

SNEAKY BUT NOT ILLEGAL

**AN EXPERIMENTAL STUDY OF HOW PRICE INCREASE AND
PRODUCT CONTENT REDUCTION AFFECT ATTITUDES
TOWARDS BRAND AND RETAILERS AND PERSUASIVE
INTENT**

LINNEA FÄLLMAN

ELLA WISS MENCKE

Bachelor Thesis
Stockholm School of Economics
2023



Sneaky but not illegal: An experimental study of how price increase and product content reduction affect attitudes towards brand and retailers and persuasive intent

Abstract:

In the past years, consumers may be confused as to why their household goods do not last as long as they have in the past. In almost all cases, this is due to a phenomenon called 'shrinkflation'; the practice of reducing the size or quantity of a product while keeping the same price. By utilizing the theories behind the persuasion knowledge model, this thesis investigates how such a tactic affects consumers' brand and retailer attitudes, compared to a total price increase tactic. A scenario experiment was conducted through an online self-completion survey that targeted Swedish Generation Y (ages 19-41). The participants were randomly divided into two experimental conditions where they were exposed to a scenario in which a package of brewed coffee from Zoégas either increased in total price or reduced in content. Findings indicate no significant differences between consumers with different levels of 'pricing tactic persuasion knowledge' regarding their brand and retailer attitude. However, content reductions were found to have greater persuasive intent than total price increases and yielded a higher probability of consumers inferring a 'profit margin increase motive'. Furthermore, content reductions had a negative impact on both brand and retailer attitudes. Based on these findings, implications, and suggestions for future research are discussed.

Keywords:

Shrinkflation, Price Tactics, Persuasion Knowledge, Retailer pricing, Consumer Behavior, Attitudes

Authors:

Linnea Fällman (25202)
Ella Wiss Mencke (24942)

Tutor:

Daniel Tolstoy, Assistant Professor, Department of Marketing and Strategy

Examiner:

Patric Andersson, Associate Professor, Department of Marketing and Strategy

Thesis for the degree of Bachelor of Science

Bachelor's Program in Business & Economics

Handelshögskolan i Stockholm

© Linnea Fällman and Ella Wiss Mencke, 2023

Acknowledgments

We would like to send our warmest regards to the individuals who without their help, this thesis would not have been possible. We would especially like to thank...

Daniel Tolstoy

For your unwavering support, guidance, and mentorship throughout the course of this thesis.

Patric Andersson

For always devoting time and energy to providing the best feedback. Your encouragement inspired us to always go one step further in our research and your expertise was invaluable in shaping the direction of the thesis.

Johan Båge

For taking the time to give invaluable and thorough feedback on our research method, statistical analysis, and R code.

Mickaël Buffart

For the important discussion on the coding in R and assistance in the data analytics.

Richard Wahlund

For taking the time to share your valuable expertise regarding shrinkflation and inspiring us to explore the subject.

Our classmates

For your valuable feedback, comments, ideas, and support.

All respondents

For taking time from your busy schedules to complete our survey and provide us with invaluable data, that made it possible to write this thesis.

Family and friends

For your constant support, reassurance, patience, and encouragement throughout the process.

Yours sincerely,

Ella and Linnea

Definitions

Shrinkflation: the practice of reducing the size or quantity of a product while the total price of the product remains the same or slightly increases (**SCB, 2022**).

Content reduction: when firms reduce the quantity of a given product while keeping the price constant (**Kachersky, 2011**).

Shrinkflation strategy: used interchangeably with “content reduction”.

Unit price: the total price of the product divided by the number of units it contains, e.g., price per kilogram, often referred to as the “comparison price” in Swedish (**Konsumentverket, 2023**).

Total price: the selling price for a product (**Konsumentverket, 2023**).

Unit price increase tactic: refers to either a unit price increase by increasing the total price or by performing a shrinkflation strategy/content reduction, i.e., reducing the content but keeping the total price constant (**Kachersky, 2011**).

Generation Y: Individuals born between the years 1982-2004 (**Strauss & Howe, 1991**).
(Used interchangeably with “Swedish consumers”).

Persuasion knowledge: the knowledge that people use to interpret, evaluate and respond to influence attempts from persuasion agents such as advertisers and salespeople (**Friestad & Wright, 1994**).

Inferred motive: the motives people infer, in this thesis; for the unit price increase tactic (**Kachersky, 2011**).

Content

| | | |
|-------------|---|-----------|
| 1. | INTRODUCTION | 6 |
| 1.1. | Background..... | 6 |
| 1.1.1. | Company perspective on shrinkflation | 7 |
| 1.1.2. | Consumer perspective on shrinkflation | 9 |
| 1.1.3. | Legal perspective on shrinkflation | 10 |
| 1.2. | Problem area | 10 |
| 1.3. | Research purpose and research questions | 11 |
| 1.4. | Delimitations | 11 |
| 1.5. | Expected contribution | 12 |
| 2. | LITERATURE REVIEW AND THEORETICAL FRAMEWORK..... | 13 |
| 2.1. | Review of Replicational Foundation..... | 13 |
| 2.2. | Persuasion Knowledge Model (PKM) | 14 |
| 2.3. | Application of the Persuasion Knowledge Model (PKM)..... | 15 |
| 2.3.1. | Hypotheses development..... | 17 |
| 2.4. | Criticism against Persuasion Knowledge Model (PKM) | 20 |
| 3. | METHODOLOGY | 22 |
| 3.1. | Scientific approach to the research design | 22 |
| 3.1.1. | Alternative approaches | 23 |
| 3.2. | Prestudy | 23 |
| 3.3. | Pilot study..... | 24 |
| 3.4. | Main questionnaire and variables..... | 24 |
| 3.4.1. | Questionnaire..... | 24 |
| 3.4.2. | Survey Flow | 25 |
| 3.4.3. | Variables..... | 26 |
| 3.4.4. | Manipulation of the independent variable “unit price change tactic” | 28 |
| 3.5. | Data collection and statistical methods | 29 |
| 3.5.1. | Data collection..... | 29 |
| 3.5.2. | GDPR | 30 |
| 3.5.3. | Data quality and selection | 30 |
| 3.5.4. | Data analysis..... | 30 |
| 3.5.5. | Reliability and validity | 30 |
| 3.5.6. | Survey evaluation | 31 |
| 4. | RESULTS..... | 33 |
| 4.1. | Descriptive statistics | 33 |
| 4.1.1. | Sample demographics..... | 33 |
| 4.1.2. | Respondents’ buying habits..... | 33 |
| 4.1.3. | Number of respondents in each experimental group | 33 |

| | | |
|-------------|--|-----------|
| 4.1.4. | Respondents' opinions on open-ended questions (inferred motive) | 33 |
| 4.2. | Mean differences between subject groups..... | 34 |
| 4.2.1. | Insignificant differences between the groups | 34 |
| 4.2.2. | Significant differences between the groups..... | 35 |
| 4.3. | Regression analysis and hypothesis testing of independent variables | 37 |
| 4.3.1. | Regression analysis for hypotheses 1A-C | 37 |
| 4.3.2. | Regression analysis for hypothesis 2..... | 38 |
| 4.3.3. | Regression analysis for hypothesis 3..... | 39 |
| 4.3.4. | Regression analysis for hypothesis 4..... | 40 |
| 4.3.5. | Regression analysis for hypothesis 5..... | 41 |
| 4.4. | Pearson correlation test | 42 |
| 5. | DISCUSSION..... | 44 |
| 5.1. | Summary of results | 44 |
| 5.2. | Key findings | 45 |
| 5.2.1. | Inferred motive and perception of persuasive intent | 45 |
| 5.2.2. | Brand attitude | 45 |
| 5.2.3. | Retailer attitude | 46 |
| 5.3. | Comment on insignificance in hypothesis 2 to 5..... | 46 |
| 5.4. | Conclusions and implications | 47 |
| 5.5. | Limitations and suggested improvements..... | 49 |
| 6. | REFERENCES | 50 |
| 7. | APPENDICES | 59 |

1. Introduction

This section of the paper introduces the reader to the subject of shrinkflation on a general level, followed by a deeper introduction from a company, consumer, and legal point of view. Then, the problem area and purpose of this paper are presented, along with its expected contribution and delimitations.

1.1. Background

In the past years, consumers may be confused as to why their household goods do not last as long as they have in the past. In almost all cases, this is due to package downsizing, or as the phenomenon also has been coined; shrinkflation. The phenomenon has recently been discussed so much in media that the Swedish translation of the word ‘krympflation’, entered the Swedish dictionary in 2020 (SCB, 2022). Shrinkflation is a portmanteau of the words ‘shrink’ and ‘inflation’ and refers to the practice where items reduce in size or quantity, while the prices remain the same or slightly increase. This is often done deceptively, by keeping the package size and appearance the same, or by changing the package through rebranding to hide the new reduced content (O’Byrne, 2022).

Shrinkflation is a tactic often used by manufacturers of fast-moving consumer goods (FMCG). For example, in Sweden, ICA Basic’s coffee filter fell from 200 to 100 filters; Libero Touch diapers fell from 48 to 46 pieces; Slotts’s original mustard from 490g to 450g; OLW’s natural chips from 200g to 150-180g; Toblerone bars from 200g to 170g and Zoega’s classic coffee package from 500g to 450g (Carlgren, 2020; Corporate Finance Institute, 2022). All these content reductions occurred without a corresponding price decrease.

During the year 2017, prices of packaged consumer goods increased by 3.3% in Sweden. However, removing the effects of shrinkflation, the price increase would only have been 3% caused by inflation, see Figure 1 (SCB, 2022). Unless the price of packaged goods is reduced, shrinkflation creates an invisible price increase, which is unnoticeable for most consumers (Wilkins, Beckenuyte, & Butt, 2016). Therefore, it can be referred to as an indirect price increase, as the unit price rises but the retail price remains the same. Thus, it is “the inflation you are not supposed to see...and it is accelerating worldwide” (Press, 2022).

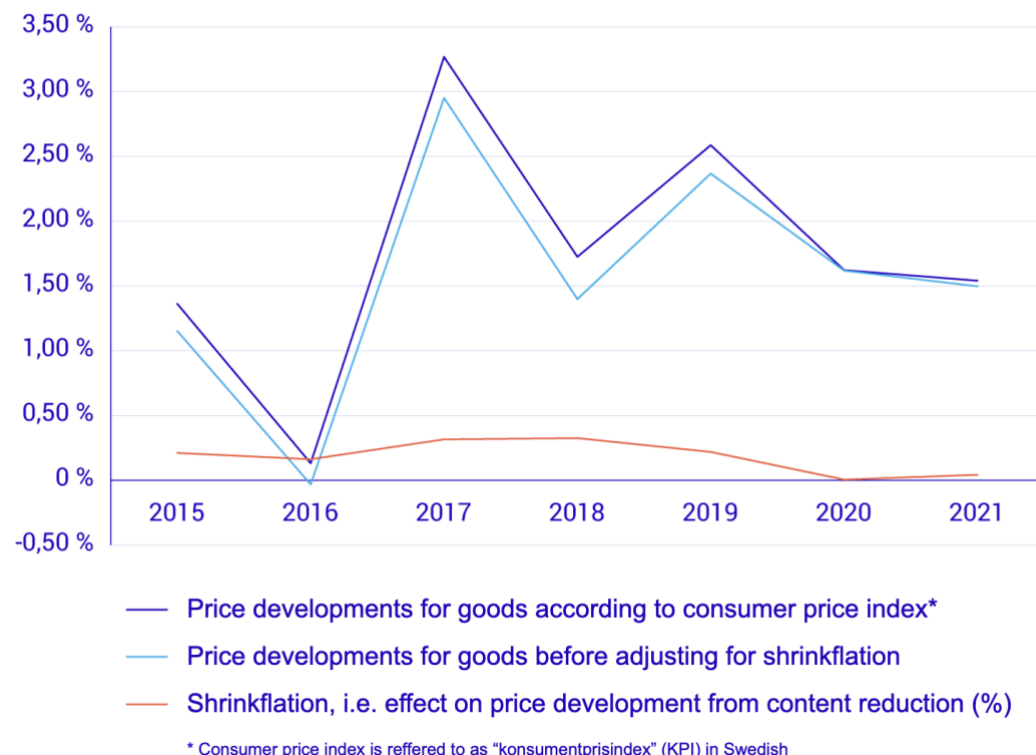


Figure 1. Shrinkflation and Inflation in Sweden 2015 to 2021 (SCB, 2022).

1.1.1. Company perspective on shrinkflation

From the companies' point of view, there might be several reasons for reducing the content and simultaneously keeping, or slightly increasing, the price. Factors for content reductions can be driven by firm interests such as offsetting increased costs of raw materials, increasing the frequency of consumer purchases, or improving the profit margin. Content reductions could also be driven by the willingness to meet new consumer needs which may have arisen due to changes in lifestyle or demographics (Adams, di Benedetto, & Chandran, 1991). A compilation of company reasons for content reductions can be found in Table 1 below (Adams et al., 1991).

Table 1. Summary of companies' reasons for content reductions (thesis writers' categorization)

| Reasons for content reductions driven by firm interests | Explanation |
|--|--|
| To maintain a price point | To get price differences across the product line that reflects product benefit or attribute differences |
| To increase margin and profitability | Increase the profitability of a brand or product line if consumers either do not perceive the change or forget that downsizing occurred. In this case, downsizing the package is often accompanied with a price increase |
| To increase frequency of purchases | Some customers will find the downsized package too small and will therefore increase the frequency or volume of purchases |
| To offset raw material cost increases | Downsizing the package in response to increase raw material costs to maintain a competitive price point |
| To raise the price per unit of volume | Used by the manufacturer attempting to bring price levels in line with the manufacturers' perceived product value, as an alternative to increasing price |
| Reasons for content reductions driven by a response to customer needs | Explanation |
| To respond to demographic changes | E.g., if families are found to get smaller, the optimal 'family size' package must also decrease to prevent waste |
| To respond to lifestyle changes | Emphasis on eating right and staying fit has implications for package sizes, to meet the need of the diet-conscious segment |
| To introduce packaging changes | Introduce innovative packaging that managers believe will provide a new benefit to consumers |

In the case of content reductions driven by a response to customer needs, consumers' responses might in some cases be positive. For example, reducing the content of candy bars can be viewed as something positive as consumers know it is unhealthy and, to assuage their sense of guilt, are rather happy to eat less of it. This could also be the case when companies introduce substantial packaging changes that are perceived to provide a new benefit to the consumer. However, positive responses to content reductions are generally quite rare. Therefore, manufacturers often accompany it with consumer couponing, trade deals, and advertisement that focuses on advantageous packaging changes or lifestyle benefits, to focus consumers' attention away from the content reduction. These tactics have been important to offset or minimize the negative short-term effects of a content reduction (Adams et al., 1991).

Nonetheless, it is not difficult to understand why companies choose to change the package size instead of adjusting the price point. Research has found that consumers are generally four times as sensitive to price as they are to package size (Çakır & Balagtas, 2014), which creates incentives for companies to facilitate growth without a visible price increase. Furthermore, FMCG are goods characterized by high price sensitivity and usually have many competitors, including substitutes. Since consumers usually

have a fairly good price perception of everyday goods, the risk of consumers noticing the increased price and switching to another brand is higher for FMCG than other products (Richard Wahlund, 2023). Due to competitors' responses and possible negative reactions from consumers, it is not always possible to implement a price increase to improve a brand's profit margin. Instead, companies may find that shrinking the products while continuing to sell at the same price is the preferred option.

1.1.2. Consumer perspective on shrinkflation

The defining characteristic of shrinkflation is that it is an indirect price increase that occurs silently, reducing transparency in pricing for consumers. Consequently, it inhibits consumers' ability to make informed purchasing decisions, as they are not given full disclosure of price increases. As put by Professor Richard Wahlund, the whole point of shrinkflation is to exploit consumer oblivion, and the tactic is effective in increasing profit margins as long as consumers do not notice the product shrinkage (Richard Wahlund, 2023).

The mechanisms of shrinkflation exploit consumers' relatively low sensitivity to changes in packaging, compared to changes in pricing. Consumers are not likely to note a package downsizing at the point of purchase as they use visual estimations, purchase experiences, and habits to make judgments, rather than inspecting packaging (Meeker, 2021). Additionally, compared to traditional inflation, shrinkflation can be harder to notice as it is difficult to compare package size changes unless you remember how much you used to get, as previous versions of the product are not for sale anymore (Kumok, 2022). Often, consumers rely on visual cues to evaluate size, rather than explicit information on size (Lennard, Mitchell, McGoldrick, & Betts, 2001). These visual estimations are subject to cognitive biases and can often be less than accurate. For example, consumers perceive narrow, tall objects to be larger than wide, shorter objects with the same volume (Krishna, 2006). These so-called perception biases become stronger when the product's size changes across several dimensions at the same time (Chandon & Ordabayeva, 2009). For example, while testing changes in size it was found that consumers can fail to notice even a 24% package size decrease (Ordabayeva & Chandon, 2013). Generally, consumers seem either unaware or unresponsive to package downsizing, contingent on package size not changing in an obvious way (Adams et al., 1991).

Furthermore, shrinkflation in combination with a brand refresh or exploiting current trends are quite usual tactics to divert attention away from product shrinkage. For example, using a "less is more" brand message, by pointing out the health benefits of smaller portions, or the environmental benefits of less packaging (O'Byrne, 2022). However, upon the realization that a product has reduced its content, consumers feel deceived and are often disappointed (Wilkins et al., 2016).

Amid today's digitalization, consumers are more educated than ever and are given a more far-reaching voice thanks to social media platforms. This leaves companies more vulnerable to abrupt scandals if they are showcased in a negative light, for example, in a viral video. Since no one likes to pay more for less, especially in economic times of a recession like today's, consumers are more price sensitive than ever, thus driving the attention of the masses toward shrinkflation. Consequently, the economic situation of today makes consumers more attuned and aggravated by shrinkflation, which has created viral trends of confronting companies' product shrinkage (Theil, 2022). As the lack of consumer awareness is fading, it is imperative for retailers and other channel members to understand consumer responses to this tactic.

1.1.3. Legal perspective on shrinkflation

According to the Swedish price information law, companies are required to provide accurate and clear price information about products that companies provide consumers. To provide the consumers the possibility to easily compare product offerings, unit prices should also be visible (Prisinformationslag (2004:347)). As for the package size, the European Union, to which Sweden belongs, repealed all mandatory quantity standards in April 2011, and since then all different sizes of packages are allowed in Europe (European Commission, 2016). If the price, quantity, and unit price is correctly stated, companies are free to update their packaging, with reduced content, while keeping the same price. Thus, shrinkflation is not technically seen as fraudulent according to the legislation.

1.2. Problem area

Reducing the content of a product without a corresponding price decrease (i.e., a shrinkflation strategy) is legal and can be, at least from the manufacturers' point of view, well-motivated. Subtly implementing this type of unit price increase has been successful for a long time because, as planned, most consumers did not notice the changes, and if they did, the information was not widely disseminated. However, this lack of awareness among consumers appears to be diminishing. Today, it is evident that more consumers are noticing content reductions, and they are sharing this information with others. Generation Y is one of the most active social media users and digital natives, with 83% using social media several times a day (Dzimalle, 2022). Consequently, it is crucial for retailers and other members of the distribution channel to comprehend how these Generation Y consumers respond to this strategy. Yet, despite its strategic significance and potential risks, there is minimal published research on the consequences of a shrinkflation strategy (Adams et al., 1991).

However, one study which examined consumer reactions to different tactics of increasing unit prices was made by Luke Kachersky in the United States year 2011

(Kachersky, 2011). Kachersky found that total price increases lead to less favorable attitudes toward retailers for consumers with relatively low pricing tactic persuasion knowledge (PTPK), while content reductions lead to less favorable attitudes toward product brands for consumers with relatively high PTPK (Kachersky, 2011). This thesis aims to replicate Kachersky's study, for several reasons. First, Swedes and Americans are culturally different, there might be a change in results solely due to that factor. Second, lots have happened since 2011, and considering the current economic condition in Sweden, with the highest inflation rates for the past 30 years (Armeliu, 2023), it is possible that the effects will be different today. Third, there is a replication crisis in the social sciences, which is problematic as replicational studies tell us whether the original findings are correct, or at least if the theoretical idea behind the findings is accurate (Diener & Biswas-Diener, 2023).

1.3. Research purpose and research questions

The research purpose of this thesis is twofold. First, to empirically investigate Generation Y's responses to the practice of increasing product unit prices by either increasing the total price or reducing the content. We aim to investigate to what extent the two pricing tactics lead to different consumer reactions and whether consumer knowledge about pricing tactics affects these reactions. The second purpose is to perform a conceptual replication, as motivated by the reasoning above.

The primary research questions in this thesis to be examined are:

- 1) *How do consumers react to price increases and product content reductions?*
- 2) *To what extent do price increases and product content reductions lead to different consumer reactions?*
- 3) *To what extent does consumer knowledge about pricing tactics affect reactions to price increases and product content reduction?*

1.4. Delimitations

This thesis aims to investigate how consumers respond to the practice of reducing the content of a product without a corresponding price decrease. Other tactics, such as reducing the quality or efficiency of the product, which is called 'skimpflation', will not be examined. Furthermore, this study investigating consumer reactions to shrinkflation will also be limited to one product; coffee package from Zoégas. This product was chosen based on our prestudy in chapter 3.2, which revealed that most consumers had noticed the shrinkflation in this product. This is important since the study only investigates the reactions of consumers who notice shrinkflation.

Moreover, even though shrinkflation is a tactic often used by manufacturers of FMCG, it can also be conducted within the service sector by reducing the amount of service provided at a given price. However, services will also be excluded from this thesis. Lastly, this thesis will not consider upsizing, or false family packs, which are strategies that companies usually adopt to reverse a previously shrunk product.

Due to the limited time frame of a bachelor's thesis, the collection of empirical data has been geographically restricted to Sweden. Consequently, the data gathered will solely pertain to Swedish individuals. This was done purposely to examine Swedish consumers and compare them to the American consumers in Kachersky's study. Additionally, the sample has been collected using a convenience sample, rather than a nationally representative quota sample, which could have yielded better quality data. The sample has been confined to individuals between the ages of 19-41 years old, i.e., Generation Y. This selective approach was a deliberate decision based on three reasons. First, this generation is the demographic most accessible to us, which allows us to capture a representative sample more easily. Second, it is a generation that composes a large part of the Swedish population (roughly 29% in 2022) (SCB, 2023). Finally, it is the generation that are digital natives and would thus be most up to date on news of shrinkflation on social media.

1.5. Expected contribution

Reducing the package size without a corresponding price decrease has been a common practice for many years (Adams et al., 1991; SCB, 2022). However, a limited number of published works have examined the practice and its effects as part of a pricing strategy (Adams et al., 1991; Çakır & Balagtas, 2014; Kachersky, 2011; Wilkins et al., 2016). Thus, it is our humble hope that this thesis will give a theoretical contribution to understanding differential pricing thresholds, as well as practical insights for manufacturers of FMCG products and retailers. Understanding Swedish Generation Y consumers' reactions to the practice of increasing unit prices of products, by either conducting a shrinkflation strategy or increasing the total price, will give practical insights for marketers crafting pricing tactics. This would also allow managers to gain a better understanding of the market and coordinate with their fellow channel partners to implement the tactic that is most beneficial to consumers, product brands, and retailers. As such, the topic is relevant from both a marketing and strategy perspective. The possible insights of this thesis will be realized by performing a conceptual replication of a previous study, which will be accompanied by additional hypotheses. These hypotheses have been added to test the foundation for the study which will be replicated. Therefore, another expected contribution of this thesis is to make a successful conceptual replication of a previous study.

2. Literature review and theoretical framework

This section of the paper presents the replicational foundation, the previous research¹ and the theoretical framework which will serve as the base for answering the outlined research questions. From the theory, hypotheses are developed which will be empirically tested in the study. The section concludes with a critical perspective on the chosen theoretical framework.

2.1. Review of Replicational Foundation

This thesis is a conceptual replication of Luke Kachersky's study "Reduce Content or Raise Price? The Impact of Persuasion Knowledge and Unit Price Increase Tactics on Retailer and Product Brand Attitudes". This article was published in the Journal of Retailing (Volume 87, Issue 4, Pages 479-488) in December 2011. The author, Kachersky, is an Associate Professor in Marketing at Fordham University since 2008. (Kachersky, 2011).

The study examines how consumers respond to the strategy of increasing unit prices of product by either decreasing the product's contents or increasing the overall prices. To do this, the theoretical model called the persuasion knowledge model is employed to explain and predict consumers reactions towards pricing tactics. Furthermore, the paper also relies on and extends theory by Hardesty et. al.'s. to measure participants level of pricing tactic persuasion knowledge (Hardesty, Bearden, & Carlson, 2007).

Kachersky's method involved 155 U.S. consumers selected from a nationally representative panel who took part in the study in exchange for redeemable points. The experiment utilized a one-factor design where unit price adjustment tactics were manipulated at two levels across experimental groups. The continuous form of the moderator, pricing tactic persuasion knowledge (PTPK), was assessed. Participants were asked to picture a scenario where they buy a weekly bag of a particular brand of potato chips at their usual supermarket. They were shown an image of an 11.5-ounce bag of chips along with its price details: a retail price of \$2.50 and a unit price of 21.8 cents per ounce. Afterwards, they were shown a visually identical picture of the chips but with a price increase – half of the participants were given a total price increase and the other half were given a content reduction.² If participants noticed the unit price increase, they answered three open-ended questions: (1) describe change, (2) reason for change, (3) emotional response. Survey then gathered retailer and product brand attitudes. Attitudes toward product brand and retailer were measured on seven-point scales (unfavorable/favorable, bad/good) and were averaged into indices (Kachersky,

¹ This was mainly done through the databases of SSE Library, Google Scholar and Scopus Review. The following keywords were used; *Content reductions *Shrinkflation *Package Downsizing *Pricing tactics *Persuasion Knowledge Model and *Consumer behavior.

² In both cases, the unit price increased to 23.8 cents per ounce; (2) in the total price increase condition, the displayed retail price became \$2.73 (instead of \$2.50); and (3) in the content reduction condition, the shelf card displayed 10.5 ounces instead of 11.5 ounces.

2011). Perceived persuasive intent was gauged using a Likert scale adapted from Campbell and Kirmani (Campbell & Kirmani, 2000). Lastly, participants answered a series of true/false questions to gauge PTPK, positioned at the end to minimize potential bias. PTPK employed a 17-item scale with participants scoring one for each correct answer; the total points indicated the level of knowledge. To measure the degree of “inferred motive”, two unbiased judges coded responses into categories like profit increase, cost inflation, and economy state (Hardesty et al., 2007).

The article “Reduce Content or Raise Price?” has 34 citations in Scopus as of 2023. The article has a 0.31 Field-Weighted citation impact (Scopus, 2023a). It has been cited by papers such as “How to measure persuasion knowledge” written by Chang-Dae Ham, Michelle R. Nelson & Susmita Das published in *International Journal of Advertising* in 2015 (with over 100 citations) (Ham, Nelson, & Das, 2015). It has also been cited by “Sense and sensibility in personalized e-commerce: How emotions rebalance the purchase intentions of persuaded customers” by Ilias O. Pappas, Panos E. Kourouthanassis, Michail N. Giannakos, Vassilios Chrissikopoulos published in the *Journal of Psychology and Marketing* in 2017 (Pappas, Kourouthanassis, Giannakos, & Chrissikopoulos, 2017). However, notably, the PTPK framework used in Kachersky’s research builds upon the PTPK question format created in the highly cited “Persuasion knowledge and consumer reactions to pricing tactics” with a Field-Weighted citation impact of 4.4 (Scopus, 2023b).

2.2. Persuasion Knowledge Model (PKM)

The Persuasion Knowledge Model (PKM), developed by Friestad & Wright, is a normative framework that explains how people perceive and respond to persuasion attempts. It suggests that consumers generate knowledge about persuasion and different actors’ persuasion attempts and outlines how people develop and utilize this knowledge. The PKM depicts consumers as carrying three types of knowledge to a persuasion interchange; knowledge about the topic, the agent, and the persuasion (see Figure 2). These three types of knowledge interact to affect consumers’ personal responses, so-called “coping” behaviors, to persuasion attempts. Likewise, persuasion agents (such as companies, salespeople, or brands) also hold topic, target, and persuasion knowledge, that interact to affect their persuasion attempts. The consumer’s persuasion coping behaviors and the agent’s persuasion attempts together compose a persuasion episode (Friestad & Wright, 1994). The PKM highlights that understanding consumers’ persuasion knowledge is crucial in determining their response to marketing efforts (Campbell, M. & Kirmani, 2008).

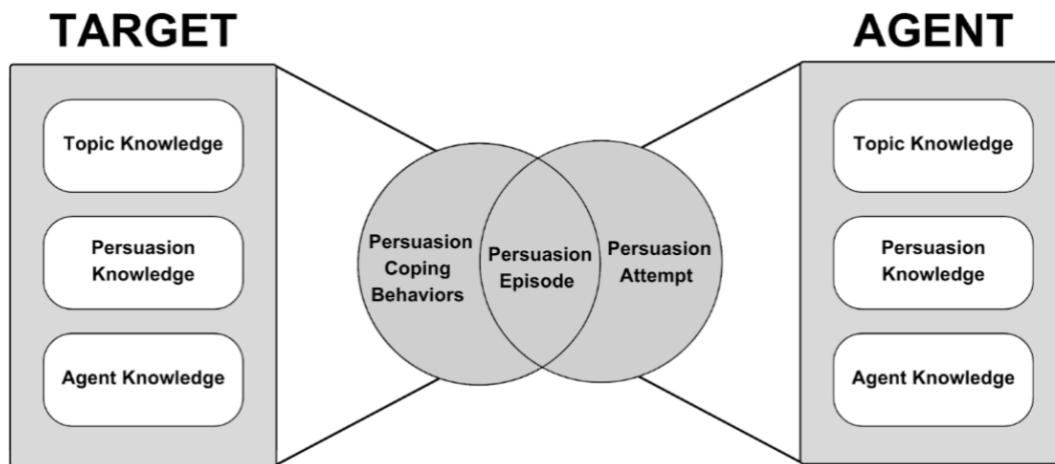


Figure 2. Persuasion Knowledge Model (Friestad & Wright, 1994).

Since the persuasion knowledge model was introduced almost 30 years ago, several researchers have used the PKM to investigate how people perceive and respond to persuasion attempts. Thus far, most of the research that extends the PKM has centered on persuasion knowledge, and not the remaining two dimensions of PKM, whilst only a limited number of studies have investigated the interplay between the three distinct knowledge structures. Studies on persuasion knowledge have been conducted in various contexts, including sponsorship, advertising, interpersonal persuasion, retailing, and decision-making (Campbell, M. & Kirmani, 2008).

2.3. Application of the Persuasion Knowledge Model (PKM)

A recent extension of the PKM revealed that consumers possess different levels of knowledge about the underlying intentions of marketers' pricing tactics (Hardesty et al., 2007). Consumers with relatively higher levels of *pricing tactic persuasion knowledge* (PTPK) tend to react more negatively to persuasive pricing tactics. This study extends the previous work to unit price increases, aiming to provide insights into cognitive reactions to these changes and their implications for attitudes toward two persuasion agents; product brands and retailers.

This research attempts to replicate three findings. First, show that higher levels of PTPK lead consumers to infer different motives behind two types of unit price increases, i.e., those customers will draw different conclusions about the motives behind the different price tactics. Specifically, content reductions i.e., a shrinkflation strategy are attributed to firms' motives to *increase* profit margins. Total price increases, however, are instead attributed to firms' motives to *maintain* profit margins against situational factors such as cost inflation. Second, demonstrate that consumers with higher levels of PTPK perceive *product brands* less favorably when the product content is reduced, in contrast to a total

price increase. This is because high-PTPK consumers will assume that the product brands reduce the product content to increase the profit margin. Third, compared to high-PTPK consumers, show that low-PTPK consumers tend to alter their evaluations of the *retailer* rather than the product brand. Similarly, low-PTPK consumers view total price increases less favorably than a shrinkflation strategy, and this outcome is *not* based on inferred motives. This is illustrated in Figure 3.

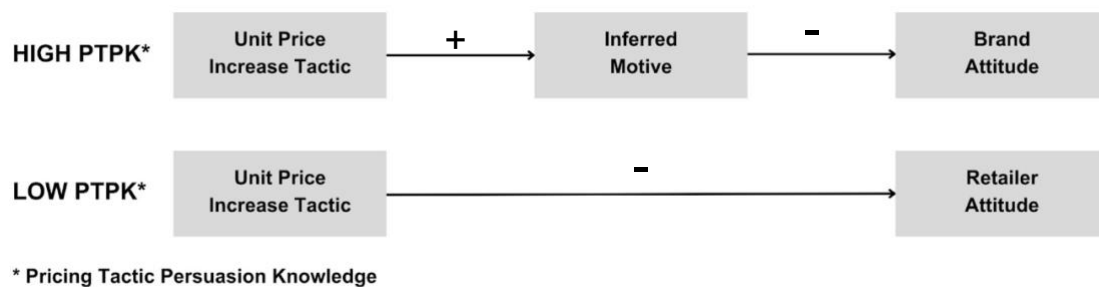


Figure 3. The influence of unit price increase tactic on the product brand and retailer attitude (Kachersky, 2011)

Persuasion involves convincing someone to believe or do something. The PKM suggests that even when an action has a non-persuasive objective, people tend to think about that act differently when they *perceive* the action as an attempt to persuade (Friestad & Wright, 1994). In other words, the subjective belief of persuasive intent can change the meaning of an action. For instance, the presentation of a price can be construed as mere information about the cost of a product (i.e., the cost of access to a product), *or* as a tactic intended to influence beliefs and actions, which can undermine the consumer's agency.

Research has found that while some consumers perceive a price of “\$190 + \$10 shipping” as simple information, others interpret it as a tactic designed to make them believe that they are getting a lower price (i.e., in the \$190 range), than the actual price (i.e., \$200) (Schindler, Morrin, & Bechwati, 2005). Thus, leading consumers to overestimate the value of the product (Schindler et al., 2005). In summary, the perceived persuasive intent can modify the meaning of an action, for example “\$190 + \$10 shipping”, changing it from a simple presentation of information to a subjective understanding of the communication, including the intent of the communicator.

Variations in perceptions of persuasive intent could also impact the way unit price increases are viewed. Increases to unit prices may also be perceived as tactics aimed at influencing consumer behavior to maintain their product purchases despite the changes.

The extent to which consumers believe that such actions are meant to persuade them affects their interpretation of the unit price increases.

2.3.1. Hypotheses development

To examine the PKM theory further, and put it into the context of our experiment, we will proceed with hypotheses development. When consumers perceive unit price increases as persuasion attempts, they tend to make additional inferences about them. Typically, when faced with price increases, consumers assume that companies intend to increase their profit margins (Bolton, Warlop, & Alba, 2003). However, content reductions, i.e., a shrinkflation strategy, are often less apparent as they can be implemented without altering the packaging in a way that consumers may not notice (Chandon & Ordabayeva, 2009). This lack of transparency should make consumers who notice shrinkflation strategies view them as having more persuasive intent than total price increases. Consequently, consumers who notice shrinkflation strategies should infer that the company's motive for the unit price increase is to increase their profit margins. Furthermore, detecting a shrinkflation strategy could negatively impact consumers' brand and retailer attitudes, i.e., attitudes about the agents suspected of the persuasion attempt (Friestad & Wright, 1994). Thus, the following three hypotheses are formulated as a complementary foundation for the study:³

H1A: Compared to a total price increase, a shrinkflation strategy will have a more negative impact on brand attitude.

H1B: Compared to a total price increase, a shrinkflation strategy will have a more negative impact on retailer attitude.

H1C: Compared to a total price increase, a shrinkflation strategy will lead to increased possibilities that consumers infer a profit margin increase motive.

However, it is unlikely that all consumers will share the same tendency to make inferences about the motives behind different types of unit price increase tactics. Certain consumers may be more able than others to draw inferences about the underlying motives of the two types of unit price increase tactics. Research has identified an individual difference variable, known as *pricing tactic persuasion knowledge* (PTPK), which can moderate consumers' reactions to pricing tactics (Hardesty et al., 2007).

³ Note that the following three hypotheses (H1A-C) were not included in the original study by Luke Kachersky but are added by the authors of this thesis to test the foundation for hypotheses H2-5.

PTPK reflects the level of accurate knowledge a consumer possesses about pricing practices in the marketplace. Interestingly, the research found that consumers with high levels of PTPK tend to generate more knowledge-related thoughts in response to pricing tactics. For instance, when presented with so-called ‘tensile discount claims’ (i.e., discounts with ambiguous ranges, such as “up to \$10 off”), participants with high PTPK were more likely to assume that the discount might be less than the upper end of the claim, regardless of the actual discount levels. On a similar note, it is anticipated that higher levels of PTPK will be associated with a greater divergence in the likelihood of inferring increased profit margin motives from a shrinkflation strategy versus a total price increase, regardless of the actual motive for the change. Thus, the second hypothesis emerges:

H2: A shrinkflation strategy (vs. a total price increase) increases the probability of relatively high-level PTPK consumers inferring a ‘profit margin increase motive’.

An essential aspect of PKM is that consumers must deal with the persuasion attempt once they perceive it, often by discrediting or rejecting the message. According to Friestad and Wright, the notion that “someone is using a tactic of influence ‘on me’ is fundamentally ‘off-putting’”, as it challenges one’s sense of autonomy (Friestad & Wright, 1994). Therefore, persuasion attempts can evoke emotional responses that oppose the message content, or reactance (Brehm, 1966), as they are seen as constraints on behavioral choices and freedom (Petty & Cacioppo, 1979).

Previous studies have demonstrated that consumers tend to have a negative reaction when they perceive persuasive intent in pricing tactics used by marketers. As previously mentioned, Schindler’s research found that some consumers believe that shipping surcharges are used to make the total price of a product seem smaller than it is (Schindler et al., 2005). As predicted by the PKM, these consumers react against shipping surcharges by avoiding shopping from catalogs or on the Internet i.e., opposing reactance. Similarly, Kachersky and Kim found that consumers prefer partitioned prices (e.g., \$189 camera + \$10 shipping) over inclusive prices (e.g., \$199 camera, including shipping), as they perceive the former as having less persuasive intent (Kachersky & (Christian) Kim, 2011). As previously stated, Hardesty’s research found that high-PTPK consumers are likely to react negatively to quantity surcharges and tensile discount claims. Similarly, if hypothesis one is confirmed and high-PTPK consumers infer greater profit margin increase motives from a shrinkflation strategy compared to total price increases, they should also react negatively to a shrinkflation strategy. In contrast, low-PTPK consumers may react more in line with standard economic explanations, as they have not inferred these profit margin increase motives. In other words, low-PTPK

consumers will react less favorably to a total price increase compared to a shrinkflation strategy, as a content reduction will not affect the product's affordability.

However, there is still an important question to be answered: what form should these negative reactions take? According to the PKM proposed by Friestad and Wright, one of the main goals of consumers in reacting to persuasion attempts is to develop accurate attitudes about the agents responsible for the attempt, i.e., the persuasion agents (Friestad & Wright, 1994). When interpreting these attempts, it was found that consumers should identify the agents as those responsible for designing the attempt, not necessarily those who execute it. As put by Friestad and Wright; "We presume that consumers seek valid attitudes toward the puppet masters, not their puppets" (Friestad & Wright, 1994). Thus, it is reasonable to anticipate that the negative reaction high-PTPK consumers have towards a shrinkflation strategy will be directed towards the upper-level channel partner, such as the product brand, rather than the lower-level channel partner, such as the retailer. Consequently, the third hypothesis is formulated as follows:

H3: A shrinkflation strategy (vs. total price increases) leads to less favorable product brand attitudes for consumers with relatively higher levels of PTPK.

Low-PTPK consumers are expected to react differently than those with high PTPK due to their lack of prerequisite knowledge. Without the ability to make different inferences for shrinkflation strategies compared to total price increases, their reaction should be influenced by practical concerns rather than cognitive and affective reactions to persuasion attempts. A total price increase impacts the affordability of the product more directly and clearly than a content reduction. In accordance with standard economic theory, a total price increase should elicit a commensurately negative reaction. However, the question remains: toward whom? Previous research has indicated that lower levels of domain-specific knowledge are associated with simpler attributions (Fletcher, Danilovics, Fernandez, Peterson, & Reeder, 1986). Therefore, consumers with low PTPK are anticipated to respond toward more proximal agents (retailers) rather than distal agents (product brands). In summary, the predicted consumer responses to a shrinkflation strategy compared to a total price increase for low-PTPK levels is as follows:

H4: Total price increases (vs. a shrinkflation strategy) lead to less favorable retailer attitudes for consumers with relatively lower levels of PTPK.

The final hypothesis is that these differences are based on practical considerations for low-PTPK consumers, and on cognitive and affective responses to inferred motives for high-PTPK consumers. Thus, it is hypothesized that:

H5: For consumers with relatively higher levels of PTPK, the influence of unit price increases by way of a shrinkflation strategy (vs. total price increases) on product brand attitudes is mediated by inferred motives.

2.4. Criticism against Persuasion Knowledge Model (PKM)

To ensure transparency in our study it is important to acknowledge the limitations and criticisms against the PKM model on which the study is based upon.

First, the PKM model has been criticized for blurring the line between persuasion, agent, and topic knowledge, indicating that these types of knowledge are not as distinct as portrayed in the model. For instance, if a consumer in a marketplace interaction deduces the persuasion agent's intentions or objectives, it becomes unclear whether they are relying on persuasion, agent, or both forms of knowledge. This is problematic as it creates difficulty in understanding how persuasion knowledge specifically affects how customers respond to different pricing tactics. In line with Campbell and Kirmani's suggestion, we have replicated Kachersky's method in viewing the knowledge structures as partly overlapping, rather than artificially distinguishing between them (Campbell, M. & Kirmani, 2008). However, to create a focus on persuasion knowledge we have chosen a product (based on our prestudy) that our demographical target group generally has equal knowledge of, and an unspecified agent (i.e., the retailer) in order to remove focus from the topic and agent knowledge.

Second, there is little research on cross-cultural persuasion knowledge (Campbell, M. & Kirmani, 2008). Considering the vast difference in beliefs held across the world, it becomes relevant to see if knowledge (specifically knowledge about persuasion) also differs across cultures. This point was also made in PKM's original article where it was stated that "there is little empirical evidence about the exact nature of persuasion knowledge in our culture at different ages" (Friestad & Wright, 1994). *Hofstede's Cultural Dimensions Theory* argues that variations in the six cultural factors cause different ways of working, communicating, and understanding (Hofstede, 2011). Thus, perhaps persuasion knowledge of collectivistic cultures is different from cultures with individualistic tendencies. To add more cross-cultural nuance to the PKM theory we are replicating an American study in Sweden. As seen in Figure 4, the USA and Sweden have high contrast in several cultural dimensions – especially masculinity, long-term orientation, and individualism (Hofstede Insights, 2022). Thus, the replication will allow us to compare our results to Kachersky's American execution of the study and hopefully add to the model's factors for a better predictive measure and suitability.

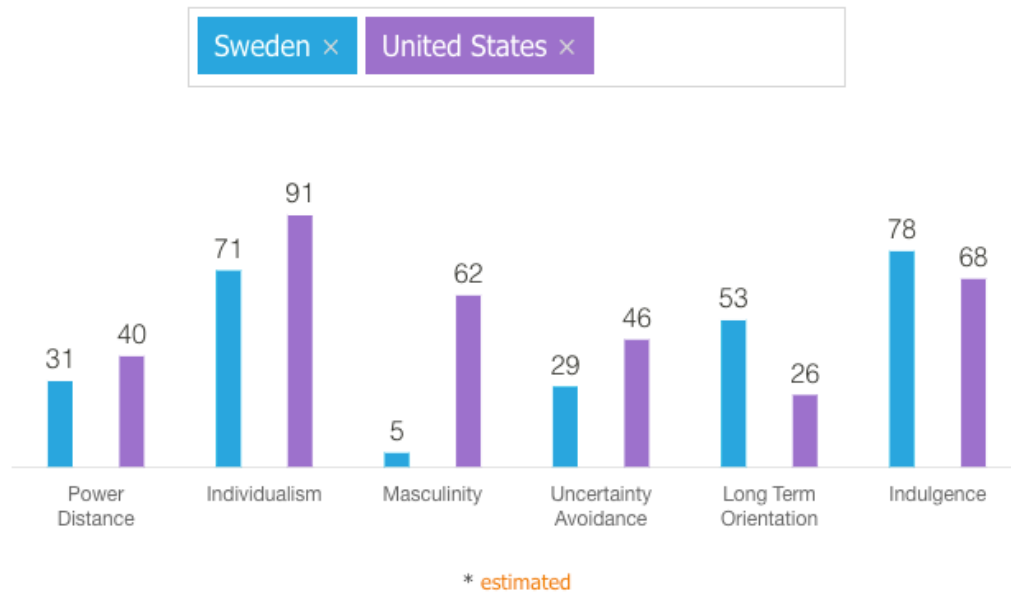


Figure 4. The difference in Hofstede’s cultural dimensions between Sweden and the USA (Hofstede Insights, 2022).

Third, the measurement of persuasion knowledge is multidimensional and covers a range of behaviors and beliefs, making no single method suitable for measuring persuasion knowledge. Instead, researchers must devise their own measures, measures that, in turn, are contingent on what dimension of persuasion knowledge is being analyzed (Campbell, M. & Kirmani, 2008). Kachersky’s study used an individual difference scale developed by Hardesty and colleagues (Hardesty et al., 2007), which consisted of 17 true/false questions about a variety of pricing tactics, to measure persuasion knowledge. While persuasion knowledge comprises many different elements, this scale concentrates on a specific area of persuasion knowledge, which may limit its ability to gauge consumers’ awareness of hidden agendas, distrust, or the suitability of tactics (Campbell, M. & Kirmani, 2008). Therefore, Kachersky’s study (and our replication as well) has included several opportunities for open-ended answers for questionnaire participants to explain *why* they think different price tactics occur and *how* it makes them feel. Thus, incorporating potential motives and suspicions that customers may have detected as a part of their persuasion knowledge.

3. Methodology

In this section, the scientific approach used to investigate the research questions is presented. An online questionnaire was conducted to examine how two different unit price change tactics affect Swedish Generation Y consumer attitudes toward the product brand and the retailer.

3.1. Scientific approach to the research design

In line with Kachersky's study (Kachersky, 2011), the thesis takes a quantitative scientific approach described by Bell as research that emphasizes quantification in both data collection and analysis (Bell, Bryman, & Harley, 2019). Thus, we have adopted an objectivist ontology approach to understanding the nature of social reality. Furthermore, positivism is the epistemological position that guides our research. Therefore, the underlying assumption is that reality is objective and external and that a deductive approach can be used to measure any possible phenomena (Bell et al., 2019). Accordingly, the theoretical review presented above (Chapter 2) follows the method of formulating hypotheses, retrieving the data, and finding objective support (or no support) for the hypotheses about reality.

Considering this thesis' objective to examine the effects of different price strategies on consumers' brand and retailer attitudes, a positivist methodology was deemed appropriate as it endeavors to explain relationships (Scotland, 2012). According to Scotland, positivism aims to identify underlying causes that affect outcomes to help generalize and make predictions – which supports the choice of a deductive approach (Scotland, 2012).

Like Kachersky's paper (Kachersky, 2011), data collection was performed via a cross-sectional design, and a survey was created to acquire information on the effects of different price strategies on consumers' brand and retailer attitudes. The content of the survey was also replicated from Kachersky's study (Kachersky, 2011). However, several improvements and cultural adaptations were made to try to adapt the questionnaire to a Swedish setting and improve the data quality.⁴ The online questionnaire was constructed using scenario questions with experimental manipulation (Bell et al., 2019).

⁴ As seen in the survey flow in Chapter 3.4.2, brand attitude control questions were added to the beginning of the survey, attention checks were added and the PTPK questions were altered on recommendation from Kachersky (see PTPK variable in Chapter 3.4.3).

3.1.1. Alternative approaches

The rationale for this choice of the scientific approach to research design was dictated by our decision to conceptually replicate Kachersky's study (Kachersky, 2011). However, looking critically at our chosen research design, it is important to highlight that there were alternative approaches we could have utilized.

First, a quantitative non-experimental approach was considered. The advantage of this approach included not having to limit our study to one specific product, which would improve the ability to generalize possible findings from our study. However, we deemed an experiment more realistic to what consumers experience in real life, compared to straight-up asking questions on individuals' opinions on a shrinkflation strategy, without having a demonstrative example.

Second, a qualitative approach was considered. Using semi-structured interviews, participants could have been shown the different product offerings, and be asked to describe verbally if they noticed the difference and speculate why that difference was made and how it made them feel. Afterward, a content analysis could be performed on the findings (Bell et al., 2019). This approach would allow us to get a deeper understanding of the psychological processes behind consumer reactions to different unit price changes. However, the data collected would be very subjective and based on a small sample, thus it would be problematic to generalize the findings (Bell et al., 2019). Instead, a compromise was achieved as we gained some insight from our qualitative prestudy, whilst still pursuing a quantitative main method.

3.2. Prestudy

A prestudy was conducted in order to gain a deeper understanding of consumers' knowledge and attitudes toward shrinkflation strategies. The primary goal of the prestudy was to identify what product category to be used in the experiment of the main study, which would either increase in price or decrease in content. The prestudy took the form of a semi-structured qualitative interview, conducted through a focus group via Zoom with a total of 12 participants (Bell et al., 2019). For more information, see Appendix 1.

The prestudy revealed that participants have noticed several product categories that have shrunk in content while the price remained, such as marabou milk chocolate, yogurt, frozen berries, chips, and coffee filters. However, one product category was mentioned with the highest frequency and was therefore chosen to be in the main study; coffee. This is also in line with the Swedish statistics from SCB which reveal that coffee has been one of the most common products to shrink in content without a corresponding

price increase, for several years (SCB, 2022). When asked what type of coffee brand they had noticed this on, most participants responded the brand “Zoégas”. As such, a coffee package from Zoégas was chosen as the most representative product based on our prestudy.

3.3. Pilot study

Before distributing the main survey, a pilot version was sent to a group of 17 individuals close to us. Pilot studies are valuable for all research, however, especially ahead of self-completion surveys (Bell et al., 2019). This was done to ensure that the questions and measures used were understandable and that the overall survey experience was of high quality and user-friendly. Based on the feedback received, we made revisions such as reformulating certain instructions to make them clearer. The pilot study was conducted within a few days due to time limitations and thus was not sent out to a larger sample group. Despite this, the pilot study allowed us to catch and correct minor errors before the main survey was released to the public.

3.4. Main questionnaire and variables

3.4.1. Questionnaire

The self-completion questionnaire (see Appendix 2) was conducted using Qualtrics to allow for the questionnaire to be completed online and anonymously. In total, 40 questions (including attention checks) were divided between 12 different blocks, see Chapter 3.4.2 below for an illustration of the survey flow. The questionnaire was written in Swedish to target only Swedish consumers. The questionnaire started with an introduction with some general information about the survey, such as the research purpose, estimated completion time, and our contact information. All participants were also informed of a donation of 2 SEK to The Children’s Cancer Fund after completion of the questionnaire.

3.4.2. Survey Flow

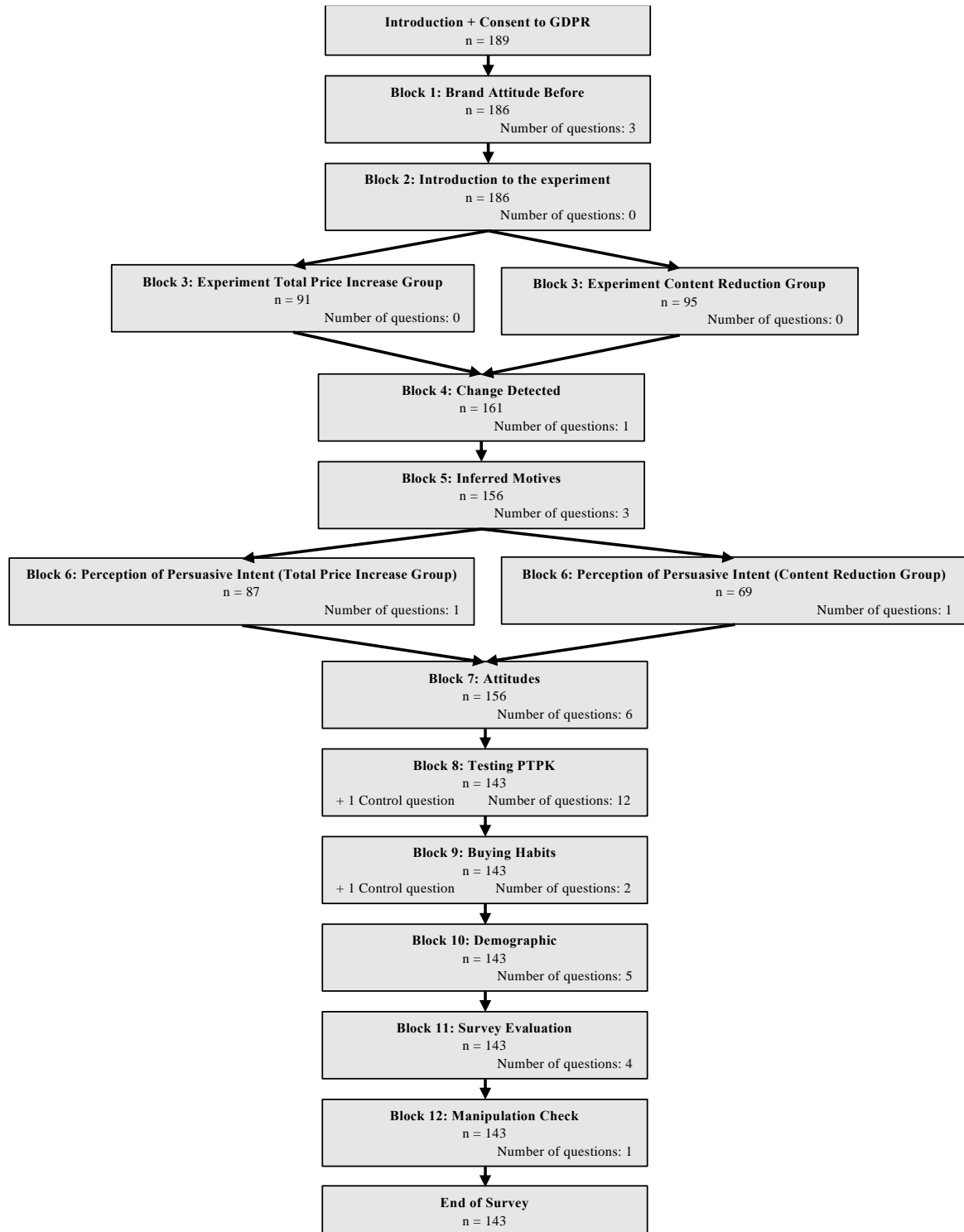


Figure 5. Illustration of the survey flow and the number of respondents and questions per block.

3.4.3. Variables

Indexed dependent variables

Brand attitude

Brand attitudes, i.e., attitudes toward the coffee brand Zoégas, were measured on a three-item, 7-point Likert scale, in response to the question “What is your opinion on the coffee brand Zoégas?”. The response options ranged from; very negative to very positive, very bad to very good, and dislike strongly to like strongly. In contrast to Kachersky’s study (Kachersky, 2011), we measured brand attitude before and after the experiment, in order to see if the results changed after the manipulation. Additionally, we used a three-item scale, instead of a two-item scale, which Kachersky utilized (Kachersky, 2011). The scales were adapted from Åkestam et al. (Åkestam, Rosengren, Dahlén, Liljedal, & Berg, 2021) with a stated Cronbach’s alpha of 0.99.

Retailer attitude

Retailer attitudes were measured on identical scales as the brand attitude variable, in response to the question “What is your opinion on the supermarket from which you purchased the coffee?”. The response options ranged from; very negative to very positive, very bad to very good, and dislike strongly to like strongly.

Inferred motives (*indexed mediator in hypothesis 5*)

Inferred motives refer to what conclusions customers draw about the motives behind the two different price tactics. This was measured in the responses to the open-ended question “Why do you think the change(s) were made?”, after being exposed to a scenario in which the coffee package either increased in total price or reduced in content. We categorized the participants’ different responses into one of the following categories: increase profit margin, passing on cost inflation, general state of the economy, I don’t know, and others. This was done manually by us and later confirmed by one independent judge that was blind to the purpose of the study. To test hypotheses 1C, 2, and 5, the two categories “passing on cost inflation” and “general state of the economy” were collapsed into a single category and coded as “0”, while the “increase profit margin” category was coded as “1”. This last category (increase profit margin) constitutes the ‘profit margin increase motive’ variable.

Indexed independent variables

Unit price change tactic

Participants were posed with a hypothetical scenario in which a product, a package of coffee from Zoégas, increased its unit price. This unit price change tactic was manipulated between two experimental conditions. In one experimental condition, referred to as “total price increase”, the total product price increased while the content amount remained constant. In the other condition, referred to as “content reduction”, the product content was reduced while the total product price remained constant (see

Chapter 3.4.4.). However, in both scenarios, the unit price increased the same amount. The unit price change tactic variable was coded as “0” for total price increase and “1” for content reduction.

Pricing tactic persuasion knowledge (PTPK)

Respondents’ knowledge about pricing tactic persuasion was measured by asking participants 12 true/false questions about a variety of pricing tactics. Participants received one point for each correct answer, and zero otherwise. Thus, the measure of pricing tactic persuasion knowledge was the sum of respondents’ accumulated points.

The true/false questions were formulated by taking inspiration from the 17-item scale developed by Hardesty et al. (Hardesty et al., 2007). However, with all the advances in pricing tactics in recent years, it is reasonable to assume that not all questions and examples developed in the original scale from the year 2007 are relevant anymore. After communicating with Kachersky (Kachersky, 2023), we decided to remove the questions that can be considered obsolete today. This resulted in a total of 12 questions, instead of 17. These questions had to be translated into Swedish language, brands, and Swedish current prices in order to be fit for Swedish respondents. The translation to Swedish from the original language of English was made by us and later confirmed by a native English-speaking person. See Appendix 3 for an overview of the original PTPK questions and the questions used in our questionnaire.

Other variables

Perception of persuasive intent

Participants indicated their perceptions of persuasive intent on a 7-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree) (Campbell & Kirmani, 2000). Participants that were exposed to the total price increase condition read the statement “The price of the coffee increased while the package size remained the same in order to ensure my purchase decision would not change”. Participants exposed to the content reduction condition read “The package size was reduced while the price of the item remained the same in order to ensure my purchase decision would not change”. All pricing tactics can be perceived as persuasive, however, the relative levels of agreement between these two statements indicate the difference in the perceived strength of the persuasive intent of each pricing tactic.

Buying habits

Respondents’ buying habits were measured by asking what physical supermarket they usually visit (respondents could choose several options) and how often they visit it, ranging from “never” to “several times per day”. These questions were used to gain increased knowledge on the relationship between consumer buying habits and their corresponding effect on persuasion knowledge and unit price increase tactics on brand and retailer attitudes.

Demographics

Variables that measure participants' backgrounds were age, gender, educational level, occupation, and income. These measures were used to gain increased background knowledge of the participants in the questionnaire.

3.4.4. Manipulation of the independent variable “unit price change tactic”

All participants were asked to imagine a scenario in which they purchase a package of filter coffee from Zoégas at their regular supermarket. The instructions in the scenario were designed to walk the participants through the hypothetical situation (Baker, Parasuraman, Grewal, & Voss, 2002). They were shown a picture of a 500-gram coffee package along with its supermarket shelf card including the retail price, 59.90 SEK, and its unit price, 119.80 SEK per kg (stimuli were designed to imitate real Swedish shelf cards from ICA, these are replicated in Appendix 4). Participants were asked to note the offering carefully. On the next screen, they were told “Now, two weeks later, you are back in the supermarket to purchase another package of brewed coffee from Zoégas and you see the following”, and shown a picture of the same package of coffee with its supermarket shelf card. The second picture was identical to the one participants first saw, with the following exceptions: in *both* experimental conditions, the unit price increased to 133.11 SEK/kg, in the *total price increase* condition, the retail price shown on the supermarket shelf card was 66.60 SEK (not 59.90 SEK), and in the *content reduction* condition, the supermarket shelf card was 450 gram, not the original 500 gram. Participants were not able to go back in the questionnaire, thus they had to conduct it attentively to spot the changes.

Half of the participants were exposed to the *total price increase* condition and the other half to the *content reduction* condition. Distributing the scenarios randomly and evenly (50% in each group) was done by using the online tool Qualtrics XM’s “question randomization feature” together with the “evenly display questions” feature. One of the following questions post the second stimuli, which assessed participants’ perception of persuasive intent (see description of variable “perception of persuasive intent” above), had to be adapted to what kind of condition participants were randomized into. This was arranged by grouping blocks in the survey flow setting in Qualtrics. Those functions made sure that the participants who got randomized into the “total price increase condition” got the follow-up question based on the increased total price, and vice versa.

To test if the manipulation of the two different conditions was successful, we included a manipulation check, as recommended by Hoewe (2017), at the end of the questionnaire. This was done to test if participants perceived the change of the independent variable, i.e., the second stimuli, as intended. If there are measured perceived differences between the manipulations, and the manipulation check is thus deemed effective, the authors can

proceed to examine the relationship between the independent and dependent variables (Hoewe, 2017). The result of the manipulation check is found in Table 2. It appears that many participants in the content reduction group perceived that the total price increased. This might be worrisome, however, after discussing with some participants after the completion of the questionnaire, it became clear that some participants found the manipulation check answer options unclear. The answering option “the total price increased” could be perceived as referring to the unit price (and not the total price), since the unit price increased in both experimental groups. Thus, no participants were excluded from the questionnaire due to failing to answer the manipulation check correctly.

Table 2. Results of manipulation check for perceived and actual experimental conditions for complete participants according to each scenario

| Actual condition | Perceived condition | | | Correct answer |
|--|----------------------------|-------------------|-----------|-----------------------|
| | Total price increase | Content reduction | No change | |
| Respondents in total price increase group (n=78) | 74 | 4 | 0 | 95% |
| Respondents in content reduction group (n=65) | 17 | 47 | 1 | 72% |

3.5. Data collection and statistical methods

3.5.1. Data collection

The self-completion survey was distributed both in digital form through email, social media (Instagram, LinkedIn, and Facebook), as well as in physical form (via a QR code) at universities’ campuses. As seen in Appendix 5, we visited Stockholm University and the Stockholm School of Economics to gather responses. By crafting a poster with a QR code to our survey and rewarding respondents with a chocolate bar or Coca-Cola Zero we managed to collect over 100 replies in one day. The distribution of the survey took place from April 3rd, 2023 to April 15th, 2023. Distributing the questionnaire to students was a deliberate attempt of increasing the representativeness. However, in line with Bell, our sample may classify as a non-probability sample, specifically a convenience sample, as the sample was selected by virtue of its accessibility to us (Bell et al., 2019). Availability in the sense of (a) proximity of geographic location from visiting college campuses, and (b) the proximity of using our own networks. Furthermore, attempts to randomize the sample were made by collecting answers from students who study different disciplines, in order to diversify the sample.⁵

⁵ Data collection from solely business students (that have been educated in marketing) could give a biased sample, and thus not representative of Generation Y. Approximately 30% of answers were collected from Stockholm University and 50% from the Stockholm School of Economics, the 20% remaining participants did not attend either university. Statistical analysis showed that the results did not significantly differ from one another.

3.5.2. GDPR

To ensure compliance with GDPR, we limited the collection of personal data to relevant and necessary information such as participants' initials, age, gender, education level, income, and employment status. Furthermore, survey respondents were made aware of GDPR regulations and had to provide their consent, by filling in their initials and the date, in order to participate in the survey.⁶

3.5.3. Data quality and selection

For a response to be considered valid and usable for analysis, it had to meet certain requirements. First, the participant had to agree to the GDPR terms that were stated. Second, they had to identify a difference between Block 1 and Block 2, otherwise, they were sent to the end of the questionnaire. Third, they had to answer correctly on the attention checks. Fourth, they had to fully complete the questionnaire.

When the survey closed, a total of 198 participants followed the link or the QR code to our survey. However, 55 of these were considered invalid responses according to the criteria. 9 of them did not consent to GDPR, 25 of them did not identify a difference between Block 2 and Block 3, 13 did not correctly answer the attention checks correctly, and 8 of them did not complete the survey. In total, this left 143 valid responses that were correctly collected and deemed acceptable to be used in our sample.

3.5.4. Data analysis

To perform analysis on our data, the data collected in Qualtrics was exported to Microsoft Excel, where the data was indexed, cleaned, and sorted. Afterward, the cleaned data were imported into the statistical program R v.4.2.3 where the statistical analysis was made.

3.5.5. Reliability and validity

Reliability

Reliability is about whether the measurement methods used in the study produce reliable results, and thus whether the measures applied are internally consistent (Bell et al., 2019). To measure internal consistency, we utilized Cronbach's alpha for the measures that had multiple-indicator measures, which were the questions that measured brand and retailer attitude. The scales were adopted from Åkestam et al. (Åkestam et al., 2021) with a reported Cronbach's alpha of 0.99 for brand attitude and 0.97 for retailer attitude. However, we also tested Cronbach's alpha values in our study in order to assure internal consistency. Bell et al. (Bell et al., 2019) suggest that an internal

⁶ Participants who did not consent to GDPR by clicking the option "No, I do not consent to participate in this study" were automatically transferred to the end of the survey, by utilizing a logic function in Qualtrics.

consistency measure greater than 0.7 is indicative of an acceptable level of consistency. Similarly, Hair et al. (Hair, Sarstedt, & Ringle, 2019) suggest that a Composite Reliability measure above the 0.7 threshold indicates a reliable measure. As seen in Table 3, all measures are above 0.7 and thus reliable.

Table 3. Overview of Cronbach’s alpha results for multiple-item scales used, according to each scenario and on an aggregated level

| Variable | No. of items | Total price increase | Content reduction | Aggregated alpha |
|-----------------------|--------------|----------------------|-------------------|------------------|
| Brand attitude before | 3 | 0.97 | 0.96 | 0.97 |
| Brand attitude after | 3 | 0.98 | 0.98 | 0.98 |
| Retailer attitude | 3 | 0.97 | 0.98 | 0.98 |

Validity

Bell et al. (Bell et al., 2019) emphasize that a test is only considered valid if it accurately measures the intended construct. Therefore, we took great care in phrasing the questions clearly and making sure that the content of the survey would fit in a Swedish setting, especially the questions measuring participants’ PTPK. Additionally, we used the Swedish language to prevent any misunderstandings or confusion that may arise if English was used since we knew the participants would be Swedes. This review was done in order to ensure that the questions were clearly formulated and fit with the theoretical framework and purpose of this study – to investigate consumers’ responses to different unit price tactics. By doing this, we enhanced the content validity of the survey.

Nomological validity is achieved in the study by comparing and depicting the theoretical constructs of the PKM together with theories related to attitudes. Through this process, we examine and compare different constructs to provide an explanation for a particular phenomenon.

Oppenheimer et al. (Oppenheimer, Meyvis, & Davidenko, 2009) state that participants who do not read survey questions carefully can undermine the validity of the analysis. To address this issue, three control questions were included in the survey to measure participants’ attention to detail (see blocks 8, 9, and 12 in Figure 5). As mentioned earlier, participants who answered these questions incorrectly were excluded from the final data set in order to improve the overall data validity.

3.5.6. Survey evaluation

The questionnaire ended with a survey evaluation regarding the participants’ overall perceptions and opinions of the quality and clarity of the survey. The evaluation included four questions that were answered on a 5-point Likert-scale. This evaluation was done to enhance the validity assessment. Among the participants whose responses

were deemed eligible for inclusion in the analysis – 82% felt the survey contained clearly formulated questions, 77% perceived the answer options clearly formulated, 80% found the study meaningful, and 75% found that the questions did not steer them in a certain direction (see Appendix 6 for a full overview).

4. Results

This section of the paper presents the empirical findings from the survey presented in the previous section. First, descriptive statistics regarding demographics are presented. This is followed by regression analysis and testing for each hypothesis and concludes with correlation testing.

4.1. Descriptive statistics

4.1.1. Sample demographics

For a full overview of all demographic variables grouped by experimental condition and on an aggregated level, see Appendix 7. Of the 143 valid responses from the survey, a slight majority of 53% were females. Furthermore, 81% of the respondents were between the ages of 18 to 24, which is good since this captures our target group, Generation Y. Most of the respondents, 68%, have the highest education of high school, and 32% have completed a university degree. Most of the respondents are currently students (119 of 143 respondents) but may have other occupations as well since 49 respondents are either full-time or part-time employed. Most of the respondents earn between 10 000–19 999 SEK (61%).

4.1.2. Respondents' buying habits

As seen by Appendix 8, a large majority of respondents visit a supermarket several times per week. There were no differences in the frequency of retailer visits across the groups. According to Appendix 9, in terms of what supermarket they visit, ICA is the most visited one by both experiment groups.

4.1.3. Number of respondents in each experimental group

Of the 143 valid responses, 65 respondents (45%) were exposed to the content reduction condition, whilst 78 (55%) respondents were exposed to the total price increase condition. The uneven distribution was due to the fact that more responses in the content reduction condition had to be removed due to failing the attention check in block 4, i.e., they did not notice a difference between sets of stimuli (see Survey flow in Chapter 3.4.2).

4.1.4. Respondents' opinions on open-ended questions (inferred motive)

Overall, our findings showed that when respondents noticed that the unit price increased, a higher proportion of respondents in the shrinkflation group inferred a profit margin increase motive (65%), compared to the total price increase group (19%). Instead, most respondents in the total price increase group thought that the price

increase was due to the general state of the economy or to pass on cost inflation (46% and 26% respectively). See Appendix 10 for more information.

4.2. Mean differences between subject groups

Table 4. Results of t-test between the two experimental groups

| Respondent group | Total price increase n = 78 | | Content reduction n = 65 | | df | p | t |
|------------------------------------|--------------------------------|------|-----------------------------|------|-----|------------|-------|
| Variable | M | SD | M | SD | | | |
| Brand attitude ^a | 4.67 | 1.39 | 3.81 | 1.41 | 141 | < 0.001*** | 3.66 |
| Retailer attitude ^a | 4.27 | 1.33 | 3.58 | 1.29 | 141 | < 0.001*** | 3.13 |
| Brand attitude before ^a | 5.14 | 1.19 | 5.05 | 1.10 | 141 | 0.66 | 0.44 |
| PTPK score ^b | 7.58 | 2.44 | 7.37 | 2.00 | 141 | 0.58 | 0.55 |
| Persuasive intent ^c | 4.27 | 1.70 | 5.43 | 1.75 | 141 | < 0.001*** | -4.01 |

Note: '***' Significant at $p < 0.001$, '**' Significant at $p < 0.01$, '*' Significant at $p < 0.05$,

^a 1 being very low attitude, 7 very high attitude

^b 0 being lowest score, 12 being highest score

^c 1 being do not agree at all, 7 being completely agreeing

One sample t-test ensured that both participant groups deviated from the center of the scale with predetermined test-value (=4) at a significant level of at least $p < 0.01$ apart from brand attitude for content reduction group as well as retailer attitude and persuasive intent for total price increase group. (Appendix 7).

To test mean differences between the two experimental groups, t-tests were conducted for all variables except the binary variables⁷ and the variables concerning demographics.

4.2.1. Insignificant differences between the groups

As seen in Table 4, there were significant differences between the means of the groups regarding all variables except 'brand attitude before' and 'PTPK score'. This is in line with our expectations since consumers' attitudes towards Zoégas before the experiment was conducted should not be different across groups ($M = 5.14$ and $M = 5.05$) since the experimental groups are randomly allotted.

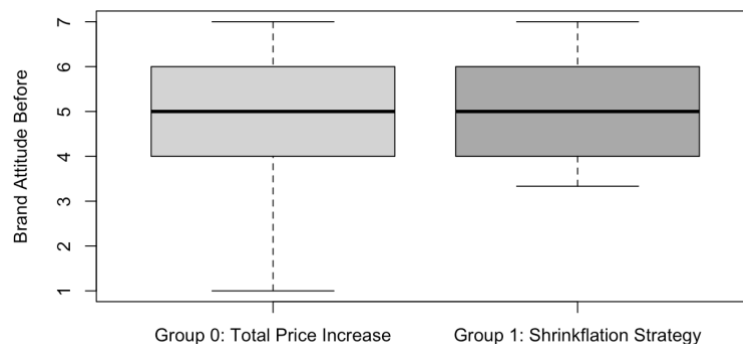


Figure 6. Boxplots depicting the level of brand attitude before the experiment in the two experimental groups.

⁷ The binary variables include 'unit price change tactic' and 'inferred motive'.

Furthermore, neither should PTPK score be different depending on which experimental scenario they were randomly subjected to ($M = 7.58$ and $M = 7.37$). As seen in Figure 7 below, PTPK scores were relatively similar between the two experimental groups.

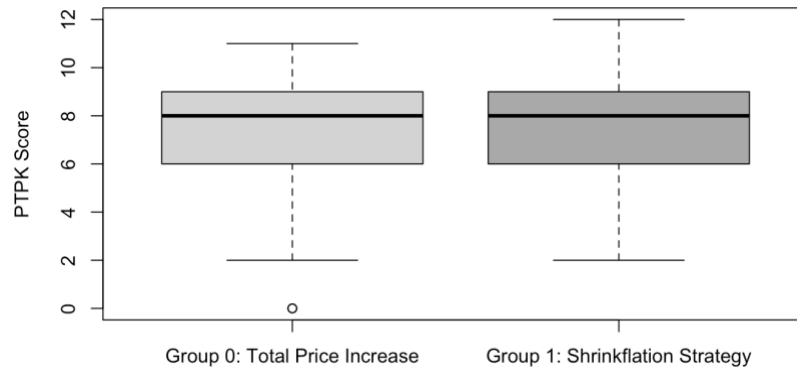


Figure 7. Boxplots depicting the level of PTPK scores in the two experimental groups.

4.2.2. Significant differences between the groups

Other takeaways from the t-tests show that there are significant differences between the means of the following variables: brand attitude, retailer attitude, and persuasive intent. First, the measure for brand attitude (after) was statistically significantly greater for the experiment group exposed to a total price increase ($M = 4.67$), compared to the content reduction group ($M = 3.81$).

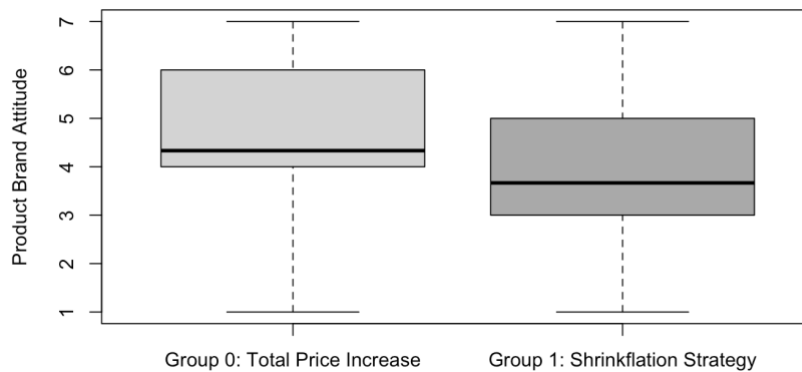


Figure 8. Boxplots depicting the level of product brand attitude in the two experimental groups.

Second, the measure for retailer attitude was also statistically significantly greater for the experiment group exposed to a total price increase ($M = 4.27$), in contrast to the content reduction group ($M = 3.58$).

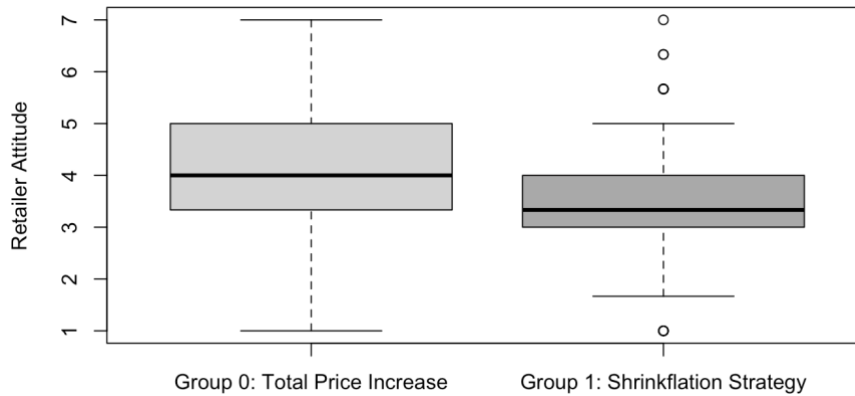


Figure 9. Boxplots depicting the level of retailer attitude in the two experimental groups.

Finally, the measure for persuasive intent was statistically significantly greater for the experiment group exposed to a content reduction ($M = 5.43$), compared to the group exposed to a total price increase ($M = 4.27$). To further analyze this relationship between persuasive intent (dependent variable) and unit price change tactic (independent variable) a linear regression was performed, found in Appendix 11. The regression revealed a highly significant relationship between persuasive intent and a shrinkflation tactic of 1.16.

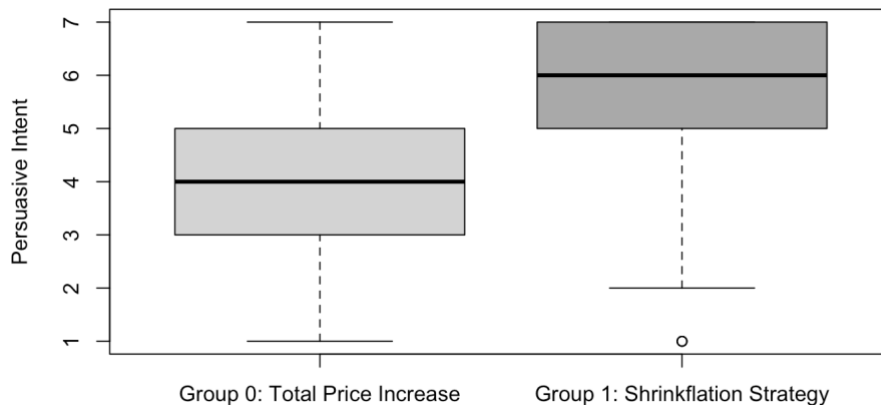


Figure 10. Boxplots depicting the level of persuasive intent in the two experimental groups.

However, after conducting a one-sample t-test with the test value ($=4$), the retailer attitude and persuasive intent in the total price increase group, as well as brand attitude in the content reduction group, did *not* significantly differ from 4 (see Appendix 12). Thus, drawing any conclusions from these variables should be done cautiously.⁸

⁸ The value 4 corresponds to a neutral answer option. The variables do not significantly differ from the center of the scale even at the lowest significant level of $p < 0.05$.

4.3. Regression analysis and hypothesis testing of independent variables

4.3.1. Regression analysis for hypotheses 1A-C

To test hypotheses 1A, the following linear regression was used:

$$A = \text{Brand Attitude}_i = \beta_0 + \beta_1(\text{Unit Price Change Tactic}) + u_i$$

Table 5. Linear regression analysis between brand attitude (dependent variable) and unit price change tactic (independent variable)

| | B | Standard error | Significance |
|--------------------------|-------|----------------|--------------|
| Intercept | 4.67 | 0.16 | < 0.001*** |
| Unit price change tactic | -0.86 | 0.24 | < 0.001*** |

Note: '****' Significant at $p < 0.001$, '***' Significant at $p < 0.01$, '**' Significant at $p < 0.05$

Adjusted R-squared: 0.08, F-statistic: 13.39 on 1 and 141 DF

As seen in Table 5, a shrinkflation strategy has a significant and negative impact (-0.86) on brand attitude. **Thus, H1A is supported.** Furthermore, as seen in Appendix 13 and 14, taking the difference between brand attitude before and brand attitude after the experiment for both experimental groups, we can see that the difference was statistically significantly greater for the content reduction group. Additionally, the brand attitude dropped in 78% of the respondents subjected to a content reduction, versus only 45% in the total price increase group (see Appendix 15).

To test hypotheses 1B, the following linear regression was used:

$$B = \text{Retailer Attitude}_i = \beta_0 + \beta_1(\text{Unit Price Change Tactic}) + u_i$$

Table 6. Linear regression analysis between retailer attitude (dependent variable) and unit price change tactic (independent variable)

| | B | Standard error | Significance |
|--------------------------|-------|----------------|--------------|
| Intercept | 4.27 | 0.15 | < 0.001*** |
| Unit price change tactic | -0.69 | 0.22 | 0.002** |

Note: '****' Significant at $p < 0.001$, '***' Significant at $p < 0.01$, '**' Significant at $p < 0.05$

Adjusted R-squared: 0.06, F-statistic: 9.81 on 1 and 141 DF

As seen in Table 6, a shrinkflation strategy has a significant and negative impact (-0.69) on retailer attitude. **Thus, H1B is supported.**

To test hypothesis 1C, the following logistic regression was used:

$$C = p(\text{Inferred Motive}_i) = g(\beta_0 + \beta_1(\text{Unit Price Change Tactic})) = g(z) = \frac{1}{1 + e^{-z}}$$

Table 7. Logistic regression analysis between inferred motive (dependent variable) and unit price change tactic (independent variable)

| | B | Standard error | Significance |
|--------------------------|-------|----------------|--------------|
| Intercept | -1.32 | 0.29 | < 0.001*** |
| Unit price change tactic | 2.28 | 0.41 | < 0.001*** |

Note: '***' Significant at $p < 0.001$, '**' Significant at $p < 0.01$, '*' Significant at $p < 0.05$

Cox and Snell R-squared: -0.69

As seen in Table 7, a shrinkflation strategy has a significant and positive probability (2.28) of inferring a 'profit margin increase motive'. **Thus, H1C is supported.**

As seen below in Table 8, all three hypotheses 1A-C were supported.

Table 8. Summary of hypotheses 1A-C results

| | | |
|-----|---|------------------|
| H1A | Compared to a total price increase, a shrinkflation strategy will have a more negative impact on brand attitude. | Supported |
| H1B | Compared to a total price increase, a shrinkflation strategy will have a more negative impact on retailer attitude. | Supported |
| H1C | Compared to a total price increase, a shrinkflation strategy will lead to increased possibilities that consumers infer a profit margin increase motive. | Supported |

4.3.2. Regression analysis for hypothesis 2

To test hypothesis 2 the following logistic regression was used:

$$\begin{aligned} p(\text{Inferred Motive}_i) &= g(\beta_0 + \beta_1(\text{lgUnit Price Change Tactic}) + \beta_2(\text{PTPK Score}) \\ &+ \beta_3(\text{Unit Price Change Tactic} \times \text{PTPK Score})) = g(z) = \frac{1}{1 + e^{-z}} \end{aligned}$$

As per our hypothesis, we predicted that a shrinkflation strategy and a high-level PTPK score would increase the probability of consumers inferring a profit margin increase motive.

The results from our model are seen in Table 9 below. Interpreting the results, consumers exposed to a shrinkflation strategy with a certain PTPK score would have a 0.15 higher probability (per PTPK score) of inferring a profit margin increase motive. This would have been in line with our hypothesis.

Table 9. Logistic regression analysis between inferred motive (dependent variable) and independent variables

| | B | Standard error | Significance |
|---------------------------------------|-------|----------------|--------------|
| Intercept | -0.91 | 0.88 | 0.30 |
| Unit price change tactic | 1.17 | 1.41 | 0.41 |
| PTPK score | -0.06 | 0.11 | 0.62 |
| Unit price change tactic × PTPK score | 0.15 | 0.18 | 0.42 |

Note: ‘***’ Significant at $p < 0.001$, ‘**’ Significant at $p < 0.01$, ‘*’ Significant at $p < 0.05$

Cox and Snell $R^2 = -0.79$

However, the overall result of our linear regression was not significant, since all the p-values of the variables were above 0.05. **Thus, H2 is not empirically supported.**

| | | |
|----|---|----------------------|
| H2 | A shrinkflation strategy (vs. a total price increase) increases the probability of relatively high-level PTPK consumers inferring a profit margin increase motive | Not supported |
|----|---|----------------------|

4.3.3. Regression analysis for hypothesis 3

To test hypothesis 3, the following linear regression was used:

$$\begin{aligned} \text{Brand Attitude} = & \\ & = \beta_0 + \beta_1(\text{Unit Price Change Tactic}) + \beta_2(\text{PTPK Score}) \\ & + \beta_3(\text{Unit Price Change Tactic} \times \text{PTPK Score}) + u_i \end{aligned}$$

As per our hypothesis, we predicted that a shrinkflation strategy would lead to less favorable product brand attitudes for consumers with relatively high PTPK.

The results from our model are seen in Table 10 below. Interpreting the results, compared to a total price increase, consumers exposed to a shrinkflation tactic experience an additional –0.03 unit decrease in brand attitude, for every increase in PTPK score. These results would have been in line with our hypothesis.

Table 10. Linear regression analysis between brand attitude (dependent variable) and independent variables

| | B | Standard error | Significance |
|---------------------------------------|-------|----------------|--------------|
| Intercept | 5.18 | 0.52 | < 0.001*** |
| Unit price change tactics | -0.65 | 0.85 | 0.44 |
| PTPK score | -0.07 | 0.07 | 0.30 |
| Unit price change tactic × PTPK score | -0.03 | 0.11 | 0.78 |

Note: ‘***’ Significant at $p < 0.001$, ‘**’ Significant at $p < 0.01$, ‘*’ Significant at $p < 0.05$

Adjusted $R^2 = 0.08$, F-statistic: 5.25 on 3 and 139 DF

However, the overall result of our linear regression was not significant, since all the p-values of the variables were above 0.05. **Thus, H3 is not empirically supported.**

| | | |
|----|--|----------------------|
| H3 | A shrinkflation strategy (vs. total price increases) leads to less favorable product brand attitudes for consumers with relatively higher levels of PTPK | Not supported |
|----|--|----------------------|

4.3.4. Regression analysis for hypothesis 4

To test hypothesis 4, the following linear regression was used:

Retailer attitude

$$= \beta_0 + \beta_1(\text{Unit Price Change Tactic}) + \beta_2(\text{PTPK Score}) + \beta_3(\text{Unit Price Change Tactic} \times \text{PTPK Score}) + u_i$$

As per our hypothesis, we predicted that a total price increase would lead to less favorable retailer attitudes for consumers with relatively low PTPK, compared to a shrinkflation strategy.

The results from our model are seen in Table 11 below. Interpreting the results, compared to a total price increase, consumers exposed to a shrinkflation strategy experience an additional 0.06 unit increase in retailer attitude, for every increase in PTPK score.

Table 11. Linear regression analysis between retailer attitude (dependent variable) and independent variables

| | B | Standard error | Significance |
|---------------------------------------|-------|----------------|--------------|
| Intercept | 3.88 | 0.49 | < 0.001*** |
| Unit price change tactics | -1.15 | 0.79 | 0.15 |
| PTPK score | 0.05 | 0.06 | 0.40 |
| Unit price change tactic × PTPK score | 0.06 | 0.10 | 0.53 |

Note: '***' Significant at $p < 0.001$, '**' Significant at $p < 0.01$, '*' Significant at $p < 0.05$
Adjusted $R^2 = 0.08$, F-statistic: 4.19 on 3 and 139 DF

However, the overall result of our linear regression was not significant, since all the p-values of the variables were above 0.05. **Thus, H4 is not empirically supported.**

| | | |
|----|---|----------------------|
| H4 | Total price increases (vs. a shrinkflation strategy) lead to less favorable retailer attitudes for consumers with relatively lower levels of PTPK | Not supported |
|----|---|----------------------|

4.3.5. Regression analysis for hypothesis 5

To test hypothesis 5, we had to examine whether the brand attitude of high-level PTPK consumers in a shrinkflation scenario is mediated by inferred motives. In line with Kachersky's methodology, Preacher and Hayes' (Preacher, Rucker, & Hayes, 2007) method using bootstrapping was used to formulate two regressions to test the power of mediation⁹:

(i) *Brand attitude*

$$= \beta_0 + \beta_1(\text{Unit Price Change Tactic}) + \beta_2(\text{PTPK Score}) \\ + \beta_3(\text{Unit Price Change Tactic} \times \text{PTPK Score}) + \beta_4(\text{Inferred Motive}) \\ + u_i$$

(ii) *p(Inferred Motive_i)*

$$= g(\beta_0 + \beta_1(\text{Unit Price Change Tactic}) + \beta_2(\text{PTPK Score}) \\ + \beta_3(\text{Unit Price Change Tactic} \times \text{PTPK Score})) = g(z) = \frac{1}{1 + e^{-z}}$$

The results from the bootstrapping test are seen in Table 12 below.

Table 12. Casual mediation analysis to create non-parametric bootstrap confidence intervals (CIs) with the percentile method

| | B | CI Lower 95% | CI Upper 95% | Significance |
|----------------|-------|--------------|--------------|--------------|
| ACME | -0.24 | -0.57 | 0.08 | 0.11 |
| ADE | -0.63 | -1.23 | -0.05 | 0.03* |
| Total Effect | -0.87 | -1.37 | -0.38 | < 0.001*** |
| Prop. Mediated | 0.28 | -0.08 | 0.91 | 0.11 |

Note: '***' Significant at $p < 0.001$, '**' Significant at $p < 0.01$, '*' Significant at $p < 0.05$

CI = confidence interval, ACME = Average Causal Mediation Effect, ADE = Average Direct Effect
Simulations: 1000

As per our hypothesis, we predicted brand attitude for consumers with relatively higher PTPK that are exposed to a shrinkflation tactic to be fully mediated by inferring a profit margin increase motive. For this to be true, ACME should be significant, and ADE insignificant. However, the results revealed an insignificant ACME value (p-value = 0.14 > 0.05). **Thus, H4 is not empirically supported.**

⁹ Notably, one should acknowledge the significant criticism toward mediation analysis. Such analysis can be appropriately employed to assess how much a third variable (Z) explains the relationship between an independent variable (X) and a dependent variable (Y), *assuming* that Z truly acts as a mediator. However, a significant mediation analysis result does not prove that Z is a mediator. Thus, it does not enable researchers to pinpoint unique mediators or differentiate among alternative causal models. (Fiedler, Schott, & Meiser, 2011)

| | | |
|----|--|----------------------|
| H5 | For consumers with relatively higher levels of PTPK, the influence of unit price increases by way of a shrinkflation strategy (vs. total price increases) on product brand attitudes is mediated by inferred motives | Not supported |
|----|--|----------------------|

4.4. Pearson correlation test

To explain how the collected data was associated with the results, a Pearson correlation test was conducted to investigate correlations between the dependent variables (brand and retailer attitude) and independent variables. The dependent variable “inferred motive”, is excluded from the test since it is a binary variable.

As seen in Table 13, the experimental group exposed to a total price increase reveals a significant positive relationship between brand attitude before and brand attitude, retailer attitude and brand attitude, persuasive intent, and retailer attitude. No significant negative correlations were discovered.

Table 13. Pearson correlation test for total price increase group

| Total price increase group | Brand attitude before | Retail attitude | Brand attitude | PTPK score | Persuasive intent |
|----------------------------|-----------------------|-----------------|----------------|------------|-------------------|
| Brand attitude before | 1 | | | | |
| Retail attitude | 0.31** | 1 | | | |
| Brand attitude | 0.82*** | 0.45*** | 1 | | |
| PTPK score | -0.22 | 0.09 | -0.12 | 1 | |
| Persuasive intent | 0.11 | 0.26* | 0.05 | -0.14 | 1 |

Note: ‘***’ Significant at $p < 0.001$, ‘**’ Significant at $p < 0.01$, ‘*’ Significant at $p < 0.05$

As seen in Table 14, the experimental group exposed to a shrinkflation strategy displayed the very same correlations, as the total price increase group – even with the same significance level and sign. However, with the exception that this group did not display a significant correlation between retailer attitude and persuasive intent.

Table 14. Pearson correlation test for content reduction group

| Content reduction group | Brand attitude before | Retail attitude | Brand attitude | PTPK score | Persuasive intent |
|-------------------------|-----------------------|-----------------|----------------|------------|-------------------|
| Brand attitude before | 1 | | | | |
| Retail attitude | 0.32** | 1 | | | |
| Brand attitude | 0.63*** | 0.40*** | 1 | | |
| PTPK score | -0.11 | 0.18 | -0.14 | 1 | |
| Persuasive intent | 0.12 | -0.08 | -0.1 | 0.16 | 1 |

Note: ‘***’ Significant at $p < 0.001$, ‘**’ Significant at $p < 0.01$, ‘*’ Significant at $p < 0.05$

Regarding the size of the significant correlations, the correlations between the variables of brand attitude before and retailer attitude (0.31 and 0.32), as well as retailer attitude and brand attitude (0.45 and 0.40) were very similar across the two experimental

groups. Both groups revealed moderate correlations (between 0.30 and 0.49). The correlation between the variables brand attitude and brand attitude before was very large in size for the total price increase group (0.82) and for the content reduction group (0.63) – implying a strong correlation.

5. Discussion

This section of the paper discusses the key findings of the study and why some results were found to be insignificant. This is followed by conclusions and implications, as well as limitations of the study and suggestions for future research.

The purpose of this thesis was to examine the following research questions:

- 1. How do consumers react to price increases and product content reductions?*
- 2. To what extent do price increases and product content reductions lead to different consumer reactions?*
- 3. To what extent does consumer knowledge about pricing tactics affect reactions to price increases and product content reductions?*

5.1. Summary of results

| | | |
|-----|--|----------------------|
| H1A | Compared to a total price increase, a shrinkflation strategy will have a more negative impact on brand attitude | Supported |
| H1B | Compared to a total price increase, a shrinkflation strategy will have a more negative impact on retailer attitude | Supported |
| H1C | Compared to a total price increase, a shrinkflation strategy will lead to increased possibilities that consumers infer a profit margin increase motive | Supported |
| H2 | A shrinkflation strategy (vs. a total price increase) increases the probability of relatively high-level PTPK consumers inferring a ‘profit margin increase motive’ | Not supported |
| H3 | A shrinkflation strategy (vs. total price increases) leads to less favorable product brand attitudes for consumers with relatively higher levels of PTPK | Not supported |
| H4 | Total price increases (vs. a shrinkflation strategy) lead to less favorable retailer attitudes for consumers with relatively lower levels of PTPK | Not supported |
| H5 | For consumers with relatively higher levels of PTPK, the influence of unit price increases by way of a shrinkflation strategy (vs. total price increases) on product brand attitudes is mediated by inferred motives | Not supported |

5.2. Key findings

5.2.1. Inferred motive and perception of persuasive intent

It was hypothesized that a shrinkflation strategy increases the probability of consumers inferring a ‘profit margin increase motive’, which was found to be supported. This implies that when Gen Y notice that firms conduct a shrinkflation strategy, they will be more inclined to assume that firms do so because they want to earn more money, i.e., increasing their margins, rather than passing on cost inflation or dealing with the state of the economy. This was also evident through the results from the open-ended questions¹⁰ where a higher proportion of respondents in the shrinkflation group inferred a profit margin increase motive (65%), compared to the total price increase group (19%). This could mean that a shrinkflation strategy raises more concerns and resistance among consumers as being a less “forgivable” price increase tactic.

This is in line with the results from the perception of persuasive intent, showing that content reductions are viewed as having greater persuasive intent than total price increases.¹¹ As the theory states, when consumers perceive unit price increases as persuasion attempts, they tend to make additional inferences about them. Typically, when faced with price increases, consumers assume that firms intend to increase their profit margins (Bolton et al., 2003). Noticing a content reduction, which is less apparent and transparent than a total price increase, consumers will view them as having *more* persuasive intent than total price increases (Chandon & Ordabayeva, 2009), which our thesis confirms.

5.2.2. Brand attitude

It was found that a shrinkflation strategy has a significant and negative impact on brand attitude. There were insignificant differences between the means of the experimental groups regarding their brand attitudes *before* the experiment. When taking the difference between brand attitude before the experiment and brand attitude after the experiment (for both experimental groups) we can see that the difference was statistically significantly greater for the content reduction group ($1.24 > 0.47$). This implies that a shrinkflation strategy impacts brand attitude *more negatively* than a total price increase.

Persuasive intent, i.e., the feeling that someone is using a tactic on you, is fundamentally ‘off-putting’ as it challenges one’s sense of autonomy (Friestad & Wright, 1994) As mentioned in Chapter 5.2.1, shrinkflation strategies had a greater persuasive intent. In turn, pricing tactics (like shrinkflation) with persuasive attempts

¹⁰ See Chapter 4.1.4.

¹¹ This was confirmed both by the higher mean value displayed in Table 4 and a linear regression in Appendix 11.

can thus create negative consumer reactions (Schindler et al., 2005). This can be confirmed by our findings in this thesis, as there was a greater decrease in brand attitude for the shrinkflation group, which was the tactic that consumers also detected as having more persuasive intent. As seen in Appendix 15, 78% of participants in the shrinkflation group experienced a drop in brand attitude after the experiment, compared to only 45% of the participants in the total price increase group. Therefore, a decrease in brand attitude could be seen as a consequence of using pricing strategies with a high level of persuasive intent.

5.2.3. Retailer attitude

To investigate our first research question regarding what happens when Swedish consumers notice unit price increases, the variable retailer attitude was examined. It was hypothesized in H1B that compared to a total price increase, a shrinkflation strategy will have a more negative impact on retailer attitude, which was found to be supported. Thus, the findings of this negative relationship also shed light on our second research question. Namely, whether the outcome (i.e., consumer reaction) of a unit price increase is dependent on the *way* the price is increased.

Friestad and Wright presume negative reactions from persuasion attempts will be directed at “the puppet masters, not their puppets” (Friestad & Wright, 1994) Thus, meaning directed at the product brand, rather than the retailer. Kachersky advances this argument by meaning that *some* consumer segments do direct negative reactions towards the retailer. Whilst our significant findings do not go into this segmentation, they demonstrate that consumers *do* direct negative reactions toward the retailer when exposed to a shrinkflation strategy. Thus, shrinkflation tactics *generally* impact retailer attitudes negatively, without going into whether these outcomes vary across consumer segments. Therefore, they offer complementary value to the foundation of Kachersky’s and Friestad, and Wright’s studies.

5.3. Comment on insignificance in hypothesis 2 to 5

The results of this study show no significant differences between consumers with different levels of PTPK regarding their brand and retailer attitudes after being exposed to a shrinkflation tactic. Hypotheses 2 to 5 that were replicated from Kachersky’s study are not supported, and thus we cannot state anything about our third research question – to what extent consumer knowledge about pricing tactics affect reactions to price increases and product content reductions.

These insignificant results can be explained by several reasons. Regarding the methodology of the replication, our sample size was slightly smaller than Kachersky’s, which reduces the power of the study. Furthermore, the overrepresentation of business

students in our survey does not represent the general PTPK score for Generation Y. Consequently, the lower end of PTPK scores may be too high. Finally, although the quantity of PTPK questions was optimized to retain the respondents' attention, we still had five fewer questions than Kachersky, and therefore retrieved less data from our respondents. Having an additional five questions may have given us better explanatory power as it could capture new dimensions of PTPK. However, most likely it would not make a large difference.

Additionally, the effect of PTPK theory may also interact differently in our study, compared to Kachersky's. There may simply be cultural differences, i.e., unlike American consumers, Swedish consumers may not react differently to pricing tactics depending on PTPK levels. Furthermore, despite the revision (together with Kachersky) and cultural adaptation of PTPK questions to Swedish consumers – the questions may be too outdated and not reflect relevant consumer PTPK. Or perhaps PTPK simply does not encompass anything important anymore. Finally, the daily presence of social media today creates a very different environment from Kachersky's study in 2011, since the average person is exposed to much more marketing material today. Thus, reducing the PTPK differences between consumer segments.

5.4. Conclusions and implications

The purpose of this thesis was two-fold; to investigate Generation Y's responses to different unit pricing tactics, and, to perform a replication. The insignificance of our results imposes limitations on what conclusions and implications can be drawn. Nonetheless, using our hypothesis 1A-C that showcased significance, as well as general results from our study – some conclusions can be drawn.

Companies should execute shrinkflation strategies with great caution. According to our results, being exposed to a shrinkflation strategy had a highly significant negative influence on both retailer and brand attitude. This would confirm previous research that upon the realization of shrinkflation, consumers feel deceived and are often disappointed (Wilkins et al., 2016). This should encourage companies to think twice before they try to increase profit margins through content reduction strategies. Whether these effects are sustained over time is not identifiable from our results. However, marketers should be careful to assume they are short-lived considering that lower brand attitude can link to lower brand loyalty and negative post-purchase behaviors (Wilkins et al., 2016). This is especially relevant to the category of FMCG as they are characterized by high competition and consumers have many substitutes to switch to in the case of a damaged brand attitude due to shrinkflation.

As previously mentioned, shrinkflation is sometimes driven by a response to customer needs and in those cases, consumer responses may be positive. Our experiment did not

explicitly inform the customer *if* and *why* the change occurred. However, as was clear from our open-ended questions, a large majority in the shrinkflation group inferred a profit margin increase motive. Thus, if a company is performing content reduction driven by customer needs – it would be important to explicitly advertise and inform consumers about this. Companies tempted to perform shrinkflation strategies, driven by other motives, should consider that consumers will likely realize this. Therefore, a total price increase strategy may be preferable.

Our results did not indicate that consumer knowledge about pricing tactics affect reactions to price increases or product content reductions. However, the uneven distribution in the experiment groups implies that some consumers still do not notice shrinkflation – all but one of the respondents who did *not* identify a difference between the offerings belonged to the content reduction group. Some consumers may be more inclined to notice a shrinkflation strategy, and thus generally more inclined to have their brand attitude and retailer attitude decreased upon identifying such a strategy. Therefore, companies could profit from performing shrinkflation strategies on individuals that are *not* inclined to notice or understand such a tactic. However, they need to consider that such an approach may include damaging relationships with consumers that *do* notice. This trade-off should be of high interest to marketers, especially when trying to perform a “one tactic fits all” approach. It would also behoove product brands and retailers to identify *which* type of consumer that is more inclined to notice shrinkflation, and whether such consumers have any identifiable traits that can be measured. This would allow managers to gain a better understanding of the market and coordinate with their fellow channel partners to implement the tactic that is most beneficial to both consumers and product brands and retailers.

The insignificance of our results also contributes some value regarding replicational studies. We were not able to replicate Kachersky’s findings, which should encourage skepticism towards his findings and the theoretical foundation and assumptions they are based on. It also heeds a general warning: we need to be careful in assuming findings can apply cross-culturally. Additionally, this also encourages further replications.

Finally, on a similar note, this thesis focused on the Swedish Generation Y. This focus itself makes a small contribution as it enlightens marketers on possible future behaviors and reactions of Swedish consumers. This is because Generation Y’s current consumer behavior likely mirrors future consumer behavior. Thus, it would be reasonable to account for Swedish Generation Y’s sensitivity to shrinkflation when crafting and conducting Swedish-specific pricing tactics.

5.5. Limitations and suggested improvements

The conduction of this study has several limitations, and thus several possible improvements and suggestions for future research. This study investigates what reactions occur when consumers *do* notice price increases and product content reductions – which assumed that evermore consumers notice this tactic. Thus, it is not possible to draw any conclusions about consumers' motivation or ability to detect such tactics, which is possible for future research to explore.

Additionally, this thesis investigated to what extent price increases and product content reductions lead to different consumer reactions. It was identified that negative effects on retailer and brand attitudes occur when consumers notice a shrinkflation. Therefore, it would be interesting to investigate how sustained these negative effects are, i.e., the degree of permanence. Furthermore, it would be useful to examine whether this change in attitude translates into negative post-purchase behavior (e.g., switching brands).

Furthermore, as previously mentioned, this study did not identify that consumer knowledge about pricing tactics affect reactions to price increases and product content reduction. Therefore, it would be valuable to research what other possible types of knowledge may affect consumer reactions to pricing tactics.

This study was focused on one product category (the coffee brand Zoégas), which leaves room for future research to test these hypotheses across different product categories. Similarly, we would also like to encourage research in more than one consumer segment. While our thesis focused on the Swedish Generation Y, it did not make further distinctions. Conducting similar research with consumers in loyalty programs, or in another age group would be interesting. Lastly, some general limitations of this study are found in Appendix 16.

Final words

Both ours and Luke Kachersky's research concluded that when noticed, sneakiness does not serve product brands or retailers well. And even though this strategy may not be illegal, it certainly is sneaky.

6. References

References

- Adams, A., di Benedetto, C. A., & Chandran, R. (1991). Can you reduce your package size without damaging sales? *Long Range Planning*, 24(4), 86-96.
doi:10.1016/0024-6301(91)90009-D
- Åkestam, N., Rosengren, S., Dahmén, M., Liljedal, K. T., & Berg, H. (2021). Gender stereotypes in advertising have negative cross-gender effects. *European Journal of Marketing*, 55(13), 63-93. doi:10.1108/EJM-02-2019-0125
- Armeliuss, H. (2023). Ekonomifakta. Retrieved from
<https://www.ekonomifakta.se/Fakta/Ekonomi/ekonomin-paverkar-oss-men-hur-hanger-allt-ihop/>
- Baker, J., Parasuraman, A., Grewal, D., & Voss, G. B. (2002). The influence of multiple store environment cues on perceived merchandise value and patronage intentions. *Journal of Marketing*, 66(2), 120-141. doi:10.1509/jmkg.66.2.120.18470
- Bell, E., Bryman, A., & Harley, B. (2019). *Business research methods* (Fifth edition ed.). Oxford: Oxford University Press. Retrieved from http://bvbr.bib-bvb.de:8991/F?func=service&doc_library=BVB01&local_base=BVB01&doc_number=030476318&sequence=000002&line_number=0001&func_code=DB_RECORDERDS&service_type=MEDIA

Bolton, L., Warlop, L., & Alba, J. (2003). Consumer perceptions of price (un)fairness.

The Journal of Consumer Research, 29(4), 474-491. doi:10.1086/346244

Brehm, J. W. (1966). A theory of psychological reactance, new york: Academic press.

Çakır, M., & Balagtas, J. V. (2014). Consumer response to package downsizing:

Evidence from the chicago ice cream market. *Journal of Retailing*, 90(1), 1-12.

doi:10.1016/j.jretai.2013.06.002

Campbell, M., & Kirmani, A. (2008). I know what you're doing

and why you're doing it. the use of the persuasion knowledge model in consumer research. *Handbook of Consumer Psychology*, , 549-573. Retrieved from

https://www.researchgate.net/publication/269691369_I_know_what_you're_doing_and_why_you're_doing_it_The_use_of_Persuasion_Knowledge_Model_in_consumer_research

Campbell, & Kirmani. (2000). Consumers' use of persuasion knowledge: The effects of

accessibility and cognitive capacity on perceptions of an influence agent. *Journal of Consumer Research*, 27(1), 69-83. doi:10.1086/314309

Carlgren, M. (2020). Förpackningarna krymper – du betalar mer . Retrieved from

<https://www.radron.se/vardagskunskap/forpackningarna-krymper--du-betalar-mer/>

Chandon, P., & Ordabayeva, N. (2009). Supersize in one dimension, downsize in three dimensions: Effects of spatial dimensionality on size perceptions and preferences.

Journal of Marketing Research, 46(6), 739-753. doi:10.1509/jmkr.46.6.739

- Corporate Finance Institute. (2022). Shrinkflation . Retrieved from <https://corporatefinanceinstitute.com/resources/economics/shrinkflation/>
- Diener, & Biswas-Diener. (2023). The replication crisis in psychology . *Noba Textbook Series: Psychology*, Retrieved from <https://nobaproject.com/modules/the-replication-crisis-in-psychology>
- Dzimalle, P. (2022). Reaching generation Y on social media. Retrieved from <https://lookfamed.de/en/news/generation-y-auf-social-media-erreichen/>
- European Commission. (2016). Pack sizes. Retrieved from https://single-market-economy.ec.europa.eu/single-market/goods/building-blocks/legal-metrology/pack-sizes_en
- Fiedler, K., Schott, M., & Meiser, T. (2011). What mediation analysis can (not) do. *Journal of Experimental Social Psychology*, 47(6), 1231-1236.
doi:10.1016/j.jesp.2011.05.007
- Fletcher, G. J. O., Danilovics, P., Fernandez, G., Peterson, D., & Reeder, G. D. (1986). Attributional complexity. *Journal of Personality and Social Psychology*, 51(4), 875-884. doi:10.1037/0022-3514.51.4.875
- Friestad, M., & Wright, P. (1994). The persuasion knowledge model: How people cope with persuasion attempts. *The Journal of Consumer Research*, 21(1), 1-31.
doi:10.1086/209380

- Hair, J. F., Sarstedt, M., & Ringle, C. M. (2019). Rethinking some of the rethinking of partial least squares. *European Journal of Marketing*, 53(4), 566-584.
doi:10.1108/EJM-10-2018-0665
- Ham, C., Nelson, M. R., & Das, S. (2015). How to measure persuasion knowledge. *International Journal of Advertising*, 34(1), 17-53.
doi:10.1080/02650487.2014.994730
- Hardesty, D. M., Bearden, W. O., & Carlson, J. P. (2007). Persuasion knowledge and consumer reactions to pricing tactics. *Journal of Retailing*, 83(2), 199-210.
doi:10.1016/j.jretai.2006.06.003
- Hoewe, J. (2017). *Manipulation check*. Hoboken, NJ, USA: John Wiley & Sons, Inc.
doi:10.1002/9781118901731.iecrm0135 Retrieved from
<https://onlinelibrary.wiley.com/doi/abs/10.1002/9781118901731.iecrm0135>
- Hofstede Insights. (2022). Country comparison. Retrieved from <https://www.hofstede-insights.com/country-comparison/sweden,the-usa/>
- Hofstede, G. (2011). Dimensionalizing cultures: The hofstede model in context. *Online Readings in Psychology and Culture*, 2(1) doi:10.9707/2307-0919.1014
- Kachersky, L. (2011). Reduce content or raise price? the impact of persuasion knowledge and unit price increase tactics on retailer and product brand attitudes. *Journal of Retailing*, 87(4), 479-488. doi:10.1016/j.jretai.2011.08.001
- Kachersky, L. (2023). *E-mail interview correspondence*

- Kachersky, L., & (Christian) Kim, H. (2011). When consumers cope with price-persuasion knowledge: The role of topic knowledge. *Journal of Marketing Management*, 27(1-2), 28-40. doi:10.1080/02672571003647719
- Konsumentverket. (2023). Prisinformation och jämförpris . Retrieved from <https://www.konsumentverket.se/for-foretag/prissattning-och-ta-betalt/prisinformation-och-jamforpris/>
- Krishna, A. (2006). Interaction of senses: The effect of vision versus touch on the elongation bias. *The Journal of Consumer Research*, 32(4), 557-566. doi:10.1086/500486
- Kumok, Z. (2022). Hidden inflation: What is shrinkflation, skimpflation and greedflation. Retrieved from <https://mint.intuit.com/blog/planning/hidden-inflation-what-is-shrinkflation-skimpflation-and-greedflation/>
- Lennard, D., Mitchell, V., McGoldrick, P., & Betts, E. (2001). Why consumers under-use food quantity indicators. *The International Review of Retail, Distribution and Consumer Research*, 11(2), 177-199. doi:10.1080/09593960122918
- Meeker, I. (2021). Does peter piper pick a package of pepper inattentively? the consumer response to product size changes. *SSRN Electronic Journal*, doi:10.2139/ssrn.3943201
- O'Byrne, M. (2022, Sep 4,). ECB meets to tackle deflation while ignoring shrinkflation. Retrieved from <http://news.goldcore.com/us/gold-blog/ecb-meets-to-tackle-deflation-while-ignoring-shrinkflation>

- Oppenheimer, D. M., Meyvis, T., & Davidenko, N. (2009). Instructional manipulation checks: Detecting satisficing to increase statistical power. *Journal of Experimental Social Psychology*, 45(4), 867-872. doi:10.1016/j.jesp.2009.03.009
- Ordabayeva, N., & Chandon, P. (2013). Predicting and managing consumers' package size impressions. *Journal of Marketing*, 77(5), 123-137. doi:10.1509/jm.12.0228
- Pappas, I. O., Kourouthanassis, P. E., Giannakos, M. N., & Chrissikopoulos, V. (2017). Sense and sensibility in personalized e-commerce: How emotions rebalance the purchase intentions of persuaded customers. *Psychology & Marketing*, 34(10), 972-986. doi:10.1002/mar.21036
- Petty, R. E., & Cacioppo, J. T. (1979). Effects of forwarning of persuasive intent and involvement on cognitive responses and persuasion. *Personality and Social Psychology Bulletin*, 5(2), 173-176. doi:10.1177/014616727900500209
- Preacher, K. J., Rucker, D. D., & Hayes, A. F. (2007). Addressing moderated mediation hypotheses: Theory, methods, and prescriptions. *Multivariate Behavioral Research*, 42(1), 185-227. doi:10.1080/00273170701341316
- Press, A. (2022). 'Shrinkflation': Manufacturers quietly shrinking package sizes. Retrieved from <https://www.dailysabah.com/business/economy/shrinkflation-manufacturers-quietly-shrinking-package-sizes>
- Prisinformationslag (2004:347) , (2004). Retrieved from https://www.riksdagen.se/sv/dokument-lagar/dokument/svensk-forfattningssamling/prisinformationslag-2004347_sfs-2004-347

Richard Wahlund. (2023). *Interview with richard on the 27th of February 2023*

SCB. (2022). Krympflationen ger dig mindre innehåll för pengarna. Retrieved from <https://www.scb.se/hitta-statistik/redaktionellt/krympflationen-ger-dig-mindre-innehall-for-pengarna/>

SCB. (2023). Sveriges befolkning. Retrieved from <https://www.scb.se/hitta-statistik/sverige-i-siffror/manniskorna-i-sverige/sveriges-befolkning/>

Schindler, R. M., Morrin, M., & Bechwati, N. N. (2005). Shipping charges and shipping-charge skepticism: Implications for direct marketers' pricing formats. *Journal of Interactive Marketing*, 19(1), 41-53. doi:10.1002/dir.20030

Scopus. (2023a). Scopus - document details - reduce content or raise price? the impact of persuasion knowledge and unit price increase tactics on retailer and product brand attitudes | signed in. Retrieved from <https://www.scopus.com/record/display.uri?eid=2-s2.0-84857997682&origin=resultslist&sort=plf-f&src=s&sid=9b9fd387160c612fe3241b6f5d52aabd&sot=b&sdt=b&s=TITLE-ABS-KEY%28%22reduce+content+or+raise+price%22%29&sl=44&sessionSearchId=9b9fd387160c612fe3241b6f5d52aabd#metrics>

Scopus. (2023b). Scopus - document details - sense and sensibility in personalized e-commerce: How emotions rebalance the purchase intentions of persuaded customers. Retrieved from <https://www.scopus.com/record/display.uri?eid=2-s2.0-85029231003&origin=resultslist&sort=plf->

[f&src=s&sid=4ca92353f0deb50aaca8aed2ee6a6&sot=b&sdt=b&s=TITLE-ABS-KEY%28%22Sense+and+sensibility+in+personalized+e-commerce%3A+How+emotions+rebalance+the+purchase+intentions+of+persuaded+customers%22%29&sl=136&sessionSearchId=4ca92353f0deb50aaca8aed2ee6a6](https://www.researchgate.net/publication/354923533/Sense+and+sensibility+in+personalized+e-commerce%3A+How+emotions+rebalance+the+purchase+intentions+of+persuaded+customers%22%29&sl=136&sessionSearchId=4ca92353f0deb50aaca8aed2ee6a6)

Scotland, J. (2012). Exploring the philosophical underpinnings of research: Relating ontology and epistemology to the methodology and methods of the scientific, interpretive, and critical research paradigms. *English Language Teaching (Toronto)*, 5(9), 9. doi:10.5539/elt.v5n9p9

Strauss, W., & Howe, N. (1991). Generations: The history of america's future 1584 to 2069. *William Morrow & Company*, , p. 538.

Theil, M. (2022). TikTokers are calling out examples of 'shrinkflation' as the cost of living crisis has consumers paying more for less. Retrieved from <https://www.insider.com/shrinkflation-tiktok-cost-of-living-2022-8>

Wilkins, S., Beckenuyte, C., & Butt, M. M. (2016). Consumers' behavioural intentions after experiencing deception or cognitive dissonance caused by deceptive packaging, package downsizing or slack filling. *European Journal of Marketing*, 50(1/2), 213-235. doi:10.1108/EJM-01-2014-0036

7. Appendices

Appendix 1. Prestudy (focus group).

To make the main study realistic, the aim was to identify a product that participants can relate to, i.e., a product that they buy more or less frequently and that they have noticed has shrunk in content. Kachersky used a bag of classic potato chips from Lays. Instead of replicating this product choice, we wanted to investigate what could be a reasonably representative product in a Swedish context.

Interview guide:

1. Are you aware of the phenomenon shrinkflation i.e., “krympflation”?
 - a. If yes, how did you learn about it?
2. What do you think about shrinkflation as a pricing strategy?
3. Have you noticed any examples of shrinkflation?
 - a. If yes, which products and how did that make you feel?
 - b. How often do you shop this product?

| No. | Participant |
|-----|----------------------------------|
| 1. | Woman, 24 years old. |
| 2. | Man, 23 years old, ICA employee. |
| 3. | Woman, 23 years old. |
| 4. | Man, 26 years old. |
| 5. | Man, 28 years old. |
| 6. | Woman, 27 years old. |
| 7. | Man, 27 years old. |
| 8. | Woman, 22 years old. |
| 9. | Woman, 25 years old. |
| 10. | Woman, 23 years old. |
| 11. | Man, 22 years old. |
| 12. | Woman, 22 years old. |

Appendix 2. Self-completion questionnaire.

Start of introduction

Hej!

Med denna enkät vill vi undersöka uppfattningar om olika prissättningsstrategier hos unga människor i Sverige. Svaren kommer att hjälpa oss i vår kandidatuppsats på Handelshögskolan i Stockholm.

Dina svar är helt anonyma och datan hanterar vi konfidentiellt, om du har några funderingar kring projektet eller enkäten, tveka inte att höra av dig till oss på 25202@student.hhs.se.

Enkäten tar cirka 7 minuter att besvara och för varje svar skänker vi 2 kr till Barncancerfonden. Då vi är noggranna med vårt resultat, ber vi dig att svara på enkäten noga. Vi rekommenderar att du besvarar enkäten från en dator eller surfplatta för bästa användarvänlighet.

Tusen tack för din hjälp!

Vänligen,
Ella Wiss Mencke & Linnea Fällman

Consent to GDPR

Vänligen läs följande information relaterat till dataskyddsförordningen GDPR.

Projekt: BSc thesis in Business & Economics År och termin: 2023, vårterminen

Ansvariga studenter för studien: Linnea Fällman, BSc-student
(25202@student.hhs.se) samt Ella Wiss Mencke, BSc-student (24942@student.hhs.se)

Handledare och avdelning vid SSE: Daniel Tolstoy, Assistant Professor; Institutionen för marknadsföring och strategi. Handledarens e-postadress: Daniel.Tolstoy@hhs.se

Typ av personuppgifter om dig som ska behandlas: initialer, kön, ålder, utbildningsnivå, inkomst och sysselsättning. Information relaterat till GDPR: Som en integrerad del av utbildningsprogrammet vid Handelshögskolan i Stockholm gör inskrivna studenter ett individuellt examensarbete. Detta arbete baseras ibland på undersökningar och intervjuer kopplade till ämnet. Deltagande är naturligtvis helt frivilligt och denna text är avsedd att ge dig nödvändig information om som kan röra ditt deltagande i studien eller intervjun. Du kan när som helst återkalla ditt samtycke och dina uppgifter kommer därefter att raderas permanent.

Sekretess: Allt du säger eller anger i undersökningen eller till intervjuarna kommer att hållas strikt konfidentiellt och kommer endast att göras tillgängligt för handledare, handledare och kursledningsgruppen. Säker lagring av data. All data kommer att lagras och bearbetas säkert av SSE och kommer att raderas permanent när det projekterade är slutfört.

Inga personuppgifter kommer att publiceras. Uppsatsen som skrivs av studenterna kommer inte att innehålla någon information som kan identifiera dig som deltagare i undersökningen eller intervjuämnet.

Dina rättigheter enligt GDPR. Du är välkommen att besöka <https://www.hhs.se/en/about-us/data-protection/> för att läsa mer och få information om dina rättigheter relaterade till personuppgifter.

Tveka inte att kontakta oss via email (25202@student.hhs.se) om du har frågor kring hur vi hanterar datan!

Vänligen ange ditt samtycke nedan.

Jag har tagit del av informationen gällande GDPR och samtycker till att delta i
☐ denna studie. Vänligen fyll i dina initialer samt dagens datum för att komma vidare till undersökningen.

☐ Nej tack, jag ger inte mitt samtycke till att delta i denna studie

Block 1: Brand attitude before

Vad tycker du om kaffemärket Zoégas? Var vänlig svara på de tre nedanstående skalorna.

| | | | | | | |
|-----------------|-----------------|----------------|--------------------------------|----------------|-----------------|-----------------|
| Mycket negativt | Ganska negativt | Något negativt | Varken positivt eller negativt | Något positivt | Ganska positivt | Mycket positivt |
|-----------------|-----------------|----------------|--------------------------------|----------------|-----------------|-----------------|

| | | | | | | |
|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|

| | | | | | | |
|---------------|---------------|--------------|-------------------------|-----------|------------|------------|
| Mycket dåligt | Ganska dåligt | Något dåligt | Varken bra eller dåligt | Något bra | Ganska bra | Mycket bra |
|---------------|---------------|--------------|-------------------------|-----------|------------|------------|

| | | | | | | |
|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|

| | | | | | | |
|----------------|-----------------------|---------------|-----------------------------|--------------|----------------------|---------------|
| Ogillar starkt | Ogillar ganska starkt | Ogillar något | Varken gillar eller ogillar | Gillar något | Gillar ganska starkt | Gillar starkt |
|----------------|-----------------------|---------------|-----------------------------|--------------|----------------------|---------------|

| | | | | | | |
|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|

Block 2: Introduction to the experiment

Tänk dig in i följande situation:

Du besöker den fysiska matbutik som du oftast handlar matvaror i. Just idag ska du köpa bryggkaffe. Du köper ett paket bryggkaffe från märket Zoégas och noterar erbjudandet noggrant (se nedan).

OBS! Notera erbjudandet noggrant!

Du kommer inte kunna gå tillbaka i enkäten.



Block 3: Experiment (total price increase group)

Nu är du tillbaka i samma matbutik två veckor senare och ska köpa samma paket bryggkaffe. Föreställ dig att du nu ser följande erbjudande.

OBS! Notera erbjudandet noggrant!



Block 3: Experiment (content reduction group)

Nu är du tillbaka i samma matbutik två veckor senare och ska köpa samma paket bryggkaffe. Föreställ dig att du nu ser följande priserbjudande.

OBS! Notera erbjudandet noggrant!



Block 4: Change detected

Uppmärksammade du en förändring mellan de två erbjudandena?

☐ Ja, jag märkte en eller flera förändringar mellan de två erbjudandena

☐ Nej, jag märkte ingen förändring

Block 5: Inferred motives

Om du märkte några förändringar i erbjudandet, var vänlig beskriv dem i textrutan nedan.

Om du märkte några förändringar i erbjudandet, varför tror du att dem gjordes? Var vänlig svara i textrutan nedan.

Om du märkte några förändringar i erbjudandet, beskriv hur förändringarna får dig att känna i textrutan nedan.

Block 6: Perception of persuasive intent (total price increase group)

Var vänlig svara hur väl påståendet nedan stämmer in på dig.

“Priset på kaffet ökade medan paketstorleken var oförändrad för att mitt köpbeslut inte skulle ändras.”

| | | | | | | |
|-------------------------|---------------------------------|----------------------------|-----------------------|-----------------------|-------------------------|-----------------------|
| Stämmer absolut inte | Stämmer i stort sett inte | Stämmer troligtvis inte | Neutral | Stämmer troligen | Stämmer i stort sett | Stämmer absolut |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

Block 6: Perception of persuasive intent (content reduction group)

Var vänlig svara hur väl påståendet nedan stämmer in på dig.

“Paketstorleken minskade medan priset på varan var oförändrat för att mitt köpbeslut inte skulle ändras.”

| | | | | | | |
|-------------------------|---------------------------------|----------------------------|-----------------------|-----------------------|-------------------------|-----------------------|
| Stämmer absolut inte | Stämmer i stort sett inte | Stämmer troligtvis inte | Neutral | Stämmer troligen | Stämmer i stort sett | Stämmer absolut |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

Block 7: Attitudes

Nu vill vi gärna veta vad du tycker om kaffemärket Zoégas igen och matbutiken där du handlade bryggkaffet.

Vänligen ange vad du tycker om matbutiken som du köpte bryggkaffet i genom att klicka i lämpligt svarsalternativ på de tre skalorna nedan:

| | | | | | | |
|-----------------------|-----------------------|-----------------------|--------------------------------------|-----------------------|-----------------------|-----------------------|
| Mycket negativt | Ganska negativt | Något negativt | Varken positivt eller negativt | Något positivt | Ganska positivt | Mycket positivt |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

| | | | | | | |
|-----------------------|-----------------------|-----------------------|----------------------------|-----------------------|-----------------------|-----------------------|
| Mycket dåligt | Ganska dåligt | Något dåligt | Varken bra eller dåligt | Något bra | Ganska bra | Mycket bra |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

| | | | | | | |
|-----------------------|-----------------------|-----------------------|-----------------------------|-----------------------|-----------------------|-----------------------|
| Ogillar starkt | Ogillar ganska starkt | Ogillar något | Varken gillar eller ogillar | Gillar något | Gillar ganska starkt | Gillar starkt |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

Ange vad du nu tycker om Zoégas genom att klicka i lämpligt svarsalternativ på de tre skalorna nedan:

| | | | | | | |
|-----------------------|-----------------------|-----------------------|--------------------------------|-----------------------|-----------------------|-----------------------|
| Mycket negativt | Ganska negativt | Något negativt | Varken positivt eller negativt | Något positivt | Ganska positivt | Mycket positivt |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

| | | | | | | |
|-----------------------|-----------------------|-----------------------|-------------------------|-----------------------|-----------------------|-----------------------|
| Mycket dåligt | Ganska dåligt | Något dåligt | Varken bra eller dåligt | Något bra | Ganska bra | Mycket bra |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

| | | | | | | |
|-----------------------|-----------------------|-----------------------|-----------------------------|-----------------------|-----------------------|-----------------------|
| Ogillar starkt | Ogillar ganska starkt | Ogillar något | Varken gillar eller ogillar | Gillar något | Gillar ganska starkt | Gillar starkt |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

Block 8: Testing PTPK

Du kommer nu att få svara på 12 frågor gällande olika prissättningsstrategier som marknadsförare kan använda. Var vänlig och svara på frågorna utan att använda andra hjälpmedel. Kom ihåg att dina svar är anonyma, det finns ingen prestige i att svara rätt – alla resultat är värdefulla för oss!

Vänligen läs det **fetmarkerade exemplet** och förklaringen på prissättningsstrategin som ligger under exemplet. Markera "SANT" om förklaringen av prissättningsstrategin instämmer på exemplet.

| | SANT | FALSKT | VET EJ |
|--|-----------------------|-----------------------|-----------------------|
| <p>600 SEK för skrivare och 500 SEK för en förpackning med fyra utbytbara bläckpatroner.</p> <p><i>Fångstprissättning (captive pricing)</i> används av marknadsförare för att dra nytta av det faktum att konsumenter på långsikt behöver köpa de högprissatta ersättningskomponenterna om de vill fortsätta använda produkten.</p> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| <p>Alltid låga priser på IKEA.</p> <p><i>Vardagslåga priser (everyday-low-pricing)</i> används av marknadsförare så att de uppfattas som att ha riktigt låga priser på vissa varor och högre priser på andra.</p> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| <p>1000 SEK för ett vinmärke (Varumärke A). Samma vin säljs för närvarande för 200 SEK per flaska under namnet 'Varumärke B'.</p> <p><i>Premium-prissättning (premium pricing)</i> används av marknadsförare för att ha en högre prissatt version av en produkt tillgänglig för konsumenter som betraktar högprissatta varor som av högre kvalitet, och en lägre prissatt version av samma produkt tillgänglig för konsumenter som starkt efterfrågar lägre priser.</p> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| <p>Designa din egen sko på vår hemsida.</p> <p><i>Anpassningsprissättning (customized pricing)</i> används av marknadsförare för att anpassa priset till olika faktorer såsom säsong, efterfrågan och konkurrenters priser.</p> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

En kartong med ett dussin Klass 1-ägg för 15 SEK

Lockpris (loss leader pricing) används av marknadsförare där vissa varor i en butik säljs till extra låga priser (ofta under en kampanjvecka) för att in i butiken locka kunder, som förhoppningsvis även passar på att köpa andra varor med ordinarie priser och vinstmarginaler.

☐☐☐

SANT

FALSKT

VET EJ

**En ny 19-tums färg-tv (med fjärrkontroll):
Listpris: 3000 SEK, försäljningspris: 2000 SEK.**

Listpris (manufacturer's suggested retail price [MSRP]) används av marknadsförare i syfte att få konsumenter att uppfatta att försäljningspriset ser attraktivt ut.

☐☐☐

SANT

FALSKT

VET EJ

Nu ska du få läsa meningen nedan och svara på frågan.

Det är viktigt att du är uppmärksam i denna studie. Vänligen kryssa för "FALSKT".

☐☐☐

SANT

FALSKT

VET EJ

Köp en matgrupp idag och betala räntefritt på faktura i tolv månader.

Räntefria priser (no interest pricing) används av marknadsförare för att övertyga konsumenter om att priset har sänkts.

☐☐☐

300 SEK för en långärmad skjorta med knappar, plus 50 SEK för frakt och hantering.

Uppdelade priser (partitioned pricing) används av marknadsförare för att övertyga konsumenter om att marknadsföraren erbjuder en attraktiv frakt- och hanteringsavgift.

☐☐☐

SANT

FALSKT

VET EJ

Ett fyra-pack av ett nytt varumärke av batterier – 20 SEK.

Penetreringsprissättning (penetration pricing) används av marknadsförare så att, genom att sätta priserna lågt, kommer konsumenterna att uppmuntras att prova produkten.

☐☐☐

SANT

FALSKT

VET EJ

Ett par nya löparskor – 1900 SEK.

Prissignalering (price signalling) används av marknadsförare eftersom konsumenter kan göra kvalitetsbedömningar för produkter eller tjänster baserat på pris (dvs högt pris = hög kvalitet, lågt pris = låg kvalitet).

☐☐☐

SANT

FALSKT

VET EJ

Helt ny produkt – iPhone 15 Pro: 20 000 SEK.

Prisskumning (price skimming) används av marknadsförare för att locka till sig konsumenter som är villiga att betala ett högt pris för en ny produkt.

☐☐☐

SANT

FALSKT

VET EJ

Produkter A, B och C: Upp till 50 procent rabatt.

Upp-till-X-procent rabatt (tensile price claims) används av marknadsförare för att dra fördel av konsumenter som oavsiktligt kan uppfatta att de flesta eller alla produkter är rabatterade med det angivna beloppet (dvs 50 procent rabatt).

☐☐☐

Block 9: Buying habits

Du kommer nu att få svara på några frågor gällande dina köpvanor.

Vilken fysisk matbutik handlar du vanligtvis i? Du kan klicka i flera alternativ.

☐ Ica

☐ Lidl

☐ Hemköp

☐ Coop

☐ Willys

☐ Citygross

☐ Netto

☐ Handlar inte i fysiska butiker

☐ Annat

Hur ofta besöker du någon av dem matbutikerna?

Välj det alternativ som passar bäst in på dig.

| Aldrig | Några gånger per år | Några gånger i månaden | En gång per vecka | Flera gånger per vecka | Dagligen | Flera gånger per dag |
|-----------------------|-----------------------|------------------------|-----------------------|------------------------|-----------------------|-----------------------|
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

Snyggt jobbat! Du är nu i slutet på enkäten. Innan du fortsätter, vill vi att du klickar i siffran nummer 18, för att säkerställa att du läser instruktionerna noga.

☐ 8

☐ 20

☐ 18

☐ 16

Block 10: Demographics

Nu kommer du få svara på några frågor om dig. Vänligen klicka i det svarsalternativ som stämmer överens med dig bäst.

Hur gammal är du? (Skriv enbart i siffror)

Hur skulle du beskriva dig själv?

Kvinna

Man

Icke-binär

Vill inte ange

☐☐☐☐

Vilken är din högst avslutade utbildning?

Grundskoleutbildning

Gymnasieutbildning

Högskola/universitet

Har inte avslutat
någon utbildning

☐☐☐☐

Vilken är din nuvarande sysselsättning? Du kan ange flera alternativ.

Heltidsanställd

Deltidsanställd

Arbetssökande

Arbetslös

Student

Pensionär

☐☐☐☐☐☐

Vad är din månadsinkomst före skatt inklusive bidrag och pension?

Mindre än 10
000

10 000 - 19 999

20 000 - 29
999

30 000 - 39
999

40 000 - 49
999

Mer än 50 000

☐☐☐☐☐☐

Block 11: Survey evaluation

Avslutningsvis vill vi gärna veta vad du tycker om enkäten. Var vänlig ange ditt svar nedan.

| | Instämmer inte alls | Instämmer troligtvis inte | Tveksam | Instämmer troligtvis | Instämmer helt |
|---|------------------------|------------------------------|-----------------------|-------------------------|-----------------------|
| Frågorna var välformulerade | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Svarsalternativen var lätta att förstå | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Undersökningen kändes meningsfull | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Frågorna försökte inte påverka mitt svar i en viss riktning | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

Block 12: Manipulation check

Vilket av följande påståenden stämmer överens med den förändring som skedde avseende kaffeerbjudandet?

☐ Priset på kaffet höjdes

☐ Priset på kaffet var detsamma men förpackningen minskade

☐ Det skedde ingen förändring i kaffets priserbjudande

End of survey



STORT tack för din medverkan till vår undersökning, du har nu inte bara hjälpt oss med vårt examensarbete utan även bidragit till Barncancerfonden. Ha en fortsatt fin dag!

We thank you for your time spent taking this survey.
Your response has been recorded.

Appendix 3. Translation and adjustment of PTPK questions.

| Original PTPK-questions | PTPK-questions used in our questionnaire (Swedish) |
|--|---|
| <p>1. \$3.00 for a non-disposable, easy grip razor, and \$10.00 for a package of eight replacement razor blades. <i>Captive pricing</i> is used by marketers in order to take advantage of the fact that, eventually, consumers will need to purchase the high-priced replacement components if they want to continue using the product.</p> | <p>1. 600 SEK för skrivare och 500 SEK för en förpackning med fyra utbytbara bläckpatroner. <i>Fångstprissättning (captive pricing)</i> används av marknadsförare för att dra nytta av det faktum att konsumenter på långsikt behöver köpa de högprissatta ersättningskomponenterna om de vill fortsätta använda produkten.</p> |
| <p>2. \$0.79 for a hamburger on the value menu at a fast-food restaurant chain. <i>Customer value pricing</i> is used by marketers to attract consumers who seek low prices to the marketer's store.</p> | <p>Inte inkluderad.</p> |
| <p>3. Always low prices at store XYZ. <i>Everyday-low-pricing</i> is used by marketers so that they will be perceived as having really low prices on some items and higher prices on others.</p> | <p>2. Alltid låga priser på IKEA. <i>Vardagslåga priser (everyday-low-pricing)</i> används av marknadsförare så att de uppfattas som att ha riktigt låga priser på vissa varor och högre priser på andra.</p> |
| <p>4. \$100.00 for a brand of wine ('Brand X'). The same wine is currently sold for \$20.00 a bottle under the name 'Brand Z'. <i>Image pricing</i> is used by marketers in order to have a higher priced version of a product available for consumers who view higher-priced goods as having higher quality, and a lower-priced version of the same product available for consumers who strongly desire lower prices.</p> | <p>3. 1000 SEK för ett vinmärke (Varumärke A). Samma vin säljs för närvarande för 200 SEK per flaska under namnet 'Varumärke B'. <i>Premium-prissättning (premium pricing)</i> används av marknadsförare för att ha en högre prissatt version av en produkt tillgänglig för konsumenter som betraktar högprissatta varor som av högre kvalitet, och en lägre prissatt version av samma produkt tillgänglig för konsumenter som starkt efterfrågar lägre priser.</p> |
| <p>5. 2009 automobile—\$500.00 over invoice. <i>Invoice external reference prices</i> are used by marketers to persuade consumers to seek out complete price information for a product.</p> | <p>Inte inkluderad. Istället användes: 4. Designa din egen sko på vår hemsida. <i>Anpassningsprissättning (customized pricing)</i> används av marknadsförare för att anpassa priset till olika faktorer såsom säsong, efterfrågan och konkurrenters priser.</p> |
| <p>6. Box of a dozen 'Grade A' eggs for \$0.80. <i>Loss leader pricing</i> is used by marketers to get consumers to not only purchase the low-priced item but also other regularly priced items within the store.</p> | <p>5. En kartong med ett dussin Klass 1-ägg för 15 SEK <i>Lockpris (loss leader pricing)</i> används av marknadsförare där vissa varor i en butik säljs till extra låga priser (ofta under en kampanjvecka) för att in i butiken locka kunder, som förhoppningsvis även passar på att köpa andra varor med ordinarie priser och vinstmarginaler.</p> |
| <p>7. A new 19 in. color television (with remote control): MSRP \$300, Sale Price \$200. <i>MSRP's</i> are used by marketers in efforts to cause consumers to perceive that the sale price looks attractive.</p> | <p>6. En ny 19-tums färg-TV (med fjärrkontroll): Listpris: 3000 SEK, försäljningspris: 2000 SEK. <i>Listpris (manufacturer's suggested retail price [MSRP])</i> används av marknadsförare i syfte att få konsumenter att uppfatta att försäljningspriset ser attraktivt ut.</p> |
| <p>8. All automobiles for sale at the lowest price possible—no haggling! <i>No haggle pricing</i> is used by marketers in order to convince buyers that negotiations will be fair.</p> | <p>Inte inkluderad.</p> |
| <p>9. Buy a dining room set today and pay no interest for twelve months. <i>No interest pricing</i> offers are used by marketers to persuade consumers that the price has been reduced.</p> | <p>7. Köp en matgrupp idag och betala räntefritt på faktura i tolv månader. <i>Räntefria priser (no interest pricing)</i> används av</p> |

| | |
|--|---|
| <p>10. 30.00 for a button-up, 100 percent long-sleeve shirt, plus \$5.00 shipping and handling. <i>Partitioned pricing</i> is used by marketers to persuade consumers that the marketer is offering an attractive shipping and handling rate.</p> | <p>8. 300 SEK för en långärmad skjorta med knappar, plus 50 SEK för frakt och hantering. <i>Uppdelade priser (partitioned pricing)</i> används av marknadsförare för att övertyga konsumenter om att marknadsföraren erbjuder en attraktiv frakt- och hanteringsavgift.</p> |
| <p>11. A four-pack of a new brand of batteries - \$2.00. <i>Penetration pricing</i> is used by marketers so that, by setting prices low, consumers will be encouraged to try the product.</p> | <p>9. Ett fyra-pack av ett nytt varumärke av batterier - 20 SEK. <i>Penetreringsprissättning (penetration pricing)</i> – används av marknadsförare så att, genom att sätta priserna lågt, kommer konsumenterna att uppmuntras att prova produkten.</p> |
| <p>12. Just \$1.00 per issue for a 1-year subscription to sports magazine XYZ. <i>Pennies-a-day or XXX-per-day pricing</i> is used by marketers to provide price information in the most understandable format to consumers.</p> | <p>Inte inkluderad.</p> |
| <p>13. A Computer having a 2 GHz processor and 1 GB RAM and laser printer for \$700. <i>Price bundling</i> is used by marketers in order to increase revenue over what would have been obtained had the products been priced separately.</p> | <p>Inte inkluderad.</p> |
| <p>14. A new pair of running shoes—\$140.00. <i>Price signaling</i> is used by marketers since consumers may make quality judgments for products or services based on price (i.e., high price = high quality, low price = low quality).</p> | <p>10. Ett par nya löparskor - 1900 SEK. <i>Prissignalering (price signalling)</i> används av marknadsförare eftersom konsumenter kan göra kvalitetsbedömningar för produkter eller tjänster baserat på pris (dvs högt pris = hög kvalitet, lågt pris = låg kvalitet).</p> |
| <p>15. Brand new product—videophone: \$500.00. <i>Price skimming</i> is used by marketers to appeal to consumers who are willing to pay a high price for a new product.</p> | <p>11. Helt ny produkt - iPhone 15 Pro: 20 000 SEK. <i>Prisskumning (price skimming)</i> används av marknadsförare för att locka till sig konsumenter som är villiga att betala ett högt pris för en ny produkt.</p> |
| <p>16. A brand of orange juice's 1/2 gallon price over a 4-week time period was as follows: Week 1 \$2.50, Week 2 \$2.50, Week 3 \$1.50, Week 4 \$2.50. <i>Random discounting</i> is used to obtain sales from both consumers who carefully search for low prices and consumers who do not check prices carefully.</p> | <p>Inte inkluderad.</p> |
| <p>17. Products X, Y, and Z: Up to 50 percent off. <i>Tensile price claims</i> are used by marketers in order to take advantage of consumers who may inadvertently perceive most or all products to be discounted by the stated amount (i.e., 50 percent off).</p> | <p>12. Produkter A, B och C: Upp till 50 procent rabatt. <i>Upp-till-X-procent rabatt (tensile price claims)</i> används av marknadsförare för att dra fördel av konsumenter som oavsiktligt kan uppfatta att de flesta eller alla produkter är rabatterade med det angivna beloppet (dvs 50 procent rabatt).</p> |

Comments: The number of questions were shortened down from 17 to 12. Products, brands and prices were changed to fit the Swedish setting and the current economy. The decision to exclude certain questions was based on the perception that some pricing tactics are obsolete today or otherwise unfit for Swedish respondents. This analysis was partly made with Luke Kachersky, author of the study we are replicating. The decision to keep the name of the pricing tactic in English was due to the fact that some respondents might be unfamiliar with the definition in Swedish, due to for example studying in English.

Appendix 4. Stimuli in the experiment: shelf tag.

Comparison of the experiment's stimuli and an example of ICA's price tag. We wanted to keep the experiment as similar to real-life situations as possible. As shown below we made sure that the prices were accurate, i.e. both experiment groups experienced the same unit price increase.

Tags designed for this thesis



Example of a shelf tag at ICA



Mathematics behind the unit price increase

No matter if the respondent received the total price increase scenario or the content reduction scenario they were exposed to the unit price increase from 119.80 kr/kg to 133.11 kr/kg.

Original scenario

$$119.80 * 0.5 = 59.90 \text{ kr/förp}$$

Total Price Increase

$$133.11 * 0.5 \approx 66.60 \text{ kr/förp}$$

Content Reduction

$$133.11 * 0.45 \approx 59.90 \text{ kr/förp}$$

Appendix 5. Collecting answers at universities.

To maximize the number of answers we could retrieve on campus, we rewarded respondents with a Coca-Cola Zero or a chocolate bar. This was not only to incentivize participation but also to display our gratitude for completing the survey. We produced an aesthetically pleasing poster with easy access to the QR code that we used to help

students gain access to the link. Pictured below are the rewards and the poster we used.



Appendix 6. Survey evaluation.

| Statement | Strongly disagree | Disagree | Undecided | Agree | Strongly agree |
|--|-------------------|----------|-----------|-------|----------------|
| The questions were clearly formulated | 2% | 5% | 11% | 47% | 35% |
| The answer options were clearly formulated | 1% | 7% | 15% | 45% | 32% |
| The survey was meaningful | 1% | 4% | 15% | 45% | 35% |
| The question didn't try to steer me in any direction | 5% | 6% | 14% | 31% | 44% |

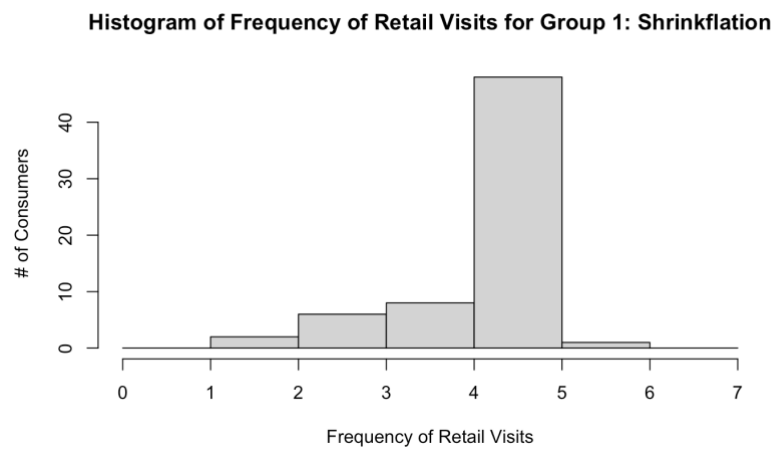
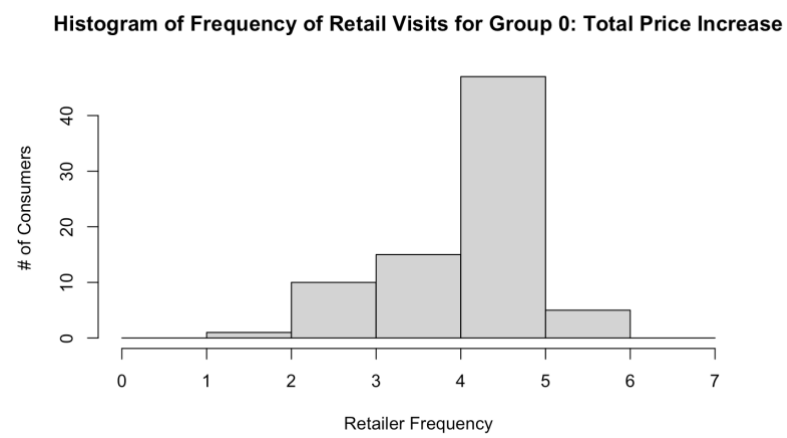
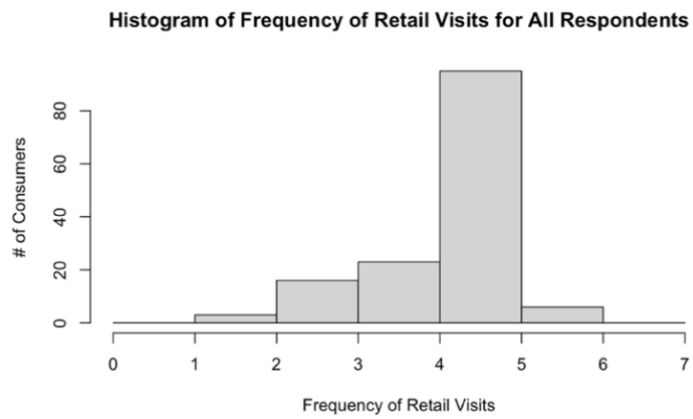
Note: N = 143

Appendix 7. Overview of demographic variables.

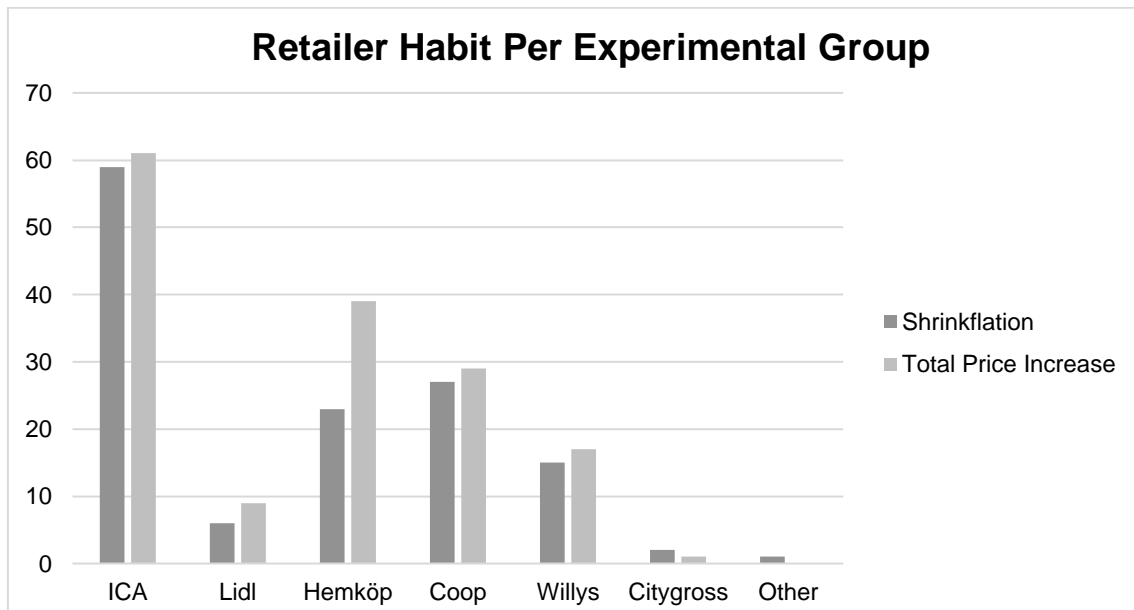
| Variable | Total price increase | | Content reduction | | Total | |
|--------------------------|----------------------|-----|-------------------|-----|-------|-----|
| | n | % | n | % | n | % |
| Gender | | | | | | |
| Male | 38 | 49% | 29 | 44% | 67 | 47% |
| Female | 40 | 51% | 36 | 56% | 76 | 53% |
| Other | 0 | 0% | 0 | 0% | 0 | 0% |
| Age | | | | | | |
| 18-24 | 65 | 83% | 51 | 78% | 116 | 81% |
| 25-29 | 5 | 6% | 7 | 11% | 12 | 8% |
| 30-34 | 6 | 8% | 2 | 3% | 8 | 6% |
| 35-38 | 0 | 0% | 0 | 0% | 0 | 0% |
| Above 38 | 2 | 3% | 5 | 8% | 7 | 5% |
| Income (kr = SEK) | | | | | | |
| Less than 10 000 kr | 7 | 9% | 13 | 20% | 20 | 14% |
| 10 000 – 19 999 kr | 51 | 65% | 36 | 55% | 87 | 61% |
| 20 000 – 29 999 kr | 6 | 8% | 4 | 6% | 10 | 7% |
| 30 000 – 39 999 kr | 4 | 5% | 5 | 8% | 9 | 6% |
| 40 000 – 49 999 kr | 1 | 1% | 2 | 3% | 3 | 2% |
| More than 50 000 kr | 9 | 12% | 5 | 8% | 14 | 10% |
| Education | | | | | | |
| Primary school | 1 | 1% | 0 | 0% | 1 | 0% |
| High school | 52 | 67% | 45 | 70% | 97 | 68% |
| College | 25 | 32% | 20 | 31% | 45 | 32% |
| No education | 0 | 0% | 0 | 0% | 0 | 0% |
| Occupation* | | | | | | |
| Full time employed | 13 | 13% | 11 | 14% | 24 | 14% |
| Part time employed | 15 | 15% | 10 | 13% | 25 | 14% |
| Jobseeker | 1 | 1% | 3 | 4% | 4 | 2% |
| Unemployed | 3 | 3% | 1 | 1% | 4 | 2% |
| Student | 65 | 66% | 54 | 68% | 119 | 67% |
| Retired | 1 | 1% | 0 | 0% | 1 | 0% |

Note: * = multiple answers possible

Appendix 8. Respondents' retailer habits (frequency).



Appendix 9. Respondents' retailer habits and preferences (number of consumers per retailer).



Appendix 10. Overview of answers categorization to the open-ended question “why do you think the changes [price increase] was made?”.

| Categorization | Example responses | Total price increase | Content reduction | Total |
|------------------------------|--|----------------------|-------------------|-------|
| Increase profit margin | “To increase the profit margin” “To earn more money” | 19% | 65% | 40% |
| Passing on cost inflation | “To compensate for increased costs” “Because the upstream supply chain has increased costs” | 26% | 8% | 17% |
| General state of the economy | “Due to the inflation” “The market has changed, everything is more expensive now” | 46% | 17% | 33% |
| I don’t know | “I don’t know” | 3% | 2% | 2% |
| Other | “A strategical decision” “To confuse the customer” | 6% | 8% | 8% |

Appendix 11. Linear regression analysis between persuasive intent (dependent variable) and unit price change tactic (independent variable).

| | B | Standard error | Significance |
|--------------------------|------|----------------|--------------|
| Intercept | 4.27 | 0.20 | < 0.001*** |
| Unit price change tactic | 1.16 | 0.29 | < 0.001*** |

Note: ‘***’ Significant at $p < 0.001$, Adjusted R-squared: 0.09604, F-statistic: 16.09 on 1 and 141 DF

Appendix 12. One-sample t-test with test value (=4).

| Variable | <u>Total Price Increase</u> n = 78 | | | <u>Content Reduction</u> n = 65 | | |
|------------------------------------|---------------------------------------|-----------|------------------------|------------------------------------|-----------|------------------------|
| | <i>t</i> | <i>df</i> | <i>Mean difference</i> | <i>t</i> | <i>df</i> | <i>Mean difference</i> |
| Brand attitude ^a | 4.25 | 77 | 0.67*** | -1.09 | 64 | -0.19 |
| Retailer attitude ^a | 1.79 | 77 | 0.27 | -2.63 | 64 | -0.42** |
| Brand attitude before ^a | 8.43 | 77 | 1.14*** | 7.70 | 64 | 1.05*** |
| Persuasive intent ^b | 1.40 | 77 | 0.27 | 6.59 | 64 | 1.43*** |

Note: '****' Significant at $p < 0.001$, '***' Significant at $p < 0.01$, '**' Significant at $p < 0.05$,

^a 1 being very low attitude, 7 very high attitude

^b 1 being do not agree at all, 7 being completely agreeing

Appendix 13. Results of t-test between subject groups of 'total price increase' and 'content reduction'.

| Respondent group | Total price increase n = 78 | | Content reduction n = 65 | | df | p | t |
|---------------------------|--------------------------------|-----------|-----------------------------|-----------|-----|---------|-------|
| Variable | <i>M</i> | <i>SD</i> | <i>M</i> | <i>SD</i> | | | |
| Brand attitude difference | 0.47 | 0.80 | 1.24 | 1.11 | 141 | 0.00*** | -4.84 |

Note: '****' Significant at $p < 0.001$, '***' Significant at $p < 0.01$, '**' Significant at $p < 0.05$,

^a Brand attitude before the experiment minus brand attitude after the experiment

One sample t-test ensured that both participant groups deviated from the predetermined test-value (=0) at a significant level of at least $p < 0.01$ (see Appendix below)

Appendix 14. One-sample t-test with test value (=0) on brand attitude difference.

| Variable | <u>Total Price Increase</u> n = 78 | | | <u>Content Reduction</u> n = 65 | | |
|--|---------------------------------------|-----------|------------------------|------------------------------------|-----------|------------------------|
| | <i>t</i> | <i>df</i> | <i>Mean difference</i> | <i>t</i> | <i>df</i> | <i>Mean difference</i> |
| Brand attitude difference ^a | 5.15 | 77 | 0.47*** | 8.99 | 64 | 1.24*** |

Note: '****' Significant at $p < 0.001$, '***' Significant at $p < 0.01$, '**' Significant at $p < 0.05$,

^a Brand attitude before the experiment minus brand attitude after the experiment

Appendix 15. Percentage change in brand attitude difference.

| Variable | <u>Total Price Increase</u> n = 78 | | | <u>Content Reduction</u> n = 65 | | |
|--|---------------------------------------|-----------------------|------------------------|------------------------------------|-----------------------|------------------------|
| | <i>Positive change</i> | <i>Neutral change</i> | <i>Negative change</i> | <i>Positive change</i> | <i>Neutral change</i> | <i>Negative change</i> |
| Brand attitude difference ^a | 48.72% | 6.41% | 44.87% | 21.54% | 0% | 78.46% |

^a Brand attitude before the experiment minus brand attitude after the experiment

Note: Positive change means brand attitude after the experiment was more positive than before the experiment

Appendix 16. General limitations of this study.

It should be noted that caution is warranted in making broad generalizations based on the findings of this study, given the small sample size ($n=65$ and $n=78$). Furthermore, the data was collected through a convenience sample, which was used due to time constraints and the ease of availability, and therefore may not be fully representative of the entire Swedish population (Bell et al., 2019).

On a last note, there were some general limitations that we would like to shine light on. First, as an attempt to enrich Kachersky's study and be able to investigate brand attitude difference, the variable 'brand attitude before' was added. However, while this improved the study, it would have been even more enriching to test 'retailer attitude before' as well. Second, although emphasis for thesis was to compare the different experiment groups, it would have been wise to include a control group that was not exposed to any stimuli – to establish causality through isolating the effect of the independent variables. Finally, as mentioned in our results, some of our measures were not significantly different from the value 4, which indicates neutrality (see Chapter 4.2.2.). This encourages caution when drawing conclusions from the study.