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Private Label Brands

The effect of brand name strategy on perceived quality

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Abstract

The objective of this study has been to examine if brand name strategy influences the perceived quality of private label grocery brands. The brand name strategy details how the private label brand name is connected to the retailer brand, and the purpose is to understand if the choice of phantom, chain or chain endorsed brand names for private label brands has an effect on quality evaluations. The study has also examined if retailer image, private label brand proneness and private label brand knowledge influences this relationship.

This study has examined private label brands in the Norwegian grocery market. Private label brands have evolved from no-frill generics to brands in their own right, with retailers now offering private labels that equal or surpass national brands in terms of quality and value. Previous research on private labels and quality has not examined the effect of a specific brand name, and this study therefore contributes to the research literature. The analysis is based on data collected by an online questionnaire, with a sample of 333 students at the Norwegian School of Economics.

The overall findings of this study indicate that there is a relationship between the brand name strategy and the perceived quality of the private label brand product. The findings show that phantom private label brands receive the highest quality evaluations. This suggests that a close connection between private label brand and the retailer brand does not benefit Norwegian private label brand retailers. Retailer image and private label brand knowledge did not result in significant differences in perceived quality.

Keywords: Private label brands, perceived quality, brand architecture,

Foreword

This thesis is written as part of my Master of Economics and Business Administration, with a major in Strategy and Management, at the Norwegian School of Economics (NHH). The thesis counts for 30 ECTS.

When beginning this thesis, I was determined to investigate something that could provide new insights to the private label research field. This required reading research that spanned several decades and employed at least six different names for private label brands. Consequently, I can say that I now have a thorough understanding of the topic, and a habit of comparing brand names at the grocery store. Different challenges have arisen along the way, but I believe I have learnt a great deal from writing this thesis.

I would like to thank my thesis advisor, Leif Hem who first got me interested in brand management and also gave me the inspiration for this thesis. I would also like to thank the man who became my husband in the middle of this thesis, thank you for all your help with proofreading, analyzing the data and for trying to share my enthusiasm for private label brands.

Now that this thesis, and my education is finally completed I am looking forward to starting my career in New York City, and I hope that I sometime in the future will be able to work with private label brands again!

Mia Marie Stene Dragåsøien

Asker, 15.12.2016

Abbreviations and definitions

PLB – Private Label Brand. A brand owned by a retailer and exclusive to the retailer or retail chain. Also referred to as private label.

NB – National Brand. A brand owned by a manufacturer and usually sold by several retailers.

BRS – Brand Relationship Spectrum. The framework developed by Aaker and Joakimstahler, used to understand and manage the brand portfolio. In this thesis, it provides the framework for explaining the different brand name strategies.

Phantom (private label brand) – A private label brand that has no connection to the retailer brand name.

Chain endorser (private label brand) – A private label brand that carries both an indvidual brand name and the retailer brand name. Also referred to as endorsed strategy or endorsed.

Chain (private label brand) – A private label brand that only carries the retailer brand name and where the product is identified with a descriptor, such as “fishcakes” or “pesto”.

Table of Contents

Overview Tables

1. Introduction

This chapter will present the theme and research question for this thesis. First, an introduction to the private label research field is provided, including findings from previous research and recommendations for future research. Trends in private label retailing are also discussed. Finally, the purpose and research question will be presented, followed by an overview of the structure of this thesis.

1.1 Private label brand history

Private label brands are often referred to as store brands and retail brands (Batra & Sinha, 2000), and can be defined as brands owned by a retailer or wholesaler (Hyman, Kopf & Lee, 2010) and are brands created, supervised and sold by a store. PLBs are also characterized by being exclusive to one particular banner/umbrella chain, thus differentiating them from national brands (Nielsen, 2014). Private label brand grocery products started out as simple generic alternatives to national brands and they represented a value alternative for price conscious consumers. The start for private label brands in the Norwegian grocery market was in the 1980's. What is now Coop Norge, launched a series of generic products with a simple blue and white packaging which were 15-35 percent cheaper than national brands in the same category. (Utgård, 2010). In the middle of 1990's the other Norwegian retailers followed suit, introducing products in categories such as canned goods, detergents, soda, and pizza. The big change in Norwegian PLBs came with the establishment of the retailer Lidl in Norway. In order to compete with Lidl's low prices, the Norwegian retailers responded by increasing their PLB offerings in low priced segments (Utgård, 2010). In 2014, PLBs accounted for 15.8 % of total Norwegian grocery unit sales, an increase from 8% in 2000 (Nielsen, 2014; Hem & Grønnhaug, 2001). Today, frozen food, fresh food and pet food and care are the top three categories by value share. (Nielsen, 2014)

1.2 Private label brand research

One of the primary focal points of private label research has been to identify and describe the private label brand consumer (Burt & Davies, 2010). Frank and Boyd (1965) find evidence

that private label brand consumers are better educated, older and have lower incomes than national brand buyers. Contrary to this, Murphy (1978) finds that PLB consumers have higher incomes. (both referenced in Richardson, Jain & Dick, 1996). Others, such as Myers (1966) find that PLB consumers are more enthusiastic, sensitive and submissive than NB consumers (referenced in Richardson, Jain & Dick, 1996). However, as noted by Burt and Davies (2010) and as evident by the lack of consistency in research findings, there has been little success in determining a consistent consumer profile. It is therefore accepted, that consumers prone to purchasing private label brands have a wide range of different demographic and socio-economic backgrounds, and have different lifestyles and value profiles.

Research also tried to understand the success factors for PLBs. Hoch and Banerji (1993) investigate how factors such as quality, category sales and margins, NB promotion and others influence private label success. The authors find that PLBs have more success in categories where the quality levels are high and quality variability of PLB is low. PLBs tend do better in product categories with high sales, and these categories offer attractive gross margins. When faced with large NBs that invest significant resources in advertising, PLBs experience difficulties. Heim and Grønnhaug (2001) explain that retailers think that the cost savings associated with PLBs make them more profitable because they produce higher margins. The authors show that when all costs are associated, PLBs may in fact return lower margins than national brands. The relationship between national brands and private label brands in terms of consumer perceptions has also received considerable attention. However, as private label brands have evolved the price and quality gap between PLBs and national brands has declined, and research has shifted to other considerations such as perceived risk, presentational issues, packaging cues and positioning (Burt & Davies, 2010).

Further, research has focused on how consumers perceive private label brands and how their evaluations affect their attitude towards purchasing PLBs. The term private label proneness refers to the degree to which consumers are inclined to actually purchase store brand grocery items (Richardson, Jain & Dick, 1996). Richardson, Jain and Dick (1996) argue that the single construct most predicting private label brand proneness is brand familiarity, in other words consumers who are familiar with private labels are more likely to have positive evaluations of quality and value. Their findings are consistent with national brand research;

the brand name conveys information to the consumer beyond just identifying the product. If you have a positive experience with a branded product you are more likely to purchase that product again and be inclined to try other products from the same line of branded products. However, extrinsic cues, product- related attributes such as price, brand name and packaging, have found to play a major role in consumer evaluation of brands. When consumers are unfamiliar with PLBs or do not have access to information about intrinsic quality, they rely on extrinsic cues as a surrogate for indicating quality (Richardson, Jain & Dick, 1996). Richardson, Dick and Jain (1994) discuss whether unfavorable perceptions of private label brands may in part be due to the absence of an attractive brand image. This lack of brand image (low brand equity) may no longer be an applicable presumption for many private label brands, as PLBs have developed significantly over the past years.

1.3 Private label brand trends

In Germany, retail giant Aldi has a product offering consisting of 95 percent PLBs, but many of them have no reference to the Aldi name at all. More and more PLB products are given "phantom" brand names, and lack any direct reference to the chain brand (World Trademark Review, 2012). The expressed reasoning behind this naming strategy is to change consumer perceptions that private labels are cheap and budget items, and making it harder to differentiate between private labels and national brands. Another motivation appears clear when considering Tesco, which has private labels at several different price points; their premium private labels are free to charge a higher price because consumers do not associate the products with the low-price image of Tesco (World Trademark Review, 2012). In Norway, most private label brands do not carry the store name. The exceptions are Coop and Rema 1000, which carry a variety of PLBs under the retailer brand name (Nielsen, 2014). Rema 1000 is especially interesting as both premium and lower tier private labels carry the store name.

The private label market is changing and in recent years, private label brand quality has risen to equal and even exceed national brand quality in the FMCG sector (Burt & Davies, 2010). In the 2014 Nielsen Private Label report (Nielsen, 2014) 63 percent of European respondents agree that perception of private label quality has improved over time. Nielsen also reports that 48 percent of Norwegians agree that most private label's quality is as good as national

brands. However, in a 2012 Norstat poll, 56 percent of Norwegian respondents say that they prefer national brands, and only 8 percent prefer private labels (Tine, 2012). This is in contrast to German respondents, where 34 percent prefer private label brands. Nielsen (2014) notes that price is still a primary driver of purchase intention, with 63 percent or respondents globally valuing getting the best price, but also highlight that consumers are seeking quality and value.

Norwegian consumers are not particularly price sensitive, and on average care more about the price-quality ratio than the actual price of a product (Krosby & Stusvik, 2013). In addition, Norwegian consumers focus on saving time, and decide on where to shop based on the current situation they are in; furthermore they shop frequently and often on impulse (NOU 2011:4, 2011). This information about Norwegian consumers indicates that a majority are relying on extrinsic cues in their evaluations and selection of grocery products and brand name is likely to be their main quality indicator. Private brands may therefore benefit from not being different from national brands when it comes to extrinsic cues. Richardson, Dick and Jain (1994) advise private label brands to focus on a quality image rather than a low price image, and thus a name and packaging that does not reference the store name may in fact aid private label brands quality perceptions.

In order to build a strong brand image many brands invest heavily in advertising and promotion. Until recently, this was not the case for private label brands. One of the main reasons why retailers were able to offer products at lower price is because the brands are not supported with much marketing effort. However, recent trends speak to PLB's evolving from a product offering to a brand offering. In Norway, there are several examples of retailers investing in marketing campaigns to increase the awareness and perception of their private labels. One of these is Coop Kaffe (Coop Coffee) owned by retailer Coop. In September 2015 the retailer opened a pop-up coffee shop in the trendy borough Grünerløkka in Oslo (Hellum, 2015). The coffee shop was called the Secret Coffee Shop and for a month exclusively sold Coop Coffee – without informing the customers that the coffee was the private label brand Coop Coffee. The promotional stunt received high media coverage and was very popular on social media. Other examples include PLB Eldorado, which advertises their kvarg product (dairy product) online and on Norwegian radio. Fiskemannen, a PLB owned by Norgesgruppen, offers recipes and tips for fish on Norwegian radio. A common

theme between these brands is that they, like many NBs, also have dedicated websites, where consumers can access information, tips, recipes etc.

1.4 The future of private label brand research

As previously discussed private label brands are evolving into regular brands as retailers invest more in developing and promoting their own private label product lines. The traditional distinction between PLBs and national brands, in terms of lower quality and lower price, is fading. Several researchers are therefore calling for future research to shift from a comparison of national and private label brands to a focus on internal differences between PLBs, i.e. quality and prices levels, differentiation strategies, sourcing etc. (Hyman, Kopf & Lee, 2010; Burt & Davies, 2010). Ailawadi and Keller (2004) argue that common principles and concepts in brand research should also be applied in PLB research. They present three areas which they consider should receive more research attention. The areas they suggest are development and application of traditional branding theory, the role of private label brands in building retailer brand equity and measuring retailer brand equity. These three areas share a common theme in considering the private label brand as equal to a national brand in complexity. Within the area of application of traditional branding theory, Ailawadi and Keller refer to brand architecture as an area of interest. One of the main tasks of brand architecture decisions, as expressed by the authors, is " how should products and services be branded so that they achieve their maximum sales and equity potential" (p.342). Ailawadi and Keller specifically call for research to investigate if creating subbrands under the retailer brand helps increase awareness or enhance the image of the brands being sold.

1.5 Purpose

For this thesis, I follow the recommendations given by Ailawadi and Keller (2004) and connect private label brands with traditional brand research concepts. Brand architecture, specifically the brand relationship spectrum is employed to examine the importance of brand name strategy for the perceived quality of private label brands. The brand name is the foundation for brand equity, and can be considered as the extra value the brand awards a product, compared to if the same product was unbranded. As private label brands have

evolved from simple generics to brands in their own right, it is interesting to understand how a brand name can bring value to a private label brand. Perceived quality is an important concept in building a strong brand image and has also been shown to influence purchase intention for private label brands.

Private label brands are owned by the retailer, but retailers employ different strategies for brand name. The different strategies are designated phantom brands, chain brands and chain endorsers. Considering Norwegian retailers, no clear strategy as to which type of brand name is chosen is apparent. Retailers have private label brands products carrying the same brand name in different categories and at different price points. They also have both phantom and chain labels in their portfolio. As to my knowledge, there has been little research seeking to understand how the choice of brand name strategy affects perceptions of private label brands. Understanding the relationship between brand name strategy and perceived quality can therefore provide valuable insight to private label retailers.

1.6 Research question

This thesis has examined the relationship between perceived quality and brand name strategy. The brand name strategies are placed in the brand architecture framework, which provides the reasoning and advantages of each strategy. Cue utilization theory is used to understand how brand name influences perceived quality. Retailer image, private label brand proneness and consumer knowledge of Norwegian private label brands are also examined.

My research question is as follows:

How does brand name strategy affect the perceived quality of private label brands?

Familiarity and proneness have been shown to influence perceived quality of private label brands. Retailer image is included to examine if a positive retailer image is related to perceived quality.

This thesis will only examine the effect of brand name on one variable, perceived quality. To examine the research question a quantitative approach with a questionnaire has been employed. An online questionnaire has been administered to university students. The next

chapter will present the literature review and theory used in this thesis, but first an overview of the structure of this thesis is presented.

1.7 Structure

This chapter has provided an introduction to the theme and research field private label brands. It has also presented the purpose and research question in order to see the context of the study and provide the relevance and contribution of this thesis. In the next chapter, theory and research pertaining to cue utilization and perceived quality, brand architecture and retailer image is presented. In chapter 3, the hypotheses and research model is presented. Chapter 4 details the methodology and methods used in developing the questionnaire and collecting data. Chapter 5 provides the analysis of the collected data, and chapter 6 discusses the findings and implications. Chapter 7 presents the conclusion, including the limitations and recommendations for further research. The final chapter concerns the credibility of the study and comments on the reliability and validity.

2. Theory and litterature review

The objective of this chapter is to provide the theoretical framework for this thesis. First, perceived quality and cue utilization theory is presented, followed by relevant research on cue utilization for private label brands. Second, brand architecture theory, hereunder the brand relationship spectrum, will be presented. The brand name strategies used in this thesis will be discussed in relation to the strategies. Last, research on retailer image and the relationship to private label brands will be discussed.

2.1 Perceived quality and cue utilization theory

This subchapter will give an comprehensive introduction to the concept of perceived quality and the process involved in consumer judgements. Research on perceived quality and the use of extrinsic cues for private label brands will also be discussed.

2.1.1 Quality

Quality is considered a core concept in building customer value and satisfaction, and is important for creating a competitive advantage in the market (Ophuis & Van Trijp, 1995; Steenkamp, 1990). However, there is no univocal definition of quality and the concept is defined in many different ways. The metaphysical approach considers quality as an innate excellence that cannot be analyzed, but only recognized through experience (Ophuis & Van Trijp, 1995). The other end of the quality definition spectrum considers quality objectively; a set of technical measurements can assess quality against an ideal set of standards (Ophuis & Van Trijp, 1995).

Steenkamp (1990) discusses the difference between consumers' and manufacturers' perception of quality, and highlights the importance of studying quality from a consumer perspective. The perceived quality approach considers the perceptions, needs and goals of consumers, and quality is therefore dependent on the consumer's judgement (Ophuis & Van Trijp, 1995; Steekamp, 1990). Keller (2013) provides a definition of perceived quality as "the customer's perception of the overall quality or superiority of a product or service compared to alternatives and with respect to its intended purpose." (p.159). This definition

considers the view of perceived quality as an overall, global concept, like an attitude and also reflects that perceived quality is dependent on available alternatives and the purpose of consumption (Ophuis & Van Trijp, 1995). Steenkamp (1990) provides a more conclusive definition:

> "Perceived quality is an idiosyncratic value judgement with respects to the fitness for consumption which is based upon the conscious and/or unconscious processing of quality cues in relation to relevant quality attributes within the context of significant personal and situational variables" (p.317)

Steenkamp (1990) further discusses perceived quality in relation to a broader context of value and presents a conceptual framework for understanding perceived quality:

- Perceived quality as an evaluative judgement
- Perceived quality as subject-object interaction
- Perceived quality and the consumption experience

The first two dimensions correspond with the four modalities presented by Ophuis and Van Trijp (1995). These four modalities are designated the four P's, and represent perception, product, person and place. The first modality, the perception process is equal to what Steenkamp (1990) refers to as evaluative judgement. This evaluative judgement is also known as cue utilization theory. The three dimensions presented by Steenkamp (1990) will now be presented in order.

2.1.2 The perception process: cue utilization theory

A quality judgement is an overall judgment and is not attribute specific. A product consists of several attributes, some of which cannot be evaluated by consumers. In the judgement process consumers therefore use surrogate or indirect indicators of quality (Ophuis and Van Trijp, 1995). These indicators, referred to as quality cues are "informational stimuli that are, according to the consumer, related to the quality of the product, and can be ascertained by the consumer through the senses prior to consumption" (Steenkamp, 1990, p. 312). Steenkamp (1990) explains that quality cues are related to quality attributes. Quality attributes are the functional and psychosocial benefits provided by the product; these benefits

are unknown before consumption, because the consumer cannot evaluate the product without actually consuming or using it (e.g. durability or ease of use). Steenkamp provides a clarification "quality cues are what the consumer observes, and quality attributes are what the consumer wants" (1990, p.313). As quality attributes are unobservable, consumers will at point of purchase use quality cues to differentiate between alternatives. A quality cue is valued because of the perceived relationship with different quality attributes; a cue is seen to predict the benefits delivered by the product (Steenkamp, 1990). Steenkamp (1990) provides an example: a consumer is not able to evaluate the taste of a product (quality attribute) prior to consumption. The consumer therefore relies on quality cues, such as price, brand name and packaging to form beliefs about the taste.

2.1.3 Predictive and confidence value of cues

Olson (1972) proposed that the quality perception process consists of two stages. Consumers first choose and evaluate quality cues, and then combine these individual evaluations into an overall judgement (as referenced in Ophuis & Van Trijp, 1995). The particular cues are evoked according to their predictive and confidence values. The predictive value of a cue (PV) is the degree to which consumers associate the given cue with product quality; it represents the reliability of a cue and the probability that using it would result in a successful task resolution (Richardson, Dick & Jain, 1994). The confidence value (CV) is a measure of consumer confidence in their own ability to use and judge the cue accurately; how sure the consumer is that the cue is what the consumer thinks it is (Richardson, Dick & Jain, 1994; Woodside, 2012). In the quality judgement, cues that are characterized by high PV and high CV assume the greatest weight. If consumers are unable to identify a cue with both high PV and high CV, they will use a cue with high CV and low PV to judge quality (Woodside, 2012). The relative importance of different cues will later be discussed in relation to quality judgements of private label brands.

2.1.4 Intrinsic and extrinsic cues

Cues can further be classified as either intrinsic or extrinsic. Intrinsic cues are physical attributes of a product, such as ingredients, that cannot be altered without altering the physical properties of the product (Lee & Lou, 1995; Richardson, Dick & Jain, 1994). Extrinsic cues are product-related, but not part of the product itself and can be considered

separate to the product's performance capabilities (Lee & Lou, 1995; Woodside, 2012). Examples of intrinsic cues are, for meat: color, amount of visible fat, shape and size. Common extrinsic cues are brand name, price, country of origin and nutritional and production information. (Steenkamp, 1990; Ophuis & Van Trijp, 1995).

2.1.5 Subject- object interaction

Steenkamp (1990) explains how perceived quality involves a subject-object interaction: a product is valued by a subject and is therefore not objective. Three important points relate to this process i) perceived quality is comparative, ii) perceived quality is personal and differs among consumers and iii) perceived quality is dependent on the context in which it is evaluated. This relates to the modalities: person, place and product defined by Ophuis and Van Trijp (1995).

The first point expresses that a quality judgement is not isolated, but is affected by the other product offerings available to the consumer. The second point refers to the consumer performing an assessment; as perceived quality is based on a consumer's judgements, there will be differences among consumers because of differences in perceptual abilities, personal preferences and experience level (Ophuis & Van Trijp, 1995). Involvement, prior knowledge and perceived risk are considered important factors influencing this assessment. Steenkamp (1990) discusses how involved consumers engage in more elaborate information processing and use more quality cues in their judgements. The final point refers to the usage goal and time pressure. The usage goal can affect which cues are relied upon; a consumer purchasing a gift may rely heavier on brand name and packaging than when purchasing the same product for personal use. Also, time pressure may result in consumers placing more importance on negative ques, and using fewer ques in their judgements.

2.1.6 Perceived quality as a consumption experience

Perceived quality lies in the consumption of a product; a product does not have value in itself but awards value to the consumer through consumption or usage. Perceived quality is therefore the fitness of the product to meet the desired consumption and usage experience. Products are consumed and used in different ways; the perceived quality process must therefore take into account what behavior the consumer will engage in with the product.

2.2 Perceived quality of private label brands

Private label brands are perceived by consumers to be of lower quality than national brands and lack significant brand equity (Richardson, Dick & Jain, 1994; Richardson, Jain & Dick 1996; De Wulff, Odekerken-Schröder, Goedertier & Van Ossel; Nielsen, 2012). In order to understand this negative quality perception of PLBs, research which examines the use of product related cues for PLBs and factors influencing the use of different cues will be discussed.

2.2.1 Use of cues in evaluations of private label brands

Richardson, Dick and Jain (1994) study the reason for consumer's unfavorable perceptions of private label brands, relative to national brands, and examine the relative importance of extrinsic versus intrinsic cues in perceived quality judgements of private label brands. The authors argue that the confidence value assigned to extrinsic cues is greater than the confidence value assigned to intrinsic cues, and refer to Purwar (1982) who states that extrinsic cues, such as brand name and price, are more easily recognized, integrated and interpreted. Intrinsic cues on the other hand are harder to process; consumers do not have the same confidence in their ability to predict quality attributes. Richardson, Dick and Jain (1994) argue that PLBs suffer from reliance on extrinsic cues, due to their intrinsic cue inadequacies. Richardson, Dick and Jain (1994) combine PLB ingredients with national brand extrinsic cues (and vice versa), and find that ingredients coupled with NB extrinsic cues receive significantly more favorable quality assessments, than when the same ingredients are coupled with PLB extrinsic cues. The results show that consumers rely more heavily on extrinsic cues when assessing quality, and that private label brands consequently receive unfavorable evaluations relative to national brands. Private labels brands are not often backed by any marketing effort; as such, consumers do not have little prior knowledge about the brand or producer they can use to evaluate the PLB product. This result also signals that consumers have a set of beliefs about private label brands, and these (negative) preconceptions may influence their evaluations when they are made aware that the product is a private label brand.

In a later study, Dick, Jain and Richardson (1996) examine the relative importance of different extrinsic cues. The authors conduct two studies, the first identifies the attributes and

cues consumers use when evaluating grocery product quality. Three primary quality attributes: the overall quality, the quality of ingredients and taste, and four primary quality cues: price, brand name, advertising and packaging, are identified. In the second study, participants evaluate 28 grocery products, and identify to what degree the four cues were relied on to judge the three quality attributes. Dick, Jain and Richardson (1996) find that the relative importance of the cues differs among the three attributes. For the attributes overall quality and ingredient quality, price and brand name are judged as the most relied on cues. The authors also find differences concerning consumer proneness to buy private label brands. Non-prone consumers place significantly higher weight on brand name when assessing taste (Dick, Jain and Richardson, 1996). The authors conclude that brand name is a primary cue used by consumers in quality assessments.

Despite that private label brands carry brand names and can be easily identified, Richardson (1997) finds support for his claim that consumers do not perceive differences between different private label brands and perceive to them to be of similar quality. He also shows that familiarity does not affect this relationship; consumers are just as willing to purchase an unfamiliar PLB as a familiar one. In the study, respondents are aware that the products they are evaluating are private label brands. A relevant discussion point is therefore if Richardson's results would be applicable when respondents are not aware of this fact and if the products used are not identified as being PLB.

2.2.2 The relationship between price and perceived quality

Rao and Monroe (1989) conduct a review of the research that show support for a positive relationship between price and perceived quality. The authors find that price does affect perceived quality for consumer goods, but the effect is smaller than for brand name. The authors also examine whether using single-cue or multi-cue studies influences the observed strength of the relationship. They find that the price-perceived quality effect increased in the presence of other brand information, such as brand name, packaging, and that a reinforcing effect is likely if the cues are consistent in signaling quality. Rao and Monroe also state that "when buyers do infer a positive relationship between price and product quality, they are likely to compare the price of the product against another price (price in memory or price of an alternative option" (p.356, 1989). If the product price is perceived to be significantly

different from this reference price, such as the price of a competing product, the consumer is likely to perceive the higher priced option as being of higher quality. This point relates to what Steenkamp (1990) states about perceived quality judgement, it is comparative in nature. A consumer does not possess the knowledge of the attributes to ascertain the quality before consumption nor the knowledge to decide the absolute quality of the ingredients. As such, a comparison to another product they are familiar with, or using knowledge of prices in the product category, can assist them in the evaluating the quality. Scitovsky (1945), explains why the price-perceived quality relationship is not irrational, "it reflects a belief that the natural forces of supply and demand would lead to a `natural´ ordering of products on a price scale, leading to a strong positive relationship between price and product quality" (as referenced in Rao and Monroe, 1989, p.351).

2.2.3 The relationship between familiarity and perceived quality

Lee and Lou (1996) investigate whether individual differences between consumers influences which cues they utilize in quality evaluations. Their results indicate that, consumers who are familiar with the product category rely heavier on the brand name as a cue for quality. Richardson, Jain and Dick (1996) define familiarity as "brand comprehension, product knowledge, or skill in judging the criteria needed to evaluate products" (p.166). Bettman and Park (1980) explain that consumers knowledge is usually brand based, because they are exposed to the brand in learning situations, such as advertising, displays, usage experiences etc. (cited in Lee & Lou, 1996). Consumers who have had more chances to learn about the product category therefore have more extensive knowledge structures to employ in their evaluations. The role of brands and learning may also be seen in a context of schema theory. Sarkar, Sharma and Kalro (2015) discuss how consumers apply a schema based on product similarities when evaluating private label brands. When consumers face a new product, they apply feature similarity between the product in question and stored information. A private label that looks like a national brand may therefore be perceived to be a NB, especially if there is no information contradicting this supposition. If the PLB carries the store name this would be contradictory, and as such this is more likely to happen for phantom PLBs. Sarkar, Sharma and Kalro (2015) also point out that consumers are likely to apply schemas in a grocery context, because the purchase is weekly and requires little involvement and cognitive effort.

For private label brands familiarity plays an important role as familiarity has shown to influence proneness. Proneness can be defined as “the degree to which consumers are inclined to actually purchase store brand grocery items” (Richardson, Jain & Dick, 1996, p. 162). In a study examining how different factors influence PLB proneness Richardson, Jain and Dick (1996) find that the single construct most predicting private label brand proneness is brand familiarity. The authors conclude that consumers who are prone towards PLBs are more likely to view PLB products as high quality, low risk and good value for money.

Sarkar, Sharma and Kalro (2015) examine the effect of packaging and naming strategy on perceived quality and purchase intention. Their results indicate that private label brands that have similar packaging as national brands may benefit from higher quality evaluations and purchase intentions. Considering that quality evaluations are comparative in nature and the finds of Sarkar, Sharma and Kalro (2015), being similar to a national brand may be a source of advantage for PLBs. The authors do not find a statistically significant relationship between brand name strategy and perceived quality, but their study was limited to only one product category. However, they do report that between PLBs with chain brand name and a phantom brand name, chain brands receive the lowest evaluation score.

2.3 Brand architecture

Private label brands are owned by a retailer, but how the individual retailer chooses to organize the brand portfolio varies. Some retailers choose a single brand name across all categories, while others choose different brand names across different categories. For a private label brand, in contrast to a national brand, the given store or chain can choose either a phantom (unidentifiable) brand name or a chain label (identifiable) name. The distinction concerns whether the PLB carries any reference to the chain brand, either in form of an identification such “a Tesco brand” or simply the brand name “Tesco” with a descriptive sub-brand identifying the product. In this thesis brand architecture provides the framework for understanding the different brand portfolio decisions, hereafter referred to as brand name strategy. This chapter will first briefly discuss the importance of brand name, before the brand relationship spectrum is presented. How the brand relationship spectrum relates to private label brands is also discussed.

2.3.1 Brand name

Brand name can be considered as one of the most important concepts in marketing and brand management. The brand name allows a company's offerings to be identified and differentiated, both by consumers and other parties (Keller & Lehmann, 2005). Keller and Lehmann highlight the importance of brands for consumers, as they help simplify choice, promise a particular quality level, reduce risk and/or engender trust (2005, p.4). Brand equity can be seen as the value a brand name gives to the product, because a brand may attract, or repulse, a consumer based on the intangible "non-objective" aspects of the product and not the tangible aspects, such as the product attributes (Keller & Lehman, 2005).

2.3.2 The Brand Relationship Spectrum

Aaker and Joakimstahler (2000) provide a definition of brand architecture, "Brand architecture organizes and structures the brand portfolio by specifying brand roles and the nature of the relationships between brands […] and between different product-market contexts" (p. 102). In order to give directions on how to understand and manage the brand portfolio, Aaker and Joakimsthaler (2000) have developed the Brand Relationship Spectrum. The Brand Relationship Spectrum, hereafter the BRS, provides a framework with four basic strategies. The strategies are located along a continuum, which defines to which degree the different brands in the portfolio are connected and positioned. Three important concepts are related to the BRS: endorser, sub-brand and driver.

2.3.3 BRS - Concepts

The driver reflects the degree to which a brand drives the purchase decision and user experience. Aaker and Joakimstahler (2000) explain that when a consumer is asked what brand they purchased, their answer will reflect which brand played the driver role. Understanding which brand consumers regard as the driver is important as it gives directions as to which associations and imagery are considered by the consumer. An endorser brand provides credibility and substance to the offering; the endorser affirms that the endorsed brand will deliver on its brand promise (Aaker & Joakimstahler, 2000). Many hotel chains act as endorser brands, for example the Radisson Blu Plaza Hotel in Oslo. The Plaza hotel is the driver, but Radisson Blu provides credibility. Sub-brands are brands connected to a

master (or parent, umbrella, or range) brand that augment or modify the associations of the master brand. Descriptive subbrands, also known as descriptors, simply describe what is being offered. Example: GE Appliance, appliance being the descriptor. It is still a brand, but has limited responsibility (Aaker and Joakimstahler, 2000, p. 103).

The startegies in the Brand Relationship Spectrum are organized by which role the driver plays in the purchase and use experience. On the far left, a house of brands, each brand is independent and as such acts as their own driver, separated from other brands in the portfolio. On the far right, a branded house has a strong parent brand which acts as an important driver influencing in different degrees the brands in the portfolio. The four different strategies will be presented, starting with maximum separation. The strategies will also be related to private label brands.

2.3.4 House of Brands strategy

A house of brands contains independent stand-alone brands. This strategy allows firms to create and manage different associations for each brand, and accommodate brands being in different product market contexts. This is especially relevant when brands in the portfolio may have conflicting associations, and could create discrepancies in consumer's minds if they were to carry the same brand name. A common brand name would challenge the validity of the benefits offered by the separate brands, and would for example complicate charging higher price point for one in comparison to the other. A house of brands allows for separate positioning strategies for the portfolio, and enables the firm to access niche segments and target different consumers directly.

As retailers expand their private label offerings into multiple categories, and also provide offerings at different price points, a house of brands strategy allows them to offer both standard low quality and premium PLBs without having to worry about creating uncertainty about the quality of the premium offering. A separate phantom brand name that does not identify the retailer, allows the retailer to attach associations that may not be compatible with neither the other PLBs in the portfolio nor the associations attached to retailer brand. This may be beneficial to retailers; many consumers are not aware of the connection between phantom PLBs and the retailer, and Norwegian consumers still prefer national brands and do not consider PLBs to be of the same quality (Nielsen, 2014; Tine Gruppen, 2013). In this

thesis, the house of brands strategy is represented by the phantom private label brand, as it is not connected to the retailer and thus is not influenced by retailer brand associations.

2.3.5 Endorsed brand strategy

In an endorsed brand strategy, the brands in the portfolio are independent of each other, but are also endorsed by a major brand. In the grocery market, this is represented by the retailer brand. The main role of the endorser is to provide credibility and reassurance to the consumer that they can trust that the endorsed brand will deliver on their quality proposition. For example, Kløver is a PLB offered by retailer Bunnpris. On their juice cartons the product is labeled with «Kløver» aswell as «Et Bunnpris produkt/A Bunnpris product». The endorser therefore only plays a minor driver role, and consumers would state that they have purchased the endorsed brand. Saunders & Guoqun (1997) find evidence that endorsements add value to the endorsed brand, and conclude that the best endorsement is from an organization with credibility in the product class (referenced in Aaker & Joakimstahler, 2000). The endorser brand can be both an independent product brand and an organizational brand, and distinct associations can be connected to each profile. For example, Rema 1000 as both a product brand for PLB «Rema 1000» and as endorser for the phantom PLB «Norfjord». The endorsed brand can also provide associations for the endorser, by adding new associations. Example: Grocery retailer Coop's «Coop Smak Forskjellen/ Coop Taste the difference», a premium PLB, may add quality associations to the store as an organizational brand.

2.3.6 Subbrand strategy

A subbrand strategy is quite similar to an endorsed brand, the difference is to what extent the endorser or parent brand acts as a driver in the purchase decision. In a subbrand strategy the parent brand acts as the primary driver, and the link is closer than for an endorsed brand. The reason for choosing a subbrand strategy is to differentiate the master brand, and add associations. This is to change the perception of the parent brand, allowing it to increase fit in a new market or adding a benefit or attribute. The role of the subbrand in purchase situation decides whether it is classified as a subbrand strategy. If the subbrand is purely descriptive, the strategy is a branded house, if it the primary driver it is an endorsed brand strategy. When the subbrand has a meaningful driver role, it is considered to be a true subbrand strategy. For this thesis the endorsed brand and subbrand strategy is referred to as a

chain endorser strategy. These are private label brands which have a clear connection to the retailer brand, but also carry a brand name. In the chain endorser strategy, the subbrand plays a role in the purchase situation, and can be viewed as more elaborate than a descriptor.

2.3.7 Branded house strategy

A branded house uses a singular master brand that spans a set of products that operate only with descriptive subbrands (Aaker & Joakimstahler, 2000). The parent brand is the primary driver, and the descriptive subbrand has little or no role in the purchase situation. The primary advantage with a branded house is that allows synergies to be created across all categories that the company operates in. The disadvantage is that no distinct associations can be attached to the descriptive subbrand on its own. This means that specific groups cannot be targeted by the master brand. As discussed above, if consumers are reluctant to purchase PLBs in general, both high and low quality PLB within a branded house may be considered as equal. A branded house can be related to a chain label strategy for private label brands. The store name acts a master brand, and the products bear the store name with a descriptor indicating the product (for example: Rema 1000 Pizza). This clear connection between the retailer brand and its private label offerings may result in store loyalty and a better store image. This will be discussed in the next chapter.

Table 1 presents the brand architecture strategy with the connected private label brand name strategy.

	House of Brands	Subbrand and Endorsed Brand	Branded House
Private label brand name strategy	**Phantom Brand**	**Chain Endorsed Brand**	**Chain Label**

Table 2-1: The brand name strategies

The phantom, endorsed and chain strategies represent a continuum with regards to how connected they are to the retailer brand. Phantom PLBs carry no indication that they are private label brands, and can be confused with national brands. On the other end of the scale, chain PLBs carry only the retailer brand, and can be clearly identified as private label

brands. The chain endorsed strategy combines a phantom private label brand name, such as "Smak Forskjellen" or "Bare Frisk Frukt" with the retailer brand name.

This chapter has presented the brand name strategies and detailed the advantages and disadvantages for each strategy. The next chapter will present the relationship between retailer brand image and private label brands. This may provide more insight into the motivations for choice of brand name strategy for PLBs.

2.4 Retailer brand image

The brand relationship spectrum was developed for national brands, and details the relationship between a manufacturer brand and the branded products in their portfolio. The relationship between private label brands and retail brands is different due to how retailers build brand image and equity. Ailwadi and Keller (2004) explain that retailers can attach unique associations to the quality of their service, their product assortment and merchandising, pricing etc. (p.332). This is made possible because the retailer brand has direct interactions with consumers. Ailwadi and Keller (2004) describe these interactions as being richer and more multi-sensory than for NBs. Burt and Davies (2010) argue that private label brands also are more multi-sensory than national brands, because of their strong link to the retailer and in turn the retailer's image and associations. This relationship may allow synergies to be created across both the PLB and the retailer brand.

An important distinction must be made between retailer image and store image. The two are not the same, even though store image is often used as a proxy for retailer image. The store image can be defined as "the complex of a consumer's perceptions of a store on different (salient) attributes. Store image is reflected in the store's physical environment and in perceptions of its goods and service quality" (Bolemyer & Ruyter, 1998, referenced in Liu & Wang, 2008, p. 288). The retail image, the corporate brand image of the retailer chain, may serve as a cue to consumers and allows them to infer the quality of the products at store level (Bao, Bao & Sheng, 2011). Research that investigates the connection between retailers and their private label brands will now be presented to provide insight into the relationship between the retailer and private label brands.

2.4.1 The relationship between private label brands and retailer brands

The positive relationship between retailer image and perceptions of private label brands has been examined and confirmed by several researchers. Bao, Bao and Sheng (2011) find that store image is related to private label perceived quality. In contrast to Richardson, Jain and Dick (1997) Bao, Bao and Sheng find that private label brands are not perceived as similar across different retailers. The authors suggest that PLBs are differentiated based on store image and as a consequence consumers have different quality perceptions and purchase intentions to different PLBs. Liu and Wang (2008) investigate the relationship between store image, psychographic, and demographic variables, and attitudes (proneness) towards private label brands. The authors find that store image is the best predictor of private label attitude. Investing in a strong retailer image can benefit all PLBs in the store because the store image is not category or product specific.

Burt and Davies (2010) discuss how the retailer plays an important role in building private label brand equity, because consumer's associations to a private label brand will also be influenced by their interactions with the store and the retailer itself. The authors explain how one important characteristic of branding is that it allows consumers to identify preferences and reduce search costs, and that the connection between PLB and retailer enables such identification and recognition. As a consumer purchases and consumes one private label brand product, the search costs and uncertainty is reduced for other products carrying the same brand name. This connection to the retailer brand is clear for chain and chain endorsed private label brands, and thus associations are easily transferred from the retailer to the product and across product categories. The connection allows synergy, clarity and leverage, thus reducing the costs related to promotion and advertising. Phantom private label brands do not have this clear connection, and as such consumers must be aware of the relationship between the phantom brand, the retailer and the other PLB products, if benefits are to be realized.

Collins-Dodd and Lindley (2003) find that retailer image influences the evaluation of specific private label brands and conclude that a store name on a private label brand product can be considered a form of brand extension, especially when the private label carries the store name or logo. They argue that positive retailer attributes can be leveraged to increase

awareness and build perceptions of private label brands. The potential pitfall with extensions is that the parent brand may suffer if the extension fails or the consumer has a negative experience with one of the retailer's branded products. Ailwadi and Keller (2004) determine that this is likely to be the case for chain PLBs because of the close relationship to the retailer. If the retailer was to suffer a brand crisis of some sort, for example a private label brand being produced under unethical conditions, the negative associations will likely transfer to the parent in the case of chain and chain endorsed PLBs. The lack of connection between retailer and phantom PLB may mitigate this risk. Consumers may still be made aware, through for example the media, but it is likely that lasting negative associations for the retailer will not be an issue due to the weak connection.

3. Hypotheses and research model

This chapter will present the hypotheses and provide the theoretical foundation for their development. The first hypothesis explains the relationship between brand name strategy and perceived quality, with sub-hypotheses detailing the differences between the brand name strategies. Hypotheses 2, 3 and 4 relate to the effects of retailer image, private label brand knowledge and private label brand proneness. The research model, detailing the relationships and moderating effects, is presented at the end.

3.1 H1: the relationship between brand name strategy and perceived quality

The first hypothesis states that there will be a relationship between brand name strategy and perceived quality. The brand name strategy is expressed through the brand name, and can be either a national brand or a chain, chain endorser or phantom PLB. Brand name has been determined as an important extrinsic cue in consumer evaluations of perceived quality. The brand name is easily recognized, integrated and interpreted in evaluations (Purwar, 1982, as referenced in Richardson, Dick & Jain, 1994). Brand name has also been shown to have high confidence value; consumers are confident in their ability to use and judge the cue accurately. When respondents are only presented with brand information and asked to perform a quality evaluation, it can be assumed that they will rely on the brand name (Richardson, Dick & Jain, 1994; Steenkamp, 1990). The different brand names will signal different quality attributes, and as such there should be statistically significant differences between the quality scores awarded each strategy across products. The first hypothesis is as follows:

H_1: Brand name strategy influences perceived quality

Quality evaluations are influenced by personal variables, such as experience and personal preferences (Steenkamp, 1990; Ophuis & Van Trijp, 1995). Norwegian consumers still prefer national brands, and are also assumed to have more experience with national brands (Tine, 2014). Accordingly, they are likely to rely on existing knowledge of NBs in their evaluations. Respondents are not likely to have the same knowledge and experience with

private label brands for two reasons; they are younger brands in terms of how long they have been available to consumers and the propensity to purchase PLBs is lower than for national brands (Tine, 2014; Nielsen, 2014). National brands have also been shown to have stronger external cues and receive higher quality evaluations (Richardson, Jain & Dick, 1996). National brands will therefore receive higher quality scores than all private label brands, as expressed in hypothesis H_{1a}.

H_{1a}: National brands receive the highest perceived quality scores

Phantom private label brands can be perceived as being either an unfamiliar NB or a private label. This depends on the knowledge and familiarity of the respondents. The close similarity to a NB, and the lack of information indicating it is a PLB, may result in respondents using existing schemas about NBs for phantom PLBs (Sarkar, Sharma & Kalro, 2015). Sarkar, Sharma and Kalro (2015) find that chain PLBs receive lower scores compared to phantom PLBs. Respondents are assumed to have varying degrees of negative perceptions of PLBs (Tine, 2014), but as this is not likely to transfer to phantom products, they will receive higher quality scores than other private label brands. This is expressed in hypothesis H_{1b}:

H_{1b}: Phantom private label brands receive the highest perceived quality score of private label brands

The chain endorser strategy, the retailer brand combined with an individual brand name, may provide credibility to the offering (Aaker & Joakimstahler, 2009). The individual brand name is a phantom brand name, coupled with the retailer brand name. Continuing the assumption that phantom PLBs are judged as unfamiliar national brands, the link to the retailer brand may be perceived as an exclusive cooperation. Chain endorsed products may therefore benefit from both high quality perceptions of national brands and the associations of the retailer. They will therefore receive higher quality evaluations than chain private label brands, as expressed in hypothesis H_{1c}:

H_{1c}: Chain endorsed private label brands receive a higher quality score than chain private label brands

3.2 H2: The effect of retailer image

The relationship between retailer image and private label brands can provide the private label brands with positive associations from the retailer brand and reduce the uncertainty related to the quality (Bao, Bao & Sheng, 2011; Liu & Wang, 2008; Collins-Dodd & Lindley, 2003). Respondents who perceive the retailer as being of high quality are therefore more likely to evaluate the retailer's PLBs as high quality. The perceptions of the retailer brand will moderate the relationship between brand name strategy and perceived quality, as expressed in hypothesis H_2:

H_2: Retailer image has a positive effect on the relationship between brand name strategy and perceived quality

Chain and chain endorsed private label brands carry a clear link to the retailer brand and will therefore benefit from positive retailer associations. Phantom private label brands will not have this clear link, and will not benefit from a positive retailer image. This is expressed in H_{2A}:

H_{2A}: The effect of retailer image on the relationship between brand name strategy and perceived quality will be more positive for chain and chain endorsed private label brands than for phantom private label brands.

3.3 H3: The effect of private label brand knowledge

Knowledge influences the quality perception process (Steenkamp, 1990). Consumers who are more familiar with private label brands, due to experience and interaction, have more product knowledge and brand comprehension (Richardson, Jain & Dick, 1996). The knowledgeable respondents are more likely to perceive private label brands as being of higher quality than those respondents who have little knowledge of private label brands. The moderating effect of knowledge is expressed in hypothesis H_3:

H3: Private label brand knowledge has a positive effect on the relationship between brand name strategy and perceived quality

3.4 H4: The effect of private label brand proneness

Proneness is the inclination to purchase private label goods, and as such should influence the quality perception of PLBs. Consumers who are more prone will not have as negative perceptions of PLBs as those regarded as non-prone, and will regard PLBs as being of high quality (Rischardson, Jain & Dick, 1996). The moderating effect of proneness is expressed in hypothesis H_4:

H_4: Private label brand proneness has a positive effect on the relationship between brand name strategy and perceived quality

3.5 Summary of hypotheses

H_1: Brand name strategy influences perceived quality
H_{1a}: National brands receive the highest perceived quality scores
H_{1b}: Phantom private label brands receive the highest perceived quality score of private label brands
H_{1c}: Chain endorsed private label brands receive a higher quality score than chain private label brands

H_2: Retailer image has a positive effect on the relationship between brand name strategy and perceived quality

H_{2A}: The effect of retailer image on the relationship between brand name strategy and perceived quality will be more positive for chain and chain endorsed private label brands than for phantom private label brands.

H3: Private label brand knowledge has a positive effect on the relationship between brand name strategy and perceived quality

H_4: Private label brand proneness has a positive effect on the relationship between brand name strategy and perceived quality

3.6 Research model

The research model provides an overview of the relationship between the variables, and the hypotheses. Retailer image, private label brand knowledge and private label brand proneness will act as moderators on the relationship between brand name strategy and perceived quality.

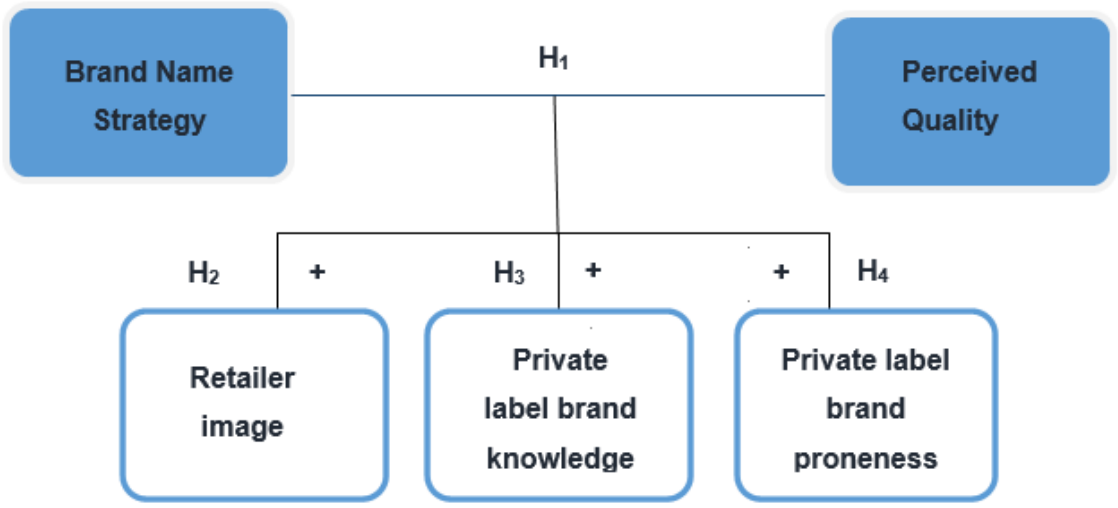

Figure 3-1: Research model

4. Methodology

This chapter will explain the methodology and design of this thesis. First, the research philosophy will be discussed, with the implications for strategy and design. The research approach, design, strategy and sampling is further discussed. The development of the questionnaire is thoroughly explained, including selection of categories and private label brands to be used in the questionnaire.

4.1 Research philosophy

The research philosophy relates to the development of knowledge and the nature of that knowledge. The research philosophy influences the choice of research strategy, the choice of method, and explains how the researcher views the process of conducting research. There are multiple views concerning research philosophy, and the choice is determined by the views one holds concerning ontology and epistemology. Saunders, Lewis and Thornhill (2009) describe ontology as "the nature of reality" and provide two aspects to ontology, objectivism and subjectivism (p.110). The authors explain that objectivism entails that social entities exist in reality independent of social actors. To clarify this point they provide an example concerning management as an objective entity. From an objectivist viewpoint, management is management regardless of who performs it, and the differences in management are a result of the different objective aspects of management. In comparison to subjectivism, there is no individual meaning attached to management and the managers do not have personal opinions on how their job should be performed.

Epistemology in simple terms relates to how the researcher observes knowledge, and concerns how knowledge is created (Saunders, Lewis and Thornhill, 2009). There are several aspects of epistemology and Dudovskiy (2013) explains that empiricism and rationalism are the two major aspects within business studies. He further explains the difference between the two: empiricism accepts personal experiences, feelings and senses as a valid source of knowledge whereas rationalism relies on empirical findings attained through valid and reliable measures.

I take the stance of the objectivist and rationalist ; my research examines private label brands and quality perceptions, and hypothesize that the relationship between the two will be influenced by choice of brand name. The brand name acts as an indicator of quality, and there will be a set and observable relationship between name and quality. Empiric knowledge will be a result of statistical analysis and conclusions will only be drawn from the data collected by use of a survey.

Based on the discussion of ontology and epistomolgy, I have chosen the positivism philosophy because my belief is taht science is the only way to learn about truth. Science can be seen and measured, and is in its nature objective. The positivist philosophy has five main principles as expressed by Dudovskiy, “1) there are no differences in the logic of inquiry across sciences, 2) the research should aim to explain and predict, 3) research should be empirically observable via human senses. Inductive reasoning should be used to develop statements (hypotheses) to be tested during the research process, 4) science is not the same as common sense. The common sense should not be allowed to bias the research findings 5) science must be value-free and it should be judged only by logic. (2012b).

The second principle concerns the aim of positivist research, to discover the nature of a cause and effect relationship. The third principle relates to how knowledge should be acquired. In positivism, only factual knowledge that is gained through observations, such as measurements, is to be trusted. This differs from the constructionist view that reality must be interpreted. Positivist research should put forth hypotheses that can be tested, and not try to understand a phenomenon as whole based on subjective conclusions. This is also relevant for the fourth principle, as positivism does not allow the researcher to draw conclusions based on what appears to be common sense, but rely only on the observations and measurements. This marks an important distinction between facts and value judgement. The fifth and final principle refers to the role of the researcher when conducting research; the researcher should be independent from the study, and not let his or her assumptions and beliefs affect how the collected data is interpreted. This also implies that the researcher should reduce interaction with research participants, so as not to influence their behaviors.

My research seeks to establish the link between brand name strategy and quality perception. One important point is necessary in discussing the chosen research philosophy, despite the

choice of a positivist philosophy and the objectivist approach to ontology, the generalizations from this research will not be valid for others than Norwegian consumers. This is part due to the limited sample used for the collection of data in this thesis, but also because research has shown that attitudes to private label brands vary across the world. It can be argued that this variation is due to the maturity of private label offerings, but is also likely because there are cultural differences concerning trust in "non-brand" offerings. As a result, subjectivism could be a valid ontological stance as perceptions of private label brands may not be an objective and the relationship may in fact be influenced by the social interactions of the consumer. However, the positivist philosophy is the paradigm which best suits the way I perceive valued knowledge to be produced.

The positivist philosophy is based on observation and objectivism, and a highly structured methodology is advised. As such, positivist research is usually conducted by developing hypotheses and using a deductive approach.

4.2 Research approach

For this research a deductive approach has been chosen. A deductive approach is considered the most appropriate based on the chosen research philosophy and other factors concerning this thesis. First, an introduction to deductive approach is presented, followed by implications of the deductive approach for this thesis.

A deductive research approach entails working from the general to the specific and implies developing a hypothesis based on existing research and theories, and designing a research strategy best suited to test that hypothesis. Saunders, Lewis and Thornhill (2009) explain what is required in a deductive approach. First, a deductive approach requires that you develop one or more hypotheses. To do so one must start with existing theory and seek explanations for causal relationships between variables. When the hypotheses are developed, one must collect quantitative data, and in order to do so concepts need to be operationalized. Further, to ensure that the testing of hypotheses is correct, controls must be put in place so to avoid other possible explanations for the relationship that is being studied. An important principle of deduction is reductionism, which in simple form means that problems are better understood if they are reduced to their simplest forms. Generalization is also important for

deduction, and in order to draw generalizable conclusions, a sample of sufficient size must be selected. A deductive approach will use a highly structured methodology in order to facilitate replication and it is therefore important that the researcher is independent of what is being studied. This is one of the reasons why positivism is closely connected to the deductive approach.

Private label brand research has uncovered the relationship between brand name and perceived quality. This existing theory is therefore the foundation for the development of hypotheses concerning the effect of brand name strategy on this relationship. The deductive approach is also better suited for this research when considering the high availability of research and the time and cost constraints.

4.3 Research design

The research design will explain how the research question will be answered and detail the purpose, strategy, choices and time horizon for this thesis.

Saunders, Lewis and Thornhill (2009) explain that explanatory research seeks to establish causal relationships between variables. The emphasis is on studying a situation or problem in order to explain the given relationship. The goal of this research is to further the understanding of private label brands by seeking to understand how brand name strategy affects perceptions of private label brand quality. The study is therefore explanatory in nature.

4.3.1 Strategy

“A survey is a (systematic) gathering of information from a sample of people using a questionnaire” (Kurtmollaiev, 2015). DeVaus (2002), referenced in Saunders, Lewis and Thornhill (2009), defines a questionnaire as a “general term to include all techniques of data collection in which each person is asked to respond to the same set of questions in a predetermined order” (p.360). The advantages of using a questionnaire is that it allows the collection of data from a large sample and that this data can be used in quantitative analysis. In comparison to an in-depth interview, the questionnaire is resource efficient, less biased by a researcher, and is easier to analyze and draw conclusions from. The questionnaire is best

suited for this thesis because the goal is to produce a causal relationship, which cannot be achieved by use of interviews. In addition, due to location and cost restraints, an experiment would not be feasible.

There are also possible weaknesses to a questionnaire. The design of the questionnaire as a whole and the individual questions must be careful and precise if one is to take advantage of the standardized procedure. If the questions are poorly designed, different respondents may interpret them differently and it may challenge the validity of the results. A well designed questionnaire requires a solid operationalization of the concepts, a clear layout, and proper sampling techniques. For this thesis an online questionnaire was used hosted by SurveyMonkey. An online format has several advantages compared to traditional mail or consumer intercept formats. The most prominent is that an online format allows data to be collected easier, faster and at a lower cost. It also allows respondents to read and fill out the questionnaire in their own tempo

4.3.2 Research method

The choice of research method is determined by the research question and the choice of strategy. The study for this thesis is quantitative in nature because it is explanatory and collects quantitative data from a questionnaire A quantitative study can be described as viewing the problem from the outside looking in. The researcher examines a part of reality, the scope of which is defined by the researcher's framework. A quantitative study seeks to simplify the complex, which is in line with the aim of this study: to express the relationship between private label brands and perceived quality by the use of brand name strategy.

4.3.3 Time horizon

The time horizon chosen for the study is cross-sectional; a cross-sectional study examines a point in time and is representative for that point. In comparison, a longitudinal study examines change over time (Saunder, Lewis & Thornhill, 2009). The reason for the choice of time horizon is twofold. First, the object of this study is to establish a relationship between perceived quality and PLB brand name and therefore only a "snapshot" of reality is required to establish this relationship. Secondly, a longitudinal study would require a longer period of time than was available and more controls to ensure causality. A longitudinal study

would be best suited if the relationship was already established and one wished to see if the relationship changed as a result of time or an external factor, such as a large marketing campaign.

4.4 Data collection

4.4.1 Sampling

When conducting research where the object is to draw causal conclusions about a population sampling allows one to reduce the amount of data by collecting data from a sub-group rather than all possible cases (Saunders, Lewis & Thornhill, 2009). In a representative sample the probability of a case being selected for the study is known and is usually equal, this way one can estimate the characteristics of the study. Probability sampling allows you draw conclusions for the population as a whole because the probability of being selected for the sample is known and usually equal for all cases. For non-probability samples, the probability of a case being selected from the population is not known, and as a result, one cannot draw statistical conclusions for the population. Saunders, Lewis and Thornhill state that one may still be able to generalize when using non-probability samples, but not on statistical grounds.

Convenience sampling is a non-probability sampling technique. The sample is chosen based on convenience or proximity to the researcher. Due to limitations in funding and availability, the survey sample is not representative of the Norwegian population and convenience sampling is used. Quota sampling, where the sample has the same proportions of individuals as the entire population in regards to known characteristics or traits, would have been a possible choice. However, research has found that there are no specific demographic, socioeconomic or descriptive factors that determine private label brand proneness. Therefore, dividing and pretesting for quotas would have been unnecessary.

The questionnaire was sent to all students with a registered student email at the Norwegian School of Economics (NHH). A mailing list was provided by NHH and included 2923 students. The students were across all years of study, and are therefore mostly in the age range of 19-30 years old. The questionnaire was also distributed to friends and family. As no identifying data was collected about the respondents, it is not possible to determine which

respondents belong to which group (students/friends and family). However, as the sampling technique is non-probability and demographic data was collected, this is not considered relevant. The questionnaire was sent to respondents on Thursday evening so that it would be accessed on Friday morning; Friday morning was considered an advantageous time because most students were likely to have time to complete the questionnaire after the work week and before the weekend.

4.5 Design of Questionnaire

This part will explain the process of designing the questionnaire, including choice of categories, operationalizing concepts and development of items and scales.

4.5.1 Selection of product categories

The choice of which categories of groceries to include in the survey was based on four requirements:

1) The unit shares of PLB in the given category
2) The availability of products representing each brand name strategy in the given category
3) Consumer familiarity with the product group
4) The price-ratio of PLBs to NBs in the given category

The data is provided in the Nielsen 2014 Private label Report (Nielsen, 2014), which examines penetration of private label brand grocery products in the Norwegian grocery market. The Nielsen report is based on scanner data from 3646 Norwegian grocery stores from the five umbrella chains Coop Norge, ICA Gruppen, Norges Gruppen, Rema 1000 and Bunnpris. (ICA gruppen was acquired by Coop Norge in 2015). The report uses the following measures for private label brand value share, unit share and price ratio.

The private label brand value share: [total value sales sold under a private label brand over a year] divided by [total category value sales sold over a year].
The private label brand unit share: [the total unit sales sold under a private label brand over a year] divided by [total category unit sales over a year].

The private label brand price ratio: [average price per equ across all private label brand products within a category] divided by [average price per unit across all products within a category].

Familiarity with the product category was an important requirement for the choice of categories because of the research question. Lee and Lou (1996) describe that the effect of brand name in consumer evaluations is affected by knowledge or familiarity with the product category. The authors find that consumers who are more familiar with the product category rely more on brand names in their evaluations. (Lee & Lou, 1996).

The objective was to choose categories which represented both a high and low penetration of private label brands and different price points, in order to present respondents with a spread in PLBs. However, finding categories which had products that represented all three different brand strategies proved difficult. As a result, the initial requirement of an even spread in penetration was abandoned. The four categories selected have PLB unit share of 67.4, 61.4, 23.2 and 49.1. Which retailer the chain and chain endorsed PLB products belonged to was also included as a requirement, in order to allow for analysis of retailer image.

Category 1: Fresh food, subcategory "shaped and processed fish: fishcakes".
The subcategory "fishcakes" had a PLB value share of 58 percent and a PLB unit share of 67.4 percent. According to the Norwegian Seafood Council, 97 percent of Norwegian consumers purchase seafood, and as such, it can be assumed that most consumers will be familiar with the fishcakes category (Norges Sjømatråd, 2015). The price ratio is 0.8. The category unit leaders are Godehav, Fiskemannen and Coop.

The selected brands for each brand name strategy are:
Phantom: Godehav
Chain brand: Rema 1000 Fiskekaker
Chain endorser: Coop "Smak Forskjellen" Fiskekaker
National brand: Lofoten Fiskekaker

Category 2: Fresh food, subcateory "fresh prepared meat: hamburgers". The subcategory "hamburgers" had a PLB value share of 54.1 percent and a PLB unit share of 61.4%. Hamburgers is considered a product group well known to consumers, on average

Norwegians consume 76 kg of meat annually (Helsedirektoratet, 2016). The category unit leaders are Nordfjord, Coop and First Price.

The selected brands for each brand name strategy are:

Phantom: Folkets BBQ Burger
Chain Brand: Meny Clean Cut Hamburger
Chain Endorser: Nordfjord Rema 1000 Grillburger
National Brand: Gilde Beef Burger Hamburger

Category 3: Food with long shelf life, subcategory "dinner sauce: wet sauce".
The subcategory "wet sauce" had a PLB value share of 17.7 percent and a PLB unit share of 23.2 percent. A specific product group for which all brand name strategies are represented is pesto sauce. Dagligvarehandelen (2014) (a weekly journal for the grocery market) report that Norwegians are eating more and more pesto, and one can assume that most consumers are familiar with the product. The price ratio is 0.8 .The category leaders are Jakobs Utvalgte, Rema 1000 and Coop. The selected brands for each brand name strategy are:

Phantom: Jacobs Utvalgte Pesto
Chain brand: Rema 1000 Pesto
Chain endorser: Coop "Smak Forskjellen" Pesto
National brand: Barilla Pesto

Category 4: "*Beverages*", subcategory "*juice, nectar, fruit drink, elpemost*" product group "*Juice*". The product group "juice" has a PLB value share of 37.6 percent and a PLB unit share of 49.1%. The price ratio for the juice subcategory is 0.63. The category leaders are Eldorado, Coop and Rema 1000. The selected brands for each brand name strategy are:

Phantom: Eldorado premium Appelsinjuice
Chain brand: Coop Appelsinjuice
Chain endorser: Rema 1000 "Bare Frisk Frukt" appelsinjuice
National brand: Sunniva appelsinjuice

A total of 16 products were selected for the questionnaire. The reason for this is twofold, first, ensure a minimum number of products in order to draw valid conclusions, second,

avoid too many questions and as such bore and tire respondents. The products also represent four categories, so that differences within a category can be analyzed. See appendix 1 for a complete list of all products used in the study.

4.5.2 Introduction

The role of the introduction is to inform respondents about the questionnaire they are to fill out. The questionnaire was distributed digitally, and each respondent received an email explaining that the questionnaire was for a master thesis, and politely asking for their help. They were also told that participation was voluntary and that no identifying data would be collected. In addition, they were told of the possibility to enter into a raffle at the end of the questionnaire where they could win one of two universal gift cards of NOK 500 each. The raffle was provided to act as an incentive for respondents. For the first page of the questionnaire, the respondents are introduced to the survey and they are told that the purpose is to examine quality perceptions of grocery products in the Norwegian market, for introduction, see appendix 2. They receive instructions on how the questionnaire is to be filled out, stating that they will be presented with 16 products and that they should indicate to what degree they agree with the statements listed for each product. The respondents are told that they should not take into account whether or not they like the product, i.e. would enjoy eating it, but how they perceive the quality based on the information provided. The respondents are not informed that some of the products they will be assessing are private label products as to avoid any biases and preconceptions.

4.5.3 Constructs and operationalization

The survey examines four main concepts: perceived quality, retailer brand image, private label brand knowledge and private label brand proneness. Operationalizing concepts is necessary so that they can be measured quantitatively. To avoid developing new scales all items were gathered from existing research on PLBs. The advantage of using confirmed items is that the scales have already been validated by previous studies, and using them is both more precise and less time consuming than developing new scales. The questionnaire was conducted in Norwegian, and therefore the items have been translated. This was done through communicative translation; ensuring that the intended meaning of the item was

preserved. None of the items contained any idioms, and the lexical meaning of words. such as appealing and pleasant, were easily translated.

Dillmann (2007), referenced in Saunders, Lewis and Thornhil (2009, p.373), distinguishes between three different types of data variables that can be collected using a questionnaire, opinion, behavior and attribute. Opinion variables record how respondents feel about something or what they think or believe is true or false. The dependent variable, perceived quality, is an opinion variable and measures how consumers perceive the overall quality of a product. This thesis employs three control variables. These are demographic: age, gender and grocery expenditure and measure respondent attributes. Attribute variables record characteristics about the respondent and can be used to compare the opinions and behaviors of different respondents (Saunders, Lewis, Thornhill, 2009). The moderator variables are: retailer image (opinion variable), PLB knowledge (attribute variable) and PLB proneness (behavior variable). Behavior variables relate to what respondents do; it measures their behavior, either past, current or future. The independent variable, brand name strategy, has four different values: national brand, chain, chain endorser and phantom. Table X provides an overview of all variables. This subchapter will present each variable and provide the scales used for measurement. The format of the questionnaire is also commented.

Independent variable	**Control variables**
Brand name strategy	Age Gender Monthly grocery expenditure
Dependent variable	**Moderator variables**
Perceived quality	Retailer brand image Private label brand proneness Private label brand knowledge

Table 4-1: Variables

4.5.4 Independent variable: brand name strategy

The products used in the questionnaire are national brands and one of three private label brand strategies: phantom, chain and chain endorsed. The classification is based on the framework provided in the Brand Relationship Spectrum, and relates to degree of connection to the retailer brand. In the questionnaire, the individual product is not labeled with the strategy, for an overview of which products belong to each strategy see Appendix 3.

4.5.5 Control variables: Age, Gender, Grocery Expenditure

Three control variables are included in the questionnaire, these are age, gender and grocery expenditure. Age is measured by six age categories, see appendix 2: question 1. Monthly grocery expenditure is the amount the respondent's household spends on groceries, food and non-alcoholic beverages a month. Grocery expenditure is measured with six expenditure categories, see appendix 2: question 3.

4.5.6 Dependent variable: Perceived quality

The items related to perceived quality relate to three dimensions of perceived overall quality of the product. Consumers were only presented with a product picture (including the brand name) and the brand name as a headline. No price information was presented. The items were measured on a five-point Likert scale, ranging from "strongly disagree" to "strongly agree". A scale with an odd number of points was chosen to provide respondents with a neutral option "Neither disagree nor agree". A five point scale was chosen because it was assumed that respondents would not be able to separate between three different points of agreement/disagreement for low-involvement grocery products. The items sourced from Bao, Bao and Sheng (2011), items A and B, pertain to overall quality of the product. Item A considers only the individual product, while item B relies on quality perception as a comparative judgement, and compares the product to other products in the category. The phrasing of item B was adapted to allow similar phrasing of both comparative quality and comparative price. Item C, sourced from Kremer and Viot (2012), relating to packaging, was included because packaging is an important extrinsic cue in quality evaluations. As products were presented with packaging, the objective was to isolate the effect of packaging in one item. A value item, item D, was included based on the relationship with perceived quality.

This item was sourced from Zarantonello and Pauwels-Delassus (2015). As respondents were not informed of price, the item was adapted to induce consumers to compare the product to others product in the category.

A)"This product is of high quality"
B)"This product is likely of a higher quality than other products in the same category"
C) "This product has an appealing packaging"
D)"This product likely has a higher price than other products in the same category"

4.5.7 Moderator variable: Retailer Brand image

In order to examine whether consumer perceptions of retailers effect the relationship between perceived quality and private label brand name three items about the three retailers was chosen. The items were sourced from Kremer and Viot (2012). Kremer and Viot state that their items measure retailer brand image, instead of using store image as a proxy, by including the retailer brand name. In Norway, many grocery retailers have different concepts, and using the retailer name avoids respondents referring to only one specific concept within the chain. Kremer and Viot (2012) use 10 items to measure retailer image, and measure three dimensions. The selected items measure the supply dimension, which refers to the quality of the products, variety and stores. The items not included in the scale measure values, such as commitment to sustainable development, and price. These were not considered relevant to measuring perceived quality and were therefore omitted. The items were measured on a five-point Likert scale, ranging from strongly disagree to strongly agree.

A)"The retailer X provides a large selection of products"
B)"The retailer X offers good quality products"
C)"The retailer X has pleasant stores"

4.5.8 Moderator variable: Private label brand knowledge

It order to examine to Norwegian consumers' familiarity with and knowledge of private label brands a question asking them to identify private label brands was devised. This scale was developed because no relevant scale that measures actual knowledge of (Norwegian) PLBs was found. The respondents are asked to identify those brands they know or believe

are private label brands. Most private label brands are not backed by any marketing effort, and in the advertising available most are not identified as being PLB. The only information available is therefore brand name, and for those PLBs that carry phantom brand names it is expected that consumers will not be aware of their origin. This question was therefore included to investigate what PLBs Norwegian consumers were able to correctly identify. It also enables an analysis of individual responses; if the respondent has high awareness of Norwgian PLBs, how does this effect their quality scores? This can uncover if PLBs are discriminated against and supply additional evidence to the relationship between brand name and perceived quality. The item can be found in appendix 2.

4.5.9 Moderator Variable: Private label brand Proneness

Dick, Jain and Richardson define private label brand proneness as "the degree to which consumers are inclined to actually purchase store brand grocery items" (1996, p.162). Dick, Jain & Richardson (1996; 1995) developed an index of private label brand proneness based on the frequency of which consumers reported purchasing PLBs. The questionnaire includes four product categories: fishcakes, pesto sauce, hamburgers and orange juice, and the following applies to each individual category. For each product category respondents indicate the extent to which they purchase a private label brand by choosing which statement best describes their purchasing habit. Each statement has an attached value, where 0 indicates that the respondent never purchases a product in the given category, and 5 that the respondent purchases a product and always chooses a private label brand. The assigned value for each statement is presented in parenthesis.

"I never buy the product" (0)
"I buy the product, but never choose a private label brand" (1)
"I buy the product, but rarely choose a private label brand" (2)
"I buy the product, and sometimes choose a private label brand" (3)
"I buy the product and often choose a private label brand" (4)
"I buy the product and always choose a private label brand" (5)

The index is constructed by counting the number of categories in which each individual respondent indicates 4 (often) or 5 (always) and then dividing this score by the number of product categories the respondent indicates he purchases (all non-zero responses). This

results in a score between 0 and 1, where a higher number reflects a higher proneness to purchase private label brands. The distribution of the ratio can then be split into quartiles and in line with the method used by Dick, Jain & Richardson (1995), the bottom and top quartile can then be classified as either Non-prone or Prone.

4.6 Format of questionnaire

The questionnaire is conducted in Norwegian, but the questions have been translated for the reader. An abbreviated translated version can be found in Appendix 2. The questions were sorted so that for each page four products were displayed. The four products all represented a different grocery category and a different strategy. This was done to avoid respondents comparing products within one grocery category, and instead focusing on assessing each individual product separately. In order to pretest the questionnaire and the face validity of the items, the first version was sent to three acquaintances that would not participate in the study. They reported on minor errors, and provided suggestions. In order to ensure all questions were answered, all questions were made mandatory. A box would appear informing the respondent that they had missed a question if they tried to continue without providing a response for each check box.

5. Analysis

This chapter will present the results of the data analysis. First, descriptive statistics are presented. Second, the hypothesis tests are presented in order, with the final regression referring to both hypothesis H1 and H4.

5.1 Descriptive statistics

The questionnaire was sent to all students registered with an NHH-email address, a total of 2923 students. The total number of reported respondents from SurveyMonkey was 465. This number represents all respondents that answered more than one question. The first step in the data analysis was sorting and preparing the data for analysis. First, the data had to be examined for inconclusive responses, so that those respondents who did not fill out the entire questionnaire could be eliminated. After elimination, there was 333 complete responses, the response rate for total distributed questionnaires was 11%. The completion rate was 72%. An overview of response rate is available in table 5.1 . All categorical data was coded for further analysis.

	Count	% of total distributed	% of total received
Total distributed	2923	100 %	N/A
Total received responses	465	16 %	100 %
Total complete responses	333	11 %	72 %

Table 5-1: Response rate

5.1.1 Demographic and socioeconomic variables

Distribution of gender

The data presented in table 5.2 shows that the majority of respondents were women, but the distribution by gender is considered to be acceptable.

Gender	Count	% of Total
Female	158	47,45 %
Male	175	52,55 %
Total	N=333	100,00 %

Table 5-2: Distribution of gender

Distribution of age

The majority of respondents belong to the age group 19-25 and 26-30, which was expected, as the majority of respondents were university students, see table 5-3. The respondents in the other age-groups are friends and family. As the data is categorical, no other measures were calculated.

Age	Count	% of total
<18	1	0,30 %
19 - 25	264	79,28 %
26 - 30	51	15,32 %
31 - 40	14	4,20 %
41 - 50	1	0,30 %
> 50	2	0,60 %
Total	N=333	100,00 %

Table 5-3: Distribution by age categories

Distribution of age by gender

Table 5-4 shows that respondents are distributed evenly by age and gender. The three respondents above the age of 40 and the one respondent below 18 are distinct cases, but represent such a small part of the total sample that they are not likely to influence the test statistics.

Gender/ Age	>18	19-25	26-30	31-40	41-50	Over 50	Total
Male	1	123	27	7			158
Female		141	24	7	1	2	175
Total	1	264	51	14	1	2	333

Table 5-4: Distribution by age and gender

Monthly grocery expenditure

The majority of respondents (62.46%) spend NOK 4000 and under on groceries a month (see table 5-5). This is as expected, as the majority of respondents were university students and are assumed to have low disposable income.

Monthly Grocery Expenditure	Count	% of Total
< NOK 3000	103	30,93 %
NOK 3001 - 4000	105	31,53 %
NOK 4001 - 5000	59	17,72 %
NOK 5001 - 6000	28	8,41 %
> NOK 6000	38	11,41 %
Total	N=333	100,00 %

Table 5-5: Monthly grocery expenditure

Table 5-6 shows what percentage of each age group belongs to each expenditure category. The results indicate that within age groups there is a span across all expenditure categories. The older age groups, >30 years old, spend more money on groceries

Expenditure/Age	>18	19 - 25	26-30	31 - 40	41 - 50	Over 50
< NOK 3000	100,00 %	34,09 %	17,65 %	14,29 %		50,00 %
NOK 3001 - 4000		32,58 %	31,37 %	21,43 %		
NOK 4001 - 5000		16,67 %	23,53 %	14,29 %	100,00 %	
NOK 5001 - 6000		6,82 %	15,69 %	14,29 %		
> NOK 6000		9,85 %	11,76 %	35,71 %		50,00 %
Total	n=1	n=264	n=51	n=14	n=1	n=2

Table 5-6: Expenditure for each age category

The average perceived quality score for all strategies by gender n=123 n=141

From table 5-7, the average score for all products within a strategy is reported for both genders. There is little difference across gender; men and women do not appear to differ in their quality evaluations. The results also indicate that chain PLBs are evaluated as being of the lowest quality across strategies, while national brands are evaluated as being of the highest quality.

Gender	Endorsed	Kjede	Nasjonal	Phantom
Male	3,093	2,629	3,570	3,301
Female	3,056	2,646	3,617	3,367

Table 5-7: Mean quality score for each strategy by gender

Table 5-8 reports the average score for each strategy across the different grocery expenditure groups. Across all expenditure groups, chain PLBs are of the lowest quality, with scores indicating a negative perception of quality.

Expenditure	Endorsed	Kjede	Nasjonal	Phantom
< NOK 3000	3,124	2,637	3,637	3,397
NOK 3001 - kr 4000	3,015	2,636	3,586	3,332
NOK 4001 -5000	3,053	2,620	3,501	3,332
NOK 5001 - kr 6000	3,054	2,563	3,498	3,170
> NOK 6000	3,140	2,732	3,720	3,311

Table 5-8: Mean quality score per strategy by expenditure group

5.2 Independent and moderator variables

5.2.1 Perceived quality score

The quality scale score is computed by combining the scores for each of the quality items. The quality score per product and per strategy is found by the average score for each product across all respondents. Table 5-9 displays the average score, median score, variance and standard deviation for each product and for each strategy in total. National brands (M=3,595) receive the highest quality score, indicating that respondents on average rated NBs to be of higher quality than PLBs. This is indicates support for hypothesis H_{1a}, which states that national brands will receive the highest quality scores. Phantom brands receive the second highest score of M=3.336, which indicates support for H_{1b}: phantom brands receive highest score of private label brands. Chain brands receive the lowest score across all products, indicating support for hypothesis H_{1c}: chain endorsed brands receive higher scores than chain brands. The variance and standard deviation is high for each product, and across strategies, indicating that there was little consensus in how consumers evaluated the products. Across strategies, the SD is highest for phantom (SD=.038) and chain PLBs (SD=.035). The range also supports this, across strategies, the range is highest for phantom private labels where the average quality score ranged from (M=2.604) to (M=3.995) (Range=1.391). This indicates that respondents found the greatest difference in quality among products in the phantom strategy category. In contrast, for national brands the

average score ranged from (M=3.208) to (M=3.836), (Range=0.628). A point of interest is that private label brands received the highest average quality scores in two product categories. Jacobs Utvalgte Pesto (phantom) received the highest average score, (M=3.995), in the pesto category. Also, Meny Clean Cut Hamburger (Chain) received the highest average score, (M=3.457), in the hamburger category.

Strategy	Product	M	Mdn	Var	SD
Endorsed	Coop Smak Forskjellen Fiskekake	3,050	3,000	0,910	0,954
	Coop Smak Forskjellen Pesto	2,939	3,000	0,858	0,926
	Nordfjord-Rema 1000 Grillburger	3,308	3,000	0,805	0,897
	Rema 1000 Bare Frisk Frukt Appelsinjuice	2,996	3,000	0,910	0,954
	Endorsed Total	*3,073*	*3,000*	*0,890*	*0,943*
Chain	Coop Appelsinjuice	2,289	2,000	0,780	0,883
	Meny Clean Cut Hamburger	3,457	4,000	0,815	0,903
	Rema 1000 Fiskekaker	2,508	2,000	0,845	0,919
	Rema 1000 Pesto	2,298	2,000	0,920	0,959
	Chain Total	*2,638*	*3,000*	*1,071*	*1,035*
National	Barilla Pesto	3,629	4,000	0,668	0,817
	Gilde Beef Burger	3,208	3,000	0,888	0,942
	Lofoten Fiskekaker	3,836	4,000	0,609	0,780
	Sunniva Appelsinjuice	3,705	4,000	0,692	0,832
	National Total	*3,595*	*4,000*	*0,769*	*0,877*
Phantom	Eldorado Premium Appelsinjuice	2,604	2,000	0,997	0,998
	Folkets BBQ-Burger	3,312	3,000	0,813	0,902
	Godehav Fiskekaker	3,433	4,000	0,730	0,854
	Jacobs Utvalgte Pesto	3,995	4,000	0,796	0,892
	Phantom Total	*3,336*	*4,000*	*1,078*	*1,038*
Total		***3,160***	***3,000***	***1,077***	***1,038***

Table 5-9: Mean, Mdn, Var and SD for each product and strategy

5.2.2 Retailer image

The store image score was based on three items. The scores for each item were combined to create a store image score for each respondent. The mean of these individual respondent scores is reported in table 5-10. The retailer Meny was awarded the highest score, (M=4.521), and also has the lowest (SD=0.515). This indicates a consensus among respondents that Meny is a high quality retailer. There is little difference among retailers Rema 1000 (M=3. 397) and Coop (M=3.530) .

Store	M	SD	Mode	Mdn	Var
Rema 1000	3,397	0,766	4,000	3,333	0,589
Meny	4,521	0,515	5,000	4,667	0,266
Coop	3,530	0,707	4,000	3,667	0,501

Table 5-10: Retailer image score, mean, SD, mode, Mdn and Var

5.2.3 Private label brand knowledge

The knowledge score was computed based on the respondents' ability to correctly identify private label brands. For each brand the respondent could check the box if he believed the brand to be a PLB. The score therefore counts the correct number the respondent identified, either by checking the box for a PLB or by leaving the box blank for a NB. To compute the score each product was identified as being either a PLB or a NB. The respondent data was coded as checked="1" and not-checked="2". If the product was marked as PLB and the response was "1" (correct), the respondent was awarded one point. If the product was marked as NB and the response was = "1" (incorrect), no point was awarded. If the response was "2" (correct), one point was awarded. The number of correct responses was combined in knowledge score between 1 and 12 for each respondent. Table 5-11 provides an overview of descriptive statistics for knowledge score, and indicates that the majority of respondents could correctly identify between 6.5 and 9.5 grocery brands.

M	SD	Median
8.024	1.482	8

Table 5-11: Knowledge score, M, SD, Mdn

The respondents were then divided into three groups (Knowledgeable, Informed and Uninformed) depending on their score. The cut-off limits were set at 9 for knowledgeable and 5 for informed. This limit was set based on the M ≈ 8 and the SD ≈ 1.5, where knowledgeable is one standard deviation from the mean. This results in a cut-off at score= 9.5. This was rounded down to 9, so that the range in score was equal for each group. See table 5-12 for the distribution of knowledge scores. The respondents were coded with their knowledge score for further analysis.

Category	Score	Count
Uninformed	1-4	4
Informed	5-8	216
Knowledgeable	9-12	113

Table 5-12: Classification of knowledge score

5.2.4 Private label brand proneness

The proneness score was computed by the method developed by Richardson, Dick and Jain (1996). For each respondent the number of 4 or 5 (often and always) responses was counted and then divided by the number of categories where the respondent indicated he/she bought the product. This resulted in a number between 0 and 1 for each respondent. The respondents were then divided into 4 quartiles, where the top quartile (score ≥ 0.66) represents PLB Prone consumers and the bottom quartile (score=0) represents Non-prone consumers. The respondents in the middle quartiles (0<score<0.66) were marked as indifferent. 109 respondents were classified as Prone, 135 as Indifferent and 89 as Non-prone (N=333). The majority of respondents are classified as Indifferent. A classification as indifferent is due to not purchasing PLBs in all categories, or only preferring PLBs in specific categories. Table X displays descriptive statistics for proneness. The average proneness score was M=.428, and the SD=.339. This indicates that the majority of respondents are either indifferent or prone. For Prone, (M=.830, SD=.154) the low standard deviation indicates that the majority of the Prone respondents can be found in the top part of the quartile.

Category	Count	M	SD
Total	333	0,4282	0,339
Prone	109	0,830	0,154
Indifferent	135	0,386	0,104
Non-Prone	89	0	0

Table 5-13: Proneness categories, count, M and SD

Table 5-14 shows the total number of respondents which indicated they purchased products in the category and what percentage of the total purchased products in the category. Orange juice was the category in which most respondents indicated they purchased products. For all categories, more than 50 percent of respondents purchased products. This confirms that most respondents are familiar with the product categories used in the questionnaire.

Category	Number of Purchasers	% of Total
Fish cakes	207	62,16 %
Hamburgers	253	75,98 %
Pesto	274	82,28 %
Orange juice	288	86,49 %
	N=333	

Table 5-14: Number of purchasers, per category

5.3 Test of item reliability - perceived quality

Chronbach alpha is a measure of the internal consistency across items; how closely related a set of items are as a group. It is a measure of the scale reliability. (UCLA: Statistical Consulting Group, n.d.). The perceived quality scale consisted of four items, and the Chronbach's alpha was calculated for all 16 products individually. A Cronbach alpha value of $\alpha=0.7$ (some say $\alpha=0.6$) indicates acceptable reliability, and $\alpha\geq0.8$ indicates high reliability (Zaiontz, n.d.) The items for all products, except Rema 1000 Fiskekaker and Rema 1000 Pesto, meet the requirement of $\alpha=0.7$. These do however meet the requirement of $\alpha=0.6$ and are therefore considered acceptable. See table 5-15 for complete list of product and corresponding Chronbach's alpha value. The high reliability of the items across products indicates that scores are consistent across respondents for each product and that the scale is reliable. The Chronbach's alpha value was calculated across the four items by indvidual product. The choice to not calculate the score across all products was due to the inherent differences in products, i.e. brand name strategy and category. These differences would likely have distorted the test.

Product	α
Coop Smak Forskjellen Fiskekake	0,812
Coop Appelsinjuice	0,804
Eldorado Premium Appelsinjuice	0,800
Gilde Beef Burger	0,795
Sunniva Appelsinjuice	0,788
Coop Smak Forskjellen Pesto	0,786
Rema 1000 Bare Frisk Frukt Appelsinjuice	0,780
Lofoten Fiskekaker	0,774
Godehav Fiskekaker	0,760
Barilla Pesto	0,758
Nordfjord - Rema 1000 Grillburger	0,753
Jacobs Utvalgte Pesto	0,753
Meny Clean Cut Hamburger	0,747
Folkets BBQ-Burger	0,725
Rema 1000 Pesto	0,687
Rema 1000 Fiskekaker	0,686

Table 5-15: Chronbach's alpha for perceived quality items

5.4 Hypothesis testing

5.4.1 H1: Brand name strategy and perceived quality

To determine if there statistically significant differences between the strategies (national, phantom, chain and chain endorsed) an ANOVA test was run. The hypothesis H1 states that brand name strategy influences perceived quality. The test reports how much variability there is between groups, compared to within groups. The test was first run with national brands included, see appendix 6 for the complete test statistics. There was a statistically significant difference between strategies as determined by one-way ANOVA (F(3, 1328)=294.469, p=1.162E-146). An ANOVA excluding national brands was also run to determine if there was a difference between private label brand strategies. There was a statistically significant difference between the three PLB strategies (F(2,996)=213.632, p=6.3E-78). A complete test statistic is available in Appendix 7.

5.4.2 H2: The effect of retailer image

To test if a positive retailer image also results in high perceived quality of private label brands, linear regression analysis was used. The hypothesis H2 states that a high (positive) retail image will result in higher perceived quality of the PLBs connected to the store. To perform the regression analysis retailer image score and perceived quality score per

respondent were connected. For each retailer, only the products belonging to the retailer were used. The predictor variable is retailer image and the dependent variable is perceived quality. Two stages of regression analysis were carried out. First, all PLB strategies for all three retailers were included. Second, only chain and chain endorser strategies were included. This meant excluding Meny, because the products belonging to Meny were primarily phantom PLBs. The regression for Coop is the same for both stages, as only chain and chain endorsed private label brands belong to the retailer Coop. The regression excluding phantom is only carried out for Rema 1000.

Rema 1000

A total of 5 private label brand products are owned by Rema 1000 and represent endorsed, chain and phantom strategies, see appendix 1 for overview of brands and retailer owners. The results of the regression indicated that there was a statistically significant linear relationship between the two variables ($R2=.031$, $F(1,1663)=53.000$, $p<.05$), but that Retailer image did not significantly predict perceived quality ($\beta=.178$, $p<.05$). A complete test statistic can be found in Appendix 8.

Meny

A total of 4 private label brands are owned by Meny, and represent phantom and chain strategies, see appendix X. The results of the regression indicated that the linear relationship between Meny retailer image and perceived quality was statistically significant ($R2=.137$, $F(1,1330)=18.472$, $p<.05$), but retailer image did not significantly predict perceived quality ($\beta=.192$, $p<.05$). A complete test statistic can be found in appendix 9.

Coop

A total of 3 private label brands are owned by Coop and represent chain and endorsed strategies, see appendix 1. The regression analysis indicated that the linear relationship between Coop retailer image and perceived quality was significant but had low predictive value ($R2=.0435$, $F(1,997)=45.303$, $p<.05$). Retailer image did not significantly predict perceived quality ($\beta=.234$, $p<.05$). The complete test statistic can be found in appendix 8.

The results of the regression analyses show that, for all strategies, retailer image did not predict perceived quality. Hypothesis H2 does not receive support. All three regression analyses had low p-values ($p<0.05$), indicating that result is not due to chance and the results

are statistically significant. The second stage of regression analysis excluded phantom PLBs and the retailer Meny to examine only PLBs with a clear connection to the retailer. The test is not reported for Coop as no product was removed for this retailer.

Rema 1000 – excluding phantom PLB (Godehav Fiskekaker)

The result of the regression analysis with phantom removed does not indicate a statistically significant linear relationship between Rema 1000 retailer image and perceived quality (R2=.0357, F(1,1330)=49.219, p<.05). The complete test statistic is reported in appendix 10. Removing the product with no retailer connection only slightly improved the fit of the linear equation (R2=.0309 and R2=.0357). Hypothesis H2a does not receive support.

5.4.3 H3: The effect of private label brand knowledge

To determine if knowledge of Norwegian private label brands influenced the quality scores awarded PLBs, a linear regression was calculated to predict quality scores based on knowledge score. For this regression knowledge was not used as a ordinal variable,(i.e. uninformed/informed/knowledgeable), instead each respondent was coded with their corresponding knowledge score (i.e. 1-12). The first regression included quality scores for all strategies. A nonsignificant regression equation was found (F(1,15982)=.706, p>.05) with an R2 of 4.423E-05. A complete test statistic is available in appendix 11. Knowledge is not a predictor of quality across all strategies. In order to determine if knowledge predicted quality within each strategy, separate regressions were calculated for each strategy individually. The linear regression for knowledge and perceived quality of chain PLBs was nonsignificant (F(1,5326)=.724, p>.05) with an R2 of .0001. For the linear regression for knowledge and perceived quality for chain endorsed strategies, a significant linear equation was found (F(1,5236)=5.332, p<.05), with an R2 of .001. Respondents predicted quality score for chain endorsed is equal to 2,912 +.0201(Knowledge). The low R2 indicates that knowledge is not a good predictor of perceived quality for chain endorsed private label brands, and only explains 0.1 percent of the variance, see appendix 12 for the complete test statistic. The linear regression for knowledge and perceived quality for phantom PLBs, a nonsignificant linear equation was found, F(1,52346)=2.182, p>.05).

The results of the regression analyses show that the relationship between private label brand knowledge and perceived quality is weak, and knowledge cannot be used as a good predictor for perceived quality. Only for regression between perceived quality and chain endorsed products is there a significant relationship, but the predictive ability of knowledge is very low.

5.4.4 H4: the effect of private label brand proneness

To determine if the respondents classified as prone differed in their quality evaluations of PLBs from the respondents classified as non-prone, a t-test was employed. The t-test statistic requires performing an F-test, in order to determine if the variance of the two populations are equal. The F-test indicates that there was a small statistically significant difference in variance for the groups Prone and Non-prone (F(3167,10943)=1.0784, F_{crit}=1.0492). A complete test statistic is available in appendix 13. The t-test with assumed unequal variances examines if the means of the groups Prone and Non-prone are different. The t-test indicates that Prone (M=3.085) respondents evaluate PLBs as being of statistically significant higher perceived quality than Non-prone (M=2.913), (t_{stat}(8.062 > t_{crit}(1.960). A complete test statistic is available in appendix 14.

5.4.5 Regression analysis

To perform a regression analysis that includes all variables, predictor, dependent and moderator variables, some variables needed to be recoded. This was necessary because they were attributes and qualitative in nature. They cannot be recorded on a directional scale and were therefore coded as dummy variables. A dummy variable is a variable coded as either 1 or 0, depending on if the quality is present or not. For Gender, which is dichotomous, the variable is coded as 1 if male and 0 if female. If the variable can have more than two qualities, such as grocery expenditure, multi-collinearity will distort the test. Therefore, if the variable has more than two categories, one needs *k-1* dummy variables, where *k* is the number of categories. The reference category is the category of the variable omitted from the test, and to which other categories will be compared.

Regression analysis brand name strategy and perceived quality – all strategies

First, a regression which included only strategy and perceived quality was run. Strategy was coded as a dummy variable, where national brand was used as the reference category. The results of the regression indicates that there is statistically significant relationship between strategy and perceived quality, ($F=(3,1328)=294.469$, $p<0.00$) where strategy explains almost 40 percent of the variance in quality ($R2adj=.398$). The respondents predicted quality score is equal 3.594 - .521(Endorsed) - .957(Chain) - .259(phantom). The coefficients for strategy can be compared to the reference national brand, and consequently tells us that endorsed private labels are about half a quality category from national brands. For chain PLBs and phantom PLBs, they are about 1 quality category and 0.3 quality category from national brands respectively. As all strategies are compared to national brand, they can also be compared against each other. The results indicate that phantom PLBs receive higher scores compared to chain and chain endorsed PLBs, and endorsed receive higher scores compared to chain PLBs. The p-values of the t-test statistic tells us that all differences from national brand are statistically significant ($p<.000$). See appendix 15 for the complete test statistics.

Regression analysis brand name strategy and perceived quality – excluding national brands

A regression was also run for strategies excluding national brands, where phantom were used as the reference category. This was done to compare only the private label brand strategies. The results of the regression indicates that there is a statistically significant linear relationship between brand name strategy and perceived quality, ($F(2,996)=213.632$, $p<.000$). The brand strategy explains almost 30 percent of the variance in perceived quality, ($R2adj.=.299$). The linear equation is equal to 3.336 -.263(endorsed) -.698(chain). The results indicate that removing national brands from the regression lowers the R2 by about ten percentage points, see appendix 16 for the complete test statistic. This suggests that variance is greater among all products, which can be explained the differences in mean between PLBs and between PLBs and national brands. I conclusion, hypotheses H1 – H1a, H1b, H1c are supported.

Regression analysis brand name strategy and perceived quality – including control variables

When demographic and socioeconomic variables, i.e. age, gender, grocery expenditure, are added as dummy variables to the first regression, including national brands, the R2 (R2adj=.406) increases incrementally. The effect of age, gender and expenditure, on the relationship between brand name strategy and perceived quality is therefore minimal. The linear relationship was statistically significant ($F(13,1318)=70.888$, $p<.000$). However, for control variables only expenditure over NOK 6000 or below NOK 3000 were statistically significant ($p<0.05$). See appendix 17 for the complete test statistics.

Regression analysis brand name strategy and perceived quality – including proneness

Proneness was the only moderator variable shown to produce statistically significant differences between quality scores. The t-test statistic shows there is a statistically significant difference between Prone and Non-prone respondents. A regression that also includes those consumers classified as Indifferent, where Indifferent is the reference category for the proneness dummy variable, is calculated, see appendix 18. Including indifferent respondents allows drawing conclusions of whether an increase or decrease in proneness among respondents produce statistically significant differences in quality evaluation. The regression included only private label brands, where phantom was the reference category. A significant regression equation was found ($F(4,15979)=345.911$, $p<0.000$), with an R2adj.=0.079. The linear equation was 3.348 - .263(Endorsed) - .698(Chain) - .115(Non-prone) + .057(Prone). All coefficients were statistically significant with $p<0.05$. The coefficients for Non-prone and Prone tells us that a respondent who is Non-prone will have a .115 of a category lower quality score than an indifferent respondent. In contrast, a prone respondent will have .57 of a quality category higher score than indifferent. A comparison between Prone and Non-prone is also possible, and we see that proneness has a positive effect on the relationship. This result supports H4.

6. Findings

This chapter will report the findings of the data analysis and discuss possible explanations and implications. The objective of this thesis has been to understand if the brand name strategy influences the perceived quality of private label brands. Earlier research has uncovered the importance of brand as an extrinsic cue in private label brand quality evaluations, but only one study (Sarkar, Sharma & Kalro, 2015) has examined the relative importance of the brand name strategy. The chapter will begin with a discussion of the descriptive statistics, before the results of the hypotheses testing is discussed.

6.1 Characteristics of the respondents

The data collected through the online questionnaire was subject to quantitative analysis. The descriptive statistics indicate certain characteristics of the respondents. In regards to knowledge of Norwegian private label brands, most respondents were able to correctly identify 75 percent of the products. This suggests that for phantom private labels, that carry no connection to the retailer and therefore no identification of being a PLB, many respondents are still aware of the connection. The respondents also reported differences in retailer image for the three retailers used in this study. This confirms that different retailers carry different associations in regards to quality of their stores and products. The chosen categories, i.e. fish cakes, hamburgers, pesto and orange juice, were purchased by most respondents, with an average of 76 percent of respondents purchasing products in each category. This indicates that many respondents are familiar with the categories, and therefore may have existing knowledge structures of product brands.

Respondents awarded, across strategies, national brands the highest perceived quality scores, followed by phantom and chain endorsed. Chain PLBs receiving the lowest average quality score. The statistics indicate that there was low consensus among consumers in regards to the quality of the products. As quality evaluation is a subjective evaluation dependent on the respondent, this is to be expected. This may be due to differences in familiarity and existing knowledge structures, but is not likely due to demographic or socioeconomic differences. Within product categories, some interesting finds appear in regards to average quality scores.

For pesto, Jacobs Utvalgte receives the highest average quality score, surpassing the national brand Barilla. Jacobs Utvalgte is the PLB category unit leader in the category "wet sauce", and the results indicate that the phantom brand has positive quality associations with consumers. Meny received the highest average score in the "hamburger" category, which can be interpreted in connection to the high retailer image awarded to Meny. This indicates that there may be a transfer of associations from the retailer to the brand for this product.

The proneness score, which measure the inclination to purchase private label brands, was measured by what categories respondents purchased products in and to what degree they chose private labels. 33 percent or respondents were classified as prone, which indicate that they often or always choose private label brand products in the four product categories. 27 percent of respondents were classified as Non-prone, with a proneness score of 0. The score indicates that they either did not purchase products in any of the categories, or that they were not inclined to purchase private label brands in their purchase categories. The majority of respondents, 40 percent, were classified as being indifferent. Their score reflects that they only sometimes or rarely purchase private label brands. The high number of prone respondents was somewhat surprising, as Norwegian consumers still believe PLBs to be of inferior quality (Tine, 2014). However, the sample is university students, and as such this sample may not be representative for the entire population.

6.2 H1: The relationship between perceived quality and brand name strategy

Hypothesis H1 states that the brand name strategy will influence perceived quality, i.e. the different brand name strategies will receive statistically significant different quality scores. The results of an ANOVA test measuring the variance between groups indicates that there is a statistically significant difference between strategies, both including and excluding national brands. This provides support for hypothesis H1. The results indicate that respondents use brand name as an indicator of quality attributes when evaluating products. The findings are in line with earlier research that concludes that brand name is an important extrinsic cue in quality evaluations (Steenkamp, 1990; Ophuis & Van Trijp, 1995; Dick, Jain & Richardson, 1996). The result also suggests that different brand names signal different quality to respondents. A private label brand name signals private label brand quality (Richardson,

Dick & Jain, 1994), and when consumers rely on the name they infer lower quality because they do not believe PLBs to be different (Richardson, 1997).

To test hypothesis H1a, H1b and H1c, and determine the differences between the strategies, regression analysis was used. The results show that brand name strategy explains 40 percent of the variance in quality score when national brands are included. In addition, the regression provides the effect of chain, chain endorsed and phantom brand name relative to national brands. The results show that a chain PLB can be predicted to receive almost 1 quality category score lower than a national brand. For chain endorsed and phantom brands, the number is half a quality category and 0.3 of a quality category respectively. Brand name is used as an indicator of quality, and this may explain why phantom PLBs are predicted to receive higher quality evaluations than chain and chain endorsed PLBs. When a respondent evaluates a phantom PLB product, in comparison to chain or endorsed, they cannot rely on the brand name to determine if the product is a national brand or a PLB. They may therefore believe it to be a national brand due to similarity to a NB or more likely, the lack of similarity to a PLB. A national brand signals different quality attributes than a PLB (Dick, Jain & Richardson, 1994), and the confidence value can therefore assumed to be higher for a phantom brand name. A higher confidence value indicates that the respondent trusts that phantom brand name is a more reliable indicator of quality. The regression was also run excluding national brands, where phantom was used as the reference. The explained variance decreases to 30%, but the relationship is still statistically significant. The decrease can be explained by the smaller difference between PLB means, compared to between NBs and PLBs. In conclusion, the results indicate support for H1, there is a moderate effect of brand name strategy on perceived quality. Hypotheses H1a, H1b and H1c are also supported.

The fact that there is a difference between phantom PLBs and national brands signals that despite receiving high quality evaluations, phantoms are not equal to national brands. This may be explained by the assumed familiarity and knowledge respondents had with the product categories. Several respondents may consequently be aware that these products are not national brands, and may have adjusted their evaluations accordingly. Chain private label brands are the easiest to identify as being private label, and given that consumers infer low quality for PLBs, are more likely to receive low quality evaluations. This result is line with the findings of Sarkar, Sharma and Kalro (2015). The effect of demographic and

socioeconomic variables was also examined, and a regression including all control variables only produces an incremental change in R2. The differences in perceived quality can therefore not be accredited to socioeconomic differences between respondents.

6.3 H2: The effect of retailer image on the relationship between brand name strategy and perceived quality

Hypothesis H2 states that the retailer image will have a positive effect on the relationship between brand name strategy and perceived quality, i.e. a high quality retailer image will result in higher quality evaluations of the PLB products owned by the retailer. To examine this effect a regression analysis for each retailer was used. The first stage of regressions included all PLB strategies. For Rema 1000 and Coop, retailer image only explained about 4 percent of the variation in perceived quality. For Meny, the retailer image explained about 14 percent of the variation, but was not considered a model with good predictive abilities. The results do not support hypothesis H2. To test hypothesis H2a, and examine if the effect is larger for chain and chain endorsed brands, phantom brands were excluded. The regression for Rema 1000, excluding phantom, only resulted in an incremental increase in R2, and did therefore not provide support for H2a.

The effect of retailer image on perceived quality of PLBs is through the transfer of positive associations from the retailer brand to the private label brand. The weak relationship indicated by the results suggests that this transfer process either does not take place, or that the effect is so low that it is not significant. These results contradict previous research (Collins-Dodd & Lindley, 2003; Bao, Bao & Sheng, 2011; Burt & Davies, 2010). A possible explanation is that proneness and retailer image may interact, as suggested by Liu and Wang (2008). A high retailer image may make the respondent more inclined to purchase private label brands at high quality retailers, but it does not result in them assigning the retailer brand name a high confidence value. However, Meny appears to be a special case for their one chain private label brand product. Meny Clean cut hamburger received the highest average quality evaluation in the hamburger category. This suggests that the positive (high) retailer image of Meny could have influenced respondents in their evaluations of this specific product. However, this effect cannot be aggregated because only one product exclusively sold by Meny was examined in the study.

6.4 H3: The effect of private label brand knowledge on the relationship between brand name strategy and perceived quality

Hypothesis H3 states that private label knowledge will influence the relationship between brand name strategy and perceived quality, i.e. a high knowledge of PLBs will result in statistically significant higher quality evaluations. Separate regressions were used to examine the relationship for all strategies and for the strategies individually. The result of all regressions indicate that knowledge does not affect the relationship between brand name strategy and perceived quality. Across all regressions, no statistically significant relationship was found and knowledge only explained less than 1 percent of the variance in perceived quality. The regression for chain endorsed strategy was the only test that returned statistically significant results, but the R2=.0001. In conclusion, no support was found for

The PLB knowledge of respondents was hypothesized to influence perceived quality because knowledgeable respondents were thought to have had more interactions with PLBs. A higher knowledge score would reflect more interactions and familiarity, which research has shown to positively affect quality evaluations (Lee & Lou, 1996; Richardson, Jain & Dick, 1996). A respondent that has a high knowledge score is thought to have more developed knowledge structures, and can evaluate the product on more than the one dimension: is it PLB or not? The results are not in line with the findings of earlier research, and one possible explanation is that the scale was not sufficient to uncover interactions with PLBs across categories, e.g. one respondent might have in-depth knowledge of PLB brands available in one category, but this knowledge is not transferrable to the categories used in this study.

6.5 H4: The effect of private label brand proneness on the relationship between brand name strategy and perceived quality

Hypothesis H4 states that proneness will have a positive effect on the relationship, i.e. respondents who identify as more inclined to purchase private label brands will have statistically significant higher perceived quality scores than Non-prone respondents. The results of a t-test indicates that there is a statistically significant difference between the means of Prone (M=3.085) and Non-prone (2.913) respondents. This result provides support for H4. In order to determine if proneness influences the PLB products of chain, chain endorsed and phantom strategies differently, proneness was included as a dummy in regression calculating the brand name strategy and perceived quality relationship. The results of the regression indicate that the variance in perceived quality explained by proneness is low, but does find a statistically significant regression equation for Prone, Indifferent and Non-prone. The use of indifferent as a reference dummy variable allows conclusions to be drawn on how a proneness higher (or lower) than the mean proneness score influences perceived quality. Hypothesis H4 is supported, as proneness has a positive influence on the perceived quality of private label brands. The results are in line with earlier research, but has here also been shown to effect perceived quality across different brand name strategies.

6.6 Summary of findings

This study has examined private label brand products in Norwegian grocery market. The results show support for the hypothesized relationship between brand name strategy and perceived quality. National brands are perceived to be of higher quality than private label brands. This relationship is shown to be influenced by the proneness of the respondent, but is not influenced by retailer image or knowledge. The relationship is controlled for demographic and socioeconomic variables, but no effect is found. A summary of the hypothesis testing can be found in table Z.

Hypothesis	Finding
H1:Brand name strategy influences perceived quality	Supported
H1a: National brands receive the highest perceived quality score	Supported
H1b: Phantom private label brands receive the highest perceived quality scores of private label brands	Supported
H1c: Chain endorsed private label brands receive a higher perceived quality score than chain private label brands	Supported
H2: Retailer image has a positive effect on the relationship between brand name strategy and perceived quality	Not supported
H2a:The effect of retailer image on the relationship between brand name strategy and perceived quality is more positive for chain and chain endorsed private label brands than for phantom private label brands	Not supported
H3: Private label brand knowledge has a positive effect on the relationship between brand name strategy and perceived quality	Not supported
H4: Private label brand proneness has a positive effect on the relationship between brand name strategy and perceived quality	Supported

Table 6-1: Summary of hypotheses

7. Conclusion

This chapter will present the conclusion of this study, together with the practical implications of the findings. The limitations of the study and recommendations for further research are also presented and discussed. The subsequent chapter will discuss the credibility of the research study, hereunder the reliability and validity.

7.1 Conclusion of findings

The objective of this study has been to examine the relationship between brand name strategy and perceived quality of private label brands, with the purpose of answering the research question: *How does brand name strategy affect the perceived quality of private label brands?* To examine this research question a quantitative approach was selected, and data was collected with an online questionnaire with a sample of 333 university students. Four main hypotheses and four sub hypotheses were formulated. The results of statistical analysis provided support for five of these hypotheses.

The growth in private label brands has been significant in recent years, and retailers are offering PLBs in an increasing number of categories. Some private label brands rival national brands in terms of both price and quality, but if private labels want to develop a strategy best suited for competing with national brands and other PLBs, what brand name should they choose? This study has tried to provide insight into one of the dimensions of brand architecture, by employing the Brand Relationship Spectrum. The BRS defines the relationship between different brand offerings, and for private label brands it can be used to define the degree of connection to the retailer brand.

This study provides evidence that low degree of connection to the retailer brand is beneficial for the perceived quality of private label brands. This is based on the fact that phantom private label brands, who carry no link and chain endorser with limited connection, receive the highest quality evaluations of PLBs in this study. The brand name acts as cue and signals to consumers what to expect in terms of quality. The results of this study suggest that chain brand name signals PLB-quality to the respondent, while a phantom brand name signals NB-quality. As most respondents prefer national brands, signalling PLB-quality appears to result

in lower perceived quality. The conclusion of this study is therefore that brand name strategy influences perceived quality, and that a low degree of retailer connection is recommended.

The combination of brand name strategy and perceived quality have not been examined in tandem for private label brands. These results can therefore provide insights in how to structure private label brand portfolios as the brand name strategy explains almost 40 percent of variance in perceived quality, and consequently provides indication that a valid relationship exists. Retailer image is non-significant, which supports recommending a low degree of retailer connection. However, the study has not examined interaction effects, for example between packaging and brand name (this is discussed further in the next chapter).

7.1.1 Limitations and recommendations for further research

The results of this research may not be generalizable due to the non-probability sampling. However, as student samples are often used in marketing research, this is not a major limitation of this study. Brand name strategy, expressed by the brand name, was the independent variable. Future research should also try to include packaging as measurable variable, either by using an experiment design or using some other form of manipulation. Including more extrinsic quality cues can help to better describe the relationship between brand name strategy and perceived quality by allowing for interaction effects. This study only examined one dependent variable, perceived quality. Perceived quality has been shown to important in consumer purchase decisions, and is therefore an important concept to study, however other dependent variables such as purchase intention can also be included.

This study has examined how the choice of brand name strategy for an individual product influences the perceived quality of that product. Products were selected primarily to ensure fit with the three strategies, and this complicated measuring the effect of retailer image as the number of products in each strategy were not equal for each retailer. Selecting products from the same brand portfolio, e.g. which are owned by the same retailer, carry the same or adaption of the same brand name, and checking for effects across several products may provide further insight into the relationship.

8. Credibility of research

In evaluating the methods used in this thesis it is important to determine whether valid conclusions can be drawn from the results. The methodology chapter gives an extensive description of how the questionnaire was developed, including choices regarding products and development and translation of scales. The analysis chapter also gives detailed descriptions of the methods used to obtain the statistics presented. This chapter examines the reliability and validity of the measurements and questionnaire.

8.1 Reliability and Validity

A valid questionnaire will allow accurate data to be collected and high reliability ensures that the data is consistently collected. Foddy (1994), referenced in Saunders, Lewis and Thornhill (2009) explains that reliability and validity deals with the question making sense: "the question must be understood by the respondent in the way intended by the researcher and the answer given by the respondent must be understood by the researcher in the way intended by the respondent" (p.371). Reliability refers to the extent to which your data collection techniques or analysis procedures will yield consistent findings (Saunders, Lewis & Thornhill, 2009, p.156). Reliability is a required prerequisite for validity, but is not sufficient on its own. Reliability relates to the measurements, while validity relates to the study in its entirety. Validity concerns whether or not the study measures what it is intended to measure. Validity in turn relates to both internal and external factors and the validity of the constructs used for measurements. The reliability and validity of a study is important because they outline what can be considered as scientific proof and ensure that the results of study are reliable and can be replicated.

8.1.1 Reliability

Reliability has four threats, which can all result inn errors in the measurements, these are participant error and bias, and observer error and bias. Participant error relates to factors influencing how the respondents fill out the questionnaire. If respondents were rushed or if they had recently eaten one of the products used for the questionnaire this might influence their answers. The estimated time to complete was 8-10 minutes, and was a conservative

estimate. The majority of respondents spent more than 6 minutes filling out the questionnaire, which indicates that they have taken the time to give thoughtful responses. Participant bias for a questionnaire relates to how the respondent may be influenced to indicate something that is not entirely truthful or accurate. For example, filling out the questionnaire to be in line the researcher's hypotheses. As with all self-administered questionnaires, the researcher has no way of knowing how the respondents act when filling out the questionnaire, but must try to minimize the effect. The questionnaire purposefully did not inform respondents that there were any inherent differences between the products being evaluated, so to avoid them tailoring their responses based on preset beliefs about PLBs. In addition, all scales that included information about PLBs were presented after evaluation of products. The respondents were not given any information that would let them understand that the different brand name strategies were being examined. Respondents were also guaranteed anonymity and were informed of this both in the introduction letter and in the questionnaire itself. Researcher bias and error are not equally important in self-administered questionnaires, as the researcher does not interact with the respondents while they fill out the questionnaire. Researcher error relates to different researchers executing questionnaires differently, by wording questions differently. The structured form of the questionnaires mitigates this threat. Researcher bias may still influence questionnaires if the researcher allows personal attitudes to influence the wording of the questions and the analysis of the results.

There are three methods to assessing reliability in a questionnaire, as outlined by Mitchell (1996), referenced in Saunders, Lewis and Thornhill (2009). The methods are test re-test, internal consistency and alternative form. Test re-test and alternative form both require extending the time and scope of the questionnaire, by administering the questionnaire twice and including control questions. Executing these methods did not appear feasible due to time constraints and including control questions would have made the questionnaire too long. Internal consistency is reported by Cronbach alpha values in the analysis chapter, and relates to measuring the internal consistency of responses across questions. The results indicate that the items have high internal consistency.

A potential threat to this study is the selection of product categories. In order to have an equal number of products for each strategy, other dimensions of the available products had

to be ignored. This relates to packaging and retailer. In regards to packaging, some of the products used in the study are low-priced and have less elaborate packaging. As packaging is an important extrinsic cue, the differences may have affected the evaluations and distorted the results. The objective of this study was to isolate the effect of brand name strategy, and consequently, not controlling for packaging may threaten the reliability. A study which had products as similar as possible in terms of packaging would therefore likely produce more reliable results. Including packaging as a control variable is difficult because quality of packaging is a subjective. It would be the researcher's subjective evaluation of what constitutes high and low quality, and would again threaten the reliability. In regards to retailer, the selected products were not equally distributed among the three retailers in terms of which strategy they represented. This resulted in one retailer being predominantly represented with phantom PLBs, while another was only represented with chain and chain endorsed PLBs. This limited the analysis of the effect of retailer image, which threatens the reliability of these results.

8.1.2 Validity

The internal validity for questionnaires often refers to content validity, criterion-related validity and construct validity (Saunders, Lewis & Thornhill, 2009). Content validity refers to if the questions (items) adequately capture the dimensions of a construct. Perceived quality is influenced by several extrinsic cues. The items used to measure perceived quality include quality, price and packaging. Two items relate directly to quality, one in absolute form and the other relative to other products. All items are considered necessary to measure the construct adequately.

Construct validity refers to the extent which the items for each construct actually measure the underlying construct. Saunders, Lewis and Thornhill (2009) express construct validity as answering the question "how well can you generalize from your measurement questions to your construct" (p.373). All the items, except that pertaining to PLB knowledge, are sourced from existing research. The ability of the items to measure the construct has been previously validated and therefore minimizes the risk compared to developing own scales and items.

The external validity refers to the extent the results can be generalized to apply to other situations and people. The sampling used for this questionnaire is non-probability, which

limits the external validity. First, university students represent a specific sosio-economic group, i.e. they usually have lower disposable income, higher education and part-time occupations. Their lower income may influence their grocery shopping behaviors; if they have lower budgets they may be more inclined to purchase products at lower price points. As PLBs are usually priced lower than NBs this group may be more familiar with private labels, and this may influence their evaluations. To combat this to some degree, monthly grocery expenditure was included so that conclusions which may be applicable to other groups, based on similar expenditure, could be drawn. Second, Norwegian consumers have been found to have specific shopping patterns that differ from consumers in many other countries (NOU). This limits the possibility that the results in this thesis will be applicable for other groups than Norwegians. The PLB knowledge item is also specific to Norwegian consumers, and as a result is not transferrable to other countries.

8.2 Research ethics

Saunders, Lewis and Thornhill (2009) define ethics in the context of research as "the appropriateness of your behavior in relation to the rights of those who become the subject of your work and are affected by it" (p.183). The research for this thesis did collect attitudinal information, which some respondents can find to be sensitive and not wish to give accurate and truthful responses. Research should not subject responders to embarrassment or harm, however, as no personal information was collected, they could be certain that their answers could not be traced back to their person. The respondents were also informed of who was conducting the research, and were given contact information in case they had any concerns or questions. The introduction letter and questionnaire also stated that participation was voluntary and that they could at any time exit the questionnaire. The questionnaire did not collect any identifying data, such as name, address, email and IP-address, and was therefore not subject to requirements set by Norwegian Law concerning treatment of sensitive personal information. The respondents were informed that no information would be collected at two points, both in the introduction letter and in the questionnaire. This again provided assurance to the treatment of their data.

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10. Appendix

10.1 Appendix 1: Overview of products by strategy and retailer

	Brand name	Retailer/ Owner
Phantom	Godehav Fiskekaker	REMA 1000 (Reitan Gruppen)
	Folkets BBQ Burger	Meny (Norges- Gruppen)
	Jacobs Utvalgte Pesto	Meny (Norges -Gruppen)
	Eldorado Premium Appelsinjuice	Meny (Norges- Gruppen)
Chain Brand	Rema 1000 Fiskekaker	Rema 1000 (Reitan Gruppen)
	Meny Clean cut hamburger	Meny (Norges-Gruppen)
	Rema 1000 Pesto	Rema 1000 (Reitan Gruppen)
	Coop Appelsinjuice	Coop
Chain Endorser	Coop «Smak forskjellen» Fiskekaker	Coop
	Nordfjord Rema 1000 Grillburger	Rema 1000 (Reitan Gruppen)
	Coop Smak Forskjellen Pesto	Coop
	Rema 1000 «Bare frisk frukt» Appelsinjuice	Rema 1000 (Reitan Gruppen)
National Brand	Lofoten Fiskekaker	N/A
	Gilde Beef Burger	N/A
	Barilla Pesto	N/A
	Sunniva Appelsinjuice	N/A

10.2 Appendix 2: Translated abbreviated questionnaire

Thank you for participating in this survey!

This survey is conducted as a part of my master thesis at the Norwegian School of Economics and its purpose is to examine how Norwegian consumers perceive the quality of different grocery products. The survey will take approximately 8-10 minutes to finish.

The survey is completely anonymous, and no identifying data will be collected. You can at any time exit the survey. If you wish to participate in the raffle of two universal gift cards of NOK 500 we ask that you follow the link on the final page of the survey.

1 . Age*

- 18 or younger
- 19-25
- 26-30
- 31-40
- 41-50
- 51 or older

2. Gender*

Male

Female

3.

How much would you estimate your household spends on groceries a month?

Groceries: food and non-alcoholic beverages

Under NOK 3000

NOK 3001 - NOK 4000

NOK 4001 – NOK 5000

NOK 5001 - NOK 6000

Over NOK 6000

Assessment of Quality

You will now be asked to assess the quality of 16 different grocery products. You will be presented with four statements about each product, and we ask that you indicate to which degree you agree with each statement.

It is important that you do not take into account whether or not you like the product, but only assess how you believe the quality will be based on the information provided. When the text refers to other products in the same category this indicates the same type of product but from another brand.

Scale used for each of the 16 grocery products

Strongly disagree / disagree / neither disagree nor agree / agree / strongly agree

Items

This product is of high quality

This product has an appealing packaging

This product most likely has a *higher* price than other products in the same category

This product most likely has a *higher* quality than other products in the same category

Norwegian Grocery Stores

You will now be asked to consider three statements for each of the stores Rema 1000, Meny and Coop.

Scale used for each of the three stores

Strongly disagree / disagree / neither disagree nor agree / agree / strongly agree

Items

The supermarket chain [insert name] offers products of high quality in their stores

The supermarket chain [insert name] offers a wide variety of products in their stores

The supermarket chain [insert name] has pleasant stores.

Private Label Brands

Some of the products you have assessed in this survey have been private label brands.

Private label brands are products that are owned by the supermarket or by a supermarket chain and that are exclusive to the said supermarket or supermarket chain. An example of a private label brand is First Price. National brands are owned by a manufacturer, and are most often sold in several supermarkets. An example of a national brand is Toro.

You will now be presented with a list consisting of both private label brands and national brands. We ask that you tick the box beside the brands you know or believe to be private label brands.

- [ ] Prior
- [ ] Gilde
- [ ] Nordfjord
- [ ] Eldorado
- [ ] Gilde
- [ ] Fiskemannen
- [ ] Coop Smak Forskjellen
- [ ] Grillstad
- [ ] Jacobs Utvalgte
- [ ] Rema 1000
- [ ] Godehav
- [ ] Folkets

Purchasing private label brands

In this survey you have assessed products in four categories: fishcakes, hamburgers, pesto sauce and orange juice. We now ask that you indicate if you buy products in each category and if so, if you choose a private label brand.

Categories:

Fishcakes, hamburgers, pesto sauce, orange juice

Scale:

I never buy the product
I buy the product, but never choose a private label brand
I buy the product, but rarely chose a private label brand
I buy the product, and sometimes choose a private label brand
I buy the product, and often choose a private label brand
I buy the product, and always choose a private label brand

10.3 Appendix 3**:** ANOVA, between strategies -National brands included

Variance analysis: one-factor

SUMMARY

Groups	*Count*	*Sum*	*Mean*	*Variance*
Endorsed	333	1023,375	3,073198198	0,238295878
Chain	333	878,4375	2,63795045	0,176307214
National	333	1197	3,594594595	0,172571409
Phantom	333	1110,875	3,335960961	0,166581303

Variance analysis

Source of Variance	*SS*	*df*	*MS*	*F*	*P-value*	*F-crit*
Between groups	166,4681254	3	55,48937512	294,468712	1,62E-146	2,611603374
Withing groups	250,2469266	1328	0,188438951			
Total	416,715052	1331				

10.4 Appendix 4: ANOVA, between strategies - National brands excluded

Variance analysis: one-factor

SUMMARY

Groups	*Count*	*Sum*	*Mean*	*Variance*
Endorsed	333	1023,375	3,073198198	0,238295878
Chain	333	878,4375	2,63795045	0,176307214
Phantom	333	1110,875	3,335960961	0,166581303

Variance analysis

Source of Variance	*SS*	*df*	*MS*	*F*	*P-value*	*F-crit*
Between groups	82,77309341	2	41,3865467	213,6320957	6,27E-78	3,004760822
Within groups	192,9532188	996	0,193728131			
Total	275,7263122	998				

10.5 Appendix 5: Regression analysis - Rema 1000 : all strategies included

SUMMARY (OUT DATA)

Regression statistics	
Multiple R	0,175743976
R Square	0,030885945
Adjusted R-sq.	0,030303195
Standard Error	0,766624366
Observations	1665

ANOVA

	df	*Ss*	*MS*	*F*	*Signifcance F*
Regression	1	31,14895578	31,14895578	53,0002911	5,12201E-13
Residuals	1663	977,3665848	0,587712919		
Total	1664	1008,515541			

	Coefficients	*Standard error*	*t-Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95,0%*	*Upper 95,0%*
Intercept	2,302122427	0,085392627	26,95926459	4,1047E-133	2,134634054	2,469610801	2,134634054	2,469610801
Retailer	0,178500205	0,024518821	7,280129879	5,12201E-13	0,130409197	0,226591213	0,130409197	0,226591213

10.6 Appendix 6: Regression analysis - Meny: all strategies included

SUMMARY (OUTDATA)

Regression Statistics	
Multiple R	0,117038981
R Square	0,013698123
Adjusted R-sq.	0,012956543
Standard Error	0,84104883
Observastions	1332

ANOVA

	df	*SS*	*MS*	*F*	*Signifcance F*
Regression	1	13,06607865	13,06607865	18,47152902	1,85024E-05
Residuals	1330	940,7929679	0,707363134		
Total	1331	953,8590465			

	Coefficients	*Standard Error*	*t-Stat*	*P value*	*Lower 95%*	*Upper 95%*	*Lower 95,0%*	*Upper 95,0%*
Intercept	2,472114955	0,203699999	12,13605778	3,20255E-32	2,072506637	2,871723274	2,072506637	2,871723274
Retailer	0,192422976	0,044771898	4,297851675	1,85024E-05	0,104591739	0,280254213	0,104591739	0,280254213

10.7 Appendix 7 : Regression analysis – Coop: all strategies included

SUMMARY (OUTDATA)

Regression Statistics	
Multiple R	0,208482703
R Squared	0,043465037
Adjusted R-sq.	0,042505624
Standard Error	0,777822436
Observations	999

ANOVA

	df	*SS*	*MS*	*F*	*Signifcance F*
Regression	1	27,40913298	27,40913298	45,30377229	2,84247E-11
Residuals	997	603,1927189	0,605007742		
Total	998	630,6018519			

	Coefficients	*Standard error*	*t-Stat*	*P value*	*Lower 95%*	*Upper 95%*	*Lower 95,0%*	*Upper 95,0%*
Intercept	1,931951857	0,125352909	15,41210235	3,11906E-48	1,685966049	2,177937666	1,685966049	2,177937666
Retailer	0,234395943	0,034824341	6,7308077	2,84247E-11	0,166058528	0,302733357	0,166058528	0,302733357

10.8 Appendix 8: Regression analysis: Retailer image and Perceived quality: Rema 1000 – phantom excluded

SUMMARY (OUTDATA)

Regression statistics	
Multiple R	0,18890806
R Square	0,035686255
Adjusted R-sq.	0,034961207
Standard Error	0,73987232
Observations	1332

ANOVA

	df	*SS*	*MS*	*F*	*Signifcance F*
Regression	1	26,94311594	26,94311594	49,21916711	3,63485E-12
Residuals	1330	728,0566964	0,54741105		
Total	1331	754,9998123			

	Coefficients	*Standard error*	*t-Stat*	*P value*	*Lower 95%*	*Upper 95%*	*Lower 95,0%*	*Upper 95,0%*
Intercept	2,146819431	0,092140283	23,2994664	5,6567E-101	1,9660633	2,327575561	1,9660633	2,327575561
Retailer	0,185607657	0,026456279	7,015637328	3,63485E-12	0,133707072	0,237508242	0,133707072	0,237508242

10.9 Appendix 9: Regression analysis: Knowledge and perceived quality – all strategies

SUMMARY (OUTDATA)

Regression statistics	
Multiple R	0,006650893
R Square	4,42344E-05
Adjusted R-sq.	-1,83332E-05
Standard error	1,046840768
Observations	15984

ANOVA

	df	*SS*	*MS*	*F*	*Signifcance F*
Regression	1	0,774767711	0,774767711	0,706985096	0,400459087
Residuals	15982	17514,28373	1,095875593		
Total	15983	17515,0585			

	Coefficients	*Standard error*	*t-Stat*	*P value*	*Lower 95%*	*Upper 95%*	*Lower 95,0%*	*Upper 95,0%*
Intercept	2,978019043	0,045576588	65,3409829	0	2,888683807	3,067354279	2,888683807	3,067354279
Knowledge	0,004696417	0,005585493	0,840824059	0,400459086	-0,006251777	0,01564461	-0,006251777	0,01564461

10.10 Appendix 10: Regression analysis: Knowledge and Perceived quality – Chain strategy

SUMMARY (OUTDATA)

Regression statistics	
Multiple R	0,011665798
R Square	0,000136091
Adjusted R-sq.	-5,16418E-05
Standard error	1,034862639
Observations	5328

ANOVA

	df	*SS*	*MS*	*F*	*Signifcance F*
Regression	1	0,776344737	0,776344737	0,724918523	0,394573547
Residuals	5326	5703,830074	1,070940682		
Total	5327	5704,606419			

	Coefficients	*Standard error*	*t-Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95,0%*	*Upper 95,0%*
Intercept	2,572613176	0,07803771	32,96628233	4,639E-217	2,419627308	2,725599043	2,419627308	2,725599043
Knowledge	0,008142707	0,009563662	0,851421472	0,394573547	-0,010605986	0,0268914	-0,010605986	0,0268914

10.11 Appendix 11: Regression analysis: Knowledge and Perceived quality – Endorsed strategy

SUMMARY (OUTDATA)

Regression statistics	
Multiple R	0,031624053
R square	0,001000081
Adjusted R-sq.	0,00081251
Standard error	0,943056813
Observations	5328

ANOVA

	df	*SS*	*MS*	*F*	*Signifcance F*
Regression	1	4,741835348	4,741835348	5,331762011	0,020978292
Residuals	5326	4736,710867	0,889356152		
Total	5327	4741,452703			

	Coefficients	*Standard error*	*t-Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95,0%*	*Upper 95,0%*
Intercept	2,911722584	0,071114746	40,94400585	0	2,77230856	3,051136608	2,77230856	3,051136608
Knowledge	0,020124019	0,00871524	2,309060851	0,020978292	0,00303858	0,037209458	0,00303858	0,037209458

10.12 Appendix 12: Regression analysis: Knowledge and Perceived quality – Phantom strategy

SUMMARY (OUTDATA)

Regression statistics	
Multiple R	0,020240741
R Square	0,000409688
Adjusted R-sq.	0,000222006
Standard error	1,038344495
Observations	5328

ANOVA

	df	*SS*	*MS*	*F*	*Signifcance F*
Regression	1	2,353503604	2,353503604	2,182890438	0,139611284
Residuals	5326	5742,276376	1,07815929		
Total	5327	5744,62988			

	Coeffcients	*Standard error*	*t-Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95,0%*	*Upper 95,0%*
Intercept	3,44972137	0,078300272	44,057591	0	3,296220772	3,603221967	3,296220772	3,603221967
Knowledge	-0,014177476	0,009595839	-1,477460808	0,139611284	-0,03298925	0,004634298	-0,03298925	0,004634298

10.13 Appendix 13: F-test: Prone and Non-prone

F-Test: Two samples for variances

	Prone	*Non-prone*
Mean	3,085053517	2,912687266
Variance	1,119700093	1,038265594
Observations	5232	4272
df	5231	4271
F	1,078433206	
P(F<=f) one-tail	0,004878743	
F-critical, one-tail	1,049217691	

10.14 Appendix 14: T-Test: Prone and Non-prone

t-Test: Two sample assuming unequal variances

	Prone	*Non-prone*
Mean	3,085053517	2,912687266
Variance	1,119700093	1,038265594
Observations	5232	4272
Hypothesized Mean difference	0	
df	9249	
t-Stat	8,062515129	
P(T<=t) one-tail	4,20154E-16	
T-critical, one-tail	1,645018393	
P(T<=t) two-tail	8,40308E-16	
T-critical, two-tail	1,960220507	

10.15 Appendix 15: Regression brand name strategy and perceived quality – all strategies

SUMMARY (OUTDATA)

Regression statistics	
Multiple R	0,632042017
R-Square	0,399477112
Adjusted R-sq.	0,398120509
Standard error	0,434095555
Observations	1332

ANOVA

	df	*SS*	*MS*	*F*	*Signifcance F*
Regression	3	166,4681254	55,48937512	294,468712	1,6168E-146
Residuals	1328	250,2469266	0,188438951		
Total	1331	416,715052			

	Coefficients	*Standard error*	*t-Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Nedre 95,0%*	*Øverste 95,0%*
Intercept	3,594594595	0,02378829	151,1077347	0	3,547927871	3,641261318	3,547927871	3,641261318
Endorsed	-0,521396396	0,033641722	-15,49850492	6,34119E-50	-0,58739311	-0,455399683	-0,58739311	-0,455399683
Chain	-0,956644144	0,033641722	-28,43624175	2,6022E-139	-1,022640858	-0,890647431	-1,022640858	-0,890647431
Phantom	-0,258633634	0,033641722	-7,687883289	2,89521E-14	-0,324630347	-0,19263692	-0,324630347	-0,19263692

10.16 Appendix 16: Regression brand name strategy and perceived quality – national brands excluded

SUMMARY (OUTDATA)

Regression statistics	
Multiple R	0,547905282
R Square	0,300200198
Adjusted R-sq.	0,298794977
Standard Error	0,44014558
Observations	999

ANOVA

	df	*SS*	*MS*	*F*	*Signifcance F*
Regression	2	82,77309341	41,3865467	213,6320957	6,26556E-78
Residuals	996	192,9532188	0,193728131		
Total	998	275,7263122			

	Coefficients	*Standard error*	*t-Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95,0%*	*Upper 95,0%*
Skjæringspunkt	3,335960961	0,024119829	138,3078186	0	3,288629447	3,383292475	3,288629447	3,383292475
Endorsed	-0,262762763	0,03411059	-7,703260662	3,19442E-14	-0,329699631	-0,195825894	-0,329699631	-0,195825894
Chain	-0,698010511	0,03411059	-20,46316172	5,78195E-78	-0,764947379	-0,631073642	-0,764947379	-0,631073642

10.17 Appendix 17: Regression brand name strategy and perceived quality + control variables

SUMMARY (OUTDATA)

Regression statistics	
Multiple R	0,641471684
R Square	0,411485921
Adjusted R-sq.	0,405681154
Standard error	0,431360444
Observations	1332

ANOVA

	fg	*SK*	*GK*	*F*	*Signifkans-F*
Regression	13	171,4723769	13,19018284	70,88758504	1,623E-141
Residuals	1318	245,242675	0,186071832		
Total	1331	416,715052			

	Coefficients	*Standard error*	*t-Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95,0%*	*Upper 95,0%*
Intercept	3,486932393	0,223162843	15,62505815	1,27508E-50	3,049139225	3,924725562	3,049139225	3,924725562
Endorsed	-0,262762763	0,033429755	-7,860146149	7,92122E-15	-0,328344104	-0,197181422	-0,328344104	-0,197181422
Chain	-0,698010511	0,033429755	-20,87991681	7,18942E-84	-0,763591852	-0,632429169	-0,763591852	-0,632429169
National	0,258633634	0,033429755	7,736629567	2,01851E-14	0,193052292	0,324214975	0,193052292	0,324214975
4001 -5000	0,042909962	0,04976451	0,862260322	0,388701138	-0,054716337	0,140536262	-0,054716337	0,140536262
over kr 6000	0,151986786	0,054156588	2,806432096	0,005083069	0,04574426	0,258229312	0,04574426	0,258229312
kr 3001 - kr 4000	0,053595383	0,046188564	1,160360455	0,246112217	-0,037015749	0,144206515	-0,037015749	0,144206515
under kr 3000	0,099548149	0,046706611	2,131350308	0,033244874	0,007920731	0,191175567	0,007920731	0,191175567
Male	-0,020320632	0,023977781	-0,8474776	0,396882832	-0,067359416	0,026718152	-0,067359416	0,026718152
26-30	-0,295596359	0,219268342	-1,348103226	0,177856822	-0,72574943	0,134556712	-0,72574943	0,134556712
31-40	-0,295836189	0,22502217	-1,314697966	0,188840145	-0,737276921	0,145604543	-0,737276921	0,145604543
19-25	-0,194101246	0,217254519	-0,893427886	0,371791177	-0,62030367	0,232101178	-0,62030367	0,232101178
41-50	-0,182432446	0,308230231	-0,59187071	0,554038677	-0,787107883	0,422242992	-0,787107883	0,422242992
Over 50	-0,304352451	0,26624495	-1,143129477	0,253192432	-0,826662612	0,217957711	-0,826662612	0,217957711

10.18 Appendix 18: regression brand name strategy and perceived quality + proneness

SUMMARY (OUTDATA)

Regression statistics	
Multiple R	0,282295593
R Square	0,079690802
Adjusted R-sq.	0,079460422
Standard error	1,00437959
Observations	15984

ANOVA

	df	*SS*	*MS*	*F*	*Signifcance F*
Regression	4	1395,789054	348,9472635	345,910734	4,502E-286
Residuals	15979	16119,26944	1,008778362		
Total	15983	17515,0585			

	Coefficients	*Standard error*	*t-Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95,0%*	*Upper 95,0%*
Intercept	3,347881215	0,016789854	199,3990685	0	3,314971213	3,380791216	3,314971213	3,380791216
Endorsed	-0,262762763	0,019459459	-13,50308653	2,5271E-41	-0,300905491	-0,224620034	-0,300905491	-0,224620034
Chain	-0,698010511	0,019459459	-35,86998486	4,4563E-271	-0,736153239	-0,659867782	-0,736153239	-0,659867782
Non-prone	-0,114936191	0,019794265	-5,806539945	6,49875E-09	-0,153735176	-0,076137205	-0,153735176	-0,076137205
Prone	0,05743006	0,018667753	3,076431361	0,002098486	0,020839165	0,094020955	0,020839165	0,094020955