Less for More

How Shrinkflation Affects Components of Brand Equity for Premium Brands Compared to Budget Brands.

Authors: Marcus Dunnington, Leo Sun
Supervisor: Fredrik Lange
Examiner: John Karsberg
Submission: May 20th, 2025

“Too many corporations raise their prices to pad their profits, charging you more and more for less and less. That’s why we’re cracking down on corporations that engage in price gouging and deceptive pricing, from food to healthcare to housing. In fact, the snack companies think you won’t notice if they change the size of the bag and put a hell of a lot fewer — same — same size bag — put fewer chips in it. No, I’m not joking. It’s called shrinkflation” – (Biden, 2024, 1:18:50)

Abstract

Shrinkflation, defined as the act of decreasing product volumes while maintaining prices, has increasingly been highlighted in mass media, especially during times of economic instability and soaring global inflation. At the same time, there is limited research on how shrinkflation directly impacts a firm's brand equity: the added value a company gains from having a recognized brand name. This study thus investigates how shrinkflation affects brand equity for a premium and a budget brand within the butter category in the Swedish grocery market. The effect of shrinkflation on brand equity is measured through four prominent components: (1) brand image, (2) brand loyalty, (3) perceived quality, and (4) brand trust. Further, word-of-mouth intention was measured through the Net Promoter Score. The quantitative study included 232 participants based in Sweden and showed that shrinkflation has a negative impact on brand image, perceived quality, and brand trust for both premium and budget brands, emphasizing its harm to brand equity. Results from a two-way ANOVA show that there is no significant difference in how shrinkflation affects the premium and budget brands. However, there is a significant difference in how the premium and budget brands relate to each brand equity component. Lastly, to further highlight the paper's contribution, a section on theoretical contribution is included, as well as a section on future research to suggest meaningful perspectives to explore. Managerial implications are also highlighted to present possible practical suggestions from our findings.

Keywords: shrinkflation, product downsizing, brand equity, consumer perception, word-of-mouth

Acknowledgements

Fredrik Lange

Thank you for three inspiring years in the Retail Management Program and for your thoughtful supervision of this thesis. Your clear guidance, timely feedback, and expertise have been invaluable.

Sara Rosengren

Thank you to Sara Rosengren for guiding and supporting our studies here at Stockholm School of Economics. Your encouragement and insight have shaped our academic growth and our interest in the subject of retailing.

Section 1 - Introduction

1.1 Background - Why does Shrinkflation matter?

Can you recall a time when your coffee package seemed smaller, or that you ran out of butter much faster than before? If so, you may have been exposed to shrinkflation. Shrinkflation refers to reducing the size or quantity of a product while maintaining its price (Evangelidis, 2023). Retailers often use shrinkflation when they expect customers to be inattentive to package changes rather than to price increases (Dekimpe & Van Heerde, 2023). As a rule of thumb, customers are four times more sensitive to changes in price than to changes in package size (Cakir & Balagtas, 2014). Thus, shrinkflation is an effective method of increasing a product's per-unit price.

Following the post-pandemic years and the effects of Russia's invasion of Ukraine, inflation has reached noticeably high levels (O'Neill, 2025; Dyvik, 2024). This new economic reality has compelled retailers to adopt suitable strategies to navigate the changing environment. Shrinkflation has emerged as a prominent, customer-centric tool, widely employed across industries to mitigate inflationary pressures (Dekimpe & Van Heerde, 2023). By reducing product sizes, retailers effectively raise the per-unit cost, a tactic particularly common in less competitive markets where inattentive customers may overlook package downsizing (Chalioti & Serfes, 2024). According to Chalioti and Serfes (2024), while retailers pass on cost increases to consumers when they are attentive, they further exploit shrinkflation when customers fail to notice the changes.

However, the prevalence of shrinkflation should not be viewed solely from the retailer's perspective. Existing research shows that shrinkflation may have a negative effect on customer trust (Bhattacharya, 2024). If customers realize that they have been subjected to shrinkflation, a feeling of betrayal and exploitation prevails. This might, in turn, endanger a retailer's brand equity and erode customers' trust as a consequence of capitalizing on customers' inattentiveness (Dekimpe & Van Heerde, 2023).

1.2 Previous Research

A major focus of existing research has been on customer perceptions of price increases, package downsizing, and components of brand equity, establishing that customers are indeed

more sensitive to price increases than to packaging changes (e.g., Yan et al., 2013; Ofir, 2004; Chalioti & Serfes, 2024). Increasingly, research is focusing on customer perceptions of shrinkflation and, indirectly, on components of brand equity (e.g., Bhattacharya, 2024; Evangelidis, 2023; Cakir & Balagtas, 2014). The broad theme in existing research is that customers' perceptions of shrinkflation are negative and that the concept is often adopted by retailers during times of high inflation, when customers are increasingly sensitive to price increases.

Much research examines how companies exploit customer inattentiveness to shrinkflation, while a growing discussion concerns whether regulations are necessary to limit the ability to capitalize on shrinkflation (e.g., Corte, 2025). Thus, a contradiction emerges: some claim that shrinkflation is about exploiting inattentive customers to achieve higher per-unit marginal gains (Chalioti & Serfes, 2024), whereas others argue that there is a need to regulate or highlight retailers' responsibility for communicating the occurrence of shrinkflation to customers (Chalioti & Serfes, 2024). In this study, the focus is on capturing the perceptions of attentive customers, and the results and implications are discussed to provide practical insights from a retailer's perspective.

Nevertheless, research has yet to explore the moderating effect of premium and budget brands on the relationship between shrinkflation and brand equity. While prior studies have investigated how consumers respond to shrinkflation and its general impact on brand perceptions, few have considered how these effects may differ based on a brand's market positioning. In particular, the moderating role of premium and budget brand types has not been sufficiently examined in the literature. This distinction is important because premium and budget brands operate with fundamentally different value propositions and consumer expectations. Premium brands often rely on symbolic benefits, emotional connections, and perceived product superiority (Anselmsson et al., 2007; Erdem & Swait, 1998), whereas budget brands emphasize functional benefits and price efficiency (Batra & Sinha, 2000; Lichtenstein et al., 1993). Consequently, consumer reactions to shrinkflation may vary: premium-brand consumers may feel a betrayal of trust and an erosion of symbolic value, whereas budget-brand consumers may reassess the value-for-money proposition.

This theoretical divergence provides a strong justification for studying premium and budget brands as a moderator in the relationship between shrinkflation and brand equity. Exploring

this dimension allows for a more nuanced understanding of how shrinkflation affects consumer perceptions across brand tiers and enables managerial insights tailored to brand strategy rather than assuming uniform effects across the board.

When reviewing existing research on brand equity, it is evident that certain models have had a significant impact on the field. Keller's customer-based brand equity (CBBE) model focuses on creating the right brand image in order to achieve high brand equity (Keller & Swaminathan, 2008). The model follows a pyramid structure with four levels: identity, meaning, response, and relationships. This framework has been prominent in the literature, where much research has taken the CBBE model as a point of departure.

Another influential framework is Aaker's brand equity model (Aaker, 1991), which emphasizes that brand equity consists of several key components: brand awareness, brand loyalty, perceived quality, brand associations, and proprietary brand assets. Similar to Keller's CBBE model, Aaker's framework has frequently been used as a foundation for brand-equity research.
In this paper, the concept of brand equity is examined using both Aaker's and Keller's models to measure brand equity for premium and budget brands, respectively.

Study	**Theme**	**Relevant findings**
Cakir & Balagtas, 2014	Packaging downsizing & price changes	Customers are four times more sensitive to price changes than to packages changes.
Chalioti & Serfes, 2024	Shrinkflation	Retailers exploit shrinkflation when customers fail to notice changes.
Keller, 2001	Brand equity	Customer based brand equity model.
Aaker 1991	Brand equity	Aaker's brand equity model.
Evangelidis, 2023	Shrinkflation	Shrinkflation is the practice where the size or quantity of the product is reduced whereas the price is maintained.

Dekimpe & Van Heerde, 2023	Shrinkflation	Shrinkflation is used to mitigate inflationary pressures.
Bhattacharya, 2024	Shrinkflation	Shrinkflation may have a negative effect on customer trust.
Corte, 2025	Shrinkflation	Highlights new regulations regarding shrinkflation labeling in Italy.
Ofir, 2004	Price changes	In general, consumers react negatively to price increases.

Table 1 - Overview of shrinkflation, product downsizing and brand equity research

1.3 Research Question

As previously identified, shrinkflation is an emerging concept in today's B2C setting, with most research focusing on customer perceptions of shrinkflation (Chalioti & Serfes, 2024). By incorporating Aaker's and Keller's brand-equity models, this study will assess the effect shrinkflation has on key components of brand equity: brand loyalty, perceived quality, brand trust, brand image, and word-of-mouth (WOM), with the moderating role of premium or budget brands. Thus, this study will investigate how shrinkflation affects components of brand equity for premium brands compared with budget brands.

This paper builds on existing research by measuring the extent to which shrinkflation affects components of brand equity for premium and budget brands, respectively. Understanding the hidden cost of adopting shrinkflation for premium and budget brands may help managers evaluate the trade-off between short-term cost savings and immediate effects on different brand-equity components.

Another interesting dimension of brand equity is WOM intentions, which relate closely to brand loyalty and will be briefly examined through the Net Promoter Score. WOM intentions can potentially make the hidden cost of shrinkflation more concrete and thereby provide additional insights into its immediate effects.

Basic demographic information (age, gender, household size, and occupation) will be collected to describe the sample; however, no formal hypotheses are specified for these variables.

1.4 Delimitations

Considering Aaker's brand-equity model and Keller's CBBE model, four components are included within the scope of this study: brand loyalty, brand trust, brand image, and perceived quality. Examining brand awareness and other proprietary brand assets would require a different study design; therefore, these components are outside the scope of this research.

Due to time constraints, the study focuses on the direct effect of shrinkflation rather than its long-term effects, which would require tracking consumer perceptions over time. Another limitation is the sample size; the reliability of the findings would have been enhanced by a larger sample.

This study follows a quantitative research method; however, a mixed approach combining quantitative and qualitative methods could have provided deeper insights into consumer perceptions. Qualitative research might have yielded more nuanced responses regarding shrinkflation perceptions and consumer emotions, but only a quantitative approach was feasible within the available time.

Drawing on Aaker's brand-equity model and Keller's CBBE model, four brand-equity dimensions are examined: brand loyalty, brand trust, brand image, and perceived quality. Two elements: brand awareness and other proprietary brand assets are excluded because they require a different study structure.

The role of brand awareness is context-dependent and varies with the level of awareness achieved (e.g., simple recognition vs. top-of-mind status). Measuring these levels would require a separate environment (Aaker, 1991). Moreover, an increase in brand awareness does not always positively influence brand equity; brand awareness does not directly reflect consumer perceptions of brand value or reactions to changes in product attributes (Aaker, 1991; Ray et al., 2021).

Other proprietary brand assets follow a similar logic, as they differ substantially from the other components in Aaker's model (Aaker, 1991). These assets, such as patents, trademarks, and distribution channels, protect brand equity from competitors. Hence, they aim to provide a competitive advantage by creating high barriers to entry and are operational in nature, requiring a separate environment to explore their possible link to shrinkflation and customer perceptions.

This study assesses the immediate impact of shrinkflation on consumer perceptions. Evaluating the long-term effects would require a prolonged timeframe tracking changes over several purchase cycles, which is not possible in this study due to time constraints.

Data collection relied on a single cross-sectional survey of 232 respondents. Although this meets minimum power requirements, a larger sample would increase the reliability of the study's results.

Lastly, a quantitative research method was deployed. While a mixed approach could have offered more nuanced reactions and deeper insights into consumer responses to shrinkflation, such an approach was excluded due to limited time and resources.

1.5 Structural Overview

The study opens by introducing and emphasizing the growing relevance of shrinkflation. A subsequent section summarizes key insights from existing research, identifying both what the literature has addressed and where gaps remain. The research question is then presented and explained in detail. To complete Section 1, delimitations are outlined to clarify the scope of the study.

Section 2 starts by presenting the conceptual model that guides the research. A theory section then reviews the main components of brand equity, drawing on the models of Aaker (1991) and Keller & Swaminathan (2008).

Section 3 covers the study's methodology, specifying the research method and approach, along with the pre-test and main study. Section 4 presents the empirical results and links them to the stated hypotheses. Finally, Section 5 summarizes the key findings, theoretical contributions, managerial implications, and avenues for future research.

Section 2 - Theoretical Framework

This study examines how shrinkflation affects four components of brand equity by comparing premium and budget brands. For brand loyalty, a greater negative effect is expected for premium brands (H1) than for budget brands (H2). Shrinkflation is also predicted to reduce brand trust for both premium (H3) and budget brands (H4). In terms of perceived quality, the negative impact should be stronger for premium brands (H5) and milder for budget brands (H6). Brand image is likewise expected to deteriorate for premium (H7) and budget brands (H8). Lastly, net promoter score is anticipated to decline for premium (H9) and budget brands (H10). The connections between shrinkflation and components of brand equity are illustrated in *Figure 1* below. The connection between shrinkflation and WOM is depicted in *Figure 2*.

2.1 What is Brand Equity

Brand equity has many different definitions, Krishnan (1996) discusses three different perspectives when examining brand equity: practical, strategic and theoretical. Moreover, Keller (1993) defines brand equity as a way to measure outcomes of brand management plans, while So and King (2010) emphasizes the importance of brand equity as a measure of brand management plan outcomes. However, in this study brand equity will be defined as per the definition by Aaker (1991): *"Brand equity is a set of brand assets and liabilities linked to a brand, its name and symbol, that add to or subtract from the value provided by a product or service to a firm and/or to that firm's customers."*.

Brand equity also shapes customers' expectations towards a firms' behaviors and helps consumers make purchasing decisions as it reflects a company's history, marketing strategies, and activities associated with it (Mafael et al 2021; Erdem & Swait, 1998). Firms with high brand equity are more likely to be perceived to deliver high quality and more reliable products (Mafael et al 2021).

This study investigates the effect shrinkflation has on brand equity. Keller's and Aaker's brand equity models will serve as a conceptual basis. Based on Aaker's brand equity model (1991) and Keller's customer-based brand equity model four key components of brand equity will be measured separately: (1) brand loyalty, (2) perceived quality, (3) brand image and (4)

brand trust. These components have been chosen due to their relevance and possibility to adequately measure these in this study.

2.2 Brand Loyalty

Brand loyalty is a central construct in marketing and a fundamental component of brand equity (Aaker, 1991). It serves as a measure of the attachment consumers have to a brand and reflects the likelihood of them switching to a competitor, it thus relates closely to how consumers react when brands implement changes, such as in price or product features (Aaker, 1991). A high level of brand loyalty provides firms with strategic advantages such as resistance against competitive pressures, reduced marketing costs, trade leverage, and increased ability to attract new customers (Aaker, 1991). Maintaining high brand loyalty is essentially a cost-effective strategy as costs associated with acquiring new customers are approximately six times higher than those of retaining an existing one (Rosenberg and Czepiel. 1984). Aaker (1991) further argues that brand loyalty is relatively easy to sustain and in many cases requires active effort to persuade a customer to switch to a competitor.

Chaudhuri and Holbrook (2001) conceptualize brand loyalty as two components: behavioral loyalty (expressed through repeated purchases) and attitudinal loyalty (expressed through consistent positive evaluations and emotional attachment etc.). They identify two critical factors for building brand loyalty as the following: 1) brand trust, how confident customers are in a brands reliability to deliver on its promises, and 2) brand affect, the brands potential to elicit a positive emotional response. It is thus critical for brands to maintain quality and transparent communication to build sustainable loyalty.

There is also a difference in how premium and budget brands build loyalty. Whereas premium brands build loyalty through brand equity, perceived quality and emotional connections (Keller, 1993). Budget brands on the other hand often rely on habitual purchases driven by low prices and lower perceived risks when purchasing (Damaschi et al., 2025). As shrinkflation can be seen as a deceptive action taken by retailers that evoke negative emotions, we hypothesise that shrinkflation will have a negative effect on both the premium and budget brands due to decreased brand affect. However, it is also hypothesised that the premium brand will experience a greater negative impact on brand loyalty compared to the budget brand due to it being more reliant on emotional connections. Whereas the budget

brand will experience a smaller negative impact on brand loyalty due to the increased per unit price.

Thus, drawing from the various studies on brand loyalty, the following hypotheses are formed
H1: Shrinkflation will have a greater negative impact on brand loyalty for premium brands compared to budget brands.
H2: Shrinkflation will have a smaller negative impact on brand loyalty for a budget brand compared to premium brands.

2.3 Brand Trust

It is well recognized that brand trust plays a significant part in consumer-firm relationships and that trust is oftentimes the cornerstone of long-term relationships between consumers and brands (Sirdeshmukh et al, 2002). Reichheld and Schefter (2000) states: “To gain the loyalty of customers, you must first gain their trust”. As stated previously, brand trust reflects how confident consumers are in a brand's ability to deliver consistent behavior based on their previous experiences and is a key aspect to brand loyalty (Chaudhuri & Holbrook, 2001). Sirdeshmukh et al (2002) adds depth to brand trust by showing that trust influences perceived value and ultimately brand loyalty, thus showcasing a relationship between the components. As shrinkflation involves reducing product size while maintaining price and packaging, consumers may have a hard time noticing the changes **(**Cakir & Balagtas, 2014**).** Drawing from Sirdeshmukh et al (2002), shrinkflation could potentially erode trust by decreasing operational competence (that consumers feel that the brand is no longer delivering the promised value) and operational benevolence (that consumers see shrinkflation as a signal that the brand prioritizes profit over the consumers). Further, the study also revealed that brand trust has a negative asymmetry in performance, implying that negative events (such as shrinkflation) could hurt trust more than positive events build it.

As shrinkflation is seen as a deceptive action, consumers may feel that the operational benevolence decreases, and thus affects brand trust negatively. For budget brands, as the main focus lies on price competition, consumers' trust may decrease due to decreased operational competence that the brand no longer delivers the promised value. Thus:

H3: Shrinkflation will have a negative impact on brand trust for a premium brand
H4: Shrinkflation will have a negative impact on brand trust for a budget brand.

2.4 Perceived Quality

Perceived quality is a central concept within business in general and the retail sector in particular. Although perceived quality is different depending on the industry, related to brand equity, Aaker (1991) claims that every brand will be associated with a perception of overall quality. To emphasize its importance, it is shown that perceived quality influences both brand loyalty and purchase intentions, but also has the ability to support a premium price while being a central aspect in brand extensions (Aaker, 1991). If a brand is perceived as high quality within one context, it is also likely to be regarded similarly in related contexts (Aaker, 1991).

Several studies have explored various ways to influence perceived quality. Dodds et al (1991) found that perceived quality, along with other brand-related components are context dependent. This suggests that consumers' perceptions of quality may vary when evaluating the effects of shrinkflation across premium and budget brands. Erdem & Swait (1998) discuss how strong brands function as quality signals to customers and reduces uncertainty and increases perceived quality. The authors highlight that consistency is a key in quality signalling and they refer to it as " the stability (low variation) of brand attitudes over time". In this sense, existing research provides evidence that premium brands benefit from its position and signals quality to customers.

In addition to Erdem & Swait (1998), Völckner & Hofmann (2007) state that relying on price to highlight the perceived quality is more relevant for expensive and infrequent purchased products rather than for frequently purchased products. Hence, it is not sufficient to assume that a premium brand obtains higher perceived quality than budget brands due to the price difference alone. Nevertheless, the price level influences the level of perceived quality for a premium brand.

Batra & Sinha (2000) builds on existing research by examining how budget private label brands have difficulties in building strong quality perceptions due to low brand equity. The authors also find that lower perceived quality can be accepted by price-conscious customers. Lichtenstein et al (1993), also validates that customers whose preference is budget brands prioritise value for money rather than quality. Shrinkflation implies that the value for money decreases because of higher per unit prices (Evangelidis, 2023), thus the hypothesised

negative effect shrinkflation has on perceived quality is driven by decreased value for money for budget brands.

Shrinkflation is the practice where the volume is reduced while the price is maintained (Evangelidis, 2023). As shrinkflation implies that the volume of the package is inconsistent, where consistency is key in signaling perceived quality (Erdem & Swait, 1998), we expect that shrinkflation will have a negative effect on quality perception for a premium brand and a budget brand. However, given that perceived quality is of less importance for price conscious groups, we expect that shrinkflation will have a smaller negative effect on perceived quality for a budget brand.

Having existing literature in mind the following hypotheses are outlined:
H5: Shrinkflation will have a greater negative impact on perceived quality for a premium brand compared to a budget brand.
H6: Shrinkflation will have a smaller negative impact on perceived quality for a budget brand compared to a premium brand.

2.5 Brand Image

Aaker (1991) defines brand image as a set of brand associations which reflects a more abstract level of conceptualizing a brand. Brand associations are anything linked in memory to a brand and vary to different degrees depending on whether the association is based on multiple experience or exposures to brand communications (Aaker, 1991). Keller & Swaminathan (2008) further adds on Aaker's (1991) definition, that brand associations can be categorised as brand attitudes (descriptive features of a product), or brand benefits (personal value that customers attach to products).

According to Aaker (1991), the value of brand associations can be seen through its implications. Associations are a prominent foundation for brand extensions, it creates positive attitudes and feelings and it can also provide an important basis for differentiation if the brand associations/image is distinguishable from the rest of the market (Aaker, 1991). Keller & Swaminathan (2008) introduce a new dimension in which there is an indirect approach to build brand equity through leveraging secondary brand associations. Leveraging secondary brand association refers to the process in which positive associations are being transferred from an external entity to enhance a brand's equity (Keller & Swaminathan, 2008). This can

be done in several ways, for instance through celebrity endorsement, co-branding and through distribution channels (Keller & Swaminathan, 2008). Also, brand associations not only function as an antecedent to brand loyalty, but also perceived quality. Erdem & Swait (1998) claim that strong brand associations also can function as a signal of product quality in purchase environments characterized by uncertainty.

Premium brands are often associated with superior quality, exclusivity and a willingness to pay a premium price (Guitart et al., 2018; Anselmsson et al, 2007). Premium brands rely on associations that convey uniqueness in order to justify a higher willingness to pay among consumers (Anselmsson et al., 2007). Since shrinkflation is generally perceived negatively, it is unlikely to enhance perceptions of uniqueness and may instead undermine the brand's premium positioning.

In contrast to premium brands, budget brands have stronger associations with practicality and affordability (Anselmsson et al, 2007). Lichtenstein et al (1993) builds on this by claiming that budget brands are more focused on value for money. By adopting shrinkflation, the perception of receiving a good deal erodes as the unit price increases. Thus, the set of associations (brand image) characterising the brand would be assumed to erode if shrinkflation is adopted on budget brands. Also, as emphasized by Keller & Swaminathan (2008), product reliability is of high importance for budget brands. Thus, if customers detect shrinkflation they may also suspect reduced quality as a consequence for the loss of functional associations caused by shrinkflation. Hence, we expect that shrinkflation will affect brand associations for a budget brand to the same extent as a premium brand but for different reasons.

Based on the existing literature on the subject, the following hypotheses have been constructed:
H7: The implementation of shrinkflation on a premium brand will have a negative impact on brand image.
H8: The implementation of shrinkflation on a budget brand will have a negative impact on brand image.

2.6 Word-of-Mouth

Ghosh et al (2014) define WOM as “face-to-face communication between consumers regarding any product, brand or service”. In the modern business landscape WOM has been an important tool to attract new customers. As the business landscape has digitised, WOM has quickly adapted to this new context. Keller & Swaminathan (2008) highlights the investments companies have done through social influences in order to create WOM within the online space. In this study, focus will be upon how shrinkflation affects WOM intentions for a premium brand contra a budget brand. Concretely, the immediate WOM intentions will be investigated through the Net Promoter Score (Baehre et al, 2022).

According to Monteanu and Bozga (2022), shrinkflation has a negative effect on brand reputation. Also, in their comprehensive meta-analysis based studies, de Matos & Rossi (2008) outline the most common antecedents of WOM activity where quality, trust and perceived value are some prominent antecedents. In alignment with the previously stated hypotheses, shrinkflation is expected to have a negative effect on perceived quality and brand trust. Thus, stemming from Matos & Rossi (2008), and amplified with Monteanu and Bozga (2022) a negative WOM would be spread due to shrinkflation.

WOM is also linked to brand equity. Virviliate et al (2015) highlights this link by concluding that vividness and usefulness in WOM communication positively impact brand equity for premium products. Baker et al (2016) elaborates on the subject by concluding that positive WOM has the greatest retransmission effects whereas negative WOM has the largest effect on purchase intentions. Connecting to the effects of negative WOM, Bambauer-Sachse & Mangold (2011) conclude that negative WOM communication in the online space leads to brand equity dilution**.** The opposite effect on brand equity occurs when a positive WOM is spread. Thus, it can be seen that WOM both can strengthen brand equity as well as lead to brand equity dilution.

H9: Exposure to shrinkflation will result in a lower Net Promoter Score compared to non-exposure for a budget brand.
H10: Exposure to shrinkflation will result in a lower Net Promoter Score compared to non-exposure for a premium brand.

Component	Description	Key Focus	References
Brand Loyalty	Serves as a measure of the attachment consumers have to a brand and reflects the likelihood of them switching to a competitor.	Whereas premium brands build loyalty through brand equity, perceived quality, and emotional connections. Budget brands however, build loyalty through functional benefits, attractiveness and habits.	(Reichheld & Sasser, 1990), (Chaudhuri & Holbrook 2001), (Aaker, 1991), (Erdem & Swait, 1998), (Keller, 1993)
Perceived Quality	Every brand will be associated with a perception of overall quality.	Premium brands are generally perceived to have higher quality due to their higher prices. Budget brands are more judged on their value for money and functionality rather than price.	(Aaker, 1991), (Dodds & Monroe, 1991), (Erdem & Swait, 1998), (Batra & Sinha, 2000), (Välckner & Hofmann, 2007), (Evangelidis, 2023), (Lichtenstein et al, 1993)
Brand Image	Brand associations are anything linked in memory to a brand. A set of brand associations create a brand image.	For premium brands, brand associations drive the willingness to pay a price premium. For a budget brand shrinkflation negatively affect value for money which is important	(Aaker, 1991), (Keller & Swaminathan 2008), (Erdem & Swait, 1998), (Anselmsson et al, 2007), (Lichtenstein et al, 1993)

		for a budget brand's associations.	
Word-of-mouth	The face-to-face communication between consumers regarding any product, brand or service.	As shrinkflation evokes negative feelings, those are assumed to be spread through WOM.	Ghosh et al (2015), Keller (2008), Monteanu and Bozga (2022), Matos & Rossi (2008), Virviliate et al (2015), Baker et al (2015), Bambauer-Sachse & Mangold (2011)
Brand Trust	Brand trust reflects how confident consumers are in a brand's ability to deliver consistent behavior based on their previous experiences.	As shrinkflation implies taking advantage of customer's inattentivness, it is hypothesised that it will affect brand trust negatively for both a premium and budget brand.	Sirdeshmukh et al, 2002, Reichheld and Schefter (2000), (Chaudhuri & Holbrook, 2001),

Table 2 - Summarizing key themes from Section 2 - Theoretical framework

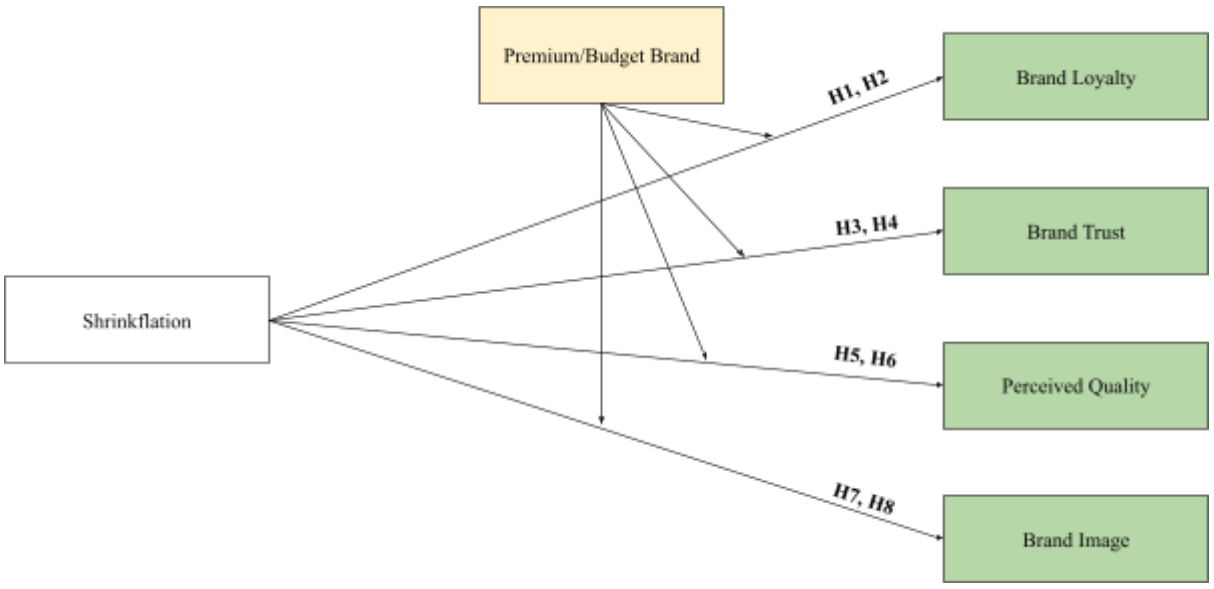


Figure 1 – Conceptual model showcasing the link between shrinkflation and the components of brand equity, moderated by premium/budget brand.

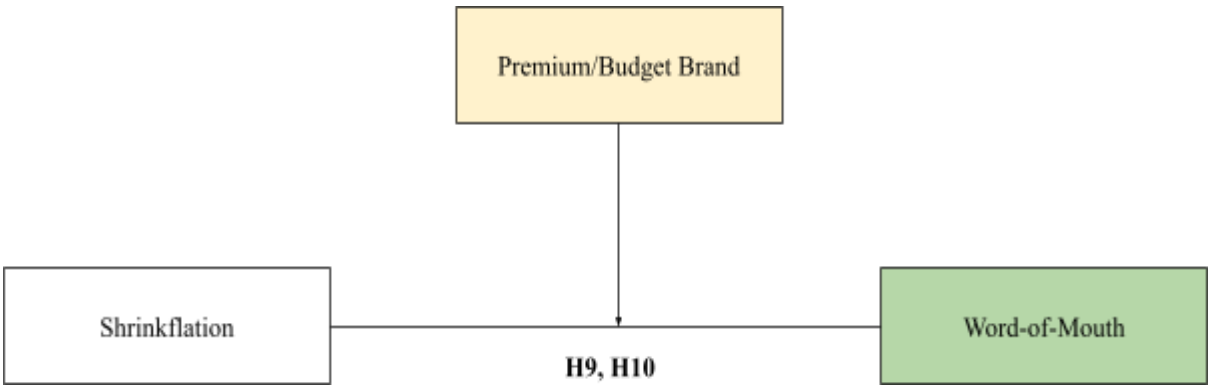


Figure 2 - Conceptual model showcasing the link between shrinkflation and WOM, moderated by premium/budget brand

Section 3 - Methodology

3.1 Research Method

A qualitative method seeks to understand a context that demands an understanding which is gained through interviews (Eliasson, 2018). As the purpose of this study is to quantify the relationship between the presented variables, a qualitative research method does not serve the purpose. Thus, the hypotheses will be tested by a quantitative research method and an experimental study. To this study, adopting a quantitative study allows for quantifying the relationship between the established variables (Eliasson, 2018). Through the quantified results in the form of data, the results can be clearly communicated to external stakeholders and statistically verified. To deepen the analysis and compare the effect of shrinkflation on Arla Bregott and Flora, a two-way ANOVA analysis will be conducted.

Illustrating the relevance of the research method, Keller & Swaminathan (2008) claims that quantitative research techniques is a method to more precisely approximate the breadth and depth of relationships. Further, he states that to obtain precise and generalizable information, quantitative scale measures are most commonly adopted.

3.2 Research Approach

The study follows a top-down research based approach where the hypotheses are drawn from existing research and then tests the hypotheses through data collection and analysis. This deductive approach is often related to a quantitative method and presents measurable results (Bryman, 2018).

The butter category was chosen for this experiment as it is a widely recognized product as it has been consumed by humans for decades (Cheng et al, 2023) Additionally, butter is a product many consumers use regularly in their daily routines which fosters a deeper connection. This familiarity and frequency of use will make the results of the study more relevant and applicable to a broad range of other product categories.

3.3 Pretest – Determine the premium and budget

3.3.1 Purpose of Pretest

A pretest was conducted to identify which butter brand is perceived as the most premium and which is viewed as the budget option. The results will further be used in the main study to ensure that the suggested brands truly reflect consumer perceptions of a premium brand versus a budget brand in the butter category.

3.3.2 Pretest Design

Five butter brands were chosen for evaluation (see Appendix 2). An online survey was distributed across various Swedish online communities to gather a diverse range of responses. It consisted of a single-item questionnaire based on Truong et al (2008), where participants were asked: “To what extent is this brand a symbol of prestige?”, and asked to rate each brand using a 10-point Likert scale ranging from: “1 = Not at all” to “10 = Highest grade”.

3.3.3 Pretest Sample

A total of 35 participants were recruited from convenience sampling from various general local Swedish online communities. This approach ensured a diverse mix of respondents, although the sample is not fully representative of the broader population, it is still considered appropriate for the exploratory nature of the pretest, as it provides initial insights into consumer perceptions of premium versus budget brands (Nikolopoulou, 2022).

According to Roscoe (1975), a sample size between 30 to 500 is generally suitable for most research, making the pretest results valid. Furthermore, Memon et al (2020) note that exploratory studies should have 15:1 or 20:1 sample-to-item ratio. Given that the pretest only includes one item, 35 participants are determined to be adequate and reliable for this pretest.

3.3.4 Pretest results

The pretest results indicate that among the five butter brands evaluated, Arla Bregott was perceived as the most premium brand (M = 7.57), while Flora was rated the lowest and identified as the budget brand (M = 2.86). This reflects a clear differentiation in consumer perceptions that validates the selection of Arla Bregott as the premium brand and Flora as the budget brand for the main study.

3.4 Main Study

3.4.1 Purpose of Main Study

As commonly used when adopting a quantitative approach, this study adopts an experimental approach to measure the cause and effects of shrinkflation on four components of brand equity and WOM. In each hypothesis the moderator premium or budget brand will be tested to quantify the tested hypotheses.

3.4.2 Main Study Design

Drawing from the pretest results, the main study will use Arla Bregott as the premium brand while Flora will represent the budget brand. The main study followed an experimental design to test the effects of shrinkflation on brand equity and whether a premium or budget brand affects consumer perceptions.

The experiment presented participants with one out of four possible scenarios: 1) Control group for either premium or budget brand without shrinkflation stimuli, 2) Either Premium or budget brand with shrinkflation stimuli, thus employing a between-subjects design to measure the separate impact of premium or budget brands on brand equity.

In the control group, each participant was presented with a single, fixed scenario. They were asked to imagine a situation where they purchased butter, with the survey offering only one option per participant with no alternative choices. One group was asked to imagine

purchasing Arla Bregott (750g), while the other group was asked to imagine purchasing Flora (600g). The stimuli groups were asked to imagine an identical situation to the control group, with the addition of highlighting that the consumer noticed a 20% decrease in packaging volume (Arla now 600g, and Flora now 480g). Following the scenarios, the participants were asked to evaluate the components of brand equity, WOM and demographic questions.

In order to draw conclusions on a survey based on two scenarios, consistency across the scenarios along with a clear definition of the scenarios is crucial. To ensure that the respondents clearly understand the scenarios and interpret them according to the purpose of the study they were tested randomly on customers beforehand.

The data from the survey is further analyzed in SPSS to draw measurable conclusions of the insights provided. Stemming from the data analysis, a discussion interpreting and drawing conclusions from the results takes place where it will be investigated if the hypotheses are supported or not.

3.4.3 Main Study Sample

Two-hundred and thirty-two Sweden-based and Swedish speaking participants (43% aged between 25-34, 32% female) completed this online survey for a payment through Prolific verified participants.

3.4.4 Main Survey Design

The choice of employing an online survey is motivated by Malhotra et al (2017) who claims that such a survey enables participants to respond under circumstances they feel comfortable with, reducing participants' reluctance.

The survey begins with introducing the subject of shrinkflation to customers and the structure of the questionnaire. The introduction ends with information about data protection, how information will be collected and used.

To ensure that the measuring of brand equity is sufficient, this study picks items from several different scales to measure each of the components (Yoo & Donthu 2001, Erdem & Swait 2004, Salinas & Pina, 2008). The study employed a between-subjects design with four

possible scenarios. Participants were exposed to either one of the scenario groups (shrinkflation) or control groups (no shrinkflation).

The survey is divided into two different scenarios, where each scenario has a control group. The scenarios and the control groups are evenly distributed towards respondents. The control groups are exposed to an identical scenario but also with a control question.

Each scenario is then divided into sections, where the first section measures perceived quality, brand image, brand trust, brand loyalty. Following the measurements of brand equity, WOM is being measured by one item. Based on Baehre et al (2022) WOM is measured through Net Promoter Score.

To complete the survey, a section of demographics follow. This section asks respondents to provide information on gender, age, household size and occupation. (See appendix 3 to 15 to review the survey).

An overview of the constructs can be seen in Table 5, under Appendix.

Section 4 - Results

Several independent-samples t-tests were conducted to test the hypotheses. The summary of mean comparisons and statistical levels can be found in table 3, with the threshold of statistical significance of 5% or below according to standard practices in academic research (Söderlund, 2018).

An overview of the independent t-test results is provided in Table 3 and 4 in the Appendix.The results of the two-way ANOVA are presented in Table 6 in the Appendix. Reliability checks for the survey constructs are shown in Table 5 in the Appendix.

4.1 Demographics of the samples

A total of 232 participants were included in the study. The gender distribution was as follows: 154 participants (66%) identified as male, 74 participants (32%) identified as female, and 4 participants (2%) identified as other. Regarding the age distribution, the highest proportion of respondents was within the 25-34 age group (43%), followed by the 35-44 (22%), 18-24

(16%), 45-54 (8%), 55-64 (8%), and 65-74 (3%) age groups. The mean household size was 2.31 individuals (M = 2.31).

4.2 Brand Loyalty

Two hypotheses were constructed on brand loyalty: H1 (shrinkflation will have a greater negative impact on brand loyalty for premium brands. H2 (shrinkflation will have a smaller negative impact on brand loyalty for a budget brand. As the two-way ANOVA showed insignificance neither of the hypotheses (H1, H2) were supported.

For Arla Bregott, the mean brand loyalty score for the control group was 3.81 (M = 3.8103), whereas the scenario group recorded a lower mean of 3.55 (M = 3.5593), however, the difference was shown to not be statistically significant (t = 0.715, p = 0.476). Similarly, for Flora, the control group recorded a mean of 2.20 (M = 2.2083), compared to 2.04 (M = 2.0417) in the scenario group. However, this difference was also shown to be statistically insignificant (t = 0.613, p = 0.541). The Cronbach alpha level for loyalty equaled 0.871.

The two-way ANOVA on brand loyalty revealed no statistically significant main effect of shrinkflation exposure on brand loyalty ($F(1, 225) = 0.874$, $p = 0.351$, partial $\eta^2 = 0.004$), but a significant main effect on brand type on brand loyalty ($F(1, 225) = 48.74$, $p < 0.001$, partial $\eta^2 = 0.178$). There was also no significant interaction effect between shrinkflation exposure and brand type on brand loyalty ($F(1, 225) = 0,036$, $p = 0.850$, partial $\eta^2 < 0.001$).

4.3 Brand trust

Two hypotheses were constructed on brand trust: H3 (Shrinkflation will have a negative impact on brand trust for a premium brand) and H4 (Shrinkflation will have a negative impact on brand trust for a budget brand). Both hypotheses are supported following the significant T-tests allowing for comparing means.

For Arla Bregott, the mean brand trust score for the control group was 5.87 (M= 5.8707), whereas the scenario group exhibited a lower mean score of 4.95 (M = 4.9492). Similarly, for Flora, the control group recorded a mean score of 4.95 (M = 4.9464), compared to 3.94 (M = 3.9375) in the scenario group. The differences between the control and scenario groups were

shown to be statistically significant ($t_{Arla} = 4.080$, $p < 0.001$; $t_{Flora} = 3.815$, $p < 0.001$) in both cases and resulted in Cronbach's alpha of 0.841.

The two-way ANOVA on brand trust revealed a significant main effect of shrinkflation exposure on brand trust ($F(1, 225) = 30.995$, $p < 0.001$, partial $\eta^2 = 0.118$), and a significant main effect on brand type on brand trust ($F(1, 225) = 31.17$, $p < 0.001$, partial $\eta^2 = 0.122$). There was no significant interaction effect between shrinkflation exposure and brand type on brand trust ($F(1, 225) = 0.06$, $p = 0.801$, partial $\eta^2 < 0.001$)

4.4 Perceived Quality

Two hypotheses were constructed on perceived quality: H5 (Shrinkflation will have a greater negative impact on perceived quality for a premium brand compared to a budget brand) and H6 (Shrinkflation will have a smaller negative impact on perceived quality for a budget brand compared to a premium brand). None of the hypotheses are supported as the two-way ANOVA did not reveal a statistically significant effect ($p > 0.05$).

For Arla Bregott, the mean perceived quality score for the control group was 5.81 ($M = 5.8103$), whereas the scenario group exhibited a lower mean score of 5.11 ($M = 5.1186$), the difference was shown to be statistically significant ($t = 3.331$, $p < 0.001$). Similarly, for Flora, the control group recorded a mean score of 4.42 ($M = 4.4286$), compared to 3.71 ($M = 3.7143$) in the scenario group, and is also shown to be statistically significant ($t = 2.741$, $p = 0.007$). In both cases, a Cronbach's alpha of 0.841 was recorded.

The two-way ANOVA on perceived quality revealed a significant main effect of shrinkflation exposure on perceived quality ($F(1, 225) = 17.937$, $p < 0.001$, partial $\eta^2 = 0.074$), and a significant main effect of brand type on perceived quality ($F(1, 225) = 70.435$, $p < 0.001$, partial $\eta^2 = 0.238$). There was no significant interaction effect between shrinkflation exposure and brand type on perceived quality ($F(1, 225) = 0.005$, $p = 0.946$, partial $\eta^2 < 0.001$).

4.5 Brand Image

Two hypotheses were constructed on brand image: H7 (The implementation of shrinkflation on a premium brand will have a negative impact on brand image) and H8 (The implementation of shrinkflation on a budget brand will have a negative impact on brand image). Both hypotheses are supported.

For Arla Bregott, the mean brand image score for the control group was 5.38 (M = 5.3793), whereas the scenario group exhibited a lower mean score of 4.37 (M = 4.3729); this difference was shown to be statistically significant ($t = 3.569$, $p < 0.001$). Similarly, for Flora, the control group recorded a mean score of 3.68 (M = 3.6786), compared to 2.89 (M = 2.8929) in the scenario group; this difference was statistically significant ($t = 2.666$, $p = 0.009$).

The two-way ANOVA on brand image revealed a significant main effect of shrinkflation exposure on brand image ($F(1, 225) = 19.322$, $p < 0.001$, partial $\eta^2 = 0.079$), and a significant main effect of brand type on brand image ($F(1, 225) = 60.865$, $p < 0.001$, partial $\eta^2 = 0.213$). There was no significant interaction effect between shrinkflation exposure and brand type on brand image ($F(1, 225) = 0.29$, $p = 0.589$, partial $\eta^2 < 0.001$).

4.6 Word-of-mouth

Two hypotheses were constructed on WOM: H9 (Exposure to shrinkflation will result in a lower Net Promoter Score compared to non-exposure for a budget brand) and H10 (Exposure to shrinkflation will result in a lower Net Promoter Score compared to non-exposure for a premium brand). As the T-tests conducted showed insignificance, none of the hypotheses (H9, H10) were supported.

For Arla Bregott the control and scenario group resulted in a mean of 6.37 (M = 6.3793) and 5.74 (M = 5.7458) respectively, however the differences were not statistically significant ($t = 1.226$, $p = 0.223$). For Flora, the means for the control and scenario group were 3.96 (M = 3.9643) and 3.48 (M =3.4821) respectively, but also did not result in statistical significance ($t = 1.014$, $p = 0.313$).

A two-way ANOVA analysis was conducted on NPS. The results showed significance for brand type, that there is a significant difference in NPS between the brands. Nevertheless, the other tested interaction effects were insignificant.

4.7 Hypotheses Summary

Hypotheses	Component	Significance	Supported

H1 Shrinkflation will have a greater negative impact on brand loyalty for premium brands compared to budget brands.	Brand Loyalty	$p > 0.05$	No
H2 Shrinkflation will have a smaller negative impact on brand loyalty for a budget brand compared to premium brands.	Brand Loyalty	$p > 0.05$	No
H3 Shrinkflation will have a negative impact on brand trust for a premium brand	Brand Trust	$p < 0.05$	Yes
H4 Shrinkflation will have a negative impact on brand trust for a budget brand.	Brand Trust	$p < 0.05$	Yes
H5 Shrinkflation will have a greater negative effect on perceived quality for a premium brand compared to a budget brand.	Perceived Quality	$p > 0.05$	No
H6 Shrinkflation will have a smaller negative effect on perceived quality for a budget brand.	Perceived Quality	$p > 0.05$	No
H7 The implementation of shrinkflation on a premium brand will have a negative impact on brand image.	Brand Image	$p < 0.05$	Yes
H8 The implementation of shrinkflation on a budget brand will have a negative impact on	Brand Image	$p < 0.05$	Yes

brand image.			
H9 Exposure to shrinkflation will result in a lower Net Promoter Score compared to non-exposure for a budget brand.	WOM	$p > 0.05$	No
H10 Exposure to shrinkflation will result in a lower Net Promoter Score compared to non-exposure for a premium brand.	WOM	$p>0.05$	No

Table 7 - Summary of hypotheses and their results

Section 5 - Discussion

5.1 Summary of main findings

Given that shrinkflation is increasingly highlighted in society but also in academic research, we aimed to examine the relationship between shrinkflation and components of brand equity, testing whether the effects differ from a premium brand compared to a budget brand. Based on the prestudy results, Arla Bregott served as the premium brand while Flora functioned as the budget brand. Four components of brand equity were examined: brand loyalty, perceived quality, brand image and brand trust. Additionally, word-of-mouth was also examined due to its ease of measurement through the survey and its connection to brand equity.

Stemming from the results, adopting shrinkflation negatively affects three key components of brand equity (perceived quality, brand image and brand trust). Thus, despite shrinkflation being an efficient tool in raising the per unit price, the results highlight the hidden costs of shrinkflation. One such cost is the negative impact on a brand's ability to successfully execute future brand extensions. Building on Aaker's (1991) argument that perceived high quality in one domain can lead to assumptions of high quality in a related domain, a decline in perceived quality excels through several domains harming brand extensions. Moreover, Aaker (1991) states that brand associations/image also is a prominent foundation for brand extensions. As our results state a negative effect on brand image, this further highlights the hinders shrinkflation poses to pursue brand extensions.

Also, Sirdeshmukh et al (2002) states that brand trust has a negative asymmetry in performance, that negative events damage trust more than positive events build trust. In alignment with Bhattacharya, (2024), the results in this study states that brand trust is negatively affected by shrinkflation. Accordingly, restoring brand trust to its pre-shrinkflation state requires disproportionately greater positive efforts, given that trust-damaging events exert a stronger impact than trust-building ones. Thus, the implicit cost of shrinkflation in this regard necessitates the implementation of strategic countermeasures to restore brand trust to its former level.

In alignment with the research question, the purpose of this study has been to assess the differential impact of shrinkflation on consumer perceptions of a premium brand compared to a budget brand. The two-way ANOVA analysis conducted showed that shrinkflation affects both brand types similarly for three of the components (brand image, brand trust and perceived quality). However, from the two-way ANOVA analysis, it can be concluded that Arla Bregott (premium brand) has a higher level of perceived quality, brand trust and brand image compared to Flora (budget brand).

Lastly, the t-test on NPS stated no significant differences, which is consistent with the two-way ANOVA findings, with the exception of a significant main effect of brand type. The main effect of brand type on NPS highlights that the premium brand (Arla Bregott) has a higher score than the budget brand (Flora). Thus, revisiting Baker et al, Arla Bregott has the greatest WOM retransmission effects whereas Flora has the largest effect on purchase intentions. Furthermore, building on Bambauer-Sachse & Mangold (2011), Flora faces a greater risk of brand equity dilution due to its lower NPS score.

5.2 Theoretical Contributions

This study builds on existing research within the field of shrinkflation by quantifying the link between shrinkflation and prominent components of brand equity (brand image, brand trust, brand loyalty and perceived quality). The study also presents novel insights to the field by examining the moderating role of a premium and a budget brand as well as adding the dimension of WOM.

The study builds on the brand equity models developed by Aaker (1991) and Keller and Swaminathan (2008) to measure the relationships between shrinkflation and components of brand equity. From these models, the reasoning by Dekimpe & van Heerde (2023) is quantified, depicting the effect shrinkflation has on brand trust. More broadly, shrinkflation also negatively affected perceived quality and brand image. Previous research includes case studies outlining the negative effect shrinkflation has on customer perceptions in different countries. This study advances the existing research by conducting an in-depth examination of the butter category within the Swedish grocery market.

5.3 Managerial Implications

To enable managers to effectively address the adverse effects of shrinkflation on brand equity, particularly in the context of premium and budget brands, the following three strategic recommendations are presented:

1. **Implement strategies that preserve customers' low attention to product changes.** This study demonstrates that key components of brand equity such as perceived quality, brand trust and brand image all are negatively affected by shrinkflation for both a premium and a budget brand. Thus, there is a hidden cost for adopting shrinkflation in terms of reduced brand equity. However, this hidden cost is only recognized if the customers are attentive. To managers within the large retail companies, strategic focus should be placed on price rather than the quantity of the product. Consequently, strategic use of packaging and design can function as effective instruments for enhancing product appeal by highlighting price-based value over quantity.

2. **Carefully manage the brand's positioning.** As shrinkflation negatively affects key brand equity components (brand image, brand trust and perceived quality) and can be perceived as a deceitful action taken by retailers, this leaves a space in which competitors can focus on increasing their brand equity as their value proposition. Thus, balancing the adoption of shrinkflation with actions increasing brand equity is a countermeasure to mitigate the effects of adopting shrinkflation. Revisiting Keller & Swaminathan (2008), leveraging secondary brand associations is an efficient tool to use as a countermeasure.

3. **Shrinkflation affects Arla Bregott and Flora similarly.** The results of the two-way ANOVA indicate that shrinkflation exerts a comparable effect on both Arla Bregott (premium brand) and Flora (budget brand). Consequently, from a managerial perspective, the decision to implement shrinkflation appears to have a similar impact on the four different components of brand equity regardless of whether it is applied to a premium or a budget brand.

5.4 Future Research

All hypotheses were supported except for H1, H2 (regarding brand loyalty) and H9,H10 (regarding WOM), H5, H6 (Perceived quality). Thus, it is of importance to acknowledge the limitations of this study and explore perspectives for future research.

The execution and design of this study was limited to an online survey experiment measuring the short-term effects of shrinkflation on a single premium and budget brand in the Swedish grocery market. Participants were randomly chosen using convenient sampling through Prolifics Swedish-speaking participants, which may limit the demographics of this study and not accurately reflect the broader population of consumers. Thereby the sample may include potential biases. Further, as butter is perceived as a low-involvement and price-sensitive category but an important category for consumer habits, results could differ for high-involvement or discretionary goods. For example, an experiment conducted on a larger consumer market, across multiple categories (i.e milk, coffee etc.) with more participants would yield more reliable results and further investigate whether results would vary in different demographic segments.

Further, as this study follows a purely quantitative research method, results are limited solely to the quantitative survey. A mixed approach could have provided deeper insights regarding consumer perceptions along with more detailed responses regarding the experiment and scenarios.

Hence, for future research, it would be interesting to examine the long-term effects of shrinkflation on components of brand equity by tracking brand-equity scores over a longer period of time (for instance 6-12 months after shrinkflation). As shown in our results, all components of brand equity would experience an instant drop except for brand loyalty, which arguably could only be affected over time as prolonged lower brand trust.

Lastly, this study fails to validate the effect shrinkflation has on brand loyalty. Reichheld and Schefter (2000) argue that brand trust functions as an indicator for brand loyalty. As this study validates the negative impact shrinkflation has on trust, it indicates that brand loyalty would be assumed to be negatively impacted. However, this is yet to be explored for future research. Examining and verifying the relationship between shrinkflation and brand loyalty would complete the purpose of this study and contribute to further understanding of shrinkflation.

References

Aaker, D. (1991). *Managing brand equity: Capitalizing on the value of a brand name*. https://www.academia.edu/2555384/Managing_brand_equity_Capitalizing_on_the_value_of_a_brand_name

Baehre, S., O'Dwyer, M., O'Malley, L. and Story, V.M. (2022). Customer mindset metrics: A systematic evaluation of the Net Promoter Score (NPS) vs. alternative calculation methods. *Journal of Business Research*, 149, pp.353–362. doi:https://doi.org/10.1016/j.jbusres.2022.04.048.

Batra, R. and Sinha, I. (2000). Consumer-level factors moderating the success of private label brands. *Journal of Retailing*, 76(2), pp.175–191. doi:https://doi.org/10.1016/s0022-4359(00)00027-0.

Baker, A.M., Donthu, N. and Kumar, V. (2016). Investigating how Word-of-Mouth Conversations about Brands Influence Purchase and Retransmission Intentions. *Journal of Marketing Research*, 53(2), pp.225–239. doi:https://doi.org/10.1509/jmr.14.0099.

Bambauer-Sachse, S. and Mangold, S. (2011). Brand equity dilution through negative online word-of-mouth communication. *Journal of Retailing and Consumer Services*, 18(1), pp.38–45. doi:https://doi.org/10.1016/j.jretconser.2010.09.003.

Biden, J.R., (2024) *State of the Union 2024 | The White House*. https://bidenwhitehouse.archives.gov/state-of-the-union-2024/

Bhattacharya, S. (2024). *Shrinkflation-A Discerning Trend in Business to Deal with Inflationary Pressure*. https://www.academia.edu/127395622/Shrinkflation_A_Discerning_Trend_in_Business_to_Deal_with_Inflationary_Pressure

Bryman, A. 2018, Samhällsvetenskapliga metoder, 3rd ed., Liber AB. Malmö.

Cakir, Metin. Balagtas V. Joseph. (2014). *Journal of Retailing.* *https://www.sciencedirect.com/science/article/abs/pii/S0022435913000456*

Chaudhuri, A. and Holbrook, M.B. (2001). The Chain of Effects from Brand Trust and Brand Affect to Brand Performance: the Role of Brand Loyalty. Journal of Marketing, 65(2), pp.81–93. doi:https://doi.org/10.1509/jmkg.65.2.81.18255.

Cheng, S., Li, W., Wu, S., Ge, Y., Wang, C., Xie, S., Wu, J., Chen, X. and Cheong, L.-Z. (2023). Functional butter for reduction of consumption risk and improvement of nutrition. *Grain & Oil Science and Technology*, 6(4), pp.172–184. doi:https://doi.org/10.1016/j.gaost.2023.09.001.

Corte, P. (2025). Italy · New Italian Shrinkflation Labelling Rules. European Food and Feed Law Review, 20(1), 57–59. Retrieved from https://effl.lexxion.eu/article/effl/2025/1/13

Deepak Sirdeshmukh, Singh, J. and Sabol, B. (2002). Consumer Trust, Value, and Loyalty in Relational Exchanges. Journal of Marketing, 66(1), pp.15–37. doi:https://doi.org/10.1509/jmkg.66.1.15.18449.

Damaschi, G., Aboueldahab, A., & D'Addario, M. (2025). Decomposing Brand Loyalty: An Examination of Loyalty Subcomponents, Product Price Range, Consumer Personality, and Willingness to Pay. Behavioral Sciences, 15(2), 189. https://doi.org/10.3390/bs15020189

de Matos, C.A. and Rossi, C.A.V. (2008). Word-of-mouth communications in marketing: a meta-analytic review of the antecedents and moderators. *Journal of the Academy of Marketing Science*, 36(4), pp.578–596. doi:https://doi.org/10.1007/s11747-008-0121-1.

Dodds, W.B., Monroe, K.B. and Grewal, D. (1991). Effects of Price, Brand, and Store Information on Buyers' Product Evaluations. *Journal of Marketing Research*, 28(3), pp.307–307. doi:https://doi.org/10.2307/3172866.

Dyvik, E. H. (2024). Inflation worldwide - statistics & facts. Retrieved from Statista website: https://www.statista.com/topics/8378/inflation-worldwide/#topicOverview

Dick, A.S. and Basu, K. (2025). Customer Loyalty: Toward an Integrated Conceptual Framework. *Journal of the Academy of Marketing Science*, 22(2), pp.99–113. Available at: https://www.academia.edu/5464947/Customer_Loyalty_Toward_an_Integrated_Conceptual_Framework

Erdem, T. and Swait, J. (1998). Brand Equity as a Signaling Phenomenon. *Journal of Consumer Psychology*, 7(2), pp.131–157. doi:https://doi.org/10.1207/s15327663jcp0702_02.

Erdem, T. and Swait, J. (2004). Brand Credibility, Brand Consideration, and Choice. *Journal of Consumer Research*, 31(1), pp.191–198. doi:https://doi.org/10.1086/383434.

Eliasson, A. (2018). *Kvantitativ metod från början*. Lund: Studentlitteratur, 4th edition.

Evangelina Chalioti, Konstantinos Serfes. (2024). *Economic Letters.* https://www.sciencedirect.com/science/article/pii/S0165176524004439

Ghosh, A., Varshney, S. and Venugopal, P. (2014). Social Media WOM: Definition, Consequences and Inter-relationships. *Management and Labour Studies*, [online] 39(3), pp.293–308. doi:https://doi.org/10.1177/0258042x15577899.

Harald J. Van Heerde., Marnik G. Dekimpe. (2023). *Journal of retailing*. https://www.sciencedirect.com/science/article/pii/S0022435923000301

Hofmann, J., Clement, M., Franziska Völckner and Thorsten Hennig-Thurau (2007). The price-perceived quality relationship: A meta-analytic review and assessment of its determinants. *Marketing Letters*, 18(3), pp.181–196. doi:https://doi.org/10.1007/s11002-007-9013-2.

Ioannis Evangelidis. (2024). *Marketing Science.*

https://pubsonline.informs.org/doi/full/10.1287/mksc.2023.0269?casa_token=kN5Gya3T88sAAAAA%3ACtb3lauo8fyzUAKNWw-s0JJ778Sk8AWIOBfHAX4wgMIa3gkwDRqGVm6Rhyk0_lN4hP7dvzG5UA

Rajh, E. (2002). Development of a scale for measuring customer-based brand equity. Ekonomski pregled, 53(7-8), 770-781. *https://hrcak.srce.hr/file/44533*

Ray, A., Bala, P.K., Chakraborty, S. and Dasgupta, S.A. (2021). Exploring the impact of different factors on brand equity and intention to take up online courses from e-Learning platforms. Journal of Retailing and Consumer Services, 59, p.102351. doi:https://doi.org/10.1016/j.jretconser.2020.102351.

Johan Anselmsson, Johansson, U. and Niklas Bondesson (2007). *Understanding price premium for grocery products: A conceptual model of customer-based brand equity*. ResearchGate. Available at: https://www.researchgate.net/publication/228630548_Understanding_price_premium_for_grocery_products_A_conceptual_model_of_customer-based_brand_equity.

Kassiani Nikolopoulou (2022). What Is Convenience Sampling? | Definition & Examples. Scribbr. Available at: https://www.scribbr.com/methodology/convenience-sampling/

Keller, K.L. (2001). *Building Customer-Based Brand Equity: a Blueprint for Creating Strong Brands*. Marketing Science Institute. Available at: https://thearf-org-unified-admin.s3.amazonaws.com/MSI/2020/06/MSI_Report_01-107.pdf.

Keller, K.L. (1993). Conceptualizing, Measuring, and Managing Customer-Based Brand Equity. *Journal of Marketing*, 57(1), pp.1–22. Available at: https://people.duke.edu/~moorman/Marketing-Strategy-Seminar-2015/Session%203/Keller.pdf.

Keller, K.L. and Swaminathan V. (2019) *Strategic Brand Management: Building, Measuring, and Managing Brand Equity,* fifth edition, Pearson 2019

Krishnan, H.S. (1996). Characteristics of memory associations: A consumer-based brand equity perspective. *International Journal of Research in Marketing*, [online] 13(4), pp.389–405. doi:https://doi.org/10.1016/s0167-8116(96)00021-3.

Lichtenstein, D.R., Ridgway, N.M. and Netemeyer, R.G. (1993). Price Perceptions and Consumer Shopping Behavior: A Field Study. *Journal of Marketing Research*, 30(2), pp.234–234. doi:https://doi.org/10.2307/3172830.

Malhotra, N., Nunan, D. and Birks, D. (2017). *Marketing Research: AN APPLIED APPROACH*. http://www.pmm.edu.my/zxc/2022/lib/ebok/Marketing%20Research%20An%20Applied%20Approach%20(1).pdf.

Mafael, A., Raithel, S. and Hock, S.J. (2021). Managing customer satisfaction after a product recall: the joint role of remedy, brand equity, and severity. *Journal of the Academy of Marketing Science*, 50(1), pp.174–194. doi:https://doi.org/10.1007/s11747-021-00802-1.

Memon, M.A., Ting, H., Cheah, J.-H., Thurasamy, R., Chuah, F. and Cham, T.H. (2020). Sample Size for Survey Research: Review and Recommendations. Journal of Applied Structural Equation Modeling, 4(2), pp.i–xx. doi:https://doi.org/10.47263/jasem.4(2)01.

Munteanu, C. C., & Bozgă, A. N. (2022). The Effects Of Shrinkflation On Brand Reputation: The Case Of Dairy Products In Romania. Agricultural Economics and Rural Development, 19(2), 281-292. http://www.eadr.ro/RePEc/iag/iag_pdf/AERD2202_281-292.pdf

Ofir, Chezy (2004), "Reexamining latitude of price acceptability and price thresholds: Predicting basic consumer reaction to price," Journal of Consumer Research, 30 (4), 612– 21

O'Neill, A. (2025). Global inflation rate from 2000 to 2022, with forecasts until 2029. Retrieved from Statista website: https://www.statista.com/statistics/256598/global-inflation-rate-compared-to-previous-year/

Power, B. and Reid, G.C. (2020). The impact of intellectual property types on the performance of business start-ups in the United States. *International Small Business Journal Researching Entrepreneurship*, 39(4), pp.372–400. doi:https://doi.org/10.1177/0266242620967009.

Reichheld, F.F. and Sasser, E. (1990) Zero Defections: Quality Comes to Services. Harvard Business Review, 68, 105-111. https://www.scirp.org/reference/referencespapers?referenceid=1937438

Reichheld, F.F. and Schefter, P. (2000) E-Loyalty: Your Secret Weapon on the Web. Harvard Business Review https://hbr.org/2000/07/e-loyalty-your-secret-weapon-on-the-web

Roscoe, J.T. (1975) Fundamental Research Statistics for the Behavioral Science, International Series in Decision Process, 2nd Edition, Holt, Rinehart and Winston, Inc., New York. https://www.scirp.org/reference/referencespapers?referenceid=1547472

Rosenberg L.J. and Czepiel L. A. (1984), "A Marketing Approach for Customer Retention," Journal of Consumer Marketing, Vol. 1, No. 2, 1984, pp. 45-51. http://dx.doi.org/10.1108/eb008094

Salinas, E.M. and Pina, M. (2008). Modeling the brand extensions' influence on brand image. *Journal of Business Research*, 62(1), pp.50–60. doi:https://doi.org/10.1016/j.jbusres.2008.01.006.

So, K.K.F. and King, C. (2010). 'When experience matters': building and measuring hotel brand equity: The customers' perspective | Emerald Insight. *International Journal of*

Söderlund, M. 2018, Experiments in Marketing, 1st ed., Studentlitteratur AB, Lund

Contemporary Hospitality Management, 22(5), pp.589–608. doi:https://www.emerald.com/insight/content/doi/10.1108/09596111011053765/full/html

Truong, Y., Simmons, G., McColl, R. and Kitchen, P.J. (2008). Status and Conspicuousness – Are They Related? Strategic Marketing Implications for Luxury Brands. *Journal of Strategic Marketing*, 16(3), pp.189–203. doi:https://doi.org/10.1080/09652540802117124.

Virvilaite, R., Dovile Tumasonyte and Laimona Sliburyte (2015). The Influence of Word of Mouth Communication on Brand Equity: Receiver Perspectives. *Procedia - Social and Behavioral Sciences*, 213, pp.641–646. doi:https://doi.org/10.1016/j.sbspro.2015.11.465.

Yan, D., Sengupta, J., & Wyer, R. S. (2013). Package size and perceived quality: The intervening role of unit price perceptions. Journal of Consumer Psychology, 24(1), 4–17. https://doi.org/10.1016/j.jcps.2013.08.001

Yoo, B. and Donthu, N. (2001). Developing and validating a multidimensional consumer-based brand equity scale. *Journal of Business Research*, 52(1), pp.1–14. doi:https://doi.org/10.1016/S0148-2963(99)00098-3.

Appendix

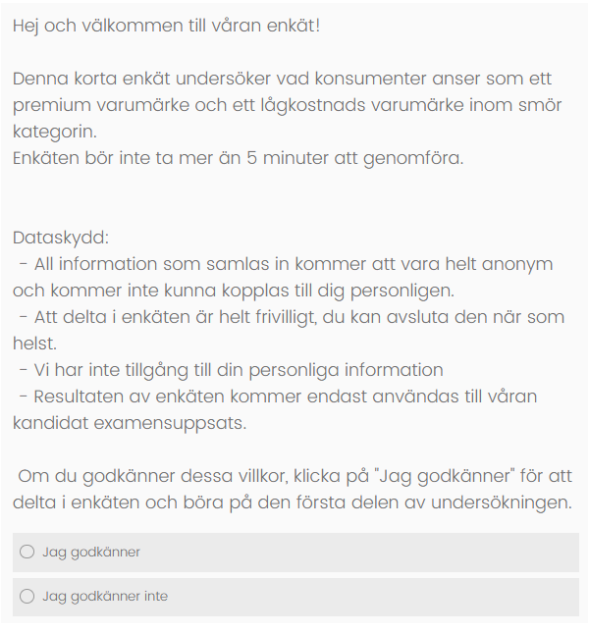
AI Disclosure

In this study the only AI tool adopted has been ChatGPT offered by OpenAI. ChatGPT has supported the thesis as a tool to refine sentences and overall language. Thus, by the use of AI certain sentences have been modified with the purpose of ensuring clarity to readers. Nevertheless, the few sentences modified by AI have not changed the meaning of the sentences. Thus, all content within the study has been constructed by the authors only.

Refining sentences by AI contains risks. When prompted unspecifically, the output might not be eligible to the rest of the study. Hence, the processed text by AI has been reviewed in detail ensuring its seamless integration into the study.

The insights gained from using AI in thesis writing is that it has significant advantages but also risks. In this study AI has been used as a complement to assist in details, restructuring unclear sentences. However, as prominent drawbacks with AI include providing relevant research papers, transparent data and unbiased perspectives, all such components of the study have been constructed by the authors only.

Pre Study Design:


Hej och välkommen till våran enkät!

Denna korta enkät undersöker vad konsumenter anser som ett premium varumärke och ett lågkostnads varumärke inom smör kategorin.
Enkäten bör inte ta mer än 5 minuter att genomföra.

Dataskydd:
- All information som samlas in kommer att vara helt anonym och kommer inte kunna kopplas till dig personligen.
- Att delta i enkäten är helt frivilligt, du kan avsluta den när som helst.
- Vi har inte tillgång till din personliga information
- Resultaten av enkäten kommer endast användas till våran kandidat examensuppsats.

Om du godkänner dessa villkor, klicka på "Jag godkänner" för att delta i enkäten och böra på den första delen av undersökningen.

○ Jag godkänner

○ Jag godkänner inte

Appendix 1, introduction to prestudy

Appendix 2, showcasing the main question:"to what degree is the brand a symbol for prestige", answers recorded on a 10-point Likert scale ranging from "1 = Not at all, to 10 = Highest degree".

Survey Design

Hej och välkommen till våran enkät!

Denna korta enkät undersöker konsumenters inställning till produkter inom den svenska dagligvaruhandeln. Enkäten tar cirka 5 minuter att genomföra.

Du kommer att presenteras med en hypotetisk situation där du handlar i din vanliga mataffär. Därefter utvärderar du den hypotetiska situationen och slutligen ställer vi några allmänna frågor om dig.

Dataskydd:
- All information som samlas in kommer att vara anonym och inte kunna kopplas till dig personligen.
- Att delta i enkäten är helt frivilligt, du kan avsluta den när som helst.
- Vi har inte tillgång till din personliga information
- Resultatet av enkäten kommer endast användas till vår kandidatuppsats.

Om du godkänner dessa villkor, klicka på "Jag godkänner" för att delta i enkäten och börja på den första delen av undersökningen.

○ Jag godkänner
○ Jag godkänner inte

Appendix 3, introduction to main study

CPR.Intro

Föreställ dig att du är på din vanliga mataffär för att veckohandla. Denna gång finns bara det största paketet av **Arla Bregott (750g)** tillgängligt, som du bestämmer dig för att köpa. Förpackningens utseende och pris har inte ändrats.

Appendix 4, scenario description for Arla Bregott control group

Intro.CBudget

Föreställ dig att du är på din vanliga mataffär för att veckohandla. Denna gång finns bara det största paketet av **Flora (600g)** tillgängligt, som du bestämmer dig för att köpa. Förpackningens utseende och pris har inte ändrats.

Appendix 5, scenario description for Flora control group

PREMIUM.INTRO

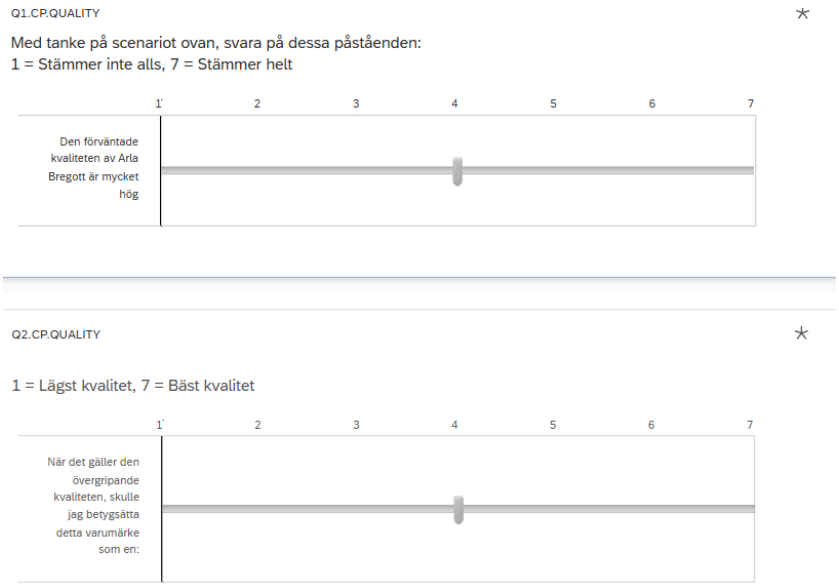
Föreställ dig att du är på din vanliga mataffär för att veckohandla. Denna gång finns bara det största paketet av Arla Bregott tillgängligt, som du bestämmer dig för att köpa. **Du lägger också märke till att detta smör har utsatts för krympflation, där paketet innehåller 20% mindre smör än innan (600g istället för 750g).** Förpackningens utseende och pris har inte ändrats.

Appendix 6, scenario description for Arla Bregott stimuli group

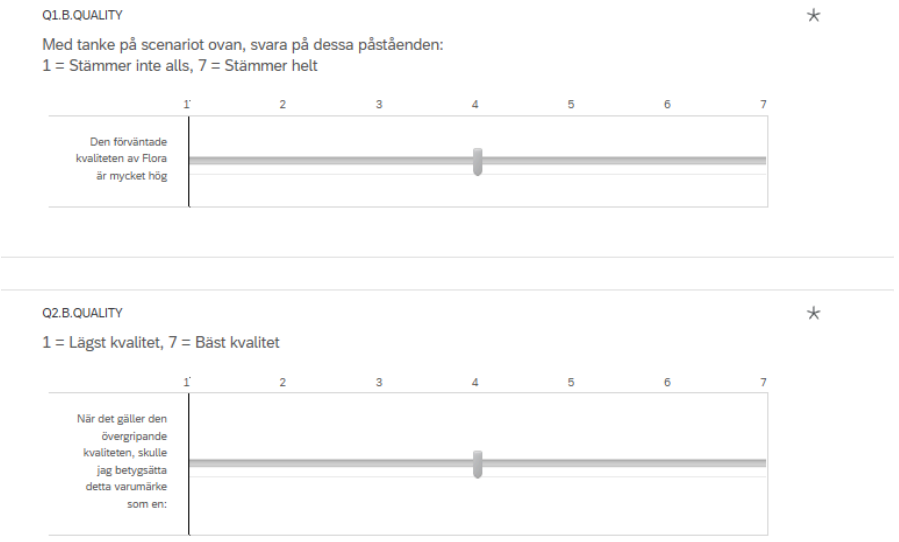
BUDGET.INTRO

Föreställ dig att du är på din vanliga mataffär för att veckohandla. Denna gång finns bara det största paketet av Flora tillgängligt, som du bestämmer dig för att köpa. **Du lägger också märke till att detta smör har utsatts för krympflation, där paketet innehåller 20% mindre smör än innan (480g istället för 600g).** Förpackningens utseende och pris har inte ändrats.

Appendix 7, scenario description for Flora stimuli group

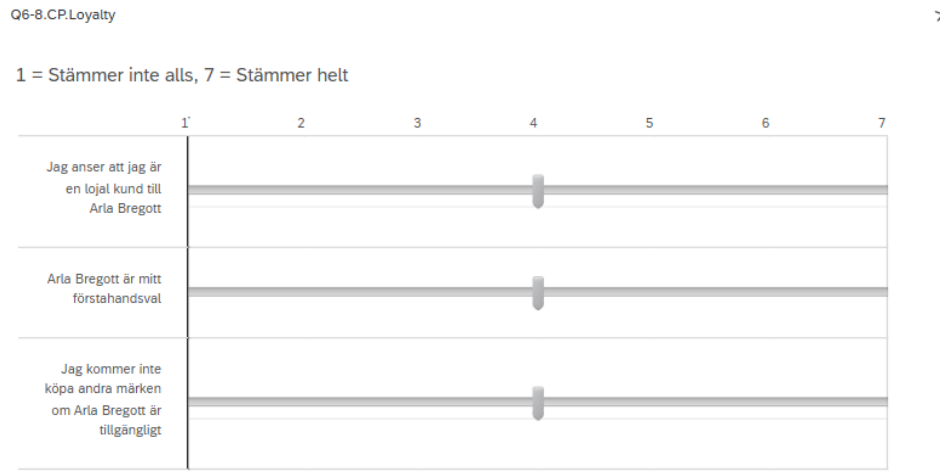


Appendix 8, Survey questions measuring perceived quality for Arla Bregott



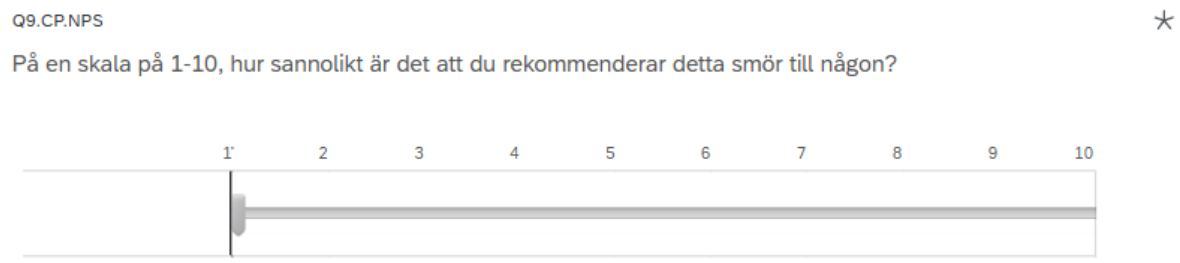
Appendix 9, Survey questions measuring perceived quality for Flora

Appendix 10, Survey questions measuring brand image and brand trust for Arla Bregott and Flora

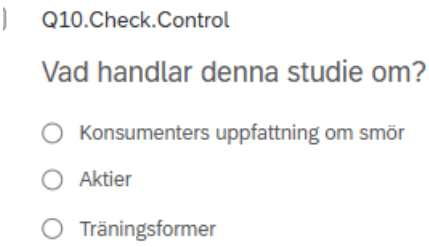


Appendix 11, Survey questions measuring brand loyalty for Arla Bregott

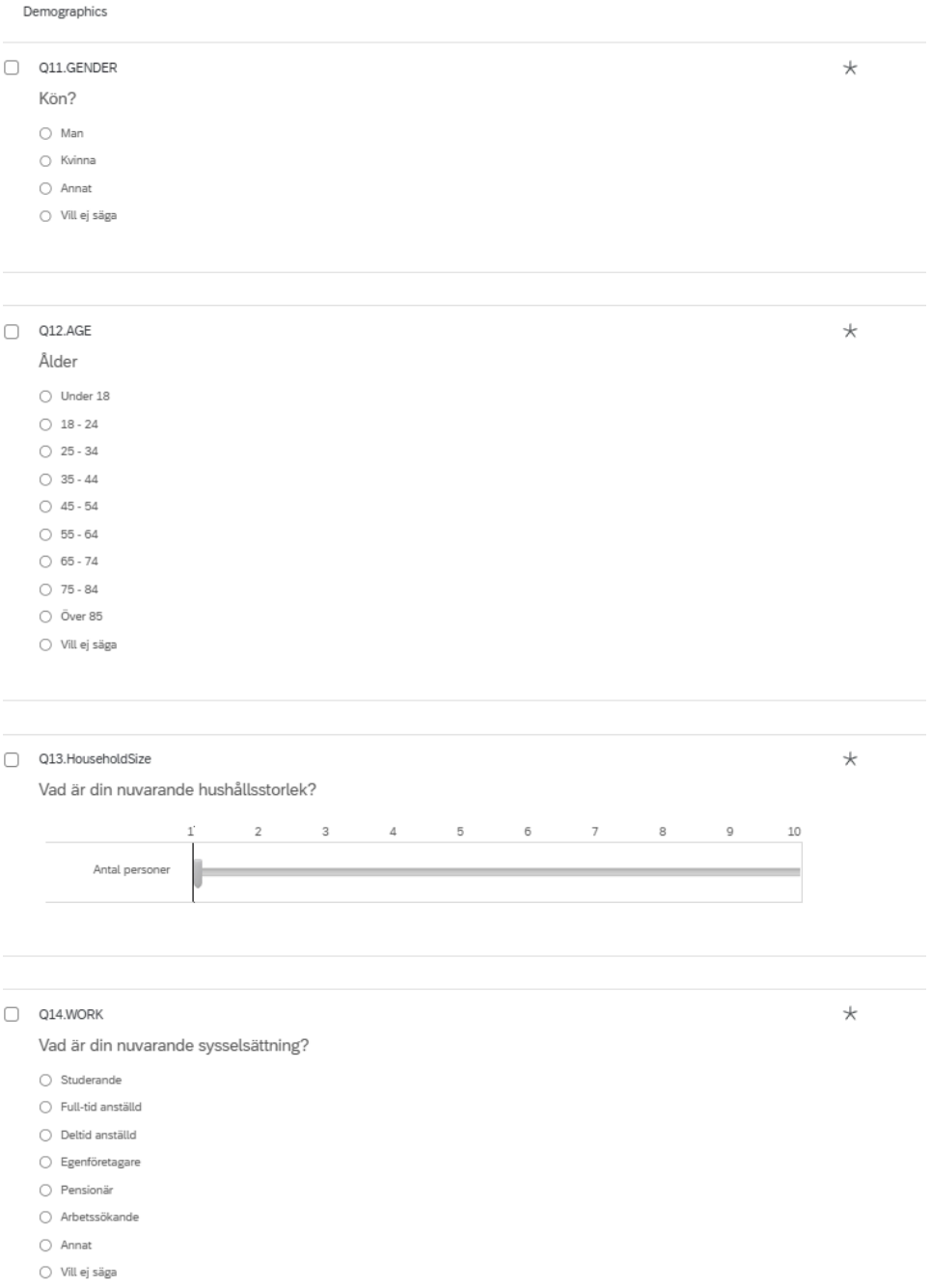
Appendix 12, Survey questions measuring brand loyalty for Flora



Appendix 13, Survey question measuring NPS for both Arla Bregott and Flora



Appendix 14, Control question presented to all participants



Appendix 15, Survey questions regarding demographics for all participants

Tables

Component	Arla Bregott Control Mean (SD)	Arla Bregott Scenario Mean (SD)	Effect Size (Cohen's d)	t	p-value
Brand Loyalty	3.8103 (1.9286)	3.5593 (1.8697)	0.132	0.715	0.476
Brand Trust	5.8707 (1.0742)	4.9492 (1.3509)	0.754	4.080	< 0.001
Perceived Quality	5.8103 (0.9904)	5.1186 (1.2433)	0.615	3.331	< 0.001
Brand Image	5.3793 (1.1968)	4.3729 (1.7898)	0.660	3.569	< 0.001
NPS	6.3793 (2.7379)	5.7458 (2.8562)	0.227	1.226	0.223

Table 3, summarizing independent t-test result for Arla Bregott

Component	Flora Control Mean (SD)	Flora Scenario Mean (SD)	Effect Size (Cohen's d)	t	p-value
Brand Loyalty	2.2083 (1.4432)	2.0417 (1.4355)	0.116	0.613	0.541
Brand Trust	4.9464 (1.1508)	3.9375 (1.6098)	0.721	3.815	< 0.001
Perceived Quality	4.4286 (1.2700)	3.7143 (1.4797)	0.518	2.741	0.007

Brand Image	3.6786 (1.4283)	2.8929 (1.6806)	0.504	2.666	0.009
NPS	3.9643 (2.4193)	3.4821 (2.6076)	0.192	1.014	0.313

Table 4, summarizing independent t-test result for Flora

Constructs	**Item**	**Cronbach's Alpha**	**Reference**
Brand Loyalty	*Q1:Jag anser att jag är en lojal kund till ___ (Aaker)* *Q2: ____ är mitt förstahandsval (Aaker)* *Q3 Jag kommer inte köpa andra märken om ___ är tillgängligt (Aaker)*	0.871	(Yoo & Donthu, 2001)
Perceived Quality	*Q1: Den förväntade kvaliteten av ____ är mycket hög* *Q2: När det gäller den övergripande kvaliteten, skulle jag betygsätta detta varumärke som en:*	0.696	(Yoo & Donthu, 2001), (Erdem & Swait, 2004)
Brand Image	*Produkten har bättre egenskaper än konkurrenternas*	0.841	(Salinas & Pina 2008)
Brand Trust	*Q1:Varumärket erbjuder det som förväntas*	0.735	(Erdem & Swait, 2004)

	Q2:Detta varumärke har ett rykte som man kan lita på	
Word-of-mouth	*På en skala på 1-10, hur sannolikt är det att du rekommenderar detta smör till någon?*	(Baehre et al, 2022)

Table 5, Summarizing the items from the survey. All items, except for WOM, measured on a 7-point Likert scale (1 = Lowest, 7 = Highest). WOM is measured on a 10-point Likert scale (1 = Lowest, 10 = Highest)

Component	**Factor**	**df**	**F**	**p-value**	**Partial η²**	**EMM Group 1**	**EMM Group 2**
Brand Loyalty	Shrinkflation	1, 225	0.874	0.351	0.004	Interaction not significant	
	Brand Type	1, 225	48.74	< 0.001	0.178	Budget: 2.125	Premium: 3.685
	Shrinkflation x Brand Type	1, 225	0.036	0.850	< 0.001	Interaction not significant	
Brand trust	Shrinkflation	1, 225	30.995	< 0.001	0.118	Shrinkflation: 4.443	Control: 5.409
	Brand Type	1, 225	31.17	< 0.001	0.122	Budget: 4.442	Premium: 5.410
	Shrinkflation x Brand Type	1, 225	0.06	0.801	< 0.001	Interaction not significant	
Perceived Quality	Shrinkflation	1, 225	17.937	< 0.001	0.074	Shrinkflation: 4.42	Control: 5.12

	Brand Type	1, 225	70.435	< 0.001	0.238	Budget: 4.071	Premium: 5.464
	Shrinkflation x Brand Type	1, 225	0.005	0.946	< 0.001	Interaction not significant	
Brand Image	Shrinkflation	1, 225	19.322	< 0.001	0.079	Shrinkflation: 3.633	Control: 4.529
	Brand Type	1, 225	60.865	< 0.001	0.213	Budget: 3.286	Premium: 4.876
	Shrinkflation x Brand Type	1, 225	0.29	0.589	< 0.001	Interaction not significant	
WOM	Shrinkflation	1, 225	2.512	0.114	0.011	Interaction not significant	
	Brand Type	1, 225	44.180	< 0.001	0.164	Budget: 3.723	Premium: 6.063
	Shrinkflation x Brand Type	1, 225	0.46	0.830	< 0.001	Interaction not significant	

Table 6, summarizing results from two-way ANOVA