

The influence of behavioural pricing strategies in consumer decision-making

A marketer's perspective

Bachelor's Thesis Patrik Tuokko 08.08.2019 Marketing Program

Author Patrik Tuokko		
Title of thesis The influence of behavioural p	ricing strategies in consumer	decision-making
Degree Bachelor's degree		
Degree programme Marketing		
Thesis advisor(s) Olga Lavrusheva & Emma	Salminen	
Year of approval 2019	Number of pages 32	Language English

Abstract

Pricing is one of the key marketing challenges for every company to confront. Several mechanisms from the fields of psychology, behavioural economics and marketing have been proposed to explain why and how certain behavioural pricing methods can be beneficial for a marketer. This research examines the relationship between psychological decision-making theories and consumers' responses to price changes and provides theoretical evidence and managerial guidelines for the use of behavioural pricing methods.

Many companies have been discovered to rely heavily on cost-based pricing, whereas value-based or behavioural pricing strategies have not received as much attention in practical use. The strategies that this thesis covers – as for instance just-below pricing, use of price points and different signaling principles – are built on the assumption that consumer demand rather includes systematic distortions than is a perfectly linear equation, which long-standing microeconomics suggests.

Specifically, the research results in this thesis indicate that consumers' perceptions of prices can be influenced with external factors, and that prices can be increased such that the difference is only noticeable, implying no effect in purchase decision. Concepts such as price perception, reference price and latitude of price acceptance suggest many tactics to deploy. For instance, there are several strategies to make a price appear to be lower than it in fact is. Furthermore, depending on the product and target market, it has been argued that a price increase should not exceed a certain percentage at a time, as slight increases are more likely to match the customer's existing reference price.

The central focus of this thesis is to examine theories about decision-making and behavioural economics in order to find the most applicable behavioural pricing strategies for today's marketing practitioners to utilize. This study uses psychological theories to identify behavioural pricing factors contributing to increases in sales. Among the theories and factors examined, reference price seems to be the most significant determinant of consumer purchase. Implications of this thesis for theory, research, and practice are discussed. The managerial recommendations are justified with research observations from divergent decision-making environments.

Keywords Behavioural pricing, reference price, consumer behaviour, price perception, price acceptance

Table of Contents

Ab	str	act
110	ou	uci

1	Ir	ntroduction1
	1.1	The theoretical framework2
	1.2	Structure of the research3
2	P	ricing5
	2.1	Price as an element of the Marketing Mix5
	2.2	Cost-based and value-based pricing6
3	В	ehavioural pricing
	3.1	Defining behavioural pricing8
	3.2	Behavioural pricing strategies9
4	R	eference price 14
	4.1	Prospect theory14
	4.2	Adaptation-level theory16
	4.3	Assimilation-contrast theory16
5	P	rice perception17
	5.1	Defining price perception17
	5.2	Choice overload
	5.3	Distance and magnitude effects18
	5.4	Weber's law19
	5.5	Latitude of price acceptance20
6	D	iscussion and conclusions23
	6.1	Theoretical implications23
	6.2	Managerial implications24
	6.3	Limitations and future research25
Aj	ppen	dices27
R	efere	nces29

1 Introduction

Pricing is considered one of the most important strategic functions for a company. When setting prices, a marketer must consider the existing and potential clients' value bases, not only the costs of the product or service. As consumers, when making a purchase, we generally look for value – the finest combination of price and quality. With guidelines that behavioural pricing offers, companies can foster their sales as behavioural pricing combines the value-based perspective of a customer with the economic preferences of a company. Based on the incrementally growing research about behavioural pricing, it can be noted that consumers' responses to price changes can be psychologically influenced, however these aspects are not typically considered in managerial use when setting prices (Dolan & Simon, 1996).

Price is not only a source of revenue but also a significant determinant of consumers' purchase decisions. When considering a purchase, a consumer generally faces 99-ending prices, different bundle discounts or visually modified price tags. These are some of the very basic forms of behavioural pricing. However, there are numerous pricing methods with a specific purpose which are rarely registered by an individual and perhaps not even consciously detected (Somervuori, 2012). By analyzing these methods, the purpose of this thesis is to provide an overview of today's behaviourally driven price setting environment. Dynamic pricing, in which companies respond to demand in real time, is making inroads in numerous sectors through online markets and algorithmic pricing tools. Thus, for a marketer, it is critical to comprehensively understand the influence of price information on consumer decision-making. As pricing is becoming more customized and responsive through profiling and observations on consumers' digital footprints, many of the concepts introduced still hold true and can be applied to online environments as well.

When setting prices, some companies apply principles from psychology and behavioural economics into their pricing strategies to increase profitability, even though the traditional economic theory may suggest otherwise. Over the past three decades, it has been noticed that the principles of rationality are incomplete when applied to the context of pricing (Putler, 1992; Miyazaki, 2003; Larson, 2014). Demand has its distortions and kinks making the simple

equation of demand questionable, as the exceptions in demand incrementally seem to be more of a norm than atypical, hence systematically different from the standard economic observations (Ariely, 2009). Therefore, a thorough understanding should be achieved on why psychology-based pricing can be effective and how it can influence the decision-making of a consumer. Accordingly, the purpose of this study is to form an understanding on how those strategies can be implemented by marketing practitioners. In my research I will focus on answering the following question:

How can behavioural pricing be utilized in marketing?

This means in other words the question of what behavioural factors should be considered from the perspective of a marketer when defining an applicable pricing strategy.

In this thesis, I will use the following sub-questions:

1) What mechanisms are behind psychology-based pricing strategies?

2) What factors determine the role of price perception in consumer buying process?

Despite being an acknowledged phenomenon (Kalyanaram & Winer, 1995; Miyazaki, 2003), behavioural pricing is a versatile combination of human decision-making knowledge, marketing and economic principles. This study seeks to bring these features to the perspective of a marketer. Hence, the objective of the study is rather to deliver valuable knowledge and theories on the use of behavioural pricing than to give complete answers to every situation. I will focus on the practices of utilizing the theories of consumer decision-making from a marketer's perspective. Nevertheless, in this thesis I will provide theoretical and managerial guidelines that could be incorporated into analytical models to enhance a company's sales performance.

1.1 The theoretical framework

The theory of behavioural pricing involves characteristics from psychology, consumer research and behavioural economic theories. These days, the behavioural models have been widely adapted to economics, decision-making and finance. Researchers agree that psychology can be effectively utilized to increase the attractiveness of a price (Thomas & Kadiyali, 2007; Somervuori, 2012). Recognizing the fact that consumers' purchase decisions derive from expectations of an acceptable and fair price, behavioural pricing literature bases many of its theories and applications on reference price.

Reference price equals the amount of money that one is prepared to pay for a product – in other words, the price that is regarded as reasonable. Psychological decision-making models such as prospect theory, assimilation-contrast theory and adaptation-level theory constitute the basis of behavioural pricing strategies. These concepts address the discovery that a price perception always derives from an individual's past experiences. This reference scale can be influenced, as for example with 99-ending prices (just-below pricing), visually adjusting the price tag, regulating the amount of choices or modifying the frequency of price increases. Precise pricing (5,02 \in) will be left out of analysis, as it has recently been proved to be ineffectual (Wieseke et al., 2016).

The use of a behavioural pricing strategy is always context dependent and it is typical that multiple behavioural policies are employed cotemporally (Wansink & Hoch, 1998). With an analysis based on reference price, companies may be able to define a maximum threshold within which a price increase does not affect a consumer's will to purchase. This is generally called the latitude of price acceptance or zone of indifference (Kalyanaram & Little, 1994; Crompton, 2015).

1.2 Structure of the research

The rest of the thesis will be structured followingly: Chapter 2 delivers a description of pricing as a marketing element and a justification for the use of behavioural pricing in order to increase sales performance. There is also a brief comparison of cost-based and value-based pricing which directs to the use of behavioural pricing. In chapter 3, behavioural pricing is defined. Several strategies from a rather practical perspective are reviewed with an analysis that covers managerial examples as well as experiment-based evidence from pricing literature. Accordingly, different contexts and commercial benefits of behavioural pricing strategies are explained.

Chapter 4 studies a consumer's reference price and clarifies its components. The three generally approved theories behind reference price – adaptation-level theory, prospect theory and assimilation-contrast theory – are discussed. This chapter provides an overview of how and why a consumer's reference price is influenceable. Chapter 5 continues the consumer analysis by explaining the psychological theory behind price perception. Beginning with the definition of price perception, concepts such as distance and magnitude effect are briefly reviewed. Those are important factors in how numbers and prices are registered. Subsequently, the research proceeds with an examination of the latitude of price acceptance, which can be used to determine the applicable price increase for a certain product and target market. In chapter 5, the essential components of the behavioural pricing theory, including the latitude of price acceptance, are examined through a recent example of a large American corporation.

Finally, in chapter 6, all theories are summarized into a simplified pattern of consumer decision-making process. Chapter 6 covers managerial and theoretical implications along with suggestions and recommendations for exploiting the behavioural pricing strategies. Furthermore, the limitations that behavioural experiments typically involve are reported. Comments about possible future research are also presented. At the end of the thesis, the related appendices and references can be found.

2 Pricing

Price is typically described as "the amount of money charged for a product or service", as Kotler & Armstrong (2010, p. 262) state. A definition frequently used in the marketing literature is "the sum of all the values that customers give up in order to gain the benefit of having or using a product or service" (Kotler, 2013, p. 284). At a minimum, price represents the required amount of economic sacrifice in return of a desired good. The common perspective of economics suggests that a company with enough market power can affect the price. According to Kotler (2013), the most influential factors for a price-setting company to consider are current market demand, competitors' prices and its own marketing strategy.

When setting a price, a company aims to send a message. With the right pricing policy, the offering may be perceived as luxury or rather affordable. For a marketer, the top priority is to discover the cues that consumers perceive as value indicators. The perceived value influences the consumer decision-making process, as when there are no other quality indicators available, people use price to determine whether an item belongs inside their personal value range (Somervuori 2012). This is because price is observable and generally regarded as correlated with quality. The impact of a pricing policy is critical to understand, since the price must be high enough to ensure confidence, whereas too expensive may be rejected by customers. Thus, price is a market signal.

2.1 Price as an element of the Marketing Mix

The traditional business foundation model, Marketing Mix, offers four tools for a company to make marketing decisions – place, price, product & promotion (McCarthy, 1960). Of these, pricing is the single variable that is flexible, meaning it can be changed rapidly when required. Moreover, price exists in every commercial transaction. The key objective of pricing is profit maximization, and pricing strategies vary according to the company's selection, costs, market conditions and competitors' activities (Kotler, 2013).

When a client is about to make a purchase decision, price triggers a first impression. In general, the choice is based on the perceived value of the entire marketing mix – however, when confronting a selection of similar items by diverse sellers, price is the most impactful variable. As Kotler (2013) states, an organization can adopt multiple pricing strategies which are determined by the company's objectives.

2.2 Cost-based and value-based pricing

Cost-based pricing is one of the most frequently used pricing methods, in which a certain markup is added to all the costs it incurs to manufacture the product (Kotler, 2013). According to Somervuori (2012), cost-based pricing has been historically utilized mostly due to its simplicity. However, several academics in the recent decades have begun to challenge the traditional cost-based pricing model, as it ignores the actions of competitors and clients. Both Kotler (2013) and Nagle & Hogan (2006) found that most companies' pricing strategies are often incomplete as cost-based pricing lacks the value perspective of a customer.

Value-based pricing takes a contrary approach, focusing on the potential value of the item for the customer (Somervuori, 2012). This value can initiate from features such as increased efficiency, stability or happiness (Dholakia, 2017). In both pricing strategies, the company aims to discover a price floor and a price ceiling that define the applicable price range. In cost-based pricing, the price range is for market powers to determine, whereas in value-based pricing the limits are how much the customers are willing to pay, e.g. thresholds where the price will become disallowed. Typically, companies aim to set the price inside this range and the valuebased price tends to be higher. Even though there is quite an extensive amount of evidence on behalf of value-based pricing and its commercial advantages, the managerial use of them remains unpopular (Dolan & Simon, 1996). One of the key reasons for that has been suggested to be the complexity of defining the customer's perceived value.

Marketing literature agrees that a customer rather seeks a value providing product than a lowpriced one. As an example of a value-driven pricing strategy, the Swedish furniture company IKEA applies a pricing model called "design to price". It is built backwards to the cost-based model as IKEA begins the process by finding an optimal price point where customers perceive the highest value. After that, when manufacturing the product, the objective is to meet that price point (Håkansson & Waluszewski, 2007). Price points will be discussed more specifically in chapter 3.

Besides cost and value information, a business must know how its existing and potential customers perceive, process, and respond to prices. By observing the clients' reactions, a company can make optimal pricing decisions. The perceived value affects purchase decisions, and it can be influenced by marketers. As Larson (2014) amongst other scholars recently concluded, companies with enough market power may be able to benefit from numerous behavioural pricing strategies. From the following chapter on, those strategies and mechanisms will be discussed.

3 Behavioural pricing

3.1 Defining behavioural pricing

Behavioural (or psychological) pricing uses theories from behavioural decision-making and consumer research and applies them in pricing contexts. Until three decades ago, the consensus among economists was that psychological tools were too unstable for economics (Camerer & Loewenstein, 2004). However, in the past decades there has been a movement of applying the cognitive processing approach to the standard economics. As a result, the revised combination of traditional economics and experimental observations from marketing and psychology is nowadays known as behavioural pricing.

Scholars do not share a consensus on a clear conceptualization as the term "behavioural pricing" is somewhat new. However, one definition by Miyazaki (2003, p. 471) is widely recognized in pricing literature: "Behavioural pricing constitutes an expansive subset of pricing research wherein prices and pricing are examined with respect to their human elements – that is, with respect to how humans attend to, perceive, process, and evaluate price information, as well as how they go about determining the price at which a particular item should be sold or purchased."

Thus, behavioural pricing is a composition of pricing strategies which effectively utilizes customers' irrational responses to prices to enhance sales prospects. Besides psychological literature, many of the behavioural theories which apply to pricing have been adopted in finance and decision-making. According to Schindler & Wiman (1989), prices have been psychologically modified for over 100 years, and for instance, the use of just-below pricing has become globally extensive since then.

3.2 Behavioural pricing strategies

Price points

Cambridge dictionary defines a price point as a "*point of scale of possible prices for a product*". Among behavioural economists, price points are certain retail prices driven by market powers (Blinder et al., 1998). This means, from a psychological perspective, demand-related prices that companies may be afraid to increase.

Blinder et al. (1998) explain the idea of psychologically kinked demand curve through price point theory. It suggests that prices can get "stuck" at numbers such as \$4,99 or \$19,95 through their psychological significance – and consequently, people form a barrier against price increases. For instance, one may be willing to pay $9,99 \notin$ / month for a movie subscription service but after a price point of $10 \notin$ demand might fall quickly. Such barriers can be breached, but it requires more than in a pure economic setting in which the demand curve is perfectly linear. The psychological significance will be explained more specifically in chapters 4 and 5.

In his book Predictably Irrational (2009), Dan Ariely suggests that price points have an extremely critical role in a consumer's perceived value of a product. In his experiment he came up with the theory of useless price points. Ariely noticed three price points on the website of The Economist: 1) An internet-only subscription (\$59), 2) a print-only version (\$125), and 3) a combination of internet and print versions (\$125).

When Ariely tested the three offers on a large number of participants, 84 % of them preferred the complete package deal. Later, when the print-only option was removed and the respondents were given an opportunity to choose between the two remaining options, 68 % chose the web-only subscription. Since one could purchase the complete web & print package for the same price as the second price point, option 2 represents the useless price. However, without the second price point, the entire setting changes. The purpose of the print-only version was only to deliver an illusion that in comparison, option 3 would be a superior choice. When the option 2 is left out, option 3 quickly seems unreasonable.

The use of price points is based on the observation that consumers cannot determine a fair price unless they see it in context. In a similar experiment conducted by Northcraft & Neale (1987),

respondents estimated the worth of houses in two different neighborhoods. The researchers manipulated the listing prices to be higher than in a real-world setting. Results indicated a clear useless price point effect caused by the additional, overpriced options. The participants were willing to pay more as their reference was anchored to a non-existent, higher price point.

Just-below prices and rounded prices

As mentioned, the long-standing microeconomic theory presents a typical demand curve of a product as linear and downward sloping to the right. However, contemporary research recognizes that pricing just below a whole number can raise customers' willingness to pay and thus create positively sloped segments in demand functions. Thomas, Simon & Kadiyali (2007) point out that the downwards slope usually holds, but the curve has its distortions from the linear curve. These flaws derive from psychological pricing and mostly from just-below prices (Allen & Dare, 2006).

Just-below prices (sometimes charm prices or odd prices) typically end one or a few cents below a round number $(5,99 \notin)$. As stated above, just-below prices do not rely on mathematical calculations as they are more of a response to individuals' behavioural patterns (Larson, 2014). However, for decades, many scholars have acknowledged that just-below prices have a positive effect on retail demand (Brenner & Brenner, 1982; Holdershaw et al., 1997) The more recent studies largely support the former research – in a popular example in the marketing field, researchers from the University of Chicago and MIT tested a certain piece of clothing at \$34, \$39, and \$44. The exact same product attracted most buyers at \$39 – even with a higher demand than the \$34 price (Anderson & Simester, 2003).

Amongst behavioural researchers, the commonly acknowledged explanation for the use of justbelow prices is that people read text and numbers as well as prices, from the leftmost digit first. Therefore, according to Brenner & Brenner (1982), being exposed to a constant flow of price information, people register only the most powerful signal – the first digits of a price tag. More specifically, behavioural pricing literature acknowledges two effects with a relationship to price endings – level and image effects. Level effects refer to consumers' tendency to round numbers down to the subsequent lower whole amount. For instance, $4,99 \in$ would be perceived as 4,00 \in and thus remarkably lower than the actual number. Moreover, people compare the respective digits of two prices one by one, beginning with the leftmost digit (Bray & Harris, 2006). Accordingly, a comparison of 4,99 \in and 5,00 \in would stop at the first digit, giving a considerable advantage to the just-below priced product. Image effects relate to consumers' image of just-below price digits. Schindler & Kibarian (2001, p. 99) concluded that people perceive 99-ending prices as *"lowered, discounted or at least not recently increased"*.

Holdershaw (1997) observed all advertising material in the three most popular newspapers in New Zealand over a period of seven days and noticed the following just-below pricing pattern which is widely recognized these days. Table 1 presents her conclusion about the typical just-below pricing pattern.



Figure 1: The practical use of just-below pricing (Holdershaw, 1997).

More recently, Levy et al. (2011) found that the most frequent changes in prices are those that keep the price endings at "9". Furthermore, 9-ending prices were noted to be less likely to be changed than rounded or precise prices. While the use of just-below prices seems to be justified with extensive evidence, the contemporary trend for retailers is however to employ rounded prices. Wieseke et al. (2016, p. 474) recently challenged the superiority of just-below prices as a self-evident advantage in retail, since their results indicate that people perceive rounded prices more convenient. The scholars noticed that rounded prices "*save time and effort during transactions through their high cognitive accessibility*". Thus, the conclusion was that rounded prices affect sales positively in purchase situations in which high level of convenience – in this context such as time and effort savings – is related. A practical example of such convenience would be using rounded numbers when the payment must be done in cash.

Price endings are also considered messages about the item's quality image. Research agrees that just-below prices are typically associated with an inferior quality, whereas rounded prices indicate an upscale image (Schindler & Kibarian, 2001). To illustrate, just-below pricing is used by the affordably positioned clothing brand Zara, whereas the luxury car manufacturer Tesla employs rounded numbers.

Selling time over money

A similar phenomenon ascribed to the convenience effect has been studied extensively in Northern America. Researchers in Stanford Graduate School of Business found that 48 % of newspaper ads included a reference to time. They conducted five experiments that all resulted as "the time versus money effect" – for example, when asked to spend a little money in a retail item, in this case lemonade of iPod, consumers were willing to pay less than when asked to spend a little time to enjoy the product (Mogilner & Aaker, 2009). Research concludes that a consumer's relationship with time appears to be more meaningful and personal than it is with money. This finding is comparable to what Reed et al. (2007) concluded in a study that measured whether how consumers spend their time or money reflects more their personal identity.

Framing, congruency, context & signaling principles

Larson (2014) analyzed a wide spectrum of behavioural pricing tools. In his research article, more than 50 pricing psychology principles are reviewed and categorized. To his knowledge, it was the first time to categorize such a comprehensive amount of genuine behavioural pricing strategies. The strategies are presented in Appendix 1.

Framing principles are based on a manner of highlighting product features in ways of perceived to be positive. The most common concept is to connect the word "free" into an offer. Larson (2014) concluded that offering free units tends to increase demand more than an equivalent price discount. Pricing in multiple units instead of single prices might be a superior strategy,

as Wansink & Hoch (1998) conducted a study in which retail sales gains from multiple-unit pricing in promotions were 165 % while single-unit promotions averaged 125 %.

According to Larson (2014, p. 13), congruency principles can be defined as "strategically adjusting the information communicated by a price with the message from other sources so that the combination boosts willingness-to-pay". When consumers see the prices lower after purchasing, they tend to buy less in the future. The most common practical uses of congruency principles are implying fairness (f. ex. "prices frozen for three months"), modifying package design and visually adjusting the price tags, such as using larger numbers and photos in certain situations.

Context principles link to the information that people store around an item. One famous example by Simonson & Tversky (1992) is that when given a choice between three differently priced though similar items, consumers typically choose the middle option (extremeness aversion). Thus, the attractiveness of the middle-priced product may be increased by adding a third option – and correspondingly, people may lose interest if the desired option is an extreme option. Other commonly utilized context principles are revealing the most attractive items first (product sequence) and decoy pricing, meaning a change in individual item prices to sell bundle.

Signaling principles refer to the visual and psychological messages that the company wants to send. The most employed signaling principle is just-below pricing, usually with digits that end with nines or fives depending on the number of digits, as Holdershaw (1997) proposed. Other signals can be sent by adjusting the color, symmetry, order, and length of price. A discount may also be shown as percentage or absolute amount, depending on which seems to be more impactful.

4 Reference price

A reference price is the price which consumers use when trying to determine whether the price reflects their preferred quality-price ratio. It is the amount of money that one expects to pay before becoming aware of the actual price. As Ariely (2009) concludes, people are not capable of determining the "right" price unless there is a context. When making decisions, people use external references to justify the action. According to Monroe (1973), the behavioural pricing literature well concurs that people use reference prices to evaluate product prices. As market prices are determined by competition, a consumer's reference price constantly changes – as new information is stored, people build an image of what they consider a fair and reasonable price. Therefore, from a marketer's perspective, it is vital to do research on competing products and pricing policies as a consumer's reference price is likely to be the price tag of a similar item close by.

Research on consumer behaviour and psychology identifies two types of reference prices. Internal reference price is a memory-based standard that people use when comparing prices (Putler, 1992). This means in other words an individual's past experiences buying a certain product. External reference price is influenceable and so left for the marketers to determine. Companies can affect one's reference price through many tactics, such as advertisements, signs and specifically designed price tags. Behavioural marketing literature explains the concept of reference price with three theories (Monroe, 2003), which will be discussed in the incoming subsections.

4.1 **Prospect theory**

Prospect theory, presented by Kahneman & Tversky (1979), provides a behavioural framework to reference price-based decision-making. It indicates how consumers decide between alternatives under risk and uncertainty. It proposes that a consumer reacts more strongly when perceiving a price above their reference point (a loss) than when seeing a price below their reference point (a gain). This behaviour is called loss aversion and it is illustrated in figure 2. The opposite action is called gain seeking. Janiszewski & Lichtenstein (1999) agree with the argument of consumers comparing market prices to their inner reference point. Putler (1992) experimented the reference price effects on retail eggs sales and discovered that the reaction to a price increase was 2.4 times the response to an equal absolute discount.



Figure 2: Prospect theory (Kahneman & Tversky, 1979) proposes that consumers are risk averse with positive decisions and risk seekers with negative decisions, suggesting an S-shaped value function.

In accordance with prospect theory, there are some managerial suggestions that behavioural researchers agree on. Crompton (2015) states that new products or services should not be underpriced as this may cause an unintended, internal reference price. Consequently, if the fee is later increased, the item is likely to be regarded as overpriced. Crompton (2015) proposes that instead of low introductory prices, free trials might be a superior strategy. From a client's point of view, this is because the risk of monetary loss does not exist, and zero price means zero expectations – meaning no risk of customers marking it as a reference point. Thus, declining a low-priced product or service is a form of risk avoidance. Somervuori (2012) agrees with the risks of underpricing new products and services.

4.2 Adaptation-level theory

Adaptation-level theory supports the discovery of reference price-based evaluation. Presented by Harry Helson in 1947, the theory demonstrates that an individual's judgement on a price derives from their past experiences. Therefore, when a consumer sees a price, he/she perceives it as low, medium of high. Every observed price pushes this adaptation level towards the newest price (anchoring effect).

According to Helson, minor changes in prices are perceived as neutral and thus they have little or no effect on the adaptation level. In contrast, a major difference in price can change the adaptation level. For example, when a consumer has seen a particular pair of shoes for $100 \in$, they might perceive the product as middle priced. When the same product shows again for 110 \in , the adaptation level can change under prevailing conditions and it might prevent the sale from happening.

4.3 Assimilation-contrast theory

As Kalayanaram & Little (1994) propose, a consumer's reference price and price acceptance are largely based on assimilation-contrast theory (Sherif and Hovland, 1961). This theory relates to adaptation-level theory, accepting that the judgement of a new price encountered by an individual depends on their past experiences that consumer uses to form a reference scale. The evaluation of future product prices is based on the reference scale. If an encountered price sets inside the consumer's reference scale, the price evaluation does not change (assimilation effect). Hence, when the price outside the reference scale, it may push the reference scale towards the price and change the evaluation (contrast effect).

5 Price perception

5.1 Defining price perception

In a buying decision, price is one of the driving forces. However, the perception of price often plays an equally significant role to the actual price itself (Nagle & Hogan, 2006). People store the prices in their memory and associate them with other psychological features in their minds (Janiszewski & Lichtenstein, 1999). Except for luxury products and services, a company aspires to make their products appear to be priced lower than competitors. Notably, price perceptions can be created with different external factors. The behavioural pricing literature shows how a consumer forms a price perception and how it can be steered with numerous acts, of which several rely on the consumer's inner reference price (Crompton, 2015). For a business, it is thus essential to interpret how the price is perceived as the best price for a marketer is the maximum price that could be asked without causing a rejection.

Price perception is partly unconscious, and we forget prices quickly. Janiszewski & Lichtenstein (1999) proposed that a consumer's price perception is subjective in a way that it varies according to personalities, purchasing situations and atmospheres. Thus, comparing prices is a difficult task and it requires lots of work. For example, a high level of comfort in a clothing shop is likely to increase demand.

Price perception is one of the most extensively studied subjects in the marketing and psychology fields, and several mechanisms are claimed to influence how we perceive prices. The concept of price perception is often recognized to be based on the dual system theory, most closely conceived by Kahneman (2011). It proposes that an individual's decision-making functions through two distinct modes. System 1 is automatic, fast and unconscious while system 2 is considered the effortful, controlled and rationally driven side of the brain. Thus, the cognitive decision-making process may be navigated by the impulsive self and might lead us to buying a product by the quickly encountered impression.

5.2 Choice overload

It has been argued that too much choice or variety can paralyze the consumer, allowing the System 1 and the cognitive biases take control. Schwartz (2004) initially proposed in his book The Paradox of Choice the similarly named theory asserting that excessive amount of choices mean more cognitive costs, choice deferral and post-purchase regret. Later, the phenomenon of choice overload received support. In the famous experiment by Iyengar & Lepper (2000), the scholars offered free samples of jam flavors at a grocery store. The results were intriguing as when presented only 6 options, 30 % of people made a purchase compared to 3 % who were offered 24 options. Chernev (2004) tested the phenomenon with everyday products and concluded that people provided with multiple variants of the same brand of toothpaste were likely to switch to another brand with only one option due to the overwhelming difficulty of choosing.

Nevertheless, it may be that the choice overload functions up to a certain level with product placement, whereas it might be quite the opposite way in pricing. As for example, a more recent study from Yale University (Kim et al. 2013) proposes that giving customers variety in prices may have a positive effect on demand. In the experiment, when consumers were offered two products, both priced at 63 cents, 46 % made a purchase. However, when the prices were changed to 62 cents and 64 cents, sales went up to 77 %.

5.3 Distance and magnitude effects

Distance effect explains how two prices are evaluated with consumers' calculations based on the distance of the two numbers. According to Verguts & Opstal (2005), it is more difficult to decide between numbers close to each other than further apart. In pricing, this means that the smaller the difference between two prices, the longer it takes to come to a conclusion. For instance, it takes longer to decide between $7 \in$ and $9 \in$ than it takes between $7 \in$ and $11 \in$.

Magnitude effect is defined as "the tendency to discount smaller gains more rapidly than larger ones" (dictionary of American Psychological Association). In pricing, magnitude effect

refers to the observation that it is easier to notice the differences with low than high prices (Monroe, 2003). This tendency is argued to hold true with differences similar in absolute amount. For example, the difference is quicker to notice between $5 \in$ and $6 \in$ than between 13 \notin and 14 \notin .

5.4 Weber's law

One of the most challenging tasks in pricing is to determine what consumers will and will not accept in the market. Amongst behavioural pricing scholars, it has been one of the key objects of attention to determine a threshold for a price increase which would not alienate customers (Crompton, 2015). When applied to the context of price, Weber's law proposes that the size of the *just noticeable difference, e.g.* the minimum difference that can be detected between two prices, is proportional to the original price. Weber's law can be expressed followingly (figure 3):

$$\frac{\Delta I}{I} = k$$

Figure 3: In Weber's law, ΔI (delta I) represents the "just noticeable difference", I represents the initial price and k is the constant ratio.

For instance, an increase in a movie ticket price from $10 \in to 13 \in (30 \%)$ may not be accepted, while raising the price from $60 \in to 66 \in (10 \%)$ remains tolerable as it may be within the consumers' latitude of acceptance, even when being a larger absolute amount. Accordingly, if the 30 % movie ticket price increase was rejected, a rejection for the second ticket would require a price increase from $60 \in up$ to $78 \in (30 \%)$. Thus, the zone is wider for higher priced items. As demonstrated, the just noticeable difference is not an absolute number, but an amount relative to the initial price. According to Britt & Nelson (1976), although Weber's law is not precise at extreme intensities, it does hold remarkably true in the mid-range intensities which consumers are most often exposed to.

5.5 Latitude of price acceptance

Supportive, more contemporary research suggests that people have a latitude of price acceptance (sometimes zone of indifference), meaning a range of prices within which modifications in price have little or no impact on people's purchase decisions. The latitude of price acceptance varies between product categories and consumers' buying habits and patterns (Crompton, 2015). Kalyanaram & Little (1994) proposed that higher brand loyalty, higher reference price and lower frequency of purchase correlate with a wider acceptance zone. Moreover, the latitude of price acceptance is likely to become larger with customers' level of income. In addition, just-below prices are argued to be more difficult to recall and thus they may cause a wider latitude of price acceptance than rounded numbers (Crompton, 2015).

In figure 4, originally presented by Crompton (2015), the latitude of acceptance is conceptualized. In accordance with prospect theory and loss aversion, the acceptance zone is asymmetrical as a consumer's reaction to higher prices (losses) is more impactful than it is to lower prices (gains), when compared to inner reference price. Thereby, the region is narrower above the reference price and wider beneath it, as reductions in prices are perceived smaller than gains of similar magnitudes, and vice versa. The "non-commitment" zones are set parallel to the resistance points, meaning that the boundaries of the latitude of price acceptance are rather dynamic than fixed. When a new, higher price in the non-commitment region is encountered, it will raise the consumer's internal reference price.



Figure 4: Conceptualization of the latitude of acceptance (Crompton, 2015).

A textbook example of successfully employing the latitude of acceptance and other behavioural pricing methods would be the popular media services provider Netflix.

Netflix constantly keeps the same prices for the existing pass holders by inviting them to renew their service before the increased prices come into effect. The corporation employs just-below pricing, as it is convenient with a web subscription service in which there are no difficulties with time in terms of payment. New prices are always implemented gradually for existing customers as Crompton (2015) suggests to the best strategy. The feeling of being specially treated by the company is the backbone of relationship marketing, and it can be applied to pricing as well – therefore, if the price increase is recognized in customers' minds before the actual implementation, then a part of the adaptation has already been achieved when the price actually is increased.

The latitude of price acceptance suggests that if the prices are to be increased, that should be done in small but frequent amounts, rather than large and infrequent ones (Crompton, 2015). Netflix has employed these guidelines, as when the price increase is small enough, by the end of the season, clients have adapted to the increased fee and it has become their reference price. Since the service was launched, Netflix has increased their prices slowly but steadily, as presented in figure 5:

Year	HD version	Premium version
2013-2019	(+62,6 %)	(+33,4 %)
2019	\$12,99 (+18,2 %)	\$15,99 (+14,3 %)
2017	\$10,99 (+10,0 %)	\$13,99 (+16,7 %)
2015	\$9,99 (+11,1 %)	
2014	\$8,99 (+12,5 %)	
2013	\$7,99	\$11,99 (introduced)

Figure 5: Netflix's price evolution from 2013 to 2019 (Statista, 2019).

The price of the HD version in the US has been raised more than 60 % since it was launched in 2010. Meanwhile, the company's customer base has been growing continuously. It seems like Netflix has managed to determine the applicable latitude of acceptance, and as the leading media service provider with enough market power it has been able to increase prices without

the rejection of clients. Moreover, in accordance with distance and magnitude effects, the company increases the price of the more expensive subscription model in larger absolute amounts. According to CNBC (2019), previous price increases have not negatively affected the company's subscriber growth. Even though there may have been a price point around \$9,99/month for such a service, Netflix has so far managed to breach the barrier.

6 Discussion and conclusions

In this thesis, I have examined the question of what behavioural factors a marketer should consider in their pricing strategy. Behavioural pricing concludes that consumers' responses to price changes vary according to their expectations, perceived value of the item, past experiences and number of choices, for instance. As stated, businesses typically combine multiple principles in their marketing strategy – and naturally, behavioural pricing cannot either be applied as such. However, research tells us that when implemented in the applicable context, behavioural pricing might in fact lead to higher profitability than traditional pricing models.

After a long era of exclusively applying traditional microeconomic models in consumer demand, behavioural pricing strategies have been adapted to economics and marketing, and therefore pricing. These strategies are largely based on the concepts of price perception and reference price. Factors such as type of product, brand loyalty, past experiences, level of income, different target markets, frequency of purchase and the use of just-below pricing all contribute to the development of reference price and latitude of price acceptance. The combination of the theories can be summarized followingly:

First, the evaluation of prices tends to happen by using a reference price, which can be partly affected by a company's behavioural marketing decisions. The reference price is not a specific price, but a range of potential prices which constantly evolves as new information is registered. Accordingly, there are upper and lower boundaries around the reference price such that modifications in price do not cause a change in perception (latitude of acceptance). Finally, the acceptance zone is formed by the laws of adaptation-level theory, assimilation-contrast theory and Weber's law. In the following chapters, I will present my analysis on the use of behavioural pricing methods in theoretical and managerial environments.

6.1 Theoretical implications

The existing tools that behavioural pricing uses are observations derived from multiple research fields, and therefore the context of pricing is typically not the only situation for applying the

concepts. While behavioural pricing does not provide a specific answer to every situation, the previous research seems to explain several consumer behaviour phenomena fundamentally and comprehensively. The psychological theories that examine tendencies to read numbers, such as distance and magnitude effects and Weber's law – combined with biased decision-making mechanisms such ass loss aversion and choice overload – appear to offer a more truthful framework for price responses than some other pricing models. In contrast, it may be naturally be justified to employ other pricing models as well, since many behavioural principles can be difficult to generalize and thus comprehensively use across markets and product ranges.

Amongst behavioural researchers, the ongoing battle between just-below prices and rounded prices has continued for decades. As just-below prices are found to be the most common strategy in retail (Holdershaw, 1997; Levy et al., 2011), a significant counterargument was recently presented by Wieseke et al. (2016), as the inconvenience was found to be a limiting factor with the use of just-below prices. However, with time-saving, virtual payments that involve no cash, just-below pricing can be considered effective (Levy et al. 2011). Therefore, the psychological theory seems to hold true in most circumstances.

6.2 Managerial implications

As mentioned, behavioural pricing methods may not have been fully employed in managerial use, even though it has been argued that price perception is often the factor driving attractiveness and traffic, rather than the actual price (Nagle & Hogan, 2006; Somervuori, 2012). A significant benefit of behavioural pricing can be the latitude of acceptance, when determined and exploited correctly. Marketers often do research on the acceptance zone for their brand and exploit it by maintaining prices close to the higher end of the zone and consistently imposing small annual incremental increases in price.

The strategies that behavioural pricing provides are always dependent on the target market's preferences and features, such as income and average reference price. As Larson (2014) suggested in his behavioural pricing categorization, many of the methods involve diverse discount structures. As a point of departure, Marshall & Long (2002) proposed that in order to

make an impact in the purchase response, a reduction in price should be between 15 and 30 %, since discounts outside this range might raise concerns about the legitimacy of the discount or the quality of the product. Moreover, Crompton (2015) noticed that if a retail price increase exceeds 10 %, it is likely to surpass the latitude of acceptance and hence affect the purchase decision negatively. This is because the price increase is no longer consistent with the consumer's reference price. It should be however emphasized that the latitude of acceptance varies and is to be determined for a specific audience and product category.

6.3 Limitations and future research

Some of the research methods that behavioural economics typically employs are sometimes challenged because of their nature. It is well known that people may answer surveys dishonestly, even though they would be anonymous. There are always differences in understanding and interpretation. However, the behavioural experiments are usually conducted such that most of the uncertainties are eliminated – by observing pure human behaviour. Many of these observations have later been incorporated into analytical models.

One of the most frequently used behavioural pricing methods, just-below pricing, may raise suspicions for certain consumers. Some limitations on 99-pricing could involve a deceitful or quality-compromising impression. Concerns about controversy should be considered, as pricing is a context dependent factor and thus, for instance, round prices are often utilized with products which the seller aspires to present as luxuries and vice versa.

Effective pricing research produces valuable knowledge for marketing professionals and encourages competition. Although the concepts presented in this thesis have received a growing amount of attention in psychological literature and consumer research, applications in the pricing context are nonetheless uncommon. Given that pricing is the only marketing decision that generates earnings for a company, the amount of behavioural pricing research could be larger. As the behavioural perspective is gradually becoming more approved through the theoretical evidence, the benefits of further investigation would be extensive. Even though behavioural pricing remains a minor research field these days, economists are incrementally beginning to integrate the real-world experimental approach in their philosophies. Nevertheless, since the academic research on behavioural pricing has mainly been established in Western countries, some in Europe and the majority the United States, extending the geographical limits of research would be beneficial for the pricing experts as well as the economic society.

Appendices

Framing Principles	Example Tactics/Recommendations
Positive Focus	"Save" instead of "Spend Less"
Free Product	"Buy X, Get Y Free"
Multiple Unit Pricing	"\$3 for 3 Units" instead of "\$1 Each"
Anchors	"Buy 5 and Save a Trip"
Quantity Limits	"Limit 4 per Household"
Scarcity	"While Supplies Last" or "Limited Edition" Products
Price Salience	"We Accept Credit Cards and Gift Cards"
Spare Change Effect	"Only Costs Four Quarters"
Pennies-a-Day Pricing	"Just 50-Cents per Day"
Explicit Comparisons	"Less than a Cup of Coffee per Day"
Multidimensional Pricing	"5 Payments of \$19"
Trade-in Pricing	Highlight and Raise Trade-in Value, Raise Item Price
Emotional Pricing	Use Installment Payments that Decrease Over Time
Congruency Principles	Example Tactics/Recommendations
Perceived Fairness	"Prices Frozen for 3 Months"
Typeface and Terms	"Low Price" in Smaller Font
Phonetic Symbolism	Use Sale Prices with Front Vowels and Fricatives
Package Design	Change Packaging Material, Let People Touch Item
Label Design	Adjust Terminology and Photos, Use Larger Numbers
Package Dimensions	Emphasize Longest Dimension (Usually Height)
Context Principles	Example Tactics/Recommendations
Price Expectations	Identify Environmental Cues that Buyers Use
Compromise Effect	Adjust Product Line to Sell Middle Option
Consistent Pricing	Maintain Price and Show Market Value
External Reference Price	"Regularly \$35, Now \$29"
	"Elsewhere \$35, Our Price 15% Less"

Appendix 1: Examples of framing, congruency, context & signaling principles (Larson, 2014).

Appendix 1: Examples of framing, congruency,	context & signaling principles (Larson, 2014).
--	--

Primacy and Recency	Give Buyers Intended First and Last Impression
Price De-emphasis	List Units in Large Transactions before Price
Product Sequence	Reveal Most Attractive Items First
Price Sequence	Show High-Priced Products First and Adjust Message
Premium Surroundings	Show with Premium Items from Other Categories
Category Perceptions	Add Product that Makes Target Item More Attractive
Assortment Variety	Show More Variety with High Quality Items
Discount Location	Move and Reformat Sale Tag to Match Strategy
Full Bundle	"Load" Model and Let Buyer Drop Options
Bundle Discounts	Adjust Discount Attribution within Bundle
Decoy Pricing	Change Individual Item Prices to Sell Bundle
Partitioned Pricing	Separate Shipping and Handling from Price
Customized Products	List Prices for Each Customization
Asymmetric Competition	Strive to be Premium Brand in Category
Signaling Principles	Example Tactics/Recommendations
Signaling Principles Odd-Ending Prices	Example Tactics/Recommendations Use Nines at the Right-End of Price
Signaling Principles Odd-Ending Prices Price Color	Example Tactics/Recommendations Use Nines at the Right-End of Price Use Red Prices instead of Black when Targeting Men
Signaling Principles Odd-Ending Prices Price Color Symmetric Prices	Example Tactics/Recommendations Use Nines at the Right-End of Price Use Red Prices instead of Black when Targeting Men Make Price Vertical Mirror Symmetric
Signaling Principles Odd-Ending Prices Price Color Symmetric Prices Precise Pricing	Example Tactics/Recommendations Use Nines at the Right-End of Price Use Red Prices instead of Black when Targeting Men Make Price Vertical Mirror Symmetric Use Nonzeros to Suggest Price Precision
Signaling Principles Odd-Ending Prices Price Color Symmetric Prices Precise Pricing Shorten Prices	Example Tactics/RecommendationsUse Nines at the Right-End of PriceUse Red Prices instead of Black when Targeting MenMake Price Vertical Mirror SymmetricUse Nonzeros to Suggest Price PrecisionDrop Commas and Dollar Signs in Prices
Signaling Principles Odd-Ending Prices Price Color Symmetric Prices Precise Pricing Shorten Prices Unpredictable Pricing	Example Tactics/Recommendations Use Nines at the Right-End of Price Use Red Prices instead of Black when Targeting Men Make Price Vertical Mirror Symmetric Use Nonzeros to Suggest Price Precision Drop Commas and Dollar Signs in Prices Reduce Buyer Forecasting of Price Change Timing
Signaling Principles Odd-Ending Prices Price Color Symmetric Prices Precise Pricing Shorten Prices Unpredictable Pricing Tactical Price Increases	Example Tactics/RecommendationsUse Nines at the Right-End of PriceUse Red Prices instead of Black when Targeting MenMake Price Vertical Mirror SymmetricUse Nonzeros to Suggest Price PrecisionDrop Commas and Dollar Signs in PricesReduce Buyer Forecasting of Price Change TimingIncrease Prices in Small Steps
Signaling Principles Odd-Ending Prices Price Color Symmetric Prices Precise Pricing Shorten Prices Unpredictable Pricing Tactical Price Increases Just Noticeable Pricing	Example Tactics/RecommendationsUse Nines at the Right-End of PriceUse Red Prices instead of Black when Targeting MenMake Price Vertical Mirror SymmetricUse Nonzeros to Suggest Price PrecisionDrop Commas and Dollar Signs in PricesReduce Buyer Forecasting of Price Change TimingIncrease Prices in Small StepsReduce Price Enough, But Not Too Much
Signaling Principles Odd-Ending Prices Price Color Symmetric Prices Precise Pricing Shorten Prices Unpredictable Pricing Tactical Price Increases Just Noticeable Pricing Reduced Recall Pricing	Example Tactics/RecommendationsUse Nines at the Right-End of PriceUse Red Prices instead of Black when Targeting MenMake Price Vertical Mirror SymmetricUse Nonzeros to Suggest Price PrecisionDrop Commas and Dollar Signs in PricesReduce Buyer Forecasting of Price Change TimingIncrease Prices in Small StepsReduce Price Enough, But Not Too MuchChoose Prices with More Syllables
Signaling Principles Odd-Ending Prices Price Color Symmetric Prices Precise Pricing Shorten Prices Unpredictable Pricing Tactical Price Increases Just Noticeable Pricing Reduced Recall Pricing Price Complexity	Example Tactics/RecommendationsUse Nines at the Right-End of PriceUse Red Prices instead of Black when Targeting MenMake Price Vertical Mirror SymmetricUse Nonzeros to Suggest Price PrecisionDrop Commas and Dollar Signs in PricesReduce Buyer Forecasting of Price Change TimingIncrease Prices in Small StepsReduce Price Enough, But Not Too MuchChoose Prices with More SyllablesDescribe Most Discounts with Percentages
Signaling Principles Odd-Ending Prices Price Color Symmetric Prices Precise Pricing Shorten Prices Unpredictable Pricing Tactical Price Increases Just Noticeable Pricing Reduced Recall Pricing Price Complexity Relative Pricing	Example Tactics/RecommendationsUse Nines at the Right-End of PriceUse Red Prices instead of Black when Targeting MenMake Price Vertical Mirror SymmetricUse Nonzeros to Suggest Price PrecisionDrop Commas and Dollar Signs in PricesReduce Buyer Forecasting of Price Change TimingIncrease Prices in Small StepsReduce Price Enough, But Not Too MuchChoose Prices with More SyllablesDescribe Most Discounts with PercentagesMaintain Relative Price Spreads versus Competitors
Signaling Principles Odd-Ending Prices Price Color Symmetric Prices Precise Pricing Shorten Prices Unpredictable Pricing Tactical Price Increases Just Noticeable Pricing Reduced Recall Pricing Price Complexity Relative Pricing Prestige Pricing	Example Tactics/RecommendationsUse Nines at the Right-End of PriceUse Red Prices instead of Black when Targeting MenMake Price Vertical Mirror SymmetricUse Nonzeros to Suggest Price PrecisionDrop Commas and Dollar Signs in PricesReduce Buyer Forecasting of Price Change TimingIncrease Prices in Small StepsReduce Price Enough, But Not Too MuchChoose Prices with More SyllablesDescribe Most Discounts with PercentagesMaintain Relative Price Spreads versus CompetitorsIncrease Prices as a Quality Signal

References

Articles and research papers

Allen, M., & Dare, W. (2004). Charm pricing as a signal of listing price precision. Journal of Housing Research, 15(2), 113-127.

Anderson, E. T., & Simester, D. I. (2003). Effects of \$9 price endings on retail sales: Evidence from field experiments. Quantitative marketing and Economics, 1(1), 93-110.

Bray, J. P., & Harris, C. (2006). The effect of 9-ending prices on retail sales: A quantitative UK based field study. Journal of Marketing Management, 22(5-6), 601-617.

Brenner, G. A., & Brenner, R. (1982). Memory and markets, or why are you paying \$2.99 for a widget?. Journal of Business, 147-158.

Britt, S. H., & Nelson, V. M. (1976). The marketing importance of the "Just Noticeable Difference". Business Horizons, 19(4), 38-40.

Camerer, C. F., & Loewenstein, G. (2004). Behavioral economics: Past, present, future. In Camerer, Loewenstein, & Rabin (Eds.), Advances in Behavioral Economics, UK: Princenton University Press.

Chernev, A. (2004). Goal–attribute compatibility in consumer choice. Journal of Consumer Psychology, 14(1-2), 141-150.

Crompton, J. L. (2015). Reference price based strategies: a key to raising revenues without alienating users. Managing Sport and Leisure, 20(5), 275-292.

Helson, H. (1987). "Adaptation-level as frame of reference for prediction of psychophysical data," 1947. American Journal of Psychology, 100(3), 720.

Holdershaw, J., Gendall, P., & Garland, R. (1997). The widespread use of odd pricing in the retail sector. Marketing Bulletin-Department Of Marketing Massey University, 8, 53-58.

Iyengar, S. S., & Lepper, M. R. (2000). When choice is demotivating: Can one desire too much of a good thing?. Journal of personality and social psychology, 79(6), 995.

Janiszewski, C., & Lichtenstein, D. R. 1999. A range theory account of price perception. Journal of Consumer Research, 25 (4), 353–368.

Kahneman, D. & Tversky, A. (1979). Prospect theory: An analysis of decision under risk. Econometrica: Journal of the Econometric Society, 47, 263-291.

Kalyanaram, G., & Little, J. D. (1994). An empirical analysis of latitude of price acceptance in consumer package goods. Journal of consumer research, 21(3), 408-418.

Kalyanaram, G., & Winer, R. S. (1995). Empirical generalizations from reference price research. Marketing science, 14(3_supplement), G161-G169.

Kim, J., Novemsky, N., & Dhar, R. (2013). Adding small differences can increase similarity and choice. Psychological science, 24(2), 225-229.

Larson, R. B. (2014). Psychological pricing principles for organizations with market power. Journal of Applied Business and Economics, 16(1), 11-25.

Levy, D., Lee, D., Chen, H., Kauffman, R. J., & Bergen, M. (2011). Price points and price rigidity. Review of Economics and Statistics, 93(4), 1417-1431.

Marshall, R., & Bee Leng, S. (2002). Price threshold and discount saturation point in Singapore. Journal of Product & Brand Management, 11(3), 147-159.

Miyazaki, A. D. (2003). Guest editorial: The psychology of pricing on the internet. Psychology and Marketing.

Mogilner, C., & Aaker, J. (2009). "The time vs. money effect": Shifting product attitudes and decisions through personal connection. Journal of Consumer Research, 36(2), 277-291.

Monroe, K. B. (1973). Buyers' subjective perceptions of price. Journal of marketing research, 10(1), 70-80.

Northcraft, G. B., & Neale, M. A. (1987). Experts, amateurs, and real estate: An anchoring-and-adjustment perspective on property pricing decisions. Organizational behavior and human decision processes, 39(1), 84-97.

Putler, D. S. (1992). Incorporating reference price effects into a theory of consumer choice. Marketing science, 11(3), 287-309.

Reed, A., Aquino, K., & Levy, E. (2007). Moral identity and judgments of charitable behaviors. Journal of Marketing, 71(1), 178-193.

Schindler, R. M., & Kibarian, T. M. (2001). Image communicated by the use of 99 endings in advertised prices. Journal of Advertising, 30(4), 95-99.

Schindler, R. M., & Wiman, A. R. (1989). Effects of odd pricing on price recall. Journal of Business Research, 19(3), 165-177.

Simonson, I., & Tversky, A. (1992). Choice in context: Tradeoff contrast and extremeness aversion. Journal of marketing research, 29(3), 281-295.

Somervuori, O. (2012). Essays on behavioral pricing. Aalto University. Doctoral dissertation. Department of Information and Service Economy.

Thomas, M., Simon, D. H., & Kadiyali, V. (2007). Do consumers perceive precise prices to be lower than round prices? Evidence from laboratory and market data. Evidence

from Laboratory and Market Data (September 2007). Johnson School at Cornell University Research Paper, (09-07).

Wansink, B., Kent, R. J., & Hoch, S. J. (1998). An anchoring and adjustment model of purchase quantity decisions. Journal of Marketing Research, 35(1), 71-81.

Wieseke, J., Kolberg, A., & Schons, L. M. (2016). Life could be so easy: the convenience effect of round price endings. Journal of the Academy of Marketing Science, 44(4), 474-494.

Verguts, T., & Van Opstal, F. (2005). Dissociation of the distance effect and size effect in one-digit numbers. Psychonomic Bulletin & Review, 12(5), 925-930.

Internet references

Cambridge Dictionary. "Price Point | Meaning in the Cambridge English Dictionary", accessed June 5, 2019. Available at: www.dictionary.cambridge.org/dictionary/english/price-point.

CNBC. "Netflix Raised Prices and the Stock Soared." CNBC, 15 Jan. 2019, accessed July 11, 2019. Available at: www.cnbc.com/2019/01/15/netflix-to-raise-prices-by-13percent-to-18percent-its-biggest-increase-ever.html.

Richter, Felix. "Infographic: Netflix Reaches 149 Million Paid Subscribers." Statista Infographics, accessed July 1, 2019. Available at: www.statista.com/chart/10311/netflixsubscriptions-usa-international/.

Books

Ariely, D. (2009). Predictably Irrational: The Hidden Forces That Shape Our Decisions. In Harper Collins Publishers.

Blinder, A., Canetti, E. R., Lebow, D. E., & Rudd, J. B. (1998). Asking about prices: a new approach to understanding price stickiness. Russell Sage Foundation.

Dholakia, U. (2017). How to Price Effectively: A Guide for Managers and Entrepreneurs. Houston, TX: Utpal Dholakia.

Dolan, R. J., & Simon, H. (1996). Power pricing: How managing price transforms the bottom line. Free Pr., New York.

Håkansson, H., & Waluszewski, A. (Eds.). (2007). Knowledge and innovation in business and industry: The importance of using others. Routledge.

Kahneman, D. (2011). Thinking, fast and slow. Macmillan.

Kotler, P., & Armstrong, G. (2010). Principles of marketing. Pearson education.

Kotler, P. (2013). Principles of marketing. 6th European edition. Pearson Education. eBook.

Nagle, T. & Hogan, J. (2006). The Strategy and Tactics of Pricing: A Guide to Growing More Profitably. 4th edition. Upper Saddle River, NJ: Pearson/Prentice Hall.

Schwartz, B. (2004, January). The paradox of choice: Why more is less. New York: Ecco.

Sherif, M., & Hovland, C. I. (1961). Social judgment: Assimilation and contrast effects in communication and attitude change. Oxford, England: Yale University Press.