Variable: TRUST2

Annex 35. Regression analysis: Impact of brand reputation on brand trust

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,457 ^a	,209	,206	1,345

a. Predictors: (Constant), REP1

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	137,186	1	137,186	75,848	<,001 ^b
	Residual	519,100	287	1,809		
	Total	656,286	288			

a. Dependent Variable: TRUST1
b. Predictors: (Constant), REP1

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2,109	,355		5,945	<,001
	REP1	,771	,088	,457	8,709	<,001

a. Dependent Variable: TRUST1

Annex 36. Regression analysis: Impact of perceived risk related with purchasing an extension on brand trust

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,255 ^a	,065	,062	1,110
a. Predictors: (Constant), RISK2				

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	24,575	1	24,575	19,961	<,001 ^b
	Residual	352,111	286	1,231		
	Total	376,686	287			
a. Dependent Variable: TRUST2						
b. Predictors: (Constant), RISK2						

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	5,576	,191		29,171	<,001
	RISK2	-,228	,051	-,255	-4,468	<,001
a. Dependent Variable: TRUST2						