Aalto-yliopisto
Aalto-universitetet
Aalto University

Bachelor's Programme in Marketing

Examining Cognitive Biases in Consumer Decision-Making at the Point of Purchase:

Comprehensive Analysis through the Lens of the 4Ps Marketing Mix

---

Matthias Vuorenheimo

Bachelor's thesis
2023

Author Matthias Vuorenheimo

Title of thesis Examining Cognitive Biases in Consumer Decision-Making at the Point of Purchase: Comprehensive Analysis through the Lens of the 4Ps Marketing Mix

Programme Bachelor's Programme

Major Marketing

Thesis supervisor Miriam Etz

Thesis advisor(s) Ilona Mikkonen & Hedon Blakaj

Date 05.12.2023 **Number of pages** 47 **Language** english

Abstract

This thesis investigates consumer decision-making by examining the impact of cognitive biases within the marketing mix framework. The study examines biases such as loss aversion, present bias, and negativity bias, revealing their role in shaping consumer behaviour using a bibliometric analysis. Real-world examples and a literature review highlight the complexities and importance of biases in consumer decisions. The integration of cognitive biases with McCarthy's (1960) 4Ps adds theoretical value, but ethical considerations emphasize the potential consequences of using biases in advertising. Managerial insights emphasize the importance of specialized marketing techniques that are matched with consumer psychological tendencies, with an emphasis on transparency and ethical behaviours.

Keywords Cognitive Biases, Marketing Mix, Consumer Decision-Making, Marketing Strategies, Ethical Marketing

Table of contents

1 Introduction....4
2 Methodology & Bibliometric analysis 6
3 Quantitative analysis 9
3.1 Most cited articles.... 9
3.2 Journals with most publications.... 11
3.3 Main theoretical frames used 12
3.4 Publication period and citation trend 14
3.5 Most productive authors.... 15
3.6 The total number of articles across different subject areas16
4 Qualitative thematic analysis 18
4.1 Biased Target Consumer.... 20
4.2 Product.... 24
4.3 Price 26
4.4 Promotion 28
4.5 Place.... 32
5 Discussion of Findings, Implications and Future Research 33
5.1 Overall Discussion 33
Product.... 34
Price 34
Promotion 34
Place 35
5.2 Implications 35
5.3 Future Research and Limitations.... 38
6 Conclusion 40
References 41

1 Introduction

Understanding the complexities of cognitive biases in consumer decision-making is critical for both managerial strategies and societal well-being in an era characterized by dynamic market landscapes and evolving consumer behaviours, as it has been demonstrated that individual decisions are systematically biased (Thaler, 2016). This thesis sets out on an investigation to uncover the profound effects of cognitive biases on consumer decisions at the point of purchase. Thus, providing insights that are relevant not only for marketers seeking to increase consumer engagement, but also for society coping with the ethical aspects of persuasive marketing.

The intriguing appeal of this topic comes from its practical implications. With studies indicating that cognitive biases have an increasing impact on purchasing decisions (Dowling et al. 2020), studying cognitive biases at the point of purchase from a marketing perspective becomes important for marketers navigating the complex world of consumer behaviour. Understanding these cognitive biases through 4P is vital for better aligning marketing strategies with consumer psychological tendencies, which could lead to more effective advertising as well as better positioning in the minds of consumers. Furthermore, the literature reveals a gap in understanding the multifaceted impact of cognitive biases in shaping consumer decisions within the standard marketing mix, making it an interesting subject for further research.

This study is especially useful for marketing professionals looking for ways to improve their tactics in an environment full of stimuli and alternatives (Scheibehenne et al. 2010). Marketers may obtain a comprehensive understanding of how cognitive biases can be controlled or mitigated by looking into a strong connection between cognitive biases and the 4Ps framework—Product, Price, Place, and Promotion (McCarthy, 1960). Furthermore, social stakeholders, such as policymakers and consumer advocates, can benefit from insights that can assist ethical considerations (Darke & Richie, 2007), ensuring a balance between commercial effectiveness and protecting consumers.

The aim of this thesis is to provide a comprehensive examination of cognitive biases in the context of consumer decision-making at the point of purchase, combining existing research on their influence across the marketing mix. The research aims to answer important questions such as: What are the present and future directions in understanding cognitive biases in purchasing decisions in the field of marketing? By finding relevant trends and knowledge gaps in the literature. What can marketers and researchers learn from knowing these cognitive biases influencing purchasing decisions? What are the various points of view on the ethical consequences of using these biases in marketing strategies?

In order to achieve the aforementioned objectives, the thesis applies a bibliometric analysis that includes qualitative as well as quantitative findings. The quantitative phase entails a thorough review of existing literature to map out the current state of cognitive biases in consumer decision-making in the field of marketing. Following that, the qualitative phase starts by conducting thematic analysis, delving into real-life examples and studies to provide a more comprehensive knowledge of the complexity surrounding cognitive biases.

In the following sections, we will go through methodology, quantitative analysis, and the main themes discovered in qualitative thematic analysis—Biased Target Consumer, Product, Price, Promotion, and the implicit focus on Place—unveiling insights which bridge the gap between theoretical frameworks and implementation. We not only shed light on existing difficulties, but we also establish the way for future research, recognizing the critical need for a deeper understanding of the developing dynamics of cognitive biases in consumer decision-making.

2 Methodology & Bibliometric analysis

A detailed analysis that looks at a particular body of literature using various metrics is called a bibliometric analysis. This kind of analysis gives one the knowledge to recognize patterns, influential works, gaps in the literature, and the connections between concepts within a specific field of research area. This notation is supported by Sharma et al. (2022), wherein it is mentioned that by exploring the pertinent body of literature using various metrics, this type of analysis can contribute to the future research area of given body of literature and provide insights into the advancements of that literature area.

Data was accumulated via Elsevier's Scopus database, which offered a broad set of data and a focused search function for identifying relevant literature. Many different keywords were found to identify publications that were relevant to the research question. The initial stage in identifying the pertinent keywords consisted of searching for up terms that were associated with "biases" and "decision-making," as well as terms that were related to marketing and behavioural economics. To further assist in identifying the pertinent keywords, a further search for "Bias" and "decision-making" was conducted using Scopus database. This allowed for the discovery of the most often used keywords related to this subject. Cross-referencing terms were removed, and the keywords were categorized as they emerged and resolved, this categorization can be seen in Figure 1. Subsequently, these keywords were employed in various search queries inside the Scopus database to identify relevant articles.

Category	Keywords
Cognitive Biases	Bias, Decision-Making Errors, Loss Aversion, Sunk Cost Fallacy, Framing Effect, Endowement Effect
Consumer Purchase Decision-Making	Decision making, Purchase decision, Buying Decisions, Buying Behavior, Consumer Choices, Purchase Choices
Consumer Psychology and Perception	Consumer Behavior, Consumer Psychology, Consumer Information Processing, Decision-Making
Marketing and Communication	Marketing strategy, Advertising, Marketing, Communication

Figure 1, Keyword Categorization.

When incorporating pertinent keyword phrases to the searches, an excessive number of more than 400 articles emerged. To narrow the focus and obtain a marketing viewpoint, seven journals with 2021 AJG scores of four or higher in the marketing area were an inclusion criterion. Consequently, the initial more than 400 articles were reduced to 200. To further refine the collection of articles, more inclusion and exclusion criteria were created. Among these were the peer review, year (2003–2003), article, and language. Furthermore, an abstract preliminary to topics relating to this subject was utilized in the procedure to evaluate the research topic's feasibility. Thus, the number of articles significantly decreased with 59 articles constituting up the final data set. This allowed for the appearance of relevant articles that was justified further investigation. The process that was followed for identifying articles that are relevant is highlighted in figure 2.

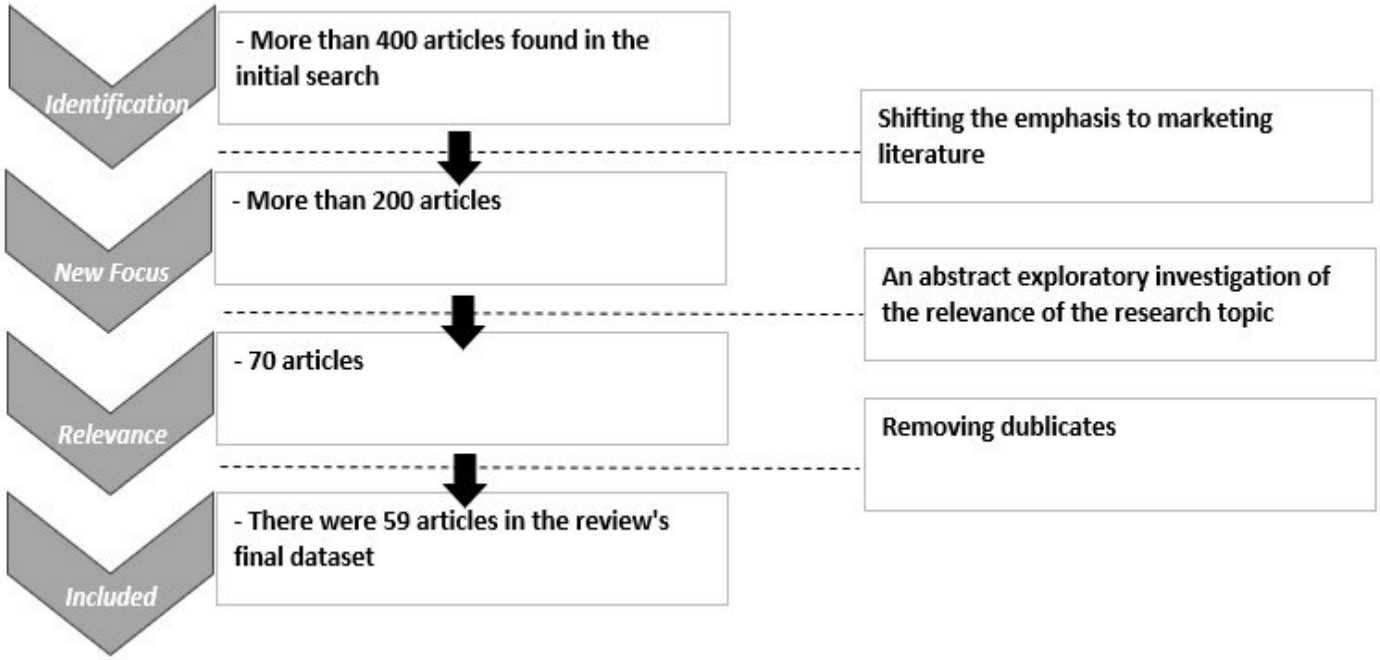

Figure 2,Visualization of search process

3 Quantitative analysis

Quantitative analysis offers the ability to standardize and compare the data discovered, and when combined with qualitative analysis, they offer a more thorough grasp of the field, significance, and quality of the research (Hanson & Grimmer, 2007). The final data set of 59 relevant articles were applied in the quantitative analysis after they were retrieved. The set of articles was analysed using six metrics in total to assess different facets of research activity.

3.1 Most cited articles

The articles with the most citations assist in recognizing authors who have made a major impact on specific fields of study as well as influential works in the field of study. In an associated field of study, these papers frequently reflect ground-breaking research, influential contributions, or important reference points (Baumgartner & Pieters, 2003). Examining these articles offers a brief overview of the foundational pieces that have influenced the discussion.

As Figure 3 shows the most cited articles, it appears that these articles span a wide range of topics. Articles on the role of advertisements have been written, such as Darke & Ritchie's (2007) study, which investigated the impact of deceptive advertising on customers, eventually leading to negativity bias in evaluations. Four studies examined the impact of visual cues and packaging and concluded that touch alone connects a person to an object by strengthening the feeling of ownership of the object (Peck & Shu 2009), so this imaginary ownership could be gained by making the visuals and packaging as compelling as possible.

Authors & Year	*Article Title*	*Total citations*	*Journal name*
Peck and Shu. 2009	The effect of mere touch on perceived ownership.	474	Journal of Consumer Research
Novemsky and Kahneman. 2005	The boundaries of loss aversion.	403	Journal of Marketing Research
Zauberman et al. 2009	Discounting time and time discounting: Subjective time perception and intertemporal preferences.	351	Journal of Marketing Research
Darke and Ritchie. 2007	The defensive consumer: Advertising deception, defensive processing, and distrust.	343	Journal of Marketing Research
Chen and Lurie. 2013	Temporal contiguity and negativity bias in the impact of online word of mouth.	293	Journal of Marketing Research
Hennig-Thurau et al. 2015	Does Twitter matter? The impact of microblogging word of mouth on consumers' adoption of new movies.	278	Journal of the Academy of Marketing Science
Milosavljevic et al. 2012	Relative visual saliency differences induce sizable bias in consumer choice.	227	Journal of Consumer Psychology
Li and Xie. 2020	Is a Picture Worth a Thousand Words? An Empirical Study of Image Content and Social Media Engagement.	223	Journal of Marketing Research
Khan and Dhar. 2010	Price-framing effects on the purchase of hedonic and utilitarian bundles.	130	Journal of Marketing Research
Josiassen. 2011	Consumer disidentification and its effects on domestic product purchases: An empirical investigation in the Netherlands.	123	Journal of Marketing

Figure 3, Most Cited Articles

Loss aversion, present bias, and negativity bias were all among the most cited articles, for instance Novemsky & Kahneman (2005) article about loss aversion and Zauberman et al. (2009) article about present bias. These indicate that various biases in different contexts are emerging and indicate where the study focus in the field of marketing when investigating biases has been and what has influenced subsequent research. In addition to variations in cognitive biases, variations in topics are appearing as well, indicating the possibility of recurring themes.

The Journal of Marketing Research has made significant contributions to this field of study, as evidenced by the six of its papers that rank in the top ten most cited in the field. Furthermore, the range of topics addressed by these papers suggests that this journal not only yields highly regarded results, but also does so from various perspectives or applications, offering novel perspectives on the discussion. Analysing journals with the most publications may provide additional proof to the inference.

3.2 Journals with most publications

Journal with most publications reveals its output, whereas the total number of citations reveals its popularity and impact within the academic community (Baumgartner & Pieters, 2003). The data provided offered a quantitative evaluation of the amount of scientific work published in a certain journal, providing information on its scope and productivity.

The Journal of Marketing Research was the most productive journal, as shown by Figure 4, which lists the journals with the most articles and citations. This is somewhat consistent with the most cited articles, where we see that the Journal of Marketing Research plays a significant role in the field of research. This metric strengthens it up as well, revealing that it generated the greatest number of articles within the time frame given and around 270% more citations than the Journal of Consumer Psychology. This achievement goes beyond merely highlighting the significance of the Journal of Marketing Research.

Journal name	*Number of articles*	*Total number of citations*	*2021 AJG Rank*
Journal of Marketing Research	15	2009	4*
Journal of Consumer Psychology	12	744	4*
Journal of Consumer Research	11	812	4*
Marketing Science	7	261	4*
International Journal of Research in Marketing	6	105	4
Journal of the Academy of Marketing Science	5	392	4*
Journal of Marketing	3	195	4*

Figure 4, Journals With Most Publications

3.3 Main theoretical frames used

The main theoretical frameworks that are employed as metrics are essential to the quantitative examination of bibliometric analysis (Sharma et al. 2022). This is due to the way it provides a crucial function in helping individuals comprehend the theoretical foundation and intellectual framework of academic work in a particular topic. Researchers can obtain insights into prevailing paradigms, trends in literature, and the evolution of theoretical perspectives by identifying and measuring the prevalence of particular theoretical frameworks across a body of literature.

Figure 5 depicts the main theoretical frameworks used in the articles. Initially, there were 53 theoretical frames because practically every article had a specific theme, but some overlap was discovered. Dholakia & Simonson (2005), for example, used prospect theory and loss aversion as a theoretical framework to further investigate them in action in online bidding behavior, which had the same foundation as Mrkva et al. (2020). Instead of using it to better explain a phenomenon, they questioned it to gain another perspective of the idea of loss aversion and observed that certain characteristics such as less knowledge, less education, and being older were more likely to be loss averse. This analytical metric only included theoretical frameworks that were referenced more than once out of the 53 that were eventually constructed. Because the repeated usage of a theoretical framework might indicate a higher level of agreement or recognition among academics on its application and significance, it turns into a more robust and reliable indicator.

Theoretical Frameworks	*Number of Mentions*
Prospect Theory	11
Loss Aversion	7
Framing effect	6
Present bias (i.e Hyperbolic discounting)	6
Negativity bias	4
Anchoring heuristic	4
Numerical cognition	3
Confirmation bias	3
The Endowment Effect	4
Visual saliency	2
consumer decision journey	2
Reference Dependence	2
Bundle framing effects	2

Figure 5, The Main Theoretical Frames Used

Notably, loss aversion was the most widespread bias used in theoretical frames, despite ranking second in terms of mentions, because prospect theory was not used explicitly that much, with just a few studies citing it directly. So, despite being the most used theoretical frame, it was not as clearly employed as loss aversion, where it was the foundation knowledge for studies, such as the study that used loss aversion, Zhang & Fishbach (2005), to investigate the experience of losses that produces price disparity between buyers and sellers. Thus, it is evident from the mentions and the role it played in the studies where it was employed that loss aversion is highly studied and widely used in marketing to explain the irrationalities we meet from consumers while making judgments, thus impacting their purchasing decisions.

These frames are varied and offer a diversity of subjects, as evidenced by the information and visuals presented, which is consistent with the findings of the most cited articles. Furthermore, most of these theoretical frameworks concentrated on certain biases in specific contexts. For instance, in their article Ding & Li (2019), they used herding bias to investigate its effect on serialized digital products, and authors Yen & Chuang (2008) had marketing implications on status quo bias and why customers are hesitant about giving up their existing service choice, regardless of whether alternatives would be better. This highlights the attention that has already been devoted to how

cognitive biases affect how we interpret and use information, which can be leveraged in the context of purchasing.

3.4 Publication period and citation trend

In order to give depth to bibliometric analysis, publication period and citation trend are crucial metrics since they provide insight into a topic's impact, popularity, and influence within the academic community (Sheoran et al. 2018). It gives information on how much attention or research the field of marketing has given to the topic based on the quantity of publications and citations as well as their percentage change over time.

Figure 6 shows that the focus has been decreasing since 2012. Contrary to expectations, the topic has risen considerably in the recent decade when considering a search with used pertinent keywords all the Scopus' subject areas**.** The findings absolutely contravene the initial assumptions that it would have been continuously increasing since 2012, as well as the trends in all scientific areas.

	2003-2005	2006-2008	2009-2011	2012-2014	2015-2017	2018-2020	2021-2023
No.of publications	7	9	13	9	3	11	7
% growth in publications over four years	-	28,57 %	44,44 %	-30,77 %	-66,67 %	266,67 %	-36,36 %
No. of citations	737	784	1691	728	319	207	52
% growth in citations over three years	-	6,38 %	115,69 %	-56,95 %	-56,18 %	-35,11 %	-74,88 %

Figure 6, Publication Period and Citation Trend

As a result, given the tendency in the entirety of examined topics as well as the amount of new material and research subjects that pointed to the field of marketing, one would think that there would be more studies on this subject. Given the sluggishness of academic publishing processes, a bigger sample set and a longer time period would be required to conclude that the trend is indeed declining, especially because 2023 is still ongoing.

3.5 Most productive authors

In bibliometric analysis, identifying the productive authors fulfils many functions by highlighting important contributors whose work has made a substantial contribution to a particular field of study and may also influence future research directions. As in this case, "The Boundaries of Loss Aversion" by Novemsky & Kahneman (2005) has been recognized as a foundation in the work of writers Rick (2011) and Peck & Shu (2009), who have used the loss aversion framework to better understand some new contexts or contribute to current knowledge.

Figure 7 demonstrates that just ten authors are included. If all the authors were listed, the list would have been much longer, but a cutoff was created so that the top ten by documents were shown. Furthermore, using constraints such as the number of citations and the number of documents provided on the list is more in-depth. An h-index would have been used for this metric if it could have been easily obtained in Scopus; as a result, it had been reduced before the graph's final form.

Authors,	*Documents*	*Total citations*
Malkoc S.A.	3	464
Thomas M.	3	183
Zauberman G.	2	445
Chaxel A.-S.,	2	47
Bettman J.R.,	2	379
Dowling K.	2	38
Spann M.,	2	38
Li Y.	1	22
Kupor D.	1	22
Novemsky N.	1	403

Figure 7, The Most Productive Authors

A noteworthy aspect of this figure is that a small group of these authors have collaborated on their research, resulting in the development of these co-occurring authors in this field and important additions to the research and literature on marketing.

3.6 The total number of articles across different subject areas

Analysing the total number of articles across different subject areas and their frequency as a final quantitative metric makes sense for a variety of reasons. In the first place, it offers a thorough picture of how research output is distributed among various disciplines, making it possible to identify both established and developing areas of academic interest (Heberger et al. 2010). In addition, this metric could provide insights into the relative importance and prevalence of various themes in the academic literature when examined as part of bibliometric analysis.

Figure 8 displays the total number of articles across different subject areas. This graph shows that the majority of the articles are in business, management, and accounting. Notable is also the fact that the subject is included more often than the total number of articles; this is due to many articles covered multiple subjects. Scopus, for instance, classified this study by Milosavljevic et al. (2012), in which they observed that visual signals impact choices more than preferences do, into two subject categories: Psychology and Business, Management & Accounting.

Subject area	*The number of times the subject featured*
Business, Management and Accounting	60
Economics, Econometrics and Finance	31
Psychology	14
Social Sciences	10
Arts and Humanities	10

Figure 8, The Total Number of Articles Across Different Subject Areas.

Furthermore, given how behavioral economics and psychology are tied to cognitive biases, like aforementioned, one would have expected that psychology would have ranked higher than other subjects, such as the arts and humanities. But this is just another example of how multifaceted themes are beginning to emerge and affect consumer biases at the point of purchase from a variety of perspectives, therefore deepening our understanding of the topic.

4 Qualitative thematic analysis

Following the quantitative analysis, a qualitative thematic analysis was conducted to further study the literature and conclude the bibliometric analysis. Qualitative analysis provides understanding into the meanings, perspectives, and interpretations that individuals assign to their experiences, resulting in a more comprehensive and contextually grounded understanding of a phenomenon (Aspers & Corte, 2019), in essence, you are attempting to reflect on what is said and how it is said. For this analysis, all 59 articles were closely examined to see if there were any recurrent themes.

Five themes and their sub themes were discovered, and they were implemented to the marketing-mix framework (McCarthy, 1960) as a tool to further assist to give understanding for how cognitive biases effect on consumers at the point of purchase and how marketers could use this knowledge in their marketing strategies. Figure 9 illustrates the themes and provides a full overview of the structure of the research topic. In addition, Figure 10 displays the definitions of cognitive biases examined under this framework in various circumstances.

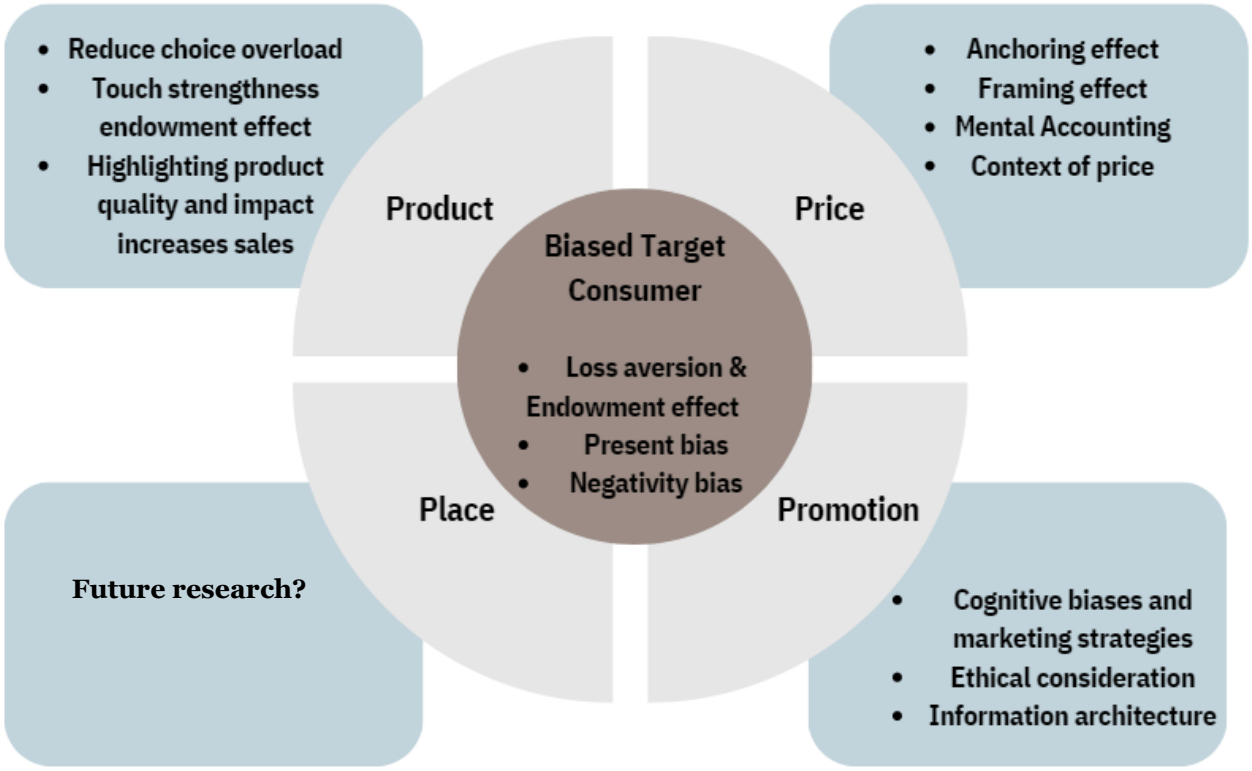

Figure 9, The Themes Emerged From The Qualitative Thematic Analysis

Loss Aversion	"A phenomena in which individuals consider a real or potential loss to be cognitively more severe than an equivalent gain."	*Novemsky & Kahneman, 2005*
Endowment effect	"An event in which a person places a higher value on an object they already own than they would place on the same object if they did not own it. "	*Rick, 2011*
Present bias	"While making decisions, people have a tendency to focus on the present rather than the future."	*Malkoc & Zauberman, 2006*
Negativity bias	"An event in which negative occurrences evoke more emotional responses than positive events of similar magnitude."	*Ofir & Simonson, 2007*
Anchoring heuristic	"An type of cognitive bias in which people favor information obtained early in the decision-making process."	*Gong et al., 2019*
Framing effect	"The manner in which information is presented to us determines how appealing a proposition is."	*Khan & Dhar, 2010*

Figure 10, The Cognitive Biases Used Within the 4P Framework Defined.

4.1 Biased Target Consumer

The first theme was Biased Target Consumer, which assists us to comprehend how we behave when we are influenced by cognitive biases. Although there are more cognitive biases found in the articles, they focus more on the aspects of the 4p marketing-mix and provide a better understanding of how cognitive biases can be used in marketing and better understand these at the point of purchase. This theme's function is then to enhance our understanding of these four commonly known and studied biases, which helps us better understand how consumers behave at the point of purchase and how it relates to marketing mix.

Loss aversion & endowment effect

The quantitative study discovered that loss aversion played an essential role in contributing to our understanding of how we make decisions, ultimately affecting at the point of purchase; the qualitative study confirmed this. The first sub-theme centered around loss aversion and how it influences our decisions and presents itself in various contexts. The most influential paper for this overall theme was written by Novemsky & Kahneman (2005), and their article provided a more in-depth understanding of loss aversion, such as how marketers can mitigate loss aversion and how loss aversion may contribute to the success of some trial offers. It was also discussed how marketers might strengthen perceived brand loyalty, because when consumers are given a specific good, their value for those good increases (Novemsky & Kahneman, 2005).

Novemsky & Kahneman (2005) influenced other studies not only within this sub-theme but also across other themes, proving its importance in this field of study. Rick (2011) explores loss aversion in his review and draws on the work of Novemsky & Kahneman (2005) to further synthesize what is known

about loss aversion and what remains to be uncovered when using neuroeconomics to learn more about this topic.

Rick (2011) additionally pointed out that the endowment effect can be understood as a form of loss aversion, as people prefer to attach a higher value on products they own because they dread the loss of those items more than the gain of such items. This close relationship between loss aversion and endowment effect had already been established when it was discovered that endowment effect can be considered as a byproduct of loss aversion (Zhang & Fishbach, 2005). It was also suggested that the sensation of ownership for a product may be viewed as a more intense loss than are willing to acquire in a tradeoff (Zhang & Fishbach, 2005). As a consequence, ownership of something has an intrinsic connection to the dread of loss.

In addition to the endowment effect, loss aversion was observed in online bidding decision making, wherein consumers are instructed to perform explicit comparisons, resulting in risk aversion (Dholakia & Simonson, 2005). This further suggests that loss aversion may provide an endowment effect, which makes the consumer more hesitant to accept the offers presented, and that this may be the outcome of one's own instructions to make the consumer compare. Thus, managers or sellers must be aware of this cognitive bias in order to successfully exploit it to reduce cognitive affects (Dholakia & Simonson, 2005).

Furthermore, loss aversion influences not only the interaction between a marketer and a consumer, but marketers must additionally recognize loss aversion moderators in order to effectively minimize this bias in decision-making. Individuals who exhibited less subject knowledge and experience, as well as those who were older and less educated, were more loss averse (Mrkva et al. 2020). The moderators of loss aversion were also included in a study by Klapper et al. (2005), who discovered that only quality consciousness has a large influence on loss aversion, demonstrating the function of subjective

knowledge as a moderator of loss aversion. As a result, once the moderators of loss aversion are identified, they can be used to reduce it when appropriate.

Present bias

The second subtheme of this theme examined how consumers make intertemporal preferences decisions when they are influenced by positive emotion and subjective time perception. The major theoretical frame commonly refers to present bias or hyperbolic discounting, which was also used as a theoretical frame in an explicit or implicit manner across the articles. It was demonstrated here how present bias impacts individuals when making decisions that involve waiting or postponing results.

One of the main discoveries revolved around the discovery that consumers may make inadequate choices while waiting for an outcome. This tendency to make inadequate choices was discovered by Malkoc & Zauberman (2006), who found that consumers who are anchored in the present are more willing to spend comparatively more money to prevent a shorter delay in consuming a product than those who rush the consumption of a product. As discovered by (Zauberman et al. 2009), this consumers sensitivity to future time frame has a significant influence on intertemporal judgment and choice. Marketers can also assist consumers in overcoming current bias by highlighting the duration of the reward and giving information that assists consumers in better understanding the long-term worth of their choices (Zauberman et al. 2009).

Additionally, Pyone and Isen (2011) investigated this topic in a specific context, discovering that reducing present bias with positive affect may lead to consumers being more likely to join consumer reward programs, as they understand more about how rewards increase over time and how the future quickly becomes the present. As a result, assisting consumers in overcoming present bias is crucial since it influences commitment and, as Malkoc

& Zauberman (2006) uncovered, can modify consumers' levels of impatience, implying that consumer happiness is the result of overcoming present bias.

Negativity bias

The third and last subtheme addressed the impact of negativity bias on consumer decision-making. An observation for the articles might suggest that negativity bias is related to loss aversion because they both have the same characteristics. For example, in the study by Dholakia & Simonson (2005), they studied negativity bias mitigators and explained that positivity is less valued than negativity, which is somewhere align on the basic principle of loss aversion, where losses affect more than wins (Novemsky & Kahneman, 2005). This similarity may explain why negative bias was strongly used when it was used but was not acknowledged frequently across articles.

It was also a reinforcing component related to the endowment effect, as proven by Zhang & Fishbach (2005), who investigated the effects of predicted negative feelings on the endowment effect and pricing discrepancies between buyers and sellers. Findings also show that negativity bias amplifies the endowment effect, particularly in low mood situations where perceived risks are higher and psychological resources for functioning are depleted, indicating a focus on negative emotional repercussions (Zhang & Fishbach, 2005). Furthermore, when we pay more attention to negative information, this emphasis on negative outcomes is at the heart of how consumers evaluate labels (Kim et al. 2022). As a result, negativity bias strengthens an individual's commitment to a viewpoint and plays a role in influencing the focus in product assessments, it might be said that it has an influence on purchasing decisions.

Not only did it have an amplification effect in other biases and interfere with our focus, but it also had long-term effects on purchase behavior. According

to Ofir & Simonson (2007), the importance of consumer expectations in marketing techniques is based on negative bias. More specifically, simply articulating expectations almost guarantees that post-experience evaluations will be more negative than they would have been if expectations had not been communicated (Ofir & Simonson, 2007).

Thus, even though it was mentioned the least when comparing the sub themes related to loss aversion and present bias, it plays a significant role in this contextual dimension of biased target consumer. Which could be due to the similarities that it shares with loss aversion, so that some of its focus may relate to negativity bias even though it is under the theme loss aversion. Given that it had an obvious influence on other biases, both as an amplifier and on its own, there was a justification for focusing this subtheme on the negativity bias.

4.2 Product

The second theme is "Product," but it is also the first theme, examining the four Ps of marketing mix and how they connect to providing an understanding of cognitive biases in consumer decision-making at the point of purchase. This P in the marketing mix typically contains characteristics such as product features like, functionality, brand, packaging, and services (McGarthy, 1960). This theme has only a few articles. While it may have fit within one of the other themes, I believe it stands on its own. This is because design had a significant impact on increasing cognitive ease and reducing choice overload (Milosavljevic et al. 2012). This ability to employ visual cues to improve decision-making is significant and needs more investigation.

Packaging not only has a substantial impact on increasing cognitive ease, but it also plays a key part in enhancing endowment effect (Peck & Shu, 2009). Their article implies that touch can be an effective marketing tool, and that

the hedonic rewards of touch may influence consumer decisions regardless of the information gathered through touch. This implies that if no other information, such as advertising, is available, the components of the product that stimulate buyers to touch or take it into their hands for further study are expected to emphasize the endowment effect and the sensation of ownership. In line with this conclusion, Hoegg et al. (2010) offered more evidence that product design can influence how a functional characteristic is processed.

Marketers may find these insights valuable when creating product commercials or deciding on brand components in a product. Marketers can boost consumers' faith in the extent of their products' influence, resulting in increased sales, by emphasizing their products' high possibility of having any impact at all (Kupor & Laurin, 2020). It also implies that providing the option of having an impact on the package or other visual cues may result in the product being touched, enhancing the endowment effect.

This theme focused on product, one of the four Ps in the marketing mix (McCarthy, 1960), and its influence on consumer purchasing decisions. Because product design and how interacting with products strengthens the endowment effect, marketers should pay closer attention to how visual cues are used in products. The current focus isn't extremely significant, as evidenced by the quantity of articles on the subject. Although one could argue that this falls under the main theme of advertising strategies, I argue that it stands alone because product design and pure touch can influence our purchasing decisions, and when making purchasing decisions, the information provided by advertisements is not always available. So, the role of product design has a way of influencing when consumers are evaluating alternatives at the point of purchase (Peck & Shu, 2009).

4.3 Price

The third theme is "Price," which is another component of the marketing mix (McGarthy, 1960). It included articles on the mental accounting of how people interpret pricing and numbers. These publications gave insight into the relationship between pricing perception and cognitive biases. Article themes are aligned with the content within this P of marketing mix, since it included topics such as list pricing, packages, and discounts. Price discounts, for instance, are "addictive" in the sense that once firms begin to offer discounts, they must decrease even more deeply in subsequent periods to attract customers, as buyers are loss averse to continuing reductions (Kuksov & Wang, 2014). Although Kuksov & Wang (2014) argued that enterprises should still use price promotions as a competitive tactic, they should use it less frequently. This demonstrates how pricing is associated with cognitive bias and how it may influence our decisions, something marketers should be aware of.

Pricing is a theme that addresses the relationship between pricing and cognitive biases, the most common in the context of pricing being anchoring heuristics and framing effect, as there were indications throughout the articles that pricing has a strategic role in the way it was presented. For instance, Gong et al. (2019) provided marketing implications on the sequence of discounts for new products, first giving a small discount followed by a larger one, and this blends naturally with consumer's preference for ascending discount formats. The same was true for bundle offers, where anchoring and framing a discount as savings on overall purchase is not as successful as framing a comparable discount as savings on the hedonic item in promoting bundle sales (Khan & Dhar, 2010). As a result, marketing mix and pricing can use this in pricing strategies in a way that takes into consideration the mental shortcuts caused by these cognitive biases.

There was also some overlap with the subtheme loss aversion, since it was used in one study to investigate its relationship to reference price and, as a result, consumer behavior. In their study, Klapper et al. (2005) discovered that in order to avoid considerable price competition, businesses can enhance consumer expectations for quality and position their brands as quality brands. Although this study used loss aversion as a theoretical framework, it is included in the pricing theme since it holds implications for pricing strategies that managers can use to mitigate loss aversion through price (Klapper et al. 2005).

Another price-related insight was that pricing methods can be used to guide people toward a specific conclusion by leveraging mental accounting and its bias (Erat & Bhaskaran, 2012). Firms, for example, might utilize mental accounting to devise pricing strategies that optimize the likelihood of customers purchasing add-ons to complement the original product (Erat & Bhaskaran, 2012). Furthermore, Thomas et al. (2010) observed that people perceive precise prices to be lower than round prices, even when the round prices are actually lower. WTP (willingness to pay) increased as a result of this price precision (Thomas et al. 2010). This has implications for sellers because it allows them to deliberately establish certain prices and so influences consumers' purchasing decisions at the point of purchase. As a result, this just strengthens the premise that price strategies can be utilized to nudge people in a course of action.

Furthermore, it is not enough to merely use specific pricing when deciding on prices; you must also consider the context. Using accurate prices, for example, can impair sales of discounted products because it diminishes the apparent amount of the discount (Thomas & Morwitx, 2009). Furthermore, pricing strategies for these should take price sensitivity into account, since it can have a substantial impact on purchase behavior, which can be influenced by the consumer's relationship with the salesperson and the product (Bruno et al. 2012). As a result, pricing plans should take into account the context as

well as building strong relationships with customers, which might lead to higher sensitivity to price increases.

4.4 Promotion

The fourth theme, "Promotion," is yet another component of the marketing mix (McCarthy, 1960), and it contained studies that looked at how cognitive biases connect with marketing, as well as how information is presented, which can influence how we make decisions. When it comes to the marketing-mix model, promotion includes advertising, publicity, and sales promotion (McCarthy, 1960). Consequently, two sub-themes are being examined from the articles and this marketing mix model: one examining cognitive biases and their interactions with marketing strategies, in which we examine the interaction between cognitive biases and marketing and how advertising should take these into consideration. The second subtheme is about the composition of consumer choice and how information is presented affects our choices, so it may help with sales promotion even more.

The most noteworthy authors in this area are Darke & Ritchie (2007), and their work was also featured in the list of the most referenced articles, proving its value to the field of research. They studied the influence of misleading advertising on consumers' responses to future advertising messages and discovered that deception in advertising fosters distrust, resulting in negative biases in judgments (Darke & Ritchie, 2007). As we observed in the negativity bias subtheme, this negativity influences future purchasing decisions (Ofir & Simonson, 2007), which may be detrimental to the company in issue.

As a result, Darke & Ritchie's (2007) study provided justification for discussing ethical concern inside this subtheme, as it emphasized the required ethical issue of using cognitive biases to nudge consumers in the desired direction. This also relates to the discovery made in the information structure subtheme, where Savary et al. (2020) revealed that framing cannot be used

fraudulently, as it may have a beneficial short-term effect but a detrimental long-term one. These two outcomes from two independent themes highlighted the importance of ethical concern for managers or marketers.

The interaction between cognitive biases and strategies for marketing

This was a subtheme that included articles regarding cognitive biases and how they intersect with marketing activities. In their study, Wood & Bettman (2007) questioned managers and their lack of understanding of the durability bias, implying that providing normative information in marketing communication such as advertising increases consumer pre-purchase views in the normative impact of their experience or product on experienced feelings. This durability bias and its impact on marketing are inextricably linked with the present bias presented, as it also provides understanding on individuals' inability to discount future events (Malkoc & Zauberman, 2006), such that the forecast of an outcome is precise or in a Bayesian fashion that considers all existing facts.

Vanhouche & Osselaer (2009) illustrate how, when exploiting biases in advertising, extrinsic features such as price or country of origin can be leveraged to skew consumers decision-making. They went on to explain that stressing biasing qualities may help customers estimate product quality more precisely during recurrent purchases (Vanhouche & Osselaer, 2009). However, as they also stressed, these unnecessary biasing messages must be handled with expectations, or they will backfire (Vanhouche & Osselaer, 2009).

The impact of advertisements on consumers and their long-term implications on buying intentions

This is the second part of the first subtheme, and it evolved almost entirely from the main theme's prominent authors' article by Darke & Richie (2007), as their findings indicate that marketers have a strong self-interest in maintaining truth in advertising, and deception undermines credibility and has long-lasting and damaging consequences. As a result, it is vital to examine ethics in advertising since consumers may be unaware of advertising distortions that may influence behavior without their knowledge (Darke & Richie, 2007).

The aforementioned was observed in a study where one option in a binary choice can improve the perceived worth of its target by affecting its perception of following information (Russo & Chaxel, 2010). As a result, advertising could manipulate consumers without their knowledge or consent. Although consumers are not always aware of potential manipulation, it underscores the need of addressing ethical issues in marketing strategies (Darke & Ritchie, 2007).

This is due to the findings from the previously mentioned cognitive bias themes suggest that humans are not always logical when making decisions (Novemsky & Kahneman, 2005). As we use cognitive biases and tend to use misleading communication, we must recognize that consumers may not receive the message as intended, and when stated expectations are not realized, leading to negativity bias towards evaluations, it has long-term damaging effects (Ofir & Simonson, 2007). As a result, advertising managers and marketers should assess if using biases unethically is worth the risk.

Another insight from Connell et al. (2014) is that advertising can have a long-term influence, such as when child-oriented advertising benefits the company long after the target audience has grown up. As a result, it raises the

possibility that using biases to nudge consumers toward a specific path or conclusion, if effective, may have long-term consequences. Nonetheless, as the authors also pointed out, it raises some concerns about marketing commodities with potentially adverse health repercussions (Connell et al. 2014). As a result, there is a need to highlight some ethical thought among practitioners, particularly in the context of exploiting cognitive biases in favour of one's own objective.

Information Structure's Influence on Consumer Decisions

The second subtheme of the marketing mix, promotion, addresses with the structure of a consumer's choice and how we might influence that consumer choice through information architecture, in order to further assist on the role, it can play in sales promotion. As Yang et al. (2013) demonstrated that reframing of information presented can lead to higher participation. It was also demonstrated how the presentation of an offer on the label can significantly influence how much consumers are willing to pay for it (Yang et al. 2013). Savary et al. (2020) expanded on the role of information structure by discovering that how an offer for charitable purchase was presented influenced consumer choice. Furthermore, the framing effect evolves with time, so what is optimal in the immediate term may have undesirable long-term repercussions (Savary et al. 2020). According to the findings of these studies, marketers should review the information structure to ensure that it is presented in an appealing manner while also not being misleading., in order to achieve long-term favorable effects.

Furthermore, Gong et al. (2019) reasoned that information structure is significant. Although this study focused on double discounts, there are applications for understanding the overall sequence in which information is given. Thus, not only may information architecture influence or nudging consumer choice, but the framing should consider the order in which the information

is delivered, which is especially relevant in the scenario of double discount (Gong et al. 2019).

In addition, as was observed in the context of receiving products in an offer, framing can make consumers feel lucky and more willing to acquire the product bundle (Liu et al. 2022). Another element that stimulates our interest is the cultural influence on how we perceive information like numbers (Kyung et al. 2017). Interference effects that occur from an implicit link in memory that has been culturally fostered over time, as Kyung et al. (2017) pointed out, may remain. Although this importance may not be as large as it previously was due to the ease and speed with which information is now available, the cultural context in general remains a factor to consider when presenting information.

4.5 Place

The fifth and final component of the marketing mix, "Place," incorporates numerous aspects such as channel, logistics, and distribution (McGarthy, 1960). This subject was not mentioned directly, except a few instances when describing how channels, such as how negativity bias might be mitigated by temporal contiguity cues in the context of online reviews (Chen & Lurie, 2013). In addition to the previously indicated, Dholakia & Simonson (2005) investigated how loss aversion affects online bidding. However, the focus of these two research was not on the role of the channel, but rather on the cognitive biases that arise in consumers and how they affect the decision-making process. This clearly indicated that additional research at the marketing-mix, concentrating on the place and its potential function in facilitating cognitive biases and producing mental shortcuts in decision-making, should be conducted.

5 Discussion of Findings, Implications and Future Research

5.1 Overall Discussion

The aim of this study was to examine cognitive biases and their impact on consumer behaviour at the point of purchase. The findings shed light on numerous aspects of consumer decision-making, providing comprehensive insights into the structures that underlie them. This was due to an extensive study conduct incorporating both quantitative and qualitative examinations. Following the quantitative study, the qualitative thematic analysis came into being a critical component in improving the general understanding of cognitive biases. This technique, based on the exploration of meanings, perspectives, and interpretations, stretched beyond the limitations of quantitative data (Aspers & Corte, 2019), allowing for a more in-depth investigation of the research domain in the field of marketing.

Biased Target Consumer

The thematic analysis highlighted the importance of the Biased Target Consumer theme, underlining the interaction between cognitive biases and the target consumer. The four most common biases that were not included in the 4P's were considered as sub-themes. Loss aversion & endowment effect, present bias, and negativity bias, each of which contributed unique aspects to the understanding of consumer behaviour. Loss aversion, as highlighted by Novemsky & Kahneman (2005), has emerged as a critical component influencing decision-making, with far-reaching consequences for marketing strategies. The examination of present bias focused on the impact of positive emotions on intertemporal preferences (Pyone & Isen, 2011), providing insights into consumer impatience and the function of marketing activities in moderating this bias. Negativity bias, which has been observed to be slightly related to loss aversion, has been established as a reinforcing factor impacting long-

term purchase behavior (Ofir & Simonson, 2007), emphasizing its importance in the context of biased target consumers.

Product

The investigation of the Product theme looked into the significance of product characteristics, design, and packaging in shaping consumer choices, which was also what product meant in the marketing mix (McCarthy, 1960). The findings underscored the importance of visual cues and product engagement in increasing cognitive ease (Milosavljevic et al. 2012). Notably, Peck & Shu (2009) emphasized the role of packaging in not only boosting cognitive ease but also strengthening the endowment effect. Despite having only, a minor role in the literature, the theme stood out because of its ability to impact decision-making.

Price

The Price theme looked at how pricing strategies, mental accounting, and cognitive biases interact. Anchoring heuristics and framing effects obtained the centre spot, demonstrating how these affects in pricing and may be used strategically to influence consumer behaviour (Khan & Dhar, 2010). Kuksov & Wang (2014) emphasized the addictive nature of reductions in prices, underlining the importance of maintaining a careful balance when implementing them. Furthermore, the theme emphasized the importance of contextual elements, such as the influence of salesperson relationships on price sensitivity (Bruno et al. 2012), giving marketers with a comprehensive perspective.

Promotion

The research investigated the connection between cognitive biases and marketing techniques under the Promotion theme. Darke & Ritchie's (2007) work on deceptive advertising emphasized the ethical implications in exploiting cognitive biases for advertising intended purposes. The findings raised a

discussion about the ethical implications of utilizing biases to nudge consumers in a certain path. As Connell et al. (2014) pointed out, advertising can have long-term effects, so marketers should think about how they want to nudge consumers. Furthermore, an assessment of information structure in consumer decisions indicated that it has a significant influence on decision-making, with implications for long-term repercussions and ethical considerations (Savary et al. 2020).

Place

While "Place" as a theme was not explicitly mentioned, the research did refer to the potential importance of channels and online reviews in minimizing negativity bias (Chen & Lurie, 2013). The limited investigation of this component revealed a gap in understanding the role of "Place" in fostering cognitive biases and decision-making shortcuts. This highlights the importance of further investigation into the nuanced nature of this component of the marketing mix.

Finally, this study offers a thorough examination of the evolving landscape of consumer decision-making under the impact of cognitive biases. The incorporation of qualitative thematic analysis enhances our understanding of these biases, providing valuable insights for marketers and academics alike. The highlighted themes not only answer the research aims but also provide the way for further investigation, particularly into the role of "Place" in cognitive bias-influenced consumer decision-making.

5.2 Implications

This study's findings considerably contribute to existing theoretical frameworks in the domains of consumer behaviour and cognitive biases in the field of marketing. Several significant results emerge, providing unique perspectives that might enrich and broaden current theoretical understandings, resulting in both theoretical and managerial implications.

Theoretical implications

The study's unique addition is the integration of cognitive biases with McCarthy's (1960) standard marketing mix (4Ps - Product, Price, Place, and Promotion). Although one may argue that this framework has already grown over time, it nonetheless provided the necessary structurization tool for a deeper comprehension of the topic. While previous research has frequently investigated cognitive biases in specific contexts, this study illustrates how biases essentially link with each part of the marketing mix.

Additionally, an important theoretical contribution is the ethical implications in leveraging cognitive biases for advertising goals. The study by Darke & Ritchie (2007) on misleading advertising and its long-term consequences raises a theoretical discussion on the ethical implications of utilizing cognitive biases in shaping consumer behaviour. This emphasizes the importance of an ethical framework within marketing approaches, which recognizes the potential effects of influencing biases for short-term profits.

Finally, this study broadens our understanding of cognitive biases by emphasizing their long-term consequences. The long-term effects of biases on consumer behaviour, as demonstrated by Darke & Ritchie (2007) and Connell et al. (2014), demands theoretical frameworks that consider the long-term impact of marketing strategies on consumer perceptions and decision-making, emphasizing the importance of ethical considerations in the long run.

Managerial implications

Marketers can use the findings of this study to reconsider their daily actions and increase consumer engagement. The study emphasizes importance of understanding and implementing cognitive biases into marketing strategies, such as loss aversion & endowment effect, present bias, and negativity

bias. Managers should think about customizing marketing strategies to consumers' psychological tendencies. Recognizing the impact of loss aversion on consumer behaviour, for instance, marketers might create promotions that highlight possible gains rather than portraying them as avoiding losses. Additionally, price strategies may use anchoring and framing effects to make choices appealing. Furthermore, given the long-term impact of advertising on trust among consumers, ethical considerations become critical. Managers must promote transparency and honesty while avoiding dishonest techniques that might lead to unfavourable biases and decrease consumer trust (Darke & Ritchie, 2007; Erat & Bhaskaran, 2012; Gong et al. 2019; Malkoc & Zauberman, 2006; Novemsky & Kahneman 2005; Zhang & Fishbach, 2005).

From a public policy standpoint, regulatory structures that assure ethical approaches to advertising are required. Policymakers can consider establishing norms that prevent deceptive advertising and encourage transparency. To protect consumers from deceptive marketing techniques, stronger policing of marketing communications may be required. Additionally, educational programs can be implemented to raise consumer awareness of cognitive biases and their possible impact on decision-making. Policymakers help to the creation of a trustworthy and equitable marketplace by promoting a more informed consumer base. Furthermore, ethical considerations in marketing techniques should be established in policy discussions, emphasizing the long-term effects of deceptive strategies on trust between consumers and the integrity of the marketplace (Darke & Ritchie, 2007; Novemsky & Kahneman, 2005; Vanhouche & Osselaer, 2009).

Both management and policy implications are driven by ethical issues. Marketers must understand the ethical responsibilities that come with influencing consumer behaviour and prioritize long-term connections over short-term advantages. Maintaining consumer trust requires finding a balance between commercial effectiveness and ethical issues. In terms of policy,

regulatory agencies should strongly address misleading marketing techniques and impose penalties for unethical behaviour. Collaboration between stakeholders in the industry, policymakers, and consumer advocacy groups can help to promote an ethical marketing culture. This guarantees that the marketplace stays fair, transparent, and conducive to the consumer well-being, while also providing marketers with the creative freedom to come up with ideas appropriately (Darke & Ritchie, 2007; Gong et al., 2019; Novemsky & Kahneman, 2005; Ofir & Simonson, 2007; Savary et al. 2020).

5.3 Future Research and Limitations

An area that demands further exploration is the "Place" component of the marketing mix and its function in cognitive biases in consumer decision-making at the point of purchase. Because "Place" in the marketing mix encompasses many variables such as channel, logistics, and distribution (McGarthy, 1960), there may be several contexts to consider. The current study briefly discusses how online reviews and channels can alleviate or magnify some biases, but further research into the "Place" factor shaping these biases is required. Research could look into how distribution and channels affect consumer perceptions and biases. Understanding the significance of "Place" in mitigating the impact of biases across different distribution channels could provide useful insights for marketing initiatives.

Another possible future research direction is to investigate the role of packaging and visual cues in the context of advertising within the "Product" theme. The study suggests that visual signals have an effect on cognitive ease and decision overload (Milosavljevic et al. 2012). A more in-depth investigation of how certain package aspects, such as colour, design, and physical qualities, influence cognitive biases is, nevertheless, necessary. Investigating how visual signals in packaging and, eventually, advertising context might either mitigate or amplify biases at the point of purchase would add to a more

sophisticated understanding of the function of the "Product" in consumer decision-making (Peck & Shu, 2009).

Furthermore, the study suggests the significance of ethical considerations in marketing, particularly when it comes to leveraging cognitive biases. A greater investigation into the ethical components of exploiting biases in marketing techniques, as well as other areas of information formatting, is required. The research might go into building frameworks for ethically influencing consumer behaviour, considering the long-term repercussions of exploiting biases in marketing strategies, and what the opportunity cost of not disclosing facts properly would be. Understanding the ethical implications of various marketing mix aspects will help marketers make more responsible and effective decisions (Darke & Ritchie, 2007; Savary et al. 2020; Wood & Bettman 2007).

6 Conclusion

In conclusion, this thesis examined cognitive biases in consumer decision-making at the point of purchase using bibliometric analysis. Within the marketing mix framework, the study investigated themes such as Biased Target Consumer, Product, Price, Promotion, and implicitly mentioned Place. The findings contribute to theoretical frameworks by combining cognitive biases with McCarthy's (1960) 4Ps, shedding light on how these cognitive biases can be observed affecting consumers through the P's, as well as having ethical implications and underlining the long-term consequences of biases. Managerial implications from the study provides insights for marketers to improve consumer engagement while underlining the necessity of ethical considerations. The discussion additionally suggests the future research areas, such as the understudied significance of "Place," visual signals in products in advertising, and the ethical aspects of leveraging biases in marketing. This thesis' comprehensive approach, which combines quantitative and qualitative studies, broadens the knowledge of cognitive biases in consumer decision-making and lays the groundwork for future study and practical applications in marketing strategies.

References

Aspers, P., & Corte, U. (2019). What is Qualitative in Qualitative Research. Qualitative Sociology, 42(2). https://doi.org/10.1007/s11133-019-9413-7

Baumgartner, H., & Pieters, R. (2003). The structural influence of marketing journals: A citation analysis of the discipline and its subareas over time. In Journal of Marketing (Vol. 67, Issue 2). https://doi.org/10.1509/jmkg.67.2.123.18610

Bruno, H. A., Che, H., & Dutta, S. (2012). Role of reference price on price and quantity: Insights from business-to business markets. Journal of Marketing Research, 49(5). https://doi.org/10.1509/jmr.09.0334

Chen, Z., & Lurie, N. H. (2013). Temporal contiguity and negativity bias in the impact of online word of mouth. Journal of Marketing Research, 50(4). https://doi.org/10.1509/jmr.12.0063

Connell, P. M., Brucks, M., & Nielsen, J. H. (2014). How childhood advertising exposure can create biased product evaluations that persist into adulthood. Journal of Consumer Research, 41(1). https://doi.org/10.1086/675218

Darke, P. R., & Ritchie, R. J. B. (2007). The defensive consumer: Advertising deception, defensive processing, and distrust. Journal of Marketing Research, 44(1). https://doi.org/10.1509/jmkr.44.1.114

Dholakia, U. M., & Simonson, I. (2005). The effect of explicit reference points on consumer choice and online bidding behavior. Marketing Science, 24(2). https://doi.org/10.1287/mksc.1040.0099

Ding, A. W., & Li, S. (2019). Herding in the consumption and purchase of digital goods and moderators of the herding bias. Journal of the Academy of Marketing Science, 47(3). https://doi.org/10.1007/s11747-018-0619-0

Dowling, K., Guhl, D., Klapper, D., Spann, M., Stich, L., & Yegoryan, N. (2020). Behavioral biases in marketing. In Journal of the Academy of Marketing Science (Vol. 48, Issue 3). https://doi.org/10.1007/s11747-019-00699-x

Erat, S., & Bhaskaran, S. R. (2012). Consumer mental accounts and implications to selling base products and add-ons. Marketing Science, 31(5). https://doi.org/10.1287/mksc.1120.0731

Gong, H., Huang, J., & Goh, K. H. (2019). The Illusion of Double-Discount: Using Reference Points in Promotion Framing. Journal of Consumer Psychology, 29(3). https://doi.org/10.1002/jcpy.1102

Hanson, D., & Grimmer, M. (2007). The mix of qualitative and quantitative research in major marketing journals, 1993-2002. European Journal of Marketing, 41(1–2). https://doi.org/10.1108/03090560710718111

Heberger, A. E., Christie, C. A., & Alkin, M. C. (2010). A bibliometric analysis of the academic influences of and on evaluation theorists' published works. American Journal of Evaluation, 31(1). https://doi.org/10.1177/1098214009354120

Hoegg, J. A., Alba, J. W., & Dahl, D. W. (2010). The good, the bad, and the ugly: Influence of aesthetics on product feature judgments. Journal of Consumer Psychology, 20(4). https://doi.org/10.1016/j.jcps.2010.07.002

Khan, U., & Dhar, R. (2010). Price-framing effects on the purchase of hedonic and utilitarian bundles. Journal of Marketing Research, 47(6). https://doi.org/10.1509/jmkr.47.6.1090

Kim, Y., Kim, S. A., & Arora, N. (2022). GMO Labeling Policy and Consumer Choice. Journal of Marketing, 86(3). https://doi.org/10.1177/00222429211064901

Klapper, D., Ebling, C., & Temme, J. (2005). Another look at loss aversion in brand choice data: Can we characterize the loss averse consumer? International Journal of Research in Marketing, 22(3). https://doi.org/10.1016/j.ijresmar.2004.09.002

Kuksov, D., & Wang, K. (2014). The bright side of loss aversion in dynamic and competitive markets. Marketing Science, 33(5). https://doi.org/10.1287/mksc.2014.0847

Kupor, D., & Laurin, K. (2020). Erratum: Probable Cause: The Influence of Prior Probabilities on Forecasts and Perceptions of Magnitude (Journal of Consumer Research DOI: 10.1093/jcr/ucz025). In Journal of Consumer Research (Vol. 46, Issue 5). https://doi.org/10.1093/jcr/ucz027

Kyung, E. J., Thomas, M., & Krishna, A. (2017). When bigger is better (and when it is not): Implicit bias in numeric judgments. Journal of Consumer Research, 44(1). https://doi.org/10.1093/jcr/ucw079

Liu, M. W., Wei, C., Yang, L., & Keh, H. T. (2022). Feeling lucky: How framing the target product as a free gift enhances purchase intention. International Journal of Research in Marketing, 39(2). https://doi.org/10.1016/j.ijresmar.2021.07.001

Malkoc, S. A., & Zauberman, G. (2006). Deferring versus expediting consumption: The effect of outcome concreteness on sensitivity to time horizon. Journal of Marketing Research, 43(4). https://doi.org/10.1509/jmkr.43.4.618

McCarthy, J.E. (1960). Basic Marketing: A Managerial Approach. McGraw-Hill Inc., US.

Milosavljevic, M., Navalpakkam, V., Koch, C., & Rangel, A. (2012). Relative visual saliency differences induce sizable bias in consumer choice. Journal of Consumer Psychology, 22(1). https://doi.org/10.1016/j.jcps.2011.10.002

Mrkva, K., Johnson, E. J., Gächter, S., & Herrmann, A. (2020). Moderating Loss Aversion: Loss Aversion Has Moderators, But Reports of its Death are Greatly Exaggerated. Journal of Consumer Psychology, 30(3). https://doi.org/10.1002/jcpy.1156

Novemsky, N., & Kahneman, D. (2005). The boundaries of loss aversion. Journal of Marketing Research, 42(2). https://doi.org/10.1509/jmkr.42.2.119.62292

Ofir, C., & Simonson, I. (2007). The effect of stating expectations on customer satisfaction and shopping experience. Journal of Marketing Research, 44(1). https://doi.org/10.1509/jmkr.44.1.164

Peck, J., & Shu, S. B. (2009). The effect of mere touch on perceived ownership. Journal of Consumer Research, 36(3). https://doi.org/10.1086/598614

Pyone, J. S., & Isen, A. M. (2011). Positive affect, intertemporal choice, and levels of thinking: Increasing consumers' willingness to wait. Journal of Marketing Research, 48(3). https://doi.org/10.1509/jmkr.48.3.532

Rick, S. (2011). Losses, gains, and brains: Neuroeconomics can help to answer open questions about loss aversion. Journal of Consumer Psychology, 21(4). https://doi.org/10.1016/j.jcps.2010.04.004

Russo, J. E., & Chaxel, A. S. (2010). How persuasive messages can influence behavior without awareness. Journal of Consumer Psychology, 20(3). https://doi.org/10.1016/j.jcps.2010.06.005

Savary, J., Li, C. X., & Newman, G. E. (2020). Exalted Purchases or Tainted Donations? Self-signaling and the Evaluation of Charitable Incentives. Journal of Consumer Psychology, 30(4). https://doi.org/10.1002/jcpy.1157

Scheibehenne, B., Greifeneder, R., & Todd, P. M. (2010). Can there ever be too many options? A meta-analytic review of choice overload. Journal of Consumer Research, 37(3). https://doi.org/10.1086/651235

Sharma, P., Saha, S., & Balaji, M. S. (2022). Retrospective View and Thematic Analysis of Business-to-Business Relationships through Bibliometric Analysis. Journal of Business-to-Business Marketing, 29(1). https://doi.org/10.1080/1051712X.2022.2039478

Sheoran, M., Kumar, D., Kumar, V., & Verma, D. (2018). Understanding the trends of marketing research and its future directions: a citation analysis. In Bottom Line (Vol. 31, Issues 3–4). https://doi.org/10.1108/BL-04-2018-0022

Thaler, R. H. (2016). Behavioral economics: Past, present, and future. In American Economic Review (Vol. 106, Issue 7). https://doi.org/10.1257/aer.106.7.1577

Thomas, M., Simon, D. H., & Kadiyali, V. (2010). The price precision effect: Evidence from laboratory and market data. Marketing Science, 29(1). https://doi.org/10.1287/mksc.1090.0512

Thomas, M., & Morwitz, V. G. (2009). The ease-of-computation effect: The interplay of metacognitive experiences and naive theories in judgments of price differences. Journal of Marketing Research, 46(1). https://doi.org/10.1509/jmkr.46.1.81

Vanhouche, W., & van Osselaer, S. M. J. (2009). The accuracy-enhancing effect of biasing cues. Journal of Consumer Research, 36(2). https://doi.org/10.1086/597163

Wood, S. L., & Bettman, J. R. (2007). Predicting happiness: How normative feeling rules influence (and even reverse) durability bias. Journal of Consumer Psychology, 17(3). https://doi.org/10.1016/S1057-7408(07)70028-1

Yang, Y., Vosgerau, J., & Loewenstein, G. (2013). Framing influences willingness to pay but not willingness to accept. Journal of Marketing Research, 50(6). https://doi.org/10.1509/jmr.12.0430

Yen, H. R., & Chuang, S. C. (2008). The effect of incidental affect on preference for the status quo. Journal of the Academy of Marketing Science, 36(4). https://doi.org/10.1007/s11747-008-0084-2

Zauberman, G., Kim, B. K., Malkoc, S. A., & Bettman, J. R. (2009). Discounting time and time discounting: Subjective time perception and intertemporal preferences. Journal of Marketing Research, 46(4). https://doi.org/10.1509/jmkr.46.4.54

Zhang, Y., & Fishbach, A. (2005). The role of anticipated emotions in the endowment effect. Journal of Consumer Psychology, 15(4). https://doi.org/10.1207/s15327663jcp1504_6