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Quit playing games with your customers: the brand damaging consequences of gamblified promotions in digital retailing

Sebastian Orhan Oliver

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Abstract

Gambled price discounts have become one of the most prevalent forms of price promotion in digital retailing and e-commerce, having been adopted by SMEs and large corporations alike. Unlike traditional price discounts which offer one singular certain outcome, gambled price discounts offer an array of potential discount outcomes, with the received discount value being contingent on a probabilistic gamble (e.g. 'spin the wheel to win'). Although used widely online as a price promotion strategy, little attention has yet been given to understand if and how receiving undesirable outcomes from these promotions can affect customers. Through five online scenario-based role-playing experiments which integrate interactive promotion stimuli and one attempted field study which included developing a live e-commerce website and online brand, the results of this work support that implementing gambled price discounts can backfire against brands. Here it is shown that undesirable outcomes can lead to feelings of brand betrayal in consumers, which ultimately can lead to significant brand-damaging consequences. Overall, the work offers four theoretical contributions and one managerial contribution. First, the paper shifts discussions in marketing literature towards the 'dark side' of gambled price discounts, uncovering how worst-case discount outcomes can be perceived as morally transgressive, negatively impacting consumption and increasing retaliation behaviours against offering brands. Second, bringing in theory from betrayal literature, the research takes an alternative affective (as opposed to cognitive) approach towards understanding how consumers can emotionally appraise two equivalently valued discount outcomes differently based on the promotion type. Third, the work uncovers three moderating variables, including brand loyalty, product involvement, and product type, which can buffer or amplify the negative effects of gambled price discounts on betrayal and downstream behaviours. Fourth, the present work brings in discussions of heuristics to gambled price discount literature, showing how the visual design of a promotion can alter how consumers heuristically judge expected outcomes from gambled price discounts prior to interaction. These heuristic adjustments can lead to reduced negative consumer responses when receiving an undesirable discount outcome. Last, the research offers practical guidance to e-commerce marketing practitioners on designing effective price promotions.

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Chapter 1: Introduction

“In many prize promotions more attention is placed on how the winners will feel than how the losers will. Such an approach is totally out-of-balance. A truly successful promotion will always reach the majority, not the minority”

- (Ward & Hill, 1991, p. 76), Journal of Advertising

In recent years, a specific type of uncertain price promotion known as gambled price discount (herein GPD) has become a highly prevalent marketing strategy in digital retailing environments. Unlike traditional certain price discounts (herein CPDs) which offer a certain flat discount (e.g. always 5% off, or always 35% off), GPDs offer an array of potential outcomes (e.g. a random discount of or between 5 and 35% off), only one of which is realized by the consumer. The key differentiating factor between CPDs and GPDs is in the level of outcome uncertainty they hold; the outcome of a CPD is always certain, while the outcome of a GPD is determined by a probabilistic gamble. GPD promotions have gained extreme popularity in recent years (Behl et al., 2020). On Shopify – a global leading e-commerce platform which hosts over 4,000,000 business’ websites – plugins offering the ability to implement GPDs are present on their list of ‘most popular apps’ for brands (Shopify, 2022). Likewise, they have been adopted by many well-established brands (e.g. Booking.com, Octopus Energy, Star Alliance).

As an example, imagine browsing your favourite e-commerce website and instead of a standard discount popping up (i.e. CPD, offering a singular and certain discount, for example 5% off), a pop-up showing a roulette wheel holding different discount

amounts within each segment emerges stating “Try your luck!”. By interacting with this GPD offering, the wheel would spin and land on one segment with a specific discount, the final result being the discount you personally receive. Though perhaps a more interactive experience, how would a customer feel and act if the realized outcome from the probabilistic gambled (i.e. GPD promotion) was undesirable? Could receiving an inferior discount compared to a better possible offer (e.g. receiving a 5% outcome from a GPD when there was a possibility of receiving 35% off) incite negative consumer outcomes when compared to an equivalently valued discount from a CPD (e.g. always 5% without the participation of a gambled event)? Contrarily, would receiving an optimal outcome (e.g. 35% when knowing lesser outcomes were possible) result in even greater positive responses compared to an equivalently valued CPD (e.g. always 35%)?

E-commerce and digital retailing is a field of research which has had massive growth within recent years and continues to grow as the retailing world shifts towards more digital outlets. Likewise, with the competitive landscape more merciless than ever, there has been significantly more emphasis in literature and practice of how marketers can optimise their strategies to improve customer experiences, in turn converting new customers or keeping existing purchasers happy. Price promotions are known to incite consumer emotion, and it is well accepted that affect can drive purchasing behaviour as well as judgements of brands (Aydinli et al., 2014; Ding & Tseng, 2015). Therefore, understanding how consumers respond to various stimuli they encounter within their purchasing journeys holds significant importance both theoretically and as well as managerially (Williams et al., 2020).

When implementing uncertainty in brand price promotions, the outcomes are always 'non-negative', meaning that "the offering that will not create greater costs than the status quo" (Kovacheva & Nikolova, 2023, p. 3). Due to this non-negativity, the majority of existing work on GPDs (and uncertainty in promotions in general) chiefly focuses on the positive aspects of their use (e.g. interaction motivations, benefits to internal reference price effects, etc) (Alavi et al., 2015; Goldsmith & Amir, 2010; Kovacheva & Nikolova, 2023). Likewise, within this area of research, scholars almost exclusively focus on the cognitive side of the received discount outcome (e.g. how valuable / attractive a discount is perceived to be) as opposed to from an affect-focused perspective (e.g. how one feels after receiving an outcome). By doing so, scholars discount the possibility that two equally valued discounts from different promotions (e.g. 5% from a CPD vs. 5% from a GPD) could be emotionally appraised differently by consumers. Should the emotional responses differ between promotion types, it is rational to assume that resultant consumer behaviours would also likely differ. The current lack of understanding here is important to fill, as purchasing behaviours are inherently tied to the profitability and success of brands.

Furthermore, there is a scarcity of literature which investigates how these promotions can affect consumers 'in-the-moment' of interaction (Attari et al., 2022; De Vries & Zhang, 2020; Tan, 2022; Tan & Chen, 2021). That is to say, majority of work on interaction motivations and attractiveness, focusing on consumer perceptions of GPDs pre-resolution (e.g. they know what discounts are on offer, but do not know the actual outcome yet). Alternatively some research has focused on outcomes where outcomes are received post-purchase (e.g. the purchase has been completed and cannot be reversed). However, the most important stage to measure emotion is arguably

immediately after receiving an discount from a price promotion but also previous to making a final purchase decision, as the emotional judgements which drive the purchasing choice are likely to be highest here, and likewise, consumers would have less reason to psychological defend an already completed purchase (Mandel et al., 2017; Stich & Wagner, 2012).

Based on existing discussions in marketing literature, several formal research calls have been made calling for research to address current gaps of knowledge in this area of research. Specifically, calls have been made for work to understand if, how, and when GPD promotions can backfire and lead to negative consumer behaviours (Alavi et al., 2015; Kovacheva & Nikolova, 2023; Tan et al., 2019), which key affective mechanisms arise and drive these negative behaviours (Alavi et al., 2015), and which constructs can moderate the effectiveness of GPDs (Akbari & Wagner, 2021). The present work directly addresses these gaps in existing literature by formally investigating the dark side of GPD use as a marketing price promotion. Addressing these aforementioned calls to research, the present work aims to answer and provide knowledge to the following research questions:

RQ1: Can receiving inferior reward outcomes from GPDs (vs. equivalently valued CPDs) backfire and result in negative brand-damaging consumer behaviours?

RQ2: If GPDs are shown to backfire and engender negative consumer behaviours, what is the key affective mechanism driving (i.e. mediating) these consumer reactions?

RQ3: Which boundary conditions can either exacerbate or mitigate the potential negative impacts of receiving inferior outcomes from GPDs?

The present work chiefly draws from the theory of brand betrayal to explain consumer affect and downstream behaviours following an undesirable GPD outcome. Brand betrayal is a consumer affective state which is evoked when a customer personally feels that a brand has lied to, misled, or taken advantage of them (Reimann et al., 2018). In existing work, brand betrayal has been shown to arise from perceived moral-violations (i.e. transgressions) of the normative consumer-brand relationship. That is to say, brand betrayal can be engendered from brand activities which consumers deem as unfair, deceptive, or unethical (Grégoire & Fisher, 2008; Reinikainen et al., 2021). Likewise, consumers who feel betrayed by a brand have been shown to engage in several anti-brand behaviours, many of which are long-lasting and can be damaging to a brand (Grégoire et al., 2010; Tripp & Grégoire, 2011). While existing work focusing on brand betrayal generally focuses on high-magnitude transgressions (i.e. moral transgressions which are severely damaging to customers), the present work considers GPDs as potential agents of brand betrayal (Alavi et al., 2015).

Over five online experimental studies and one field study attempt, this thesis addresses the possible negative impacts of receiving inferior outcomes from GPDs (vs equivalent CPDs) on brand betrayal (among other affective responses) and the downstream consequent negative behaviours which arise from these feelings. Overall, this research offers four theoretical and one managerial contribution:

First, the research contributes to price promotions in marketing literature by being the first paper to shift the focus towards the potential 'dark side' of GPDs by understanding how worst-case scenarios can backfire and have significant brand damaging consequences compared to equivalent CPD offerings (Kovacheva & Nikolova, 2023). Here it is supported that these worst case scenarios in GPDs can lead to both greater levels of purchase abandonment as well as greater intentions to engage in two forms of retaliation against the brand (i.e. negative e-word of mouth and brand avoidance).

Second, the research contributes to GPD literature by considering consumer emotional (as opposed to cognitive) appraisals of GPD price promotions (Akbari & Wagner, 2021; Alavi et al., 2015). By doing so, the current unveils that GPDs (vs CPDs) can engender perceptions of brand betrayal in customers (i.e., feelings that the brand has misled, lied to, or deceived the them). This finding (which will be discussed further in the paper) is coined in the present work as the *Microbetrayal effect*, as GPDs can lead to perceptions of betrayal following an outcome which in reality offers actually a benefit to the customer (i.e. non-negative outcome) (Kovacheva & Nikolova, 2023), unlike traditional research on betrayal which focuses on high magnitude transgressions with severe negative outcomes (Reimann et al., 2018).

Third, the present work uncovers three moderating variables, including brand loyalty, product involvement, and product value type which are theoretically and managerially important to the understanding of the impacts of GPDs across various situations and / or product offerings. The current findings associated with brand loyalty challenge the existing knowledge of how brand loyalty can buffer (or amplify) negative affective

responses in consumers dependent on transgression type (Fetscherin & Sampedro, 2019; Jabeen et al., 2022).

The fourth theoretical contribution focuses on bringing knowledge from early uncertainty literature on heuristics and cognitive biases (Kahneman & Tversky, 1972; Tversky & Kahneman, 1974) to understanding how the visual design choices used when implementing GPDs can impact consumer judgements and assessments of expected outcomes. Here it is revealed that adjusting the heuristic representation of GPDs can significantly alter a priori consumer judgements of these promotions, which in turn result in mitigating some of the associated negative affective and behavioural responses.

Lastly, the research contributes to marketing managers by providing deeper insights into how GPD usage can impact customers affectively and drive negative purchase and retaliation intentions following undesirable outcomes. Based on the findings, managers are urged to be very cautious when designing and implementing GPDs in their e-commerce marketing promotional strategies, as they do indeed possess a dark side which can lead to significant brand damaging consequences.

The overarching conceptual lens adopted in the present research is the lens of consumer psychology. Consumer psychology is a commonly adopted lens in business and price promotion marketing literature, primarily focusing on examining the psychological processes that consumers go through, and using them to explain various consumer decision making actions and outcomes (Haugtvedt et al., 2018; Prasad & Jha, 2014). Simply put, this lens considers psychological factors (e.g.,

thoughts, beliefs, and emotions) as the main mechanisms that drive consumer behaviours (e.g., purchasing decisions, interactions). The present work specifically aims to understand how consumers feel in the moment of GPD (vs. CPD) resolution, and the relationship between these emotions and downstream consumer behaviours (i.e., purchase abandonment, negative e-word of mouth, brand avoidance). Therefore, a psychological lens aligns with the research objectives, helping the current work explain how the emotional appraisals of discount promotion interactions can incite varied behavioural outcomes – an area of research called for by Alavi et al. (2015).

The overall structure of this thesis will be as follows: First, an in-depth literature will be conducted (Chapter 2). This literature review will be divided into two key parts: the first portion of the review will focus on providing a high-level overview of all of the necessary background literature relevant to the present work, addressing existing research gaps and positioning the necessity of the present work. After uncovering the foundational background literature, the review will focus more directly on the theoretical development of the seven hypotheses which will be explored within the current work. The chapter following the literature review (Chapter 3) is the methodology, which will outline the adopted philosophical paradigm, research approach, and design of the present work. The following six chapters (Chapters 4-10) will discuss the various study phases, analyses, and results, including a pilot interviewing phase, five experimental studies, and one attempted field study. Next, Chapter 11 will provide an in-depth discussion of the entirety of the work, contrasting the findings of the present work against extant literature. This section will also outline four distinct theoretical contributions and managerial implications offered by the

present work. Finally, limitations and future directions of the present work will be discussed in Chapter 12 before concluding the thesis in Chapter 13.

Chapter 2: Literature Review

Background Literature

The current chapter of the dissertation focuses on providing an in-depth understanding of the current literature which underpins and surrounds the use of GPDs in digital retailing in order to position the present research. The literature review will be conducted in a top-down fashion in which high-level broad literature surrounding the topic will be discussed before delving into more nuanced research surrounding the topic. The literature review will start by providing an in-depth overview of the current digital retailing landscape as well as a general overview of literature surrounding price promotions in digital retailing. As stated, the key factor which separates GPDs from traditional CPDs is the level of certainty (or uncertainty) within the promotion. Therefore, the next section will provide an in-depth discussion of uncertainty and its uses within marketing price promotions. After the foundational literature has been discussed, the review then turns to literature specific to the use of gamblification and GPDs within in digital retailing. Within this section, literature regarding the potential affective and behavioural responses associated with gambled price discount use will be amalgamated towards addressing a research gap. Finally, the theoretical development for the seven hypotheses will be outlined, focusing on the expected main effects, potential moderating variables, including brand loyalty, product involvement,

product type, as well as discussing possible managerial interventions to turn off the negative effects of GPDs via the manipulation of heuristics.

2.1 Digital Retailing & Price Promotions

2.1.1 The Current Digital Retailing Landscape

“How and where customers shop has fundamentally changed in the last decade.”

- Hermes and Riedl (2021, p. 71)

In recent years the competitive landscapes in which retailers operate have been increasingly digital. In the United States, digital buyer penetration has already surpassed 80% of the population (eMarketer, 2019). In terms of global figures, a recent report states that from 2014 to 2022, global digital retailing sales have rapidly increased from 1.33 trillion to 5.71 trillion, with no sign of slowing down in the coming years. By 2026, global sales in digital retailing are forecast to grow by another 42% to over 8.14 trillion dollars (Chevalier, 2022). With such vast and growing audiences, the realm of digital shopping and e-commerce has been described in literature as “a marketers dream” (Gillison et al., 2022, p. 257). However, the more fruitful the environment, the more saturated and harsh the competitive arena becomes, with more and more digital retailers competing for a bigger slice of the cake. To remain competitive, digital retailing marketers must now focus on satisfying consumer needs, wants, and expectations to build brand equity and create long-term favourable relationships with their customers (Kim et al., 2014; Priporas et al., 2017).

The same rapid technological shifts which have been foundational to our increasingly digitized world have also had significant impacts on the daily lives and needs of consumers. A recent consumer survey by Adobe (2019) found that on average, consumers spend approximately 8.8 hour per day engaging with their digital devices. This number is increased in Gen Z and Millennial populations, to over 11 hours per day. Within these hours, it is known that consumers are heavily bombarded with countless brand advertisements and promotions. In fact, digital marketing experts suggest that the average consumer is likely exposed to between 4,000 and 10,000 ads per day (Marshall, 2015; Simpson, 2017). One of the resultant downstream effects of this is that consumers have become more and more desensitized to and impatient with traditional advertising strategies (Davis & Brotherton, 2013; Lee & Workman, 2021; Parsons & Lepkowska-White, 2010; Shaddy & Lee, 2020).

Therefore, the challenges companies in digital retailing face today no longer have to do with convincing consumers to shop online – the market is already saturated with buyers (Stephens, 2017). The challenges are now associated with delivering an experience that matches the motivations associated with consumer's shifts towards digital retailing environments (Koetz, 2019; Lemon & Verhoef, 2016; Pine & Gilmore, 1999). Resultantly, extant consumer research has and continues to focus on investigating *why* consumers already have (and are continuing to) rapidly shift away from traditional retailing environments towards greater adoption of online shopping, as well as *what* sort of shopping experience consumers expect when purchasing from digital retailers, in order to understand *how* to improve the efficacy of promotions and campaigns.

Literature suggests that treating the online shopping experience as fundamentally instrumental and disregarding the more hedonistically associated experiential side of shopping online would be a vacuous choice. For example, a seminal article by Childers et al. (2001) focuses on developing a framework for understanding consumer motivations for shopping online. Within the article, the authors draw upon the technology acceptance model (TAM) (see Davis, 1989) and focus on clarifying the duality between utilitarian and hedonic benefits which drive online shopping acceptance. Specifically, the authors outline three factors which influenced consumer attitudes towards online shopping, including usefulness, ease of use, and enjoyment. Importantly, the authors claim that alongside the instrumental attributes inherent in the shopping experience, “the more immersive, hedonic aspects of the new media play at least an equal role” (p. 527) in attitude formation. A recent netnography research by Singh (2019) investigates why grocery shoppers decide to stick to physical shopping or switch to digital. The author outline two key attributes that drive intentions to switch to digital purchasing of groceries, including pleasurable customer experiences and frictionless customer experiences. Frictionless customer experience is built from the factors of service excellence (i.e. task-related performance, demonstrated expertise) and return on investment (i.e. service efficiency, economic benefits), while pleasurable customer experiences include aesthetics (i.e. visual appeal) and playfulness (i.e. enjoyment).

Overall, digital retailing is vast and growing rapidly alongside the technology advancements digitizing the world as we know it. Likewise, consumers are spending more time on their devices and have become accustomed to an overload of brand information, advertisements, and promotions. These changes have altered how

consumers perceive and interact with brands. It is now sink or swim for many brands; if they do not quickly adapt to the ever-changing landscape and meet the needs and experiential expectations of consumers, they will not succeed. Based on this, a simple question arises; how *should* – or more interestingly to the present research – how *shouldn't* digital retailing brands design their product pricing promotions when considering the customer experience? Discussing this further, this review of literature now turns focus towards price promotions in digital retailing and their impact on the customer experience.

2.1.2 Price Promotions in Digital Retailing

Price promotions are defined as temporary and tangible price changes on products or services offered by retailers (Anderson & Fox, 2019). They are an integral part of the well-accepted marketing mix (see McCarthy, 1960) and have traditionally been used towards influencing short- and long-term consumption behaviours in retailing environments (Shaddy & Lee, 2020). Over the past decades, academics have attended to understanding how consumers perceive price promotions, as well as the various impacts they have on consumption behaviours and marketing effectiveness (see Anderson & Fox, 2019; Gillison et al., 2019 for reviews).

In early price promotion research, authors focused on measuring price promotion profitability and understanding if and how price cutting could accelerate purchasing behaviour (Assunção & Meyer, 1993; Neslin et al., 1985; Neslin & Shoemaker, 1983). Likewise, early research emerged focusing on the development and measuring the marketing effectiveness of several once new and novel pricing strategies, such as cents-off deals (Burton et al., 1998), BOGOF (buy one, get one free) (Dodson et al.,

1978), seasonal sales (Courty & Li, 1999), clearance pricing (Lam et al., 2001), psychological discounting (Kreul, 1982), and so forth. As the field of price promotion research developed and the world concomitantly began to shift towards digital retailing as a sales medium, the forms and uses of price promotions also shifted.

In digital retailing environments, price promotions are not only important, they are expected by consumers. Indeed, almost all online shoppers try to find a discount before making a purchase. For example, the findings from a recent digital retailing report found that up to 96% of online shoppers search for digital coupons previous to making an online purchase (Mezzacca, 2021). A more recent marketing trends report corroborates this finding, suggesting that 91% of online shoppers will often search for a price promotion previous to making purchases, and over 78% admitted to deciding against making a purchase due to being unable to find one (Capers, 2022). With the importance of digital price promotions gaining momentum and being expected, it comes with little surprise that in 2017, over \$47 billion worth of online coupons were redeemed and nearly double that amount were claimed in 2022 (Juniper Research, 2022).

Aligning with the notion that shopping can be 'an adventure' (e.g. Childers et al., 2001), extant literature has shown that the impacts of online discount promotions can offer more than their focal utility (i.e. the monetary benefit) (Chandon et al., 2000). For example, Ieva et al. (2018) explores deal-of-the-day shopping in young consumers. Their research presents findings which suggest that hedonic values (i.e. enjoyment, pleasure) play a major role in consumption behaviour from online price promotions. The authors leave a final sentiment that "marketing resources will yield better returns

if invested in promotional tactics and website features that stimulate fun and enjoyment, rather than only in price cuts.” (Ieva et al., 2018, p. 302).

Raghubir et al. (2004) suggests that there are ‘three faces’ of consumer promotions. That is to say, there are three specific routes in which sales promotions can positively or negatively influence consumption behaviour – the economic route, the informational route, and the affective route. The economic route is considered as the monetary gain or cost reduction value offered by a price promotion (e.g., coupon value, choice convenience, free gift etc.). The informational route is the communicative knowledge that is derived from promotional exposure (e.g., increased brand awareness, product quality, etc.). Finally, the affective route considers the feelings and emotions that the promotion arouses within the consumer themselves (e.g., happiness, sadness, deception, fun, etc.).

Research from Aydinli et al. (2014) corroborates with these ideas, suggesting that price promotions can be beneficial to consumers past their discount face value and that a key affective responses associated with receiving a price promotion should be considered. Through six experiments, the authors argue a dual-system theory which explains that upon receiving a price promotion, consumers information processing when evaluating products significantly decreased and the impact of affective decisions are more pronounced. In another study on gift promotions, Buil et al. (2013) found that the entertainment benefit of a received price promotion was significantly associated with the overall evaluation of the promotion. It is known that consumer judgements and purchasing decisions are affected by emotional states (Bagozzi et al., 2016; Somervuori & Ravaja, 2013) and that price promotions outcomes

are not only cognitive, but also affective. When comparing the motivations for online (vs. offline) use of discount promotions, Clark et al. (2013, p. 204) state that “online coupon may be a more fun and social experience than offline use, lending even more credence to the importance of satisfaction over utility for coupon use.” This knowledge has led to a variety of new digital promotion it is critical that marketing managers attend to designing price promotion designs that incite positivity consumer responses both cognitively and affectively.

Efforts by marketing practitioners and academics to understand and implement ways to ensure price promotions not only satisfy consumers cognitively (i.e. value benefits) but also affectively (i.e. hedonic benefits) have resulted in new types of price promotions (Raghubir et al., 2004). Relevant to the present research, one of the most prevalent strategies has been to incorporate the use of uncertainty in the design of price promotions. Previous to delving into the specific uses of uncertainty in price promotions, first uncertainty must be defined. Therefore, the following chapter will firstly define uncertainty by focusing on broad literature of general uncertainty. Following this section, more nuanced research on the use of uncertainty within price promotions will be discussed. Afterwards, the review will be more specific to GPDs which are the focal price promotion type investigated and compared to traditional CPDs in this research. Lastly, existing gaps within the literature will be addressed which will be used to position the present research.

2.2 Defining Uncertainty

Early definitions of uncertainty in literature describe the phenomenon as any event in which there is a lack of knowledge required to determine the outcome of an event

occurring (Knight, 1921). Aligning with this notion, Rowe (1994, p. 743) describes uncertainty as “the absence of information, information that may or not be obtainable.” Milliken (1987, p. 136) describes uncertainty as “an individual's perceived inability to predict something accurately.” This phenomenon of uncertainty manifests itself in some way or another in nearly all life events; uncertainty is ubiquitous and natural. As stated by French philosopher Edgar Morin, “uncertainty is intrinsic to the human condition.” (from Lecompt, 2020). For example, our own health is unpredictable – though people often take precautions, there is no guarantee that you won’t come down with a cold or flu tomorrow. When driving to work, we cannot accurately predict if there will be heavy unforeseen traffic. During political elections, no single individual has the ability to determine the outcome with 100% assurance. When spinning a roulette wheel, the future outcome is uncertain until the wheel stops spinning. Even meteorologists can get caught in the rain sometimes. Due to the ubiquity of the phenomenon, uncertainty has been – and continues to be – fruitfully discussed in almost all fields of academia, including: marketing, economics, psychology, medicine, technology, information systems, and many more (Morriss et al., 2022; Shen et al., 2015; Simpkin & Schwartzstein, 2016; Tversky & Kahneman, 1974).

2.2.1 Risk vs. Uncertainty

Though uncertainty and risk share characteristic similarities, they are conceptually different. As aforementioned, uncertainty is described as an inability to accurately predict an outcome due to the inherent lack of information related to the outcome probability of the event (Knight, 1921; Milliken, 1987). For risk, the outcome probability distribution for the event is known and clear. Consider flipping a standard coin, it is known that the outcome of a coin landing on either heads or tails is approximately

50%. This would be considered as a risk, as the ability to objectively and relatively accurately judge the likelihood of the associated outcome is possible. Now consider a similar coin which looks the same but it is rigged and with an unstated outcome bias. That is to say, it is significantly more likely to land on one side than the other, but which side and by how much is unknown. This would be considered an uncertainty, as the judgement of the associated outcome is no longer objective and any guess would be purely subjective. In this latter scenario, taking a bet on which side the coin would land on would be considered a bet with uncertainty.

Understanding this distinction is important when considering the impact of uncertainty on consumer behaviours, as much existing literature in a variety of fields from economics to neurobiology has shown that uncertainty and risk are both theoretically and empirically separable. For example, one of the earliest empirical studies to investigate individual behavioural differences when exposed to uncertain or risky situations was done by Ellsberg (1961). In his experiments, the author had individuals imagine that there were two urns. In the first, there were 100 balls, half red, half black. In the second urn, there were also 100 balls, but the amount of each colour were unknown. The author stated that to win a challenge, they had to pull out a red ball. From the first urn the probabilities were known (i.e. a situation of risk), while in the second, they were unknown (i.e. a situation of uncertainty). The research supported that individuals are more likely to select situations with known probabilities than unknown probabilities, even if the unknown probabilities could be more favourable.

Beyond evidence from behavioural economics, there have also been findings in psychological neurobiological literature which affirms that physiological responses

such as stress hormones (i.e. cortisol) and brain region activation can impact and be impacted differently between uncertain and risky scenarios (Bach et al., 2009; Buckert et al., 2014; Platt & Huettel, 2008; Schultz et al., 2008). A recent article by De Groot and Thurik (2018) specifically calls for researchers to ensure that they are correctly distinguishing uncertainty and risk in tasks and measurements, as failure to do so may lead to erroneous conclusions. The present research focusing on GPDs can therefore be considered focused on uncertainty rather than risk, as the probabilistic outcomes of GPDs are generally unknown to consumers.

2.2.2 The Taxonomies of Uncertainty

Previous to understanding the implications of uncertainty in the context of the present research, it is also important to first provide a theoretical taxonomy of how uncertainty is defined in the present research. Many authors in extant literature have provided insights into the various classifications of uncertainty, dependent on their field of research. For example, when investigating organizational uncertainty Milliken (1987), considers three types of uncertainty, including: State, Effect, and Response uncertainty. In computer-aided innovation, Gerwin (1988) considers technical, financial, and social uncertainty to be the three key taxonomies. As the present research aligns focuses on consumer judgements and decision-making, we follow taxonomies theorised by Rowe (1994)'s in his seminal article titled "Understanding Uncertainty", in which the author theorises a taxonomic framework for addressing the various types of uncertainty present in decision making situations.

Rowe's four classifications include Temporal, Metrical, Structural, and Translational uncertainty. The author defines temporal uncertainty as a form of uncertainty which is

associated with time, whether that be past or future states (e.g. uncertainty about the where the ball in a game of roulette will land). Metrical uncertainty is described as the uncertainty due to the variability and error inherent within any given measurement system (e.g. inability to measure with exact quantitative precision the level of happiness an individual holds). Structural uncertainty regards the natural uncertainty within a highly complex structure or system (e.g. uncertainty in understanding the intricacies of the human brain). Lastly, translational uncertainty focuses on how to explain the outcome of results of one of the aforementioned three uncertainty types, it focuses on uncertainty within the individual ability to interpret results (e.g. “Is the glass half full or half empty?” (Rowe, 1994, p. 744)). The author further states that while more than one type of uncertainty often exists in any given situation, one type generally dominates as a primary driver of decision making and judgement under uncertainty.

The present investigation focuses on consumer perceptions of unresolved GPDs and the downstream outcomes and evaluations of the resolved uncertainty. Therefore, aligning with Rowe’s taxonomies, all forthcoming discussion of uncertainty should be considered primarily as temporal (i.e. related to future or past states).

2.2.3 Uncertainty in Marketing Research

Manifesting in nearly all facets of life, uncertainty is ubiquitous. In the context of consumer marketing, uncertainty holds particular significance as its use has been shown to be impactful towards consumer behaviour and decision-making processes. In extant literature, findings are greatly mixed, with authors stating both positive and negative sentiment towards employing uncertainty in marketing strategies. Within this portion of the review, the discussion focuses first on uncovering the various ways

uncertainty has been and is being currently used within consumer marketing promotional contexts. Next, the discussion turns to uncovering literature on understanding the affective psychological and behavioural responses that uncertainty has been shown to elicit in consumers. By providing a comprehensive exploration of the current literature discussing the uses of uncertainty¹ within the field of marketing, the initial foundational theoretical groundwork is laid for the present research on the affective and behavioural responses associated with gambled price discounts.

2.2.4 Uncertainty in Marketing Promotions

Shown both in extant literature and in industry marketing endeavours, the use of uncertainty in promotions is prevalent and widely adopted. For over 25 years, Canadian restaurant chain Tim Hortons has hosted a yearly ‘roll up the rim to win’ campaign, where customers who purchase a cup of coffee can up roll the edges of their paper cup to win an uncertain prize from no prize (e.g. better luck next time) to a major prize (e.g. a new car) (Tim Hortons, 2020). In 2021, Qantas Airlines launched their ‘mystery flights’ promotion in which passengers can purchase a ‘ticket to nowhere’ which will take them to an unknown location for a day-trip by flight (BBC, 2021). The world’s largest airline group, Star Alliance recently used a weighted-probability ‘spin-to-win’ GPD game offering customers a chance to win a reward up to a fully-paid business class flight (the lowest reward was receiving no prize ‘unlucky’) (Beeliked, 2021). International retailers including Walmart, Target, BestBuy, ASOS, and eBay have adopted the use of hidden-price promotions where the final sale price

¹ Although a clear delineation between uncertainty (unknown outcome probabilities) and risk (known outcome probabilities) has been made within the aforementioned portion of the literature review, both marketing price promotions which are considered either risky or uncertain will be reviewed for a more comprehensive and thorough coverage of existing literature in the general area, as many overlaps do occur.

of the listed product is not revealed to customers until they get to checkout (Li et al., 2022). Since 1987 McDonald's has run 'McDonald's Monopoly', which is a gamified uncertain promotion where stickers which offer a range of prizes can be peeled off and collected for discounts on future product purchases or prizes (Bhasin, 2011; Goldsmith & Amir, 2010). Indeed, the use of uncertainty has been adopted vastly across the marketing endeavours of brands of all sizes.

The types of uncertain promotions that are adopted also vary widely in their use, design, and context. These types of price promotions can be offered at various stages of the customer journey, either pre-purchase, often used to incentivise immediate and impulsive patronage (i.e. immediate-rewards) or as a post-purchase reward to incentivise future patronage (i.e. delayed-rewards) (Kovacheva & Nikolova, 2023; Liao et al., 2009; Mandolfo et al., 2022). Furthermore, the reward types can vary from monetary (e.g. 5% off or \$5 off) or non-monetary (e.g. a free product or reward points) (Goldsmith & Amir, 2010; Lowe & Barnes, 2012; Mussol et al., 2019; Shen et al., 2015).

Immediate-reward promotions may include the likes of: small probabilistic price promotions, in which a retailer or brand offers a small (often $\leq 1\%$) chance to win the entire retail purchase for free (Mazar et al., 2016); Scratch-and-save discounts, in which customers receive a blank ticket to scratch off to reveal a given discount on their purchase (Choi et al., 2010); hidden price promotions, where the original and sale prices of products are not revealed until at the checkout stage (Li et al., 2022); or gambled price discounts (e.g. GPDs, spin-to-win), which are instant-win games offering consumers a chance to win a single reward out of array of potential outcomes

(Alavi et al., 2015). Some examples of delayed-reward promotions may include those such as: conditional rebates, in which a given reward from a purchase hinges on a future uncertain external event to occur (Ailawadi et al., 2014); mystery gifts, where consumers receive a free (uncertain) gift with-purchase (Laran & Tsiros, 2013; Ruan et al., 2018); or competitions, which are skill-oriented games (i.e. quizzes) to receive an uncertain reward (Tang et al., 2022).

2.2.5 Does Uncertainty Work Well in Price Promotions?

With the popularity of uncertain promotions rising in academic discussions and industry uses, the question of ‘*does uncertainty work?*’ becomes a prominent inquiry. Consumer research focused on the use of risk or uncertainty often considers the impacts on judgements and decision making choices of individuals when faced with unresolved uncertainties². There are several theories as to how these judgements are formed and manifest psychologically in individuals, as well as what the downstream impacts of these judgements are on decision making. From psychology literature, it is known that uncertainty can elicit strong emotional reactions out of individuals (Anderson et al., 2019; Morriss et al., 2022). In consumer research, early literature on the use of uncertainty impresses that uncertainty is an aversive consumer state and thus may be an ill-informed choice to use within marketing contexts (Choi et al., 2013; Gneezy et al., 2006; Kahneman & Tversky, 1979). However, the opposing perspective (which is shared by the vast majority of recent marketing literature) suggests that early researchers have overlooked many of the motivational, hedonic, and consumption

² An *unresolved* uncertainty is defined as any event in which the final outcome is not yet known, while a *resolved* uncertainty is considered to be the same state after a specific outcome has been revealed. In the context of the current research, a gambled price discount promotion which has not yet been interacted with would be considered *unresolved* and upon revealing the final outcome, the same uncertain promotion would be considered *resolved*.

benefits associated with the use of uncertainty in marketing promotions (Goldsmith & Amir, 2010; Ruan et al., 2018; Shen et al., 2019). Therefore, a shift in perception from aversive to positive has occurred and maintained in recent academic literature. Here both juxtaposing perspectives are covered before delving specifically into gambled price discounts, the focal promotion type investigated in the present research.

2.2.6 The Use of Uncertainty as Aversive in Price Promotions

From an abundance of work in the field of psychology, uncertainty has chiefly been considered an aversive state which causes stress and anxiety which may cause paralysing or depressive symptoms (Gu et al., 2020; Morriss et al., 2022; Wise et al., 2023). Furthermore, in consumer economic research, two key theories, namely including Expected Utility Theory and Prospect Theory support that consumers are more likely to show preference to certainty as opposed to uncertainty.

Expected Utility Theory posits that when individuals are faced with a risky decisions they will base their choice on a rational calculation in which they weigh the utility (i.e. potential benefit) of each considered outcome against the likelihood of the event occurring. The theory is believed to have originated from Daniel Bernoulli (1738), who was an 18th century mathematician that used it while resolving the St. Petersburg Paradox. However, the first axiomatic formulation of the theory was found in work by Von Neumann and Morgenstern (1944). According to the theory, a rational consumer should tend to pick a certain gain over a risky or uncertain gamble at a gain.

Building further on Expected Utility Theory, seminal research by Kahneman and Tversky (1979) conceptualises Prospect Theory, which discusses how uncertainty has

a significant impact on individual judgement and decision making. The theory focuses on how there is an asymmetric imbalance with how individuals evaluate potential losses and gains in uncertain situations, which can lead to irrational choices and decisions. Specifically, the theory first proposes that consumers are more sensitive to losses when compared to gains; the joy of winning is less than the pain of an equivalent loss (i.e. “losses loom larger than gains” (p. 279). This finding has also been coined as Loss Aversion (McGraw et al., 2010; Schmidt & Zank, 2005). Second, unlike Expected Utility Theory which argues that individuals can make rational calculations, Prospect Theory suggests that individuals are not always able to accurately judge probabilities, and may overestimate the chances of an unlikely event to occur. When deciding the value of an uncertain prospect, the individual will make an attempt to rationalise a reference value between the lowest and highest possible outcome (i.e. if a discount offered between 5 to 35%, they may value the reference discount somewhere between the two). The authors further highlight that consumers tend to be risk averse to uncertain situations, and show greater preferences to certain rewards or gains. This notion of consumer preferences for certainty (and not uncertainty) has also been corroborated in some consumer research.

Consumers show preference to certainty. For example Dhar et al. (1995) show that in equivalent certain (i.e. save 20% off) vs. uncertain (80% chance to win 25% off or a 25% chance to win 80%) brand promotions, consumers show a strong preference to the certain promotion when the discount is precise. Specifically, their ratings of promotion attractiveness and purchase intentions were greater for the certain promotion. Though, when promotion conditions were all imprecise (i.e. stated the

discount was 'around' XX% off, thus all promotions were uncertain) consumers showed the greatest preferences for low-probability high-reward conditions.

Uncertainty can lead to negative affect when expectations are not met. Over seven experimental studies Li et al. (2022) investigate if and how hidden price promotions can backfire. A hidden price promotion is a form of uncertain price promotion offering which states that a given product is on sale, but the brand does not reveal what the original product price or the sale price is until the customer begins their checkout process. As an example, the authors showed a screenshot from Walmart's e-commerce website selling an television. On the website, Walmart did not specify the price of the product but only had a prompt stating 'see price in cart', with an 'add to cart' call-to-action below the prompt. Overall, the authors showed that hidden price promotions increase consumers discount expectations. When the resultant sales price fails to meet these expectations (i.e. the sale is less than expected, in this case 5% off original price), negative affect ensues in consumers, leading to reduced purchase intentions. However, the opposite effect occurred when the sales price exceeded consumer expectations (45% off original price). The authors further showed the moderating effect of cognitive vs. affective purchase types. For cognitive, utilitarian purchases (i.e. a computer purchased for work purposes), hidden price promotions were at least as effective as traditional price promotions, while for affective purchases (i.e. a computer purchased for entertainment purposes), the original effects were present.

Uncertainty can result in a violation of perceived fairness. When investigating the use of scratch-and-save discounts, Choi et al. (2013) find that when consumers receive a

discount that is lower than their internal value reference of the promotion itself (i.e. 10% instead of the proposed 15% average), they consider the outcome to be significantly less fair. On the other hand, when receiving a reward higher than the average (i.e. 20% instead of 15%), they do not perceive any difference in the level of fairness. This asymmetric finding between inferior and superior outcomes compared to an average reference price aligns with the Prospect Theory. The authors further examined if this perception of unfairness impacts future purchase intentions, finding no negative bearing on future patronage but instead positive consumer attitudes and optimism about future interactions with similar promotions.

Consumers may value an uncertain prospect as less than the worst possible outcome (i.e. extreme uncertainty aversion). Over three studies Gneezy et al. (2006) investigate the role of uncertainty in discount lottery decisions on consumer's willingness to pay to qualify for a promotion. In their research, they uncover a form of extreme uncertainty aversion in which participants value a risky prospect as lesser value than the worst possible outcome given with certainty. For example, consumer willingness to pay for a lottery ticket that offered a \$50 gift card with certainty was significantly greater (~\$38 on average) vs. a lottery ticket with an equal chance at winning either \$50 or \$100 (~\$28). Even though the minimum reward was the same across both situations, participants value the uncertain situation with a greater average reward as less valuable. This result, which the authors coin "*the uncertainty effect*" posits that the use of uncertainty may be even more aversive than previous models (e.g. Expected Utility Theory or Prospect Theory). The uncertainty effect has been supported in follow-up research looking at consumer judgements of risky reward prospects (e.g. Newman & Mochon, 2012).

The aforementioned literature supports that it may be wise to avoid the usage of uncertainty within consumer marketing promotions, as consumers may be averse to uncertainty. However, more recent findings in literature are highly juxtaposing, uncovering significant evidence which supports that consumers may show preference to uncertainty in promotions.

2.2.7 The Use of Uncertainty as Positive in Price Promotions

Uncertainty can motivate consumption behaviours. Recent psychology-focused research has shown that uncertainty can generate curiosity in the minds of consumers and thus, drive interaction behaviours. Wiggin et al. (2019) show how feelings of curiosity can lead to a generalized increase in desire for rewards, and therefore triggers increased indulgence (i.e. paying significantly more for a product). Uncertainty has been shown to have significant promise as a motivator of consumption behaviours in a variety of contexts. For example, research by Shen et al. (2015) the authors shows how when in the pursuit of a certain (e.g. 10 chocolates) vs. uncertain (e.g. a 50% chance to receive either 10 or 5 chocolates) reward, consumers invest significantly greater time, effort, and resources to qualify for the chance at the uncertain offering. The authors coin this as the *Motivating-Uncertainty Effect*, which shows how uncertainty can generate curiosity and arousal in the minds of consumers, even when average reward outcomes are lower.

In alignment, Hill et al. (2016) investigate how shopping under the influence of uncertainty in the context of mystery appeals can motivate curiosity and drive consumer purchase intentions. In their paper, the authors measured four consumer

affective states (i.e. curiosity, encouragement, distress, and discontent) following a mystery appeal promotion offering consumers a randomly selected product for a small fee. The authors found that participant's reported significantly higher levels of curiosity than the other three emotions when told about the promotion. Likewise, the authors showed that curiosity (but not the other three stated affective states) had a significant direct influence on purchase motivation. That is to say, consumers under the active influence of uncertainty showed higher purchase motivation intentions.

Over three field studies and one online vignette experiment Lee et al. (2019) investigate how small probabilistic price promotions (e.g. 1% chance your entire shopping is free) can stimulate consumption behaviour in a grocery store context when compared to a similarly valued fixed price promotion (i.e. 1% off always). The authors found firstly, that participants had a stronger overall preference for small probabilistic price promotions than the equivalent fixed price promotion. Likewise, they found that customer saliency to the pain of paying increased the effectiveness of the uncertain promotional offering. For example, customers paying with cash or debit spent 54% more when offered the small probabilistic price promotion compared to those offered the fixed promotion.

Uncertainty is more hedonically pleasing. Ruan et al. (2018) propose the 'teasing effect' which shows how creating and resolving an uncertainty can lead to greater hedonic experiences. Through seven studies, the author shows that consumers respond more positively to brand advertisements after first being exposed to an uncertainty and resolution about the brands identity. This finding corroborates with research by Shen et al. (2019) who uncover the 'uncertainty resolution-as-a-reward'

effect, which describes how resolving uncertain situations and receiving a reward (whether low or high) is a reward in itself, leading to greater hedonic benefits than a certain reward of greater value. That is to say, in repetitive tasks, receiving a 50/50 chance at receive ¢5 or ¢10 after each task is more hedonically pleasing than receiving ¢10 always.

Consumers show a general preference to uncertain promotions. Over a variety of contexts (e.g. vending machine purchases, video rentals, vacations choices) Mazar et al. (2016) find that consumer purchase intentions and intended consumption amounts are significantly increased when offered small free probabilistic price promotions (compared to equivalent certain discounts). For example, the authors show that when consumers are offered the option of purchasing a \$200 vacation after being offered: a) 10% off promotion (therefore \$180), b) a small free probabilistic price promotion offering a 10% chance of paying nothing and a 90% chance of paying full price (same average price), or c) a non-free probabilistic price promotion (conceptually similar to a GPD) offering 20% chance to pay 50% off and an 80% chance to pay full price, consumers show significant purchase preferences for the probabilistic price promotions.

2.2.8 Mixed Findings For the Use of Uncertainty in Price

Promotions

Certainty is preferable in cognitive purchases, while uncertainty for affective. In the context of free gift marketing promotions, Laran and Tsiros (2013) investigate consumer preferences of certainty (i.e. knowing what free gift will be offered) against uncertainty (i.e. not knowing what free gift will be offered) on consumer purchase

intentions. Over four experimental studies, the authors show that when consumers are making cognitive purchase decisions they prefer certain free gifts and while making affective purchase decisions, they prefer uncertain free gifts. For example, when consumers are purchasing a cell phone for work purposes (i.e. cognitive decision), they show a significantly greater preference to receiving a promotion offering a free gift that is certain. On the other hand, when purchasing a cell phone for personal use (i.e. affective decision), the opposite occurs and they show a significantly greater purchasing preference to promotions offering uncertain free gifts.

Uncertainty can engender curiosity and drive greater levels of indulgence and consumption than certainty. For example, seminal work by Goldsmith and Amir (2010) investigates if reward uncertainty (e.g. a chance to win one of several possible rewards) can improve retailing promotions. The authors discover that consumers have an 'innate optimism' towards uncertain incentives. That is to say, consumers affectively respond to unresolved uncertain incentives as if they were going to receive the highest possible outcome, even though cognitively they know the average value should be lesser. For example, a free-gift promotion offering an uncertain gift which could be either a pack of Godiva truffles (higher value) or two Hershey's Kisses (lower value) was as effective in terms of promotion attractiveness and driving purchase intentions as a promotion offering the higher valued reward 100% of the time as a free gift with certainty. Aligning with Laran and Tsiros (2013)'s findings on cognition, the authors find however that eliciting probability considerations (i.e. the consumer cognitively considers how likely the outcome will be) attenuates the innate optimism effect, thus reducing purchase intentions and promotion attractiveness.

Certainty is preferred for detail-oriented judgements, while uncertainty for gist-oriented. Over five experiments, research by Duke et al. (2018) investigated the impact of gist vs. detail oriented judgements on consumer preferences of certain (vs. uncertain) rewards. The authors found that when offered the choice between a certain (e.g. 100% chance at \$100) vs. an uncertain (e.g. 89% chance at \$100, 1% chance at \$0, and 10% chance at \$500), participants generally showed a selective preference for certain rewards when consumer attention is shifted to the gist (i.e. the 'big picture' of the choices) than the details (i.e. the individuating details of the alternative outcomes). When consumer attention was shifted to the details, the opposite effect occurred. Furthermore, the authors found that preferences for certain rewards were accentuated when participants were under an immediate time pressure, responding intuitively, evaluating choices with high-value outcomes, or procedurally primed to process information globally. Attenuation for certainty and an increased preference for uncertain reward options were shown when participants elaborated choice alternative details, evaluated choices with low-value outcomes, or were procedurally primed to process information locally.

Consumers prefer uncertainty for low-valued products, and certainty for high-value products. A recent study by Gaertig and P Simmons (2020) investigating consumer preferences of selecting a certain discount (i.e. 10% off) or an equivalently valued uncertain discount (i.e. 10% chance to be free) depends on the price of the promoted product or service. The authors find that when the offered product or service is of low value, consumers show a significant preference for an uncertain price promotion, however when the value of the offering is large, this affect attenuates and consumers prefer certain price promotions.

2.2.9 Summary of Uncertainty in Price Promotions

From a high-view perspective, the landscape of literature on the use of uncertainty is vast and mixed; there is strong evidence on both sides of the field. For example, many authors suggest that its use should be avoided, as it may cause stress and anxiety (Morris et al., 2022), be considered aversive (Kahneman & Tversky, 1979; Von Neumann & Morgenstern, 1944), lead to perceived fairness violations (Choi et al., 2013), or extremely devalue consumption behaviours (Gneezy et al., 2006). On the opposing end of the spectrum, authors show high praise for the use of uncertainty in marketing promotions, suggesting that uncertainty can engender feelings of curiosity (Hill et al., 2016; Ruan et al., 2018; Wiggin et al., 2019), leading to greater levels of perceived attraction, purchase intentions, and levels of consumption (Goldsmith & Amir, 2010; Lee et al., 2019; Shen et al., 2015), even when average rewards are lesser compared to a certain equivalent reward, as uncertainty resolution in itself can be seen as a hedonic reward (Ruan et al., 2018; Shen et al., 2019). The remaining research suggests that the effectiveness can be double-edged and highly dependent on the product or service characteristics, context, or type of uncertain promotion (Duke et al., 2018; Gaertig & P Simmons, 2020; Laran & Tsiros, 2013). Building upon the aforementioned findings the review will now become more nuanced, delving deeper into gamblification and GPD research - the specific branch of uncertain promotions which are the focal investigation of this research.

2.3 Gamblification & Gambled Price Discounts

2.3.1 Gamblification

Gambling is the act of betting on the outcome of an uncertain game or probabilistic event for a potential gain greater than the initial stake that was bet (James et al., 2017). Literature has shown that gambling can elicit extreme affective and physiological responses for those playing, including but not limited to: feelings of excitement and happiness during engagement, increased heart rate and salivary cortisol production, loss of control (especially in problem gamblers), stress, and alexithymia (Axmedov, 2022; Dickerson & O'Connor, 2006; Dixon et al., 2010; Meyer et al., 2000). Researchers and practitioners have attended to transferring certain attributes of gambling into unrelated systems as a means of affording similar positive experiences which can elicit strong emotions such as excitement and fun, while attempting to limit the negative responses. In the context of the price promotions, gambling characteristics such as outcome uncertainty and game-mechanics have been implemented (e.g. in the aforementioned example of Star Alliance's spin-to-win roulette wheel type promotion in section 2.2.4 (Beeliked, 2021)). This implementation of gambling-attributes into non-gambling contexts is known in literature as gamblification.

The first mention of gamblification was done by Zanesco et al. (2020), who state that gamblification is "digitally mediated diffusion of gambling game mechanics and principles". The notion of gamblification was formally conceptualised by Macey and Hamari (2022, p. 10) who define gamblification as "the (increased) presence of gambling (or gambling-related content) in non-gambling contexts in order to realise desired outcomes". In the context of gamblification in price promotion, the desired outcomes often include gaining customer data or increasing purchase intentions. From the aforementioned descriptions, gamblification is tied very closely to that of

gamification, which is the application of game-like principles to non-game contexts (see Deterding et al. (2011), also see Huotari and Hamari (2012, 2017)). In the case of gamblification however, the transferrable attributes and game-mechanics are fundamentally tied to the principles and applications of traditional gambling (Macey & Hamari, 2020).

Within the literature on uncertainty in marketing promotions, those which are considered ‘gamblified’ mainly include: uncertain rewards, gambled price discounts, probabilistic free price promotions, scratch and saves, or loot boxes, many of which have already been discussed in the aforementioned literature (see Table. 1 for descriptions and examples). A vast majority of the previously discussed literature on the use of uncertainty in price promotions (which is intrinsically associated with gamblification) has corroborated with this positive motivational-attractiveness claim (e.g., Goldsmith & Amir, 2010; Hill et al., 2016; Ruan et al., 2018; Shen et al., 2015). Therefore, from a gamblification perspective (Macey & Hamari, 2022), it is clear as to why it marketers might perceive the implementation of gamblification as attractive. However, the present research argues that there may be a darker side to gamblified discount promotions, and more specifically, to gambled price discounts, which will be discussed further in the following section.

Table 1 - Types of Gamblified Promotions

Types of Gamblified Promotions			
Promotion	Description	Example(s)	Research
Uncertain Rewards / Reward Lotteries	A post-purchase promotion in which consumers are offered the chance to win a random reward after making a purchase or taking part in a consumer activity.	Buy X to qualify for an uncertain reward between \$5 and \$10!	(Goldsmith & Amir, 2010; Shen et al., 2015; Shen et al., 2019; Tang et al., 2022)

Gambled Price Discount	A pre-purchase promotion in which a proposed range of discounts are offered to customers based on the outcome of a probabilistic game with unknown probabilities (i.e. discount roulette, slot-machine discounts).	Spin to win a discount of between 5-35% on your current purchase depending on the outcome of the game!	(Akbari & Wagner, 2021; Alavi et al., 2015; Tan, 2022; Tan & Chen, 2021)
Probabilistic Free Price Promotion	A pre-purchase promotion in which customers are offered a probabilistic gamble with known probabilities (i.e. risk) for a chance to win their entire purchase for free.	1% Chance of entire purchase free, 99% chance of full price.	(Lee et al., 2019; Mazar et al., 2016)
Loot Boxes	An offering in which customers (typically in video games) stake money to receive a virtual box in which the actual rewards or products received are revealed after purchase.	Pay \$X for a loot box offering an unknown reward!	(Adam et al., 2022; McCaffrey, 2019; Roethke et al., 2020)

2.3.2 Gambled Price Discounts

Gambled price discounts (i.e. GPDs) are a specific form of gamblified promotion which is characterised by the savings outcome of the promotion being dependent on a customer playing a game of chance to take a gamble at receiving one of many potential prizes (Alavi et al., 2015). The most common format of a gambled price discount in digital retailing is a ‘spin-to-win’ or roulette wheel styled game, in which there are various discounts which can be won (Akbari & Wagner, 2021; Behl et al., 2020). This spin-to-win format has been adopted by many companies, including Booking.com, Octopus Energy, and Star Alliance to name a few. Other game-types have been adopted in gambled price discount use, such as: roll-the-dice, slot machine, or pick-a-card games (Akbari & Wagner, 2021; Ike, 2022). Some examples of gambled price discount promotions in industry are visualised and described in the following Fig 1 and Table 2.

Fig. 1 – Visual Examples of Brand Use of Gambled Price Discounts

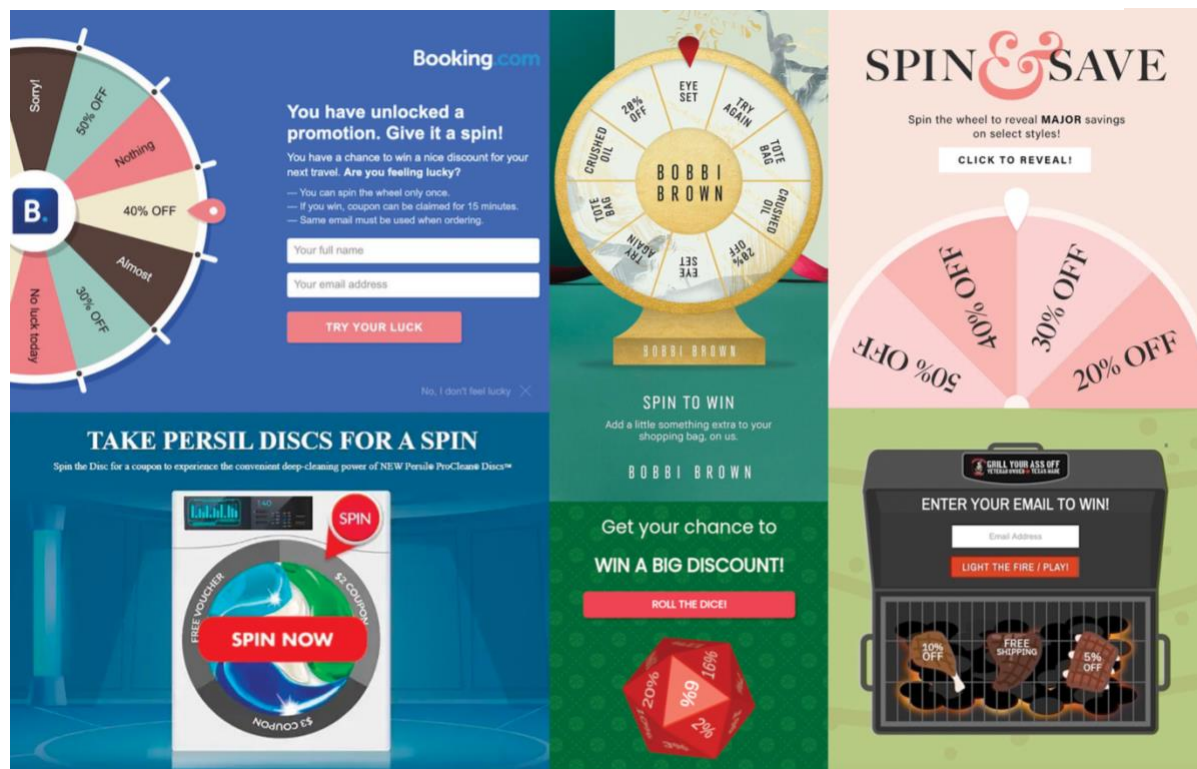


Table 2 – Examples of Brand Use of Gambled Price Discounts

Brand	Description	Reward Range
Bobbi Brown	“Play our Spin-to-Win game to win prizes and discounts on your order.”	0 to 20%
Octopus Energy	“Spin to Win: Either click or drag the wheel for a chance to win credit on your account!”	£0 - £512
Dell Computers	“50%, 25%, 15% or 10%: which one is yours?”	10 to 50%
Forever 21	“We have a surprise for you... 10%, 15% or 20% off your next purchase”	10 to 20%
Aveda	“Play for a chance to win a travel-size, full-size or discount with your purchase.”	*0 to 20%
Star Alliance	“Spin-to-win business class flights to South Africa”	*0 to Free Flight
Booking.com	“You have unlocked a promotion. Give it a spin!”	0 to 50%
Persil	“Take Persil discs for a spin!”	\$2 to Free
Lookfantastic	“Spin to win. Try your luck – click to reveal your discount “	“?” to “?”

*non-monetary items are also included in the potential reward (e.g. products, experiences, rewards points, etc).

Though extremely popular as a pre-purchase incentivisation strategy in e-commerce and digital retailing research and in practice (Alavi et al., 2015; Behl et al., 2020; Tan

et al., 2019), a surprising dearth of literature studying GPDs exists. As stated by Tan (2022, p. 2) “GPDs have only recently received increasing attention from academia and practitioners... when GPDs will and will not perform, and in what context, remain to be studied.” This portion of the review aims to cover all presently known discussion in literature which specifically focus on this form of promotion. The findings of each will then be synthesized into a more digestible table of findings.

De Vries and Zhang (2020) investigate how the perceived attractiveness of GPDs with varied levels of uncertainty impacts customers intentions to migrate to mobile payment channels. In their research they find that consumers higher in risk-seeking traits show greater intentions to switch to mobile payment channels in order to qualify for a fully random discount (i.e. unknown discount range), while consumers lower in risk-seeking traits show switching preferences for GPD promotions offering a range (i.e. 5-15% discount).

Research by Attari et al. (2022) investigates the impact of discount framing and stated probabilities in consumer preferences for GPD promotions when probabilities are known (i.e. risk-based) vs. CPDs. The authors propose that the monetary framing of the discount offering can significantly alter consumer choice propensity for either a gambled or certain offering. Specifically, the authors find firstly, that choice propensity for probabilistic price promotions is greater (compared to certain equivalents) when discount framing (i.e. chance of \$X discount) as opposed to reduced price framing (i.e. chance to pay \$X) was used. The research also suggested that consumers showed a significant choice preference to probabilistic discounts when the probability of receiving a reward decreased (as value of prize increased proportionally). For

example, a 5% chance to win 85% off was a significantly more attractive promotion in the eyes of consumers than a 90% chance to win 25% off, and 55% chance to win 37% off was between the two.

Through three experiments, Tan and Chen (2021) investigate consumer perceptions of GPD attractiveness and the subsequent effects of these perceptions on the replenishment intentions of subscription-based services. Within the study, the authors compared the effectiveness between curation-based (i.e. new monthly products, curated by the brand based on customer preferences) and replenishment-based (i.e. same monthly products, replenished) subscriptions. Overall, the authors found that the attractiveness of gambled price discount promotions to be positive at influencing both curation- and replenishment-based subscriptions. A multigroup analysis by the authors further revealed that this effect was especially strong in the replenishment-based subscription model. Aligning with research on the excitement of surprise, the authors suggested that the increased effectiveness in replenishment-based models was due to the inherent lack of excitement or 'dryness' associated with this type of service.

Research by Tan (2022) focuses on investigating contexts where GPDs (vs. CPDs) are perceived as more attractive. Through one experiment, the authors suggest that GPDs work especially well when offering hedonic experiential products (i.e. hotels) as opposed to utilitarian products (i.e. printers). They suggest that CPDs are better suited as an all-rounder. That is to say, their attractiveness did not fluctuate across different product types and thus have a greater scope of use. Furthermore, the research

suggested that GPD benefits may be limited (enhanced) when consumers are exposed to affective (cognitive) WOM reviews during the information searching stage.

Alavi et al. (2015) investigate the potential benefits of GPDs (vs. CPDs) on consumer internal reference prices. In the research, the authors argue that due to the uncertainty associated with gambled price discounts, the diagnosticity (i.e. consumers ability to evaluate the target discount) will be decreased and therefore will not incite a lowering effect on consumers internal reference prices. Through three experiments, the authors show support first, that unlike CPDs, GPDs do not lower consumer internal references prices. Second, that repurchasing behaviours were unaffected by the GPD or having no discount at all, but were reduced by the CPD. And third, that if customers are able to rely on other price-related information (i.e. quality cues - which increase diagnosticity) the negative internal reference price effect of CPDs is reduced.

Akbari and Wagner (2021) conducted two field studies investigating the impacts of the use of GPDs (vs. regular promotions) on customer satisfaction and WOM intentions in physical retail settings. Within the first study, the authors had set up a small 'spin the wheel' type promotion on the cashier counter at a candy store, offering customers a chance to win between 1-10% off their purchase at checkout (vs 5% for certain). After customers had made a final decision to go ahead with a purchase, the researchers guided them to interact with the discount instrument. In their second experiment, the authors focused on comparing outcomes of a GPD promotion vs. no promotion. In this experiment, participants competed in a 'giant dice' discount game, where three oversized dice were thrown and the sum of the throw was the given customer discount (e.g. $3+3+4 = 10\%$ discount). In the first study, the authors found that entertainment

value was greater in GPD scenarios, which mediated customer satisfaction levels. However, this finding was not supported in the second study. There was support from the authors that greater customer discount evaluations were associated with greater customer satisfaction. When discount evaluations were low, entertainment value drove satisfaction. The authors found that entertainment value and customer satisfaction positively influenced WOM intentions.

Of the existing research, the study in closest proximity to the present research was conducted by Akbari and Wagner (2021). Though highly relevant to the research at hand, the work focuses mainly on the positive resulting behaviours of GPD outcomes and does not consider the potential negative behaviours that can result following GPD outcomes. Specifically, the only behavioural construct investigated in the study was positive word of mouth. Based on this limitation the authors claiming that for future research “investigating the long-term effects of such gambled promotions is likely to yield thought-provoking inquiries in this area.” (Akbari & Wagner, 2021, p. 267). Likewise, this work did not consider any moderating conditions, stating that their work ‘points to’ but does not formally investigate any boundary conditions (e.g. why consumers may reject GPDs), an area specifically recommended here for future research to focus on, which the present research does.

Secondly, the authors here conducted their measurements at the cashiers counter *after* a final purchase decision had been made. Extant literature has shown that stating one’s true emotions in face-to-face interactions may be more difficult (Javornik et al., 2022; McKenna et al., 2002). Therefore, as purchase decisions had already been made and specified to the cashier, it is possible that consumers may have engaged in

confrontation avoidance, had difficulty showing true emotions, or employed psychological defence mechanisms (i.e. Mandel et al., 2017; Stich & Wagner, 2012), all or any which could have hinder the true outcomes associated with receiving less desirable results following a GPD interaction.

Thirdly, the study was limited as the effects were only investigated through field studies which lack control. As stated by the authors:

“The nature of field studies also accounts for the lack of a random assignment of subjects to different experimental conditions and for the moderate sample sizes. This limitation offers avenues for future research to utilize laboratory settings for better control of conditions.” - (p. 267)

The limitations here are further supported by extant literature which suggests that field studies offer high ecological validity, but lack in terms of internal validity (Bartels et al., 2018; Gneezy, 2017; Roe & Just, 2009). That is to say, it is possible that the causal results found in this study may have been confounded by unforeseen or unmeasurable external factors or variables present in the field study environment (i.e. confrontation avoidance, social norms). Therefore, research focusing on GPD outcomes in a more controlled environments is necessary.

Lastly, the study was only investigated in physical retail environments. The present work focuses on digital retailing environments, where it is highly plausible that outcomes may differ for two main reasons: First, extant literature strongly suggests that consumer expectations and outcomes may differ dependent if the retail

environment is physical or digital (Levin et al., 2005; Venkatesh et al., 2022). Second, it is possible that the probabilistic outcome of a GPD in a physical (vs. digital) environment could be heuristically assessed differently, as customers are able to physically inspect the promotional instrument used to deliver the discount. Therefore the assurance that the promotional instrument is not rigged could be greater. In a digital retailing environment, the probability of any discount outcome – even if stated by the retailer – is impossible to know with certainty.

While some extant research exists on GPD use as a marketing price promotion exists, the breadth of work is limited with clear gaps. Next, the review turns to address these current gaps in literature in order to position the focus and differences of the present work among the existing discussions.

2.4 Addressing Research Gaps & Positioning the Present Research

Overall, all existing aforementioned work and findings related specifically to gambled price discounts and the differences compared to the present research is summarized within the following Table. 3.

Table 3 – Gaps in GPD Research, a Comparison of Existing Literature

Author(s) & Journal	Focus	Key Findings	Similarities
			Differences
(De Vries & Zhang, 2020) Journal of Business Research	The effectiveness of GPDs on mobile channel migration intentions	Risk-seeking → Preference to greater uncertainty Risk-averse → preference to greater certainty	Compares GPDs vs. CPDs
			Pre-resolution focus Does not consider consumer affect

<p>(Alavi et al., 2015)</p> <p>Journal of Marketing</p>	<p>How of GPDs (vs. CPDs) impact internal reference prices of consumers and repurchasing behaviours</p>	<p>GPDs do not reduce buyer internal reference prices, while CPDs do.</p> <p>Repurchasing behaviours are significantly higher after GPD interaction or no-discount (vs. CPD)</p>	<p>Compares GPDs vs. CPDs</p> <p>Post-resolution focus</p> <p>Does not consider losing on consumer affect (i.e. “emotions might influence aspects of customers’ shopping behaviour that we did not examine in our study”) (p. 75)</p> <p>Focuses only on inexpensive products (i.e. coffee, shampoo)</p>
<p>(Tan, 2022)</p> <p>Asia Pacific Journal of Marketing and Logistics</p>	<p>Attractiveness perceptions of GPDs (vs. CPDs) dependent on product type and WOM information.</p>	<p>GPDs (vs. CPDs) are seen as more attractive for experiential hedonic products as opposed to utilitarian products.</p> <p>CPDs attractiveness does not waver between product types.</p> <p>Affective (cognitive) WOM reviews reduce (increase) GPD attractiveness, while the opposite effect occurs for CPDs.</p>	<p>Compares GPDs vs. CPDs</p> <p>Post-resolution post-purchase focus (i.e. GPD discount revealed after purchase completion, cannot backtrack or cancel the placed purchase).</p> <p>Does not consider behavioural intentions (i.e. “future studies should also consider purchase intentions”).</p>
<p>(Tan & Chen, 2021)</p> <p>Journal of Retailing and Consumer Services</p>	<p>Investigates the perceived attractiveness of GPDs on two types of product subscription types</p>	<p>Perceived attractiveness of GPD acted as a double-edged sword; negative perceptions exacerbated negativity, while positive perceptions increased positivity.</p> <p>GPDs were more effective on replenishment subscriptions (i.e. dollar shave club), as it adds a surprise element to a ‘dry’ subscription</p>	<p>Uncovers that negative perceptions of GPD can amplify negative beliefs</p> <p>Post-resolution post-purchase focus</p> <p>Does not compare GPDs and CPDs</p> <p>Does not consider affect</p> <p>Taiwanese sample may differ culturally</p>
<p>(Attari et al., 2022)</p>	<p>How the various levels of known reward probabilities impacts choice propensity towards GPDs</p>	<p>Choice propensity increases as likelihood to win reduces and reward proportionally increases (i.e. 95% chance</p>	<p>Compares GPDs and CPDs</p> <p>Known probabilities</p>

<p>Journal of Business Research</p>		<p>at ~16% off is less desirable than 5% chance at ~60%)</p>	<p>Pre-resolution focus</p> <p>Investigates choice propensity rather than outcomes</p>
<p>(Akbari & Wagner, 2021)</p> <p>Schmalenbach Journal of Business Research</p>	<p>Investigates the impact of GPDs (vs. CPDs) in on discount evaluations, customer satisfaction, entertainment, and WOM intentions in physical retailing environments.</p>	<p>GPDs are perceived as more entertaining than (vs. CPDs), irrespective of winning or losing.</p> <p>When discount evaluations are low (high), entertainment (discount evaluation) drives satisfaction.</p> <p>Overall satisfaction drives WOM intentions, while discount evaluation does not.</p>	<p>Closest study in proximity to the present research</p> <p>Investigates winning and losing outcomes of GPD.</p> <p>Investigates downstream outcome of WOM</p> <p>Gamblified (i.e. use of gamblification game-mechanics)</p> <p>Focuses only on positive behavioural intention (word of mouth), does not consider potential negative behavioural outcomes or boundary conditions.</p> <p>Final purchase decision made before GPD interaction, which could potentially skew consumer outcomes following undesirable results</p> <p>Does not investigate boundary conditions</p> <p>Limited by internal validity (two field studies only).</p> <p>Physical retailing context where differences may occur (i.e. experiences and expectations, social pressures, viewing audiences, heuristic assessments).</p>
<p>The present research</p> <p>Target: Journal of Retailing</p>	<p>Investigates how losing outcomes from GPDs (vs. equivalent CPDs) in digital retailing can affectively impact consumers and lead to</p>	<p>Low win outcomes from GPDs (vs. equivalent CPDs) increase perceived levels of brand betrayal (deception-based).</p>	<p>Investigates the dark side of GPD usage.</p> <p>Pre-purchase post-resolution focus</p>

	downstream brand-damaging consequences in digital retailing contexts.	<p>Perceptions of betrayal can lead to downstream abandonment and retaliation intentions (i.e. negative eWOM, brand avoidance).</p> <p>Increases in brand loyalty → greater betrayal from low win GPDs (vs. CPDs).</p> <p>Increases in product involvement → greater betrayal from low win GPDs (vs. CPDs).</p> <p>Representativeness heuristic and anchoring & adjustment heuristic moderate overall reward sadness across two designs of GPDs (but not betrayal).</p>	<p>Affect-focused (as opposed to cognition)</p> <p>Focuses on how losing can be seen as a brand-consumer relationship violation (i.e. betrayal by deception)</p> <p>Shows how affective outcomes can mediate brand-damaging behaviours</p> <p>Investigates four boundary variables (i.e. brand loyalty, product involvement, product value type, and two heuristics)</p> <p>Gamblification-focused (i.e. considers gamblification game-mechanics)</p>
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In general, there is a dearth of research which focuses on the impacts of GPD use in marketing, with many authors claiming that there is a necessity for further research in the area (Akbari & Wagner, 2021; Alavi et al., 2015; De Vries & Zhang, 2020; Tan, 2022). Of the few studies that exist, their focuses differ in terms of what stage in the purchasing journey the customer is at. Specifically, three stages of the purchase journey have been considered in GPD research, namely first, the *pre-resolution, pre-purchase stage*, where the uncertainty is unresolved (i.e. consumers are unaware of the final discount outcome that will be provided to them on their future purchase) and have yet to make a purchase. Second, the *post-resolution, pre-purchase stage*, where the uncertainty is resolved previous to making a final purchase decision (standard in industry practice, see aforementioned examples of GPDs in industry use, i.e. Fig. 1 and Table. 2). Lastly, the *post-resolution, post-purchase stage*, where the uncertainty is resolved, but the purchase has already been decided on or completed, and is difficult or impossible to be reversed (Tan, 2022; Tan & Chen, 2021).

The differences between each of these stages is important to consider when measuring consumer outcomes. For example, in the earliest of the stages, the pre-resolution, pre-purchase stage, research focuses on choice propensity and motivation towards interacting with GPDs (i.e. De Vries & Zhang, 2020). From general uncertainty price promotion literature, it is known that consumers often show greater motivation to interact with uncertain promotions (vs certain equivalents) due to innate optimism biases and curiosity engendering effects (Goldsmith & Amir, 2010; Ruan et al., 2018). Though interesting and important, consumer's initial perceptions of these price discounts could easily change dependent on the final outcome of the discount gamble. This corroborates with literature on gambling, which shows that disadvantageous outcomes result in rises in brain regions responsible for negative affect and feelings of emotional pain (Dong et al., 2014). This is to say, research focused on the pre-resolution, pre-purchase stage is not well suited for understanding consumer behaviour further than motivations for initial interaction (i.e. purchase intentions), as these intentions could flip to the other side of the coin depending on the outcome of the resolution.

On the other end of the purchase stage spectrum, some research focuses on consumer attractiveness of price promotions post-resolution but also post-purchase (Tan, 2022; Tan & Chen, 2021). That is to say, the GPD resolution takes place after the customer has finalized their purchase and in some cases is given the knowledge that the order cannot be reversed (Tan, 2022). From measuring the impact of consumer emotion on immediate purchase intentions or patronage, this stage of the purchase journey is problematic. The reason mainly being that the order has already

been finalized and irrespective of what the uncertainty-resolution outcome is, it is not necessarily easy or may be impossible to reverse the order should the consumer be regretful or experience negative affect from the outcome. Based on cognitive dissonance theory and purchase-regret theory (Bui et al., 2011; Festinger, 1954; Harmon-Jones & Harmon-Jones, 2012), if the customer's post-resolution beliefs (i.e. negative affect) are inconsistent with their purchase (i.e. completed purchase), they may respond behaviourally to deal with the incongruence of emotions and actions.

Aligning with existing literature, it would be likely that either regret or cognitive dissonance could lead to complaining behaviours or future product returns (Powers & Jack, 2013). However, if (like in the specified GPD research) purchases are finalised or irreversible (i.e. Tan, 2022) they may be forced to rationalize the purchase as a psychological defence mechanism (Mandel et al., 2017; Stich & Wagner, 2012). Based on these outcomes (and as found in the research) this stage is best suited for research on product returns or attitudes towards brands, as this form of promotion is closer to research on uncertain or lottery-style rewards (Goldsmith & Amir, 2010).

The remaining stage – which is adopted by the present research – is the post-resolution, pre-purchase stage. Only two of the extant studies on GPDs, the first, by Alavi et al. (2015) and the second, by Akbari and Wagner (2021) focus on the post-resolution, pre-purchase phase, where consumers are offered the promotion previous to their purchase. Though in the latter of the two research papers, a final purchase decision had already been made which arguably could skew consumer outcomes of undesirable GPD outcomes as described earlier in this section. It is argued here that compared to the other stages considered in research, this stage is the most applicable

for GPD research on immediate patronage behaviours as it is the most 'in-the-moment' and the affective outcomes of the uncertainty-resolution would have just emerged. Likewise since the purchase has yet to be completed at this stage and the consumer has all of the necessary pricing information, an actual purchase decision (or purchase abandonment) is now possible. While both of the mentioned studies are highly important to GPD literature at this stage of the consumer purchase journey, there are three specific gaps which the present work addresses.

2.4.1 Research Gap #1 - Understanding How GPDs Can Backfire on Consumption Behaviours

The majority of literature on GPDs and uncertainty in promotions literature in general focuses solely on the positive motivational-attractiveness based perceptions of GPD/uncertain promotions. Due to this, specific calls for future research on GPDs to consider more active consumer behaviours such as purchase intentions (Tan, 2022), or negative customer reactions (Akbari & Wagner, 2021; Alavi et al., 2015; Kovacheva & Nikolova, 2023).

This notion holds true for the majority of work in the field of uncertain promotions in general as well. As stated by Tan et al. (2019, p. 958) "few studies examine the influence of uncertain promotions on factors that are strongly associated with the long-term effects". Likewise, this dearth of research focusing on the dark side on consumption is supported by Kovacheva and Nikolova (2023) who state in their agenda for future research on uncertainty in marketing promotions that:

“Research has looked at the positive aspects (benefits) of uncertainty marketing tactics. We lack an understanding of when and why these tactics may backfire” suggesting that future research should *“investigate the conditions under which uncertainty marketing may result in undesirable outcomes”*

- Kovacheva and Nikolova (2023, p. 18), JAMS

The present thesis aims to address this gap in literature, as it is not only highly valuable to add to existing theory, but also important from a managerial standpoint on understanding immediate purchasing and retaliation behaviours. Specifically, the present research aims to understand how GPD losses (compared to equivalently valued CPD discount offerings) can lead to three key negative downstream behavioural impacts, namely: purchase abandonment, negative eWOM, and future brand avoidance (studies 1-5).

2.4.2 Research Gap #2 - Shedding Light on How GPDs Affectively Impact Consumers

From aforementioned general price promotion research, it is known that promotions are not solely beneficial for their monetary value; while a key driver, there are many sides to promotions including the hedonic and experiential sides (Aydinli et al., 2014; Ieva et al., 2018; Raghubir et al., 2004). The majority of GPD literature focuses on explaining consumer behaviours through consumer’s cognitive appraisal of outcomes from uncertainty in price promotions (e.g. how valuable a discount outcome is), as opposed to affective appraisals (e.g. how losing from a GPD impacts consumers emotionally). The former (i.e. cognitive) being what Raghubir et al. (2004) consider the ‘economic’ face of promotions, and the latter (i.e. affective appraisal, what is being

studied within the present thesis) as the 'affective' face of promotions. Due to this, specific calls for research being made to understand which emotions arise as the main drivers of behavioural outcomes following winning and losing outcomes of GPD price promotions. This has been formally proposed as an area for future research in the seminal GPD article by Alavi et al. (2015)'s in which the authors state the following:

"The outcome of a price gamble may also affect customers on an emotional level—for example, by arousing excitement, joy, or disappointment (in the case of losing)... Assessing the consequences of winning or losing gambled price discounts for various shopping behaviours constitutes a worthwhile and important research endeavour."

- Alavi et al. (2015), Journal of Marketing

Therefore, the present work approaches GPDs from an affective-based perspective, similar to Choi et al. (2013)'s work on promotion fairness, who found that after receiving lesser-than-expected outcomes from scratch-and-save promotions, perceptions of fairness is significantly reduced. While both winning and losing are relevant to brands, this research focuses mainly at the dark side of low rewards in GPD promotions, as negative affect is more likely to be engendered here and therefore has greater potential for negative brand consequences, i.e. "losing the gamble may lead customers to develop negative feelings toward the promoting company" (Alavi et al., 2015, p. 75).

Attending to these calls for research, the present work specifically focuses on how low outcome GPDs can impact consumer perceptions of brand betrayal (studies 1-5) and reward outcome sadness (studies 4-5), which in turn explain the negative consumer

behavioural responses outlined in the first research gap. The theoretical development of hypotheses for these affective impacts will be rationalised in the following sections of the literature review.

2.4.3 Research Gap #3 - Uncovering Potential Boundary Conditions

Beyond the two aforementioned gaps, the present research will also investigate certain moderators and boundary conditions, some of which have been nudged at by previous literature. The first moderator that will be investigated is the role of brand loyalty, as current findings in brand transgression literature is mixed on whether brand loyalty should diminish (i.e. lessen the pain) or aggravate (i.e. increase the pain) associated with receiving an undesirable outcome (Fetscherin & Sampedro, 2019; Grégoire et al., 2009; Jabeen et al., 2022). The second boundary condition is the role of product attributes, including product involvement and product value type. Many authors in the field of GPD and uncertain promotions research have nudged at (though not formally investigated) the impacts of involvement-related constructs on the outcomes of GPD use (Alavi et al., 2015; Goldsmith & Amir, 2010; Tan, 2022). The present research formalizes these nudges by focusing on if and how product involvement can impact consumer perceptions of brand betrayal following a GPD loss. Likewise, it has been shown in GPD research that the effectiveness of the promotion may differ dependent on the value type of product offered (Tan, 2022; Tan & Chen, 2021). Here differences between hedonic and utilitarian products are explored. Lastly, the present work applies the existing knowledge of heuristics (Tversky & Kahneman, 1974) to GPD research by investigating how managerial interventions which manipulate how consumers heuristically assess GPDs (i.e. through the representative

heuristic as well as the anchoring and adjustment heuristic) can alter initial consumer judgements, mitigating downstream negative outcomes.

Through the previous sections of the literature review, the present work has developed a strong foundational understanding of the existing research in the overarching field of the current digital retailing environment, the use of uncertainty and gamblification in price promotions, and gambled price discounts. Through this foundational review of background literature, three gaps (many based on formal calls for research) have been identified. These synthesized gaps which position the necessity of the present work are summarized in the following Table 4. The following section of the literature review will now focus on the theoretical development of the seven core hypotheses which will be investigated.

Table 4 – Summary of Identified Research Gaps

<p>Gap 1</p>	<p>Understanding how GPDs can backfire on consumption behaviours</p> <p>Limited research focuses on the examining if and how uncertain promotions such as GPDs can backfire against consumption behaviours. The present work addresses this research gap by investigating how inferior outcomes from GPDs impact both purchase abandonment behaviours, as well as consumer retaliation behaviours (i.e. negative e-wom and brand avoidance).</p>
<p>Gap 2</p>	<p>Shedding light on how GPDs affectively impact consumers</p> <p>GPD literature chiefly approaches explaining consumer behaviours by focusing on consumer cognition-based appraisals of discount outcomes, as opposed to how outcomes can impact negative emotion. Due to this, calls to research in have been made in recent GPD literature towards understanding which consumer affective responses arise, as well as if and how they explain resulting consumer behaviours. The present work addresses this gap by uncovering various emotions which arise following receipt of inferior outcomes from GPDs, and how they can lead to the aforementioned downstream behavioural consequences.</p>
<p>Gap 3</p>	<p>Uncovering potential boundary conditions</p>

Nudges have been made in extant GPD literature suggesting several potential boundary conditions, though they have yet to be formally investigating in present literature. Within the present study several boundary conditions are investigated, including the roles of: brand loyalty, product involvement, product value type, and two heuristics.
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Core Hypothesis Development

2.5 Brand Betrayal

2.5.1 Trust & Consumer Expectations

The foundations of any relationship is built on trust, whether that relationship be personal, professional, or organizational. As stated by Rotter (1971, p. 443) “The entire fabric of our day-to-day living, of our social order, rests on trust – buying gasoline, paying taxes, going to the dentist, flying to a convention—almost all of our decisions involve trusting someone else.” Though conceptualisations of trust are varied across multidisciplinary literature (see Robbins, 2016; Walterbusch et al., 2014), trust can generally be defined as a belief that the actions or and decisions of someone or something will be benevolent and fair in relation to a given context. Literature often discusses how the act of trusting requires the trustee to have an certain level of vulnerability in their relationship with the trusted (Colquitt et al., 2007; Nienaber et al., 2015). For example, we trust that our friends, family or romantic partners won’t break promises that are agreed upon (Peetz & Kammrath, 2011). In all transactions there is always a level of trust; the buying party holds the trusting expectation that the selling party won’t just walk off with the money provided or provide goods or services which are damaged or incomplete (Beldad et al., 2010). When the normative expectations are not deviated from in situations of vulnerability, trust in trusted parties will remain or may increase (Lewicki & Wiethoff, 2000).

Just as individuals trust within interpersonal relationships, consumer trust is necessary and intrinsic within brand-consumer interactions. In literature, this is known as brand trust, and it is an integral part of the formation and maintenance of brand loyalty and equity (Delgado-Ballester & Luis Munuera-Alemán, 2005; Sung & Kim, 2010), having been shown to have significant impacts on consumption behaviours. Brand trust has been defined in literature as “the willingness of the average consumer to rely on the ability of the brand to perform its stated function” (Chaudhuri & Holbrook, 2001, p. 82). In this definition, consumer ‘reliance’ on the brand’s stated function means that consumers have inherent expectations of the ‘functions’ of brands, which should not be strayed from or violated. Should a violation of a customer expectation occur, this is generally known in marketing literature as a brand transgression.

2.5.2 Brand Transgressions

Seminal research by Aaker et al. (2004, p. 8) defines a brand transgression as “a violation of the implicit or explicit rules guiding relationship performance and evaluation”. Brand transgressions are one of three streams in the umbrella of research known as ‘negative events in marketing’ literature. Negative events in marketing literature specifically focuses on any sort of conflict, friction, or incident that negatively impacts customers and how consumers respond to these events (Khamitov et al., 2020). A systematic review of negative events in marketing conducted by Khamitov et al. (2020) investigated three streams of negative events which appear in literature – brand transgressions, service failures, and product-harm crisis.

Though all three streams share the common interest of investigating experiences in which the activities or omissions of a company have resulted in negative impact on customers, the three classifications are conceptually different. The differences between these streams of literature can be described in the following Table 5.

Table 5 - Negative Events in Marketing Literature Streams

Negative Events in Marketing	
Stream of Literature	Definition
Brand Transgressions	Any act which violates a consumers perception of the implicit or explicit normative guiding rules within a given consumer-brand relationship (Aaker et al., 2004; Khamitov et al., 2020).
Service Failures	When the performance of a specific good or service falls below the expectation of one or few customers (Holloway & Beatty, 2003; Valentini et al., 2020).
Product-Harm Crisis	An event in which a product or service is found to pose some form of threat or danger to a group of customers (Khamitov et al., 2020).

2.5.3 Classifications of Brand Transgressions

In literature, brand transgressions are generally considered to be dyadic, generally being classified as performance-based or value-based (Aaker et al., 2004; Whitley et al., 2021), though some literature does suggest a third classification of transgression known as an image-based transgression.

A performance-based transgression occurs when a consumer perceives a functional failure of a brand's product or service. Some examples include: receiving defective products (Tsarenko & Tojib, 2015), poor customer service (Kim et al., 2019), or even uncontrollable errors (i.e. delayed flights, Bougoure et al., 2016). On the opposite side, a value-based transgression occurs when a consumer feels that the brand has violated the expected moral or social norms of the brand-consumer relationship. In marketing and advertising literature, some of the contexts in which value-based transgressions

have been investigated from include: deceptive advertising practices (Bae et al., 2022), unethical labour decisions (i.e. child labour), product dumping (Dalman et al., 2021), being misled by brands (Tsarenko & Tojib, 2015), or actions of gender discrimination (Trump, 2014; Tsarenko & Tojib, 2015). Though less common, an image-based transgression focuses on the incongruences between a brand's believed image and one's own self-image, which can result in 'disidentification' with a brand and avoidance behaviours (see Fetscherin & Sampedro, 2019; Lee et al., 2009).

A common theme among research on brand transgressions is the focus on what happens after a transgression occurs. That is, focusing on understanding how consumers react to brand transgressions. Within this literature, there is generally a focus on the severity of transgression, with research often splitting participants into groups of mild and severe transgressions (Isiksal & Karaosmanoglu, 2020). This is either done a priori (i.e. separate vignettes), with the assumption that consumer judgements of severity will be similar (Isiksal & Karaosmanoglu, 2020), or posteriori, removing this assumption on the basis that consumer emotion is complex and therefore judgements may differ in their opinion of a mild or severe transgression (i.e. some consumers may find a mild transgression to be severe, and vice-versa) (Fetscherin & Sampedro, 2019). The negative outcomes of brand transgressions are not limited only to transgressions of high severity, but may also arise from "relatively minor events, which represent small 'speedbumps' in the development of a relationship." (Khamitov et al., 2020, p. 520). Likewise, the negative outcomes of a brand transgression can be extended beyond the main customer or group of customers that feel were transgressed against, spreading to third-parties as a form of emotional contagion (Mantovani et al., 2018).

Generally speaking, consumer responses to transgressions are often negative (as would be expected). Likewise, the type of transgression (i.e. performance-based vs. value-based) plays a significant role in dictating the potential affective and behavioural outcomes. It is generally accepted in literature that performance-based transgressions are more likely to lead to feelings of dissatisfaction, while value-based transgressions have been more closely associated with feelings of betrayal. This notion has been well accepted in research focusing on self-reported consumer affect (Kim & Park, 2020; Reinikainen et al., 2021; Shahid Sameeni et al., 2022; Tan et al., 2021; Yu et al., 2022). Likewise, the difference have been documented on a neurophysiological level. That is to say, brand betrayal and brand dissatisfaction can also be differentiated within the brain; though similar, they are not the same psychological construct.

For example, through fMRI, a neuroimaging study by Reimann et al. (2018) found that consumers who were misled by a brand (i.e. betrayed) vs. unfulfilled with a consumption goal (i.e. dissatisfied) showed significantly higher BOLD activation in the dorsolateral prefrontal cortex, insula, caudate body, angular gyrus, and caudate tail regions of the brain. The study further suggested that experiences evoking dissatisfaction lead to significantly greater activation of the orbitofrontal cortex and the anterior cingulate cortex. The results of the study indicated specifically that the experience of brand betrayal vs. dissatisfaction was anatomically different on a neuropsychological level, and that betrayal is likely more severe, harmful, and long-lasting to consumer-brand relationships.

The present research considers how GPDs can act as agents of moral transgressions, leading to feelings betrayal. This will be theorised in detail following a review of literature on betrayal and brand betrayal on consumer outcomes, which will begin now.

2.5.4 Betrayal

Betrayal is defined as the affective sense of physical or emotional harm by the actions or omissions of a trusted source, where the specific actions or omissions are considered a violation of the expected relational norm between the betrayer and the betrayed (Koehler & Gershoff, 2003; Ma, 2018; Rachman, 2010). Betrayal may be intentional or unintentional, arising in a variety of contexts such as personal relations, at work (Morris & Moberg, 1994), institutional organisations (Smith & Freyd, 2014), or, in the context of the current research - within brand-consumer relations (Grégoire & Fisher, 2008; Ma, 2018; Reimann et al., 2018).

Actions which result in feelings of betrayal may vary greatly depending on the given relational context. For example, in personal relationships betrayal may result from actions such as cheating on one's partner, lying, or failure to disclose important information (Kowalski et al., 2003). The experiences of being betrayed is "exceptionally emotionally costly" (Aimone & Houser, 2012, p. 574); affective outcomes of betrayal can be both intense, multifaceted, and long-lasting. Initial affective responses elicited from a betrayal may include: disbelief, anger, dejection, or depression (French et al., 2009).

Literature has further shown that the affective outcomes from betrayal may lead to downstream behavioural actions as methods of coping. Most commonly, individuals

may turn to either avoidance- (disbelief, self-serving justifications) or aggression-related (i.e. revenge) behaviours towards the betrayer (Haden & Hojjat, 2006; Lee et al., 2013; Miceli & Castelfranchi, 2001). In more extreme cases, individuals who have experienced personal betrayals which are great in magnitude may even engage in long-term negative, self-destructive, or anti-social behaviours, including holding grudges, the abuse of substances, or self-harm to deal with the trauma (Delker & Freyd, 2014; Vitale, 2016).

2.5.5 Brand Betrayal

As suggested previously, brands can also commit transgressions which betray; feelings of betrayal may be engendered by morally transgressive actions or omissions of a brand (Reinikainen et al., 2021; Shahid Sameeni et al., 2022; Tan et al., 2021). Reimann et al. (2018, p. 240) defines brand betrayal as “a state evoked when a brand with which one has previously established a strong self–brand connection fractures a relationship by engaging in a moral violation.” As stated by Reinikainen et al. (2021, p. 171) “The experience of brand betrayal is composed of assessments of the feeling of being taken advantage, misled and exploited by a brand”. This description is similar to statements raised in customer betrayal research by Grégoire and Fisher (2008, p. 250) who state that in consumer-brand relationships, “acts of betrayal include situations in which customers believe that firms have lied to them, taken advantage of them, tried to exploit them, violated their trust, cheated, broke promises, or disclosed confidential information”.

Just as feelings of betrayal within interpersonal relationships can lead to negative impacts in individuals, so can betrayal from a brand. There are many instances in

consumer psychology and marketing literature which have offered support to this sentiment. For example, Reimann et al. (2018) show that betrayed consumers may experience downstream affective outcomes which are long-lasting and damaging, including: self-castigation, psychological loss, and an erosion of one's own self-esteem and trust in others. Tan et al. (2021) show similar negative impacts of brand betrayal on "hot affect" (i.e. affect related to the brand-self). Grégoire et al. (2009) uncover the 'love becomes hate' effect, which describes how brand betrayal can negatively impact highly loyal customers worse than those with less loyalty. Indeed, consumers are highly aversive of being betrayed (Gerrath et al., 2023; Koehler & Gershoff, 2003).

The importance of avoiding betrayal within brand-consumer relationships is of great significance, as it not only affectively impacts consumers, but may lead them towards engaging in anti-brand behaviours. That is to say, moral brand-consumer violations can "produce intense reactions from customers, who are often driven to 'get even' with the firm." (Seiders & Berry, 1998, p. 8). Likewise, these reactions and their effects can be long lasting by nature (Elangovan & Shapiro, 1998). For example, Grégoire and Fisher (2008) show that after fairness violations, betrayed consumers are more likely to complain by demanding reparations or complain as a form of retaliation (i.e. negative WOM, vindictive complaining). Similar impacts have also been echoed in research by Shahid Sameeni et al. (2022) who show how brand betrayal (i.e. being misled, cheated, or miscommunicated by a brand) can lead to brand avoidance, vindictive negative WOM, and vindictive complaining. The negative effects can also impact viewers of transgressions. For example, Sharma et al. (2020) found that distant third-party customers may become resentful towards brands after witnessing a moral transgression, leading to increased intentions to engage in negative WOM.

In extreme cases, consumers may engage as what is known as consumer brand sabotage, which is where consumers act in well-planned, high-effort actions in order to wreak havoc on a brand (Kähr et al., 2016; Nyffenegger et al., 2018). If enacted to a high standard, consumer brand sabotage can be extremely costly both reputationally and monetarily to a brand. One of the most prominent examples in brand consumer relationship literature and popular media of consumer brand sabotage was done by Canadian Musician David Carroll, who felt he was not fairly treated after finding out United Airlines had committed a transgression by breaking his \$3,500 guitar. The artist uploaded a video to YouTube titled 'United Breaks Guitars', which featured an entire song about how United Airlines breaks guitars. As of 2023, the video has gained over 22,000,000 views and has gained significant popularity in the media. Due to the virality of the video, the company temporarily lost 10 percent of their share value, amounting to a loss of over \$180,000,000 (Economist, 2009; Kähr et al., 2016; Tripp & Grégoire, 2011).

From extant literature, brand betrayal is known to be conceptually and physiologically separable from general consumer dissatisfaction (Reimann et al., 2018; Reinikainen et al., 2021). Likewise, it is known that perceptions of betrayal may result in severe negative affective and behavioural outcomes. Due to personality differences, individual consumers are unpredictable; moral transgressions may set off individuals differently towards enacting either avoidance, complaining, or revenge behaviours (Fetscherin & Sampedro, 2019; Shahid Sameeni et al., 2022; Tripp & Grégoire, 2011). Thus the importance of research investigating brand activities that may result in feelings of betrayal and intentions of consumer retaliation are not only theoretically

important to consumer behaviour literature, but also highly relevant to marketing practitioners (Khamitov et al., 2020). This brings us to the present research, in which the question is asked: can losses from GPDs engender feelings of betrayal? And if so, what are the outcomes? Within the present research, an array of relevant literature has been outlined which would suggest that indeed, GPD losses could likely to lead to perceptions of betrayal. The synthesis of these findings will now be used towards a cohesive argument for GPD losses as agents of brand betrayal.

2.5.6 GPDs as Agents of Betrayal in Brand Consumer Relations

Research on gambling has shown that the emotional outcomes of gambling can be significantly affected by whether or not they win a profit or lose their stake. In real gambling contexts (i.e. playing roulette at the casino), gamblers can lose whatever stake they bet on the game, while there are technically no losing scenarios in a roulette-based GPD promotions, as the worst possible outcome would be receiving either nothing or a low-reward (e.g. winning 5% vs. 35%). At first glance, it seems plausible that the use of these mechanics should be seen as riskless, as no customer can ever receive a scenario in which they face an actual loss, and some gain is better than a loss. However, this belief essentially assumes that 'all roads lead to home' and consumers should be happy with any gain, discounting the possibility that receiving an inferior reward when a range of more attractive offerings have been presented could engender perceptions of betrayal.

Could a winning outcome lesser than the best be considered by consumers as a moral transgression that leads to a Microbetrayal? Instead of 'all roads lead to home', does the implementation of curiosity through uncertainty 'kill the cat' when the resolution

is poor? As stated by Wiggin et al. (2019, p. 1208), uncertainty is “a potential ‘curse,’ as it can lead people to expose themselves to aversive stimuli”. The majority of research on betrayal focuses on betrayals of high magnitude (i.e. cheating in interpersonal relationships, destruction of personal goods or animal abuse by brands). Here the focus is on lower magnitude transgressions and their impact on brand betrayal. This research specifically considers a lesser form of betrayal, which is here coined as a ‘microbetrayal’, which can occur following a non-ideal outcome of a gambled price discount.

Within the present research, Microbetrayal is defined as any form of brand transgression which violates the moral normative consumer-brand relationship but does not cause any loss or damage (i.e. outcome is non-negative) to the consumer or their possessions (Kovacheva & Nikolova, 2023). Thus, although consumers are actually receive a monetary benefit from a low outcome GPD and not suffer any losses, it is plausible that receiving a non-ideal outcome when an array of rewards are offered could still result in feelings of being misled or deceived by the brand (i.e. Choi et al., 2013), hence the notion of a microbetrayal. Should this be the case, it is likely these scenarios may engender feelings of betrayal based on a perceived moral violation of the normative relationships between the brand and the consumer. There are several pieces of research which offer support for this belief.

Unlike casino gamblers who actively and purposefully expose themselves to similar stimuli by actively entering a casino or signing up to an online gambling website, when a brand offers a gamblified promotion to customers, the consumer was not actively searching to take part in such an gambling activity; it is a forced-exposure in which

they are coaxed into the interaction as if a carrot (discount) was dangling at the forefront of their vision. Should consumers receive an offer which is undesirable comparative to what else was available, it is possible that they could view the promotion as having been manipulative or misleading. This is supported by Kovacheva and Nikolova (2023, p. 18) who state that specific aspects of uncertainty in price promotions “may evoke inferences of manipulative intent” in consumers against brands.

Furthermore, it has been shown that consumers are innately optimistic when faced with an uncertain price promotion (Goldsmith & Amir, 2010). Should these optimistic expectations not be met, it is highly possible that the consumer would view the situation as unfair or deceptive. In this case, consumers may shift the blame of the negative affect from losing towards the brand for exposing them to such stimuli (Grégoire et al., 2010; Kähr et al., 2016), leading to perceptions of a moral violation of the normative consumer-brand relationship (Reimann et al., 2018). This is corroborated with extant literature on uncertainty in discounts which suggests that uncertain prices and discounts which do not match one’s expectations are highly susceptible to violations of price fairness and distributive justice, i.e. ‘I have to pay more than another customer will!’ or ‘Why is this brand offering a higher discount to other users than me?’ (Choi et al., 2013; Li et al., 2022; Xia et al., 2004). Further, from seminal brand betrayal literature (i.e. Grégoire & Fisher, 2008) it has been suggested that unfairness is a common moral violation which engenders betrayal.

Beyond the aforementioned literature, recent online articles from government organisations have shown some support for GPDs being morally transgressive,

presenting some serious concerns regarding the uses of gamblification in marketing. In their discussion, they note the use of gamblified promotions as a exploitive and deceptive practice. For example, the Norwegian Consumer Council claims that the use of gamblification is deceptive by nature, and “exploits cognitive or behavioural biases and vulnerabilities” (NCC, 2020). The UK Advertisement Standards Authority states that “ads which state that many prizes are available, when only a small number of those prizes are likely to be awarded due to the mechanism of the promotion, may mislead consumers by exaggerating the number of prizes which will be won, and therefore consumers’ chances of winning.” (ASA, 2023).

Should consumers perceive the moral acceptability of GPDs as lesser than equivalent valued CPDs, then it would be reasonable to assume that perceptions of betrayal could ensue from these interactions. Aligning with the aforementioned literature on the resultant negative behaviours, it is hypothesized that perceptions of brand betrayal will lead to negative downstream outcomes in losing scenarios. Within the present research, the impacts on the three following negative consumer behaviours will formally be investigated.

Purchase Abandonment

Purchase abandonment here is defined as an avoidance-based consumer behaviour in which consumers decide to disengage with a brand, withdrawing from an existing purchase prior to its completion (Kukar-Kinney & Close, 2010). Purchase abandonment is an immediate, non-temporal action; it does not necessarily dictate future avoidance-based behaviours. A recent report by Adobe (2019) found that irrespective of age, consumers are highly likely to forego interacting and making

purchases with a brand that has made them uncomfortable. Further, aligning with aforementioned research which supports that brand betrayal may lead to avoidant behaviours in consumers (Grégoire et al., 2009; Tan et al., 2021). Should greater perceptions of betrayal be engendered by GPD losses (compared to equivalent CPDs), it is likely that purchase abandonment intentions will also be greater.

Continued Brand Avoidance

Continued brand avoidance (herein brand avoidance) is defined in the present research as a customer's intentions to avoid the brand when considering future purchase decisions. Existing literature suggests that the outcomes of a betrayal can be long-lasting (Elangovan & Shapiro, 1998; Leonidou et al., 2018; Reimann et al., 2018). Therefore, it is suggested here that compared to equivalent CPD discounts, GPDs may lead to increased intentions of avoidance behaviours which are not only immediate (i.e. purchase abandonment), but also long-lasting, as consumer trust in the company may be eroded.

Negative e-Word of Mouth (NeWOM)

Negative e-word of mouth (herein NeWOM) is a computer-mediated retaliatory complaining-behaviour, which is consumer intentions to complain online about their experience. Much of the literature on betrayal focuses on some form of complaining behaviour as a method of consumer retaliation (Grégoire et al., 2009; Johnson et al., 2011; Shahid Sameeni et al., 2022; Ward & Ostrom, 2006). The present research aims to understand if and how GPD losses (vs. equivalent CPD discounts) affect NeWOM behavioural intentions in consumers.

Therefore, the present research compares losing outcomes from GPDs (vs. equivalent CPDs) and their impact on negative brand avoidance- and retaliation-behaviours. Further, exploration is done on how perceptions of betrayal may mediate these relationships. Specifically, three negative consumer behaviours are considered, including: intentions of purchase abandonment, intentions submit negative online review (NeWOM), and long-term avoidance of the brand.

Formally hypothesized:

H1 – Low-reward outcomes from GPDs (vs. CPDs) increase consumer intentions of purchase abandonment and consumer retaliation behaviours (negative eWOM and brand avoidance).

H2 – Increased intentions of purchase abandonment and consumer retaliation behaviours from customers receiving low-reward outcomes from GPDs (vs. CPDs) are mediated by greater levels of perceived betrayal.

The present work will also explore several boundary conditions, which may amplify or diminish the negative effects associated with inferior-reward GPD outcomes, which will be explored in the following sections of the review, starting next with brand loyalty.

2.6 The Role of Brand Loyalty

Brand loyalty refers to a consumer's level of bias towards the selection, continued patronage, or promotion of a brand and its products or services (Tucker, 1964). It is a form of attachment (see Ainsworth & Bowlby, 1991; Bowlby, 1958), often regarded as

an essential part of a brand's overall value, and is known to be generated through positive brand experiences which build up a customer's trust in a brand (Aaker, 2009; Lau & Lee, 1999; Mao, 2010). Though brand loyalty is often tied to consumer behavioural actions towards a brand (i.e. more frequent purchases for brands they are loyal to), it can also be non-behavioural (Sheth & Park, 1974). This is known as attitudinal brand loyalty, and it is defined by an individual's inclination to be loyal. For instance, individuals may have a loyalty preference towards a specific type of automobile brand, even though they may not actually purchase them. Behavioural loyalty is an after-effect, which is defined as the "observable outcome of attitudinal loyalty", encompassing purchasing or promoting behaviours (Bennett & Rundle-Thiele, 2002).

Brand loyalty is intrinsically tied to literature on brand transgressions and betrayal, with literature showing a duality of results regarding if loyalty and related constructs either reduce or amplify negative consumer outcomes following a transgression. The first position of argument in extant literature suggests that increased levels of brand loyalty should reduce the negative impacts of a brand transgression as they have greater commitment to the brand. The latter position proposes the opposite, suggesting that increased loyalty means that there is more to lose within the relationship, and therefore transgressions 'hit harder'. In extant literature, there is strong support for both notions and consensus is generally highly mixed.

2.6.1 Brand Loyalty Reduces Negative Transgression Outcomes

Beginning with the former position (i.e. loyalty reduces negative effects), research by Kennedy and Guzmán (2021) examined how brand transgressions impacted

consumers based on their preconceived perceptions of the brand (i.e. positive vs. negative) as well as the impact of brand apologies on brand equity, brand love, and intentions of co-creation. The study revealed that positive perceptions of brands can diminish the negative impacts of a brand transgression, even when no apology is offered, when compared to negatively perceived brands. These findings are echoed in other literature on transgressions and brand failures, such as Low et al. (2013) who show that more loyal customers may hold a higher tolerance for brand transgressions.

2.6.2 Transgression Type Dictates the Impacts of Loyalty

Between the two positions, discussions exist surrounding how the type of transgression (i.e. performance- vs. value-based) dictates how brand loyalty impacts consumer responses. Specifically, literature generally supports that customers with higher perceived loyalty are more immune to performance-based transgressions, but are impacted to a greater extent when the transgression is moral (i.e. a betrayal).

This is supported by Lin and Sung (2014) who investigated the impact of brand identity fusion on consumer affective and behavioural responses to brand transgressions. Within their research, they explored both function-based (i.e. a display error on a personal computer made by said brand) and value-based (i.e. brand of computer had been accused of employing underage workers) transgressions on brand immunity (e.g. consumers become immune to the negative effects of transgressions). The results of the study showed that for functional transgressions, consumer immunity to brand transgressions increased commensurately with their level of brand identity fusion. However, in the latter value-based transgressions, consumer immunity to brand transgressions did not significantly impact brand immunity.

The findings of this research are akin to personal relationships, in which individuals may be able to easily ignore or forgive functional transgressions but not betrayal (i.e. value-based transgressions) (Haden & Hojjat, 2006; Patrick, 2015). Likewise, these findings are supported by Fetscherin and Sampedro (2019) who suggest that as consumer perceptions of corporate wrong-doing (i.e. a value-related transgression) increase, the less likely consumers are to forgive a brand. However, some research suggests that even performance-related transgressions can cause feelings of betrayal in loyal customers, such as (Mattila, 2004, p. 134), who's research suggests that "emotionally-bonded customers might feel 'betrayed' when a service failure occurs, thus resulting in sharp decrease in post-recovery attitudes".

2.6.3 Brand Loyalty Amplifies Negative Transgressions Outcomes

On the latter side of the argument, there is strong support that loyal consumers react more negatively towards transgressions. In research by Jabeen et al. (2022) which investigated the role of negative brand experiences on brand betrayal, brand hate, and avoidance / retaliation intentions, the authors found existing brand love to be a significant moderator of the effect of negative brand experiences on brand hate and brand betrayal. Specifically, the authors showed how increased levels of brand love can amplify feelings of betrayal and hate in customers after exposure to a health and hygiene grievance or advertisement overload. Research by Huber et al. (2010) suggests that immoral practices by brands erodes the brand-consumer relationship to a greater extent for consumers who perceive their relationship with the brand as higher-quality, compared to those with lower-quality relationships.

Jain and Sharma (2019) ran a study investigating the impact of brand attachment on consumer perceptions of betrayal following a product failure from a smartphone brand. The results from their study suggest that having a strong positive relationship with a brand increased perceptions of betrayal and brand hate. Further empirical research by Grégoire and Fisher (2008) investigates the “love becomes hate” effect, which shows how brand love can transform into brand hate following a brand betrayal. The authors find that following a violation of perceived fairness, customers who previously considered their relationship with the brand as high quality feel greater levels of betrayal. This research was some of the earliest to document how relationship strength can act as an amplifier for negative affect following a brand transgression and has been re-examined with other work replicating similar results (i.e. Grégoire et al., 2009; Lee et al., 2013)

Overall, the role of brand attachment and commitment is a very complex topic, with very mixed findings in literature showing that commitment and loyalty can either dampen or amplify the negative impacts of a brand transgression. Based on the mixed knowledge of brand loyalty on post-transgression affective and behavioural outcomes, it is difficult to confidently hypothesize a specific direction in which GPDs will impact consumers. However, as there is justifiable evidence that when a transgression is perceived as more morally (vs. functionally) transgressive in regards to the expected brand-consumer relational norm, loyalty is more likely act as an amplifier (vs. dampener). Therefore, it is cautiously hypothesized:

H3 – The negative effect of low-reward GPD (vs. CPD) outcomes on betrayal is increased (decreased) for customers with greater brand loyalty.

2.7 The Role of Product Involvement

The concept of involvement refers to the internal state of arousal within a consumer, which is based off of their personal, physical, and situational interest in a given product (Belanche et al., 2017; Zaichkowsky, 1985). Chen and Tsai (2008, p. 1168) considers high involvement products as those perceived as consumers as either as holding “high-cost and high-decisional risk.” Extant literature suggests that as the level of involvement of a product increases, as does the complexity in the buyer decision making process (Mettenheim & Wiedmann, 2021; Putrevu, 2010). High involvement products are associated with greater perceived risk and require greater information processing than low-involvement products during the decision making phase of a purchase (Stewart et al., 2019). It has been noted in literature that low involvement purchase decisions are more likely to be impulsive, whilst high involvement purchase decisions rely on cognitive decision making (Peng et al., 2019; Zaichkowsky, 1985). Some examples of high involvement products examined in marketing research include the likes of costly consumer goods (i.e., cars, laptops, cruises, etc) while low involvement products are often cheaper, less important consumer goods (i.e., chocolate, scented candles, detergent, etc) (Belanche et al., 2017; Stewart et al., 2019; Yi & Jeon, 2003).

To the best knowledge of the researcher, the moderating potential of product involvement has not been formally examined in the context of GPDs. However, research by Gaertig and P Simmons (2020) does support that consumers would rather opt-in for a chance at an uncertain discount in low-value products, but this preference

changes towards certain discounts when considering high-value goods. Likewise, authors in the field of GPD research have offered some speculation on the matter, with specific calls for research on the topic. For example, in Alavi et al. (2015, p. 75)'s paper, the authors discuss the potential 'pitfall' of GPDs in that they discriminate against some customers (i.e. the fact that some individuals lose and others win). They further suggest that "if GPDs occur frequently or for expensive products, losing the gamble may lead customers to develop negative feelings toward the promoting company", and follows with stating "this issue represents a worthwhile task for further research on GPDs." Goldsmith and Amir (2010, p. 1077) echo this sentiment, stating the belief that "promotions with uncertain components may be most effective for impulse purchase products or low-involvement purchases. Purchases that involve extensive consideration may not be suitable for such promotions. We hope that this article promotes further research on this topic". Aligning with the existing sentiment in product involvement literature, as well as the stated speculation in GPD research, it is hypothesized here that increased levels of product involvement will be associated with increased perceptions of brand betrayal in consumers after receiving a low-reward GPD (vs. equivalent CPD), compared to when product involvement is low. Formally:

H4 – The negative effect of low-reward GPD (vs. CPD) discount outcomes on betrayal is increased when the product involvement is high (vs. low).

2.8 The Role of Product Value Type

In marketing literature, products (and their consumption) are generally separated into two categories of values, utilitarian or hedonic. Utilitarian products are typically described as products which are practical and necessary to life, while hedonic

products generally encompass those which are consumed for pleasure or for the experience(s) they offer (Dhar & Wertenbroch, 2000; Hirschman & Holbrook, 1982). For example, soap or a laundry machine could be considered high in utilitarian function, while chocolate or a cruise would be considered more hedonic. Voss et al. (2003) states that the hedonic dimensions of purchasing are derived from 'sensation', and utilitarian, 'function'. Likewise, certain products can hold both utilitarian and hedonic aspects, such as a laptop computer (Okada, 2005), which could be used either for work purposes (i.e. functional, utilitarian) or for gaming (i.e. pleasurable, hedonic). Understanding these categories of products is an important facet of marketing, as consumer attitudes, needs, and interactions when shopping for products of varied types differ. Therefore, understanding these nuances helps design more effective marketing strategies which align with the consumer needs (Arruda Filho et al., 2020; Chiu et al., 2014).

Extant literature suggests that compared to utilitarian products, hedonic products are more affect-rich when it comes to purchasing decisions (Kempf, 1999). That is to say, due to their more experiential and pleasure-focused nature, consumer emotions are often a stronger driver of consumption for hedonic products (Arruda Filho et al., 2020; Bettiga et al., 2020). On the other hand, when it comes to utilitarian products, individuals have a greater likelihood to engage in deeper cognitive processing, thus the instrumental benefits that align with their purchasing goals are more likely than emotion to drive final purchasing behaviours (Homburg et al., 2006; Klein & Melnyk, 2016). Similar findings have also been shown in research specific to price promotions, with evidence that hedonic and utilitarian dimensions of products impact effectiveness of promotions differently.

For example, research from Kivetz and Zheng (2017) investigated the role of product value type (i.e. hedonic vs. utilitarian) on the effectiveness of price promotions (e.g. 50% off). The authors found that due to the difficulty in justifying hedonic product purchases (which are often considered indulgences) price promotions have a significantly greater impact on purchasing-related decisions within hedonic products. This finding suggests that price promotions can help emotionally regulate hedonic purchases greater than utilitarian purchases. In the context of deal-of-the-day price promotions, Eisenbeiss et al. (2015) found that for hedonic products, consumers pay greater attention to time constraints, while for utilitarian products, greater attention is shifted towards the utility of the discount amount.

Nuanced to GPD literature, the findings are currently mixed and inconclusive. Tan and Chen (2021) have evidenced that GPDs enhance utilitarian-focused product subscriptions to a greater extent than hedonic-focused subscriptions, as they add a surprise element to a 'dry' environment. On the other hand, Tan (2022) found that GPDs are more attractive for experiential products (i.e. more hedonic) compared to search goods (i.e. more utilitarian). Due to the limited and mixed existing knowledge of GPD effectiveness dependent on hedonic vs. utilitarian products, as well as theory suggesting that the impacts of price promotions differ dependent on these promotions, this is an important and theoretically interesting product characteristic to explore within the present work.

The present work focuses on the negative aspects of GPD outcomes (i.e. low reward outcomes) compared to equivalent valued CPDs. From the discussed literature on

product value type dimensions, it is clear that literature supports affect and emotion is heightened to a greater extent when considering purchases greater in hedonic values, compared to those which are utilitarian. Likewise, from price promotion literature focused on product type, it has been suggested that price promotions can play a greater role in driving outcomes for hedonic products. Further, from section 2.2.5 it is known that affect and emotion are similarly heightened in uncertain situations. Based on the stated literature, it is possible that a sort of ‘doubling down’ effect on emotion will take place in the present work investigating GPDs. Put plainly, the more affect-rich attributes (e.g. uncertainty, hedonic) are stacked together with one another in the overall purchase decision, the more affect-rich the response will be. Thus, if consumers feel greater betrayal (H1) by low-reward GPDs, it is likely that hedonic (utilitarian) products may exacerbate (lessen) this effect, as emotions will be heightened (lessened) from both the product type and the (un)certainly. This proposed effect is formally hypothesized as follows:

H5 - The negative effect of low-reward GPD (vs. CPD) discount outcomes on betrayal is increased when the product type is hedonic (vs. utilitarian).

As stated in the previous section 2.7, the product involvement construct will also be investigated within the present work. It has been shown in extant marketing literature that the product value type (i.e. hedonic vs. utilitarian) and product involvement constructs can interact with one another (e.g. Bart et al., 2014; Stewart et al., 2019). Therefore, a three-way interaction between product involvement, product value type, and promotion type (GPD vs. CPD) could potentially occur. This possible effect will be explored within the present research, though not formally hypothesized.

The core research model is visualized in Fig. 2, showing the hypothesized interactions and relationships theorised from chapters 2.5 to the present chapter. Next, possible managerial interventions aimed at reducing the hypothesized negative consequences of GPDs will be discussed.

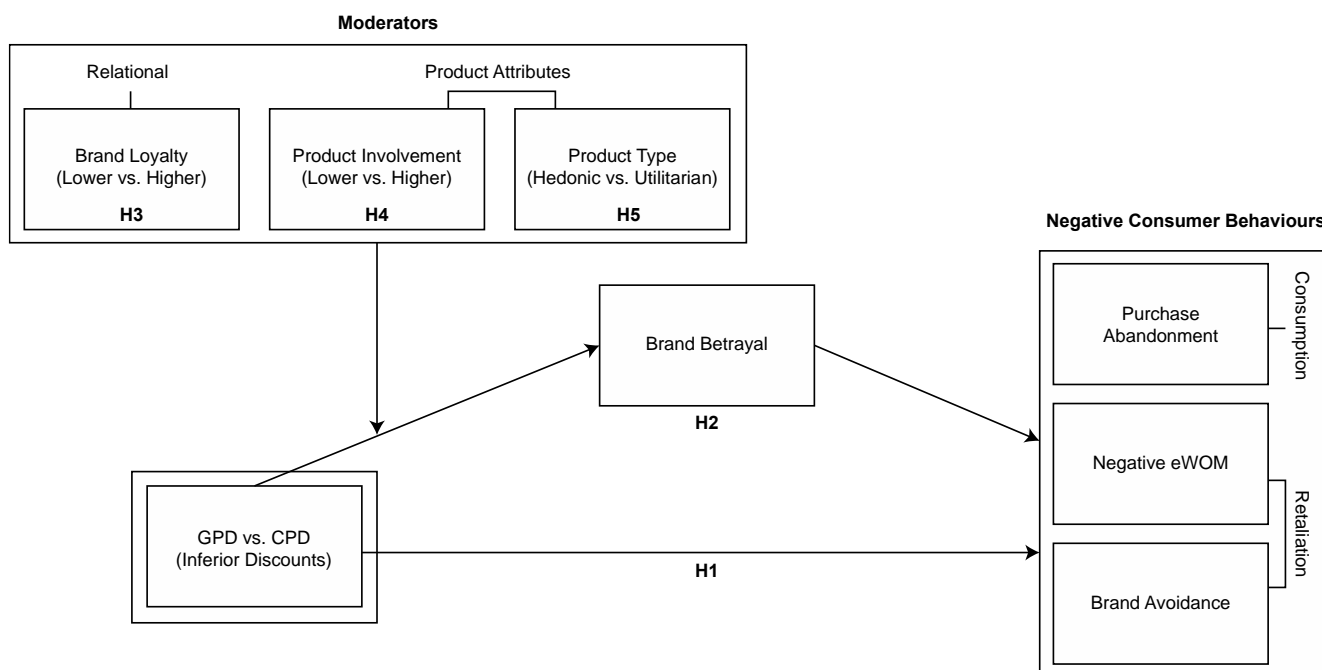


Fig. 2 - Core Research Model

2.9 Managerial Interventions to Reduce The Negative Effects of GPDs

At this point in the literature review, the discussion will change directions and focus specifically on discussing possible managerial interventions that can be employed towards the reduction of negative affect and behaviours following an undesirable GPD outcome. Specifically, the role of heuristics (i.e. cognitive shortcuts) within the visual design of GPDs will be discussed as potential mechanisms for reducing the negative

affective outcomes associated with GPD losses. At the end of this section, an addition to the previous conceptual model (i.e. Fig. 2) will be provided.

2.9.2 Cognitive Heuristics

Decisions and judgements are made in everyday life. For example, you might be walking through a park and notice an out-of-control dog ahead and decide to walk down an adjacent path to avoid potential danger. Or, if you were going out and noticed some dark clouds in the sky, you might grab an umbrella before heading out the door in case you get caught in the rain. Within the previous two examples, snap judgements and decisions were made based on a quick assessment of information with little calculation, based on some form of previous experience. This form of cognitive judgement and decision making process is what is known in literature as cognitive heuristics (Dale, 2015; Tversky & Kahneman, 1974).

The etymological origins of the word 'heuristic' derives from Greek word 'heuriskein', which means 'serving to find out or to discover'. Dale (2015) defines heuristics as mental shortcuts which help us make decisions and judgements without spending significant time on analysing information. Agreeably, Merlo et al. (2008) suggests a heuristic is a "cognitive short-cut: a rule adopted to reduce the complexity of computational tasks and to reduce the use of resources such as cognitive activity and time." Gigerenzer (2004, p. 62) introduces the study of heuristics as understanding "how people make judgements and decisions in everyday life, generally without calculating probabilities and utilities".

Shown in research, heuristics are considered to be fast, frugal, robust, transparent, and intuitive (Gigerenzer, 2004; Merlo et al., 2008). They are fast, because they take a matter of second or milliseconds. They are frugal as they require little information for computation. They are robust as they are highly generalizable to a variety of contexts. They are transparent as they are simple to explain to others. Lastly, they are intuitive as individuals do not consciously select a heuristic, but instead they are triggered and engaged innately within oneself. Unfortunately, due their fast and frugal nature, heuristic assessment is severely prone to errors, creating biases in our and judgements and decisions (Tversky & Kahneman, 1974).

For example, Olivola and Todorov (2010) investigated how voter preferences are influenced by rapid visual judgements of a political candidates personality-based (i.e. competence, emotional stability) and visual-based (i.e. attractiveness, familiarity) attributes. Among other variables, the authors found perceived facial competence to be especially robust as a specific predictor of voter preference of a political candidate. In negative brand events literature, Gao et al. (2013) discuss the guilt-by-association heuristic on consumer responses to foreign brand judgements following a specific product-harm crisis. The authors show how after a product-harm crisis, a spill-over effect of consumer mistrust in separate related brands (i.e. brands with similar brand identities or investment / managerial links) is significantly increased. Niza Braga and Jacinto (2022) show how consumers shopping in digital (vs. physical) retailing contexts are more likely to rely on accessible heuristic cues (as opposed to effortful systematic processing) when considering product purchases.

2.9.3 Types of Heuristics

There are many different types of heuristics which drive decision making and judgement dependent on the context of a given problem at hand. Though not an exhaustive list, some of the most common heuristics in literature are described in Table. 5.

Table 6 - Examples of Heuristics

Heuristic	Description
Representativeness	A heuristic which is used to subjectively estimate the probability of an uncertain event's outcome based on the believed degree of representation of some item within the event to a known similar situation.
Anchoring and Adjustment	A heuristic which occurs when individuals associate a relevant or irrelevant number with the estimation of an event's outcome.
Availability	A heuristic in which individuals use readily available, non-complete information to inform judgements of larger topics or events.
Peak and End	A heuristic in which individuals tend to judge experiences based on the specific moment which was highest in emotion (i.e. climax) and at the end.
Gaze	A heuristic which occurs when assessing the expected motion and trajectory of a moving object. The judgement is often based on many non-calculable estimates, including: initial angle, initial speed, mass, direction relative to the ground, and gravity.
Affect as Information	A heuristic in which individuals often rely on their current feelings or emotional state as an judgement of a situation.
Guilt By Association / Halo Effects	A heuristic in which the perceptions associated with a specific entity can positively or negatively contaminate the perceptions of another entity with similar attributes or associations.

Within the scope of the current research focusing on the impact of GPDs on consumer perceptions of brand betrayal and resultant negative consumer behaviours, two heuristics which could theoretically alter the effect are considered. These heuristics include the representative heuristic and the anchoring and adjustment heuristic.

2.9.4 Visually Adjusting the Representativeness Heuristic in GPD Design

The representativeness heuristic is a cognitive bias in which probability judgements are made from the evaluation of the degree of representation within a given subject compared to a similar known event; it is a subjective assessment of probabilities based

on perceptions (Bhatia, 2015; Kahneman & Tversky, 1972) This heuristic occurs “when we estimate the probability of an event based on how similar it is to a known situation.” (Nikolopoulou, 2022, p. 1). For example, consider two roulette wheels, the first in which each of the outcome segments are of equal size, and the second in which one of the segments encompasses far more area than the rest (see a visualization of this concept in Fig. 1). Based on the representation of area within the design of the roulette wheels, it would be logical to assume that if played 100 times, the outcomes of wheel A would be distributed somewhat evenly between each of the segments, while wheel B would have a strong bias towards landing on the segment taking up the majority of the area.

Visualising the representativeness heuristic

Which wheel would you assume is more likely to land on blue?

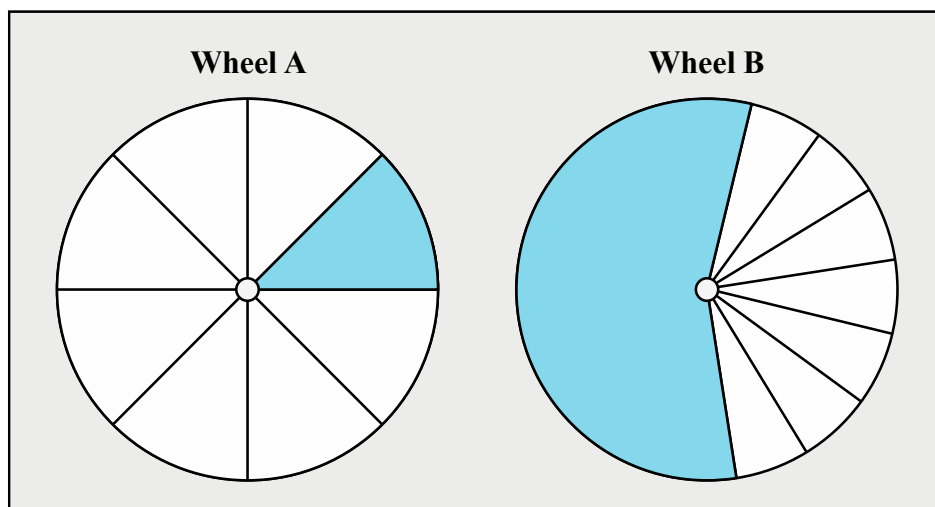


Figure 1 - Visualising the Representativeness Heuristic

Many studies have looked at the outcomes of various types of uncertain and gamblified promotions where the outcome probabilities are specifically stated and known to the customer (e.g., Alavi et al., 2015; Attari et al., 2022; Tan & Chen, 2021). When exact probability information is provided, consumers have an increased ability

to cognitively assess the overall situation. However, all examples of GPDs in industry use that have been come across during this research, the probabilities of outcomes have never been disclosed (refer back to Fig. 1 and Table. 2 for examples). Some authors in GPD research have also stated that future consideration should consider the outcomes of non-known probabilities, i.e. “another direction for future research is to examine whether our predictions hold for uncertain price promotions in which the probability of receiving a discount is unknown.” (Attari et al., 2022, p. 371).

Within the present research, GPDs with unknown probabilities are considered as this is how they present themselves within real world marketing practice and literature. If no probabilities are specifically stated or available, the only viable course of consumer probability evaluation is through the use of heuristics (Kahneman & Tversky, 1972; Tversky & Kahneman, 1974). Here it is suggested that the representativeness heuristic would be the most probable heuristic adopted within this situation, as it is the main visual aid that consumers can use to subjectively estimate probabilities in GPDs. Specifically, GPDs with adjusted probability representativeness on low rewards (i.e. increased representation of low rewards) should be perceived as less likely to win a high reward. Should this be the case, it is likely that negative affect associated with the GPD should be reduced.

This is supported by current literature, for example, Attari et al. (2022) show that in a pre-resolution context, as reward probability decreases (but reward increases), as does the choice propensity towards GPDs. This is likely due to the innate optimism effect (i.e. Goldsmith), in that consumers have an overoptimistic perception about receiving a valuable outcome. While it is not argued here that these may be more

attractive for initial interaction due to increased uncertainty and thus curiosity (Ruan et al., 2018; Shen et al., 2015), it is argued here that when outcomes are considered undesirable in the post-resolution phase, negative affect will be increased.

Therefore, it is here proposed that as the heuristic assessment of receiving a high reward probability decreases (i.e. consumers believe that receiving a low reward is more likely), the less betrayal they will feel following a low-reward outcome. This is suggested due to a greater congruence with expectations and that the pitfalls of distributive justice of reward outcome by the brand would be reduced (Alavi et al., 2015; Choi et al., 2013; Wang et al., 2020; Xia et al., 2004), thus lowering the perceived level of brand betrayal following a low-reward outcome from a GPD. Likewise, due to consumer subjective probability expectations of receiving a low reward outcome, general negative affect associated with the reward (i.e. reward sadness) should also be reduced. This notion is supported by Laran and Tsiros (2013) who found that consideration of probabilities can attenuate the innate optimism effect (Goldsmith & Amir, 2010), thus reducing probability expectations. Thus, these two effects are formally hypothesized as:

H6a = Reduced intentions of purchase abandonment and consumer retaliation behaviours from customers receiving representativeness adjusted (vs non-representativeness adjusted) GPDs are mediated by lesser levels of perceived betrayal.

H6b = Reduced intentions of purchase abandonment and consumer retaliation behaviours from customers receiving representativeness adjusted (vs non-

representativeness adjusted) GPDs are mediated by lesser levels of reward outcome sadness.

2.9.5 Adjusting the Anchoring and Adjustment Heuristic

“When people make judgments about something, they are often influenced by first impression or first information, like an anchor into the deep sea, fixing the minds of people and keeping the decision results away from reality” - (Zong & Guo, 2022, p. 2)

The anchoring and adjustment heuristic is a heuristic originally discussed in seminal work on judgement under uncertainty by Tversky and Kahneman (1974). The heuristic is rooted in the belief that judgements and decision making under uncertainty often begin with a relevant or irrelevant starting point, in which individuals initially anchor to and adjust away from to estimate the outcome of an unknown event. To exemplify this heuristic, in the work the authors conducted a wheel-of-fortune style game in which participants were asked to estimate how much higher or lower the percentage of African countries in the United Nations was compared to where the wheel landed (either 10 or 65). The authors showed that though the spun number was theoretically irrelevant to the estimate, it impacted the estimate of participants. For example, the median estimated percentage of African countries in the UN made by participants who landed on 10 was 25%, while the same estimate for those who landed on 65 was 45%. Thus, the irrelevant number the wheel landed on significantly changed the downstream beliefs of the individuals in the study.

As stated previously, one of the main pitfalls of GPDs stated in literature is the discriminatory nature in terms of distributive discount outcomes (Alavi et al., 2015). That is to say, consumers understand that there are an array of possible discounts to receive, ranging between low and high in relative value. Since a multitude of potential offerings are available, that makes them susceptible to anchoring and adjustment effects (Tversky & Kahneman, 1974). For example, if there are a range of rewards from 5-35%, consumers will likely anchor to the notion that it is possible to receive the highest reward, and thus adjust their view of their discount expectation from that anchor. Should the consumer receive the lowest percent off, they may experience negative affect related to their expectancy. Aligning with this, Choi et al. (2013, p. 34) state that in gamblified discount promotions, “the reference discount sets up an expectation which might be disconfirmed positively or negatively by the actual outcome.” On the other hand, if they were to simply receive the same discount without the higher price to anchor to being shown at all, they may not hold the same expectation bias. As stated by Lee and Stoel (2016, p. 701) “once consumers are exposed to a number before making a decision, the number can influence their perceptions and judgements.”

This notion is supported by extant marketing and literature on tensile price claims, which as a reminder, are pricing claims which state that a brand’s offerings are on sale between a certain price (i.e. every item in store is 10-30% off!). For example Lee and Stoel (2016, p. 700) show that as the maximum proposed discount within a tensile price claim increases, as does the size of the discount expected by consumers. The research also states that consumers may feel “disappointment, stemming from the gap between the expected price discount and the actual price discount, may result in

negative perceptions of the discount offer.” Further support is shown in early research by Biswas and Burton (1994) who show how consumers anchor and perceive the expected savings of maximum-discount amounts in tensile price claims offering a range of savings (i.e. 10-40%) as more positively than claims which only provide minimum discount savings (i.e. 10% or more). Investigating scratch-and-save coupons, Choi et al. (2010) show that expected savings are greater when a range of discounts with a maximum-discount amount is present in the claim.

Based on the aforementioned literature, it is plausible therefore that the absence of a higher-price anchor will reduce the impact of the anchoring and adjustment heuristic on consumer’s judgement of a gambled price discount. This in turn should lead to lesser sadness when considering low reward outcomes due to less differences in the expected outcome and the actual outcome. Furthermore, since literature shows that failed expectations of price can lead to violations of consumer fairness (i.e., Choi et al., 2013; Xia et al., 2004), it would be logical that the misleading nature (i.e. betrayal) would also be reduced when receiving a low-reward discount from a GPD promotion without an maximum-discount anchor.

Thus, it is hypothesized:

H7a = Reduced intentions of purchase abandonment and consumer retaliation behaviours from customers receiving anchor-absent (vs anchor-present) GPDs are mediated by lesser levels of perceived betrayal.

H7b = Reduced intentions of purchase abandonment and consumer retaliation behaviours from customers receiving anchor-absent (vs anchor-present) GPDs are mediated by lesser levels of outcome sadness.

As stated at the beginning of this section, an additional model explaining the proposed hypotheses for these managerial interventions can be visualized in Fig. 3.

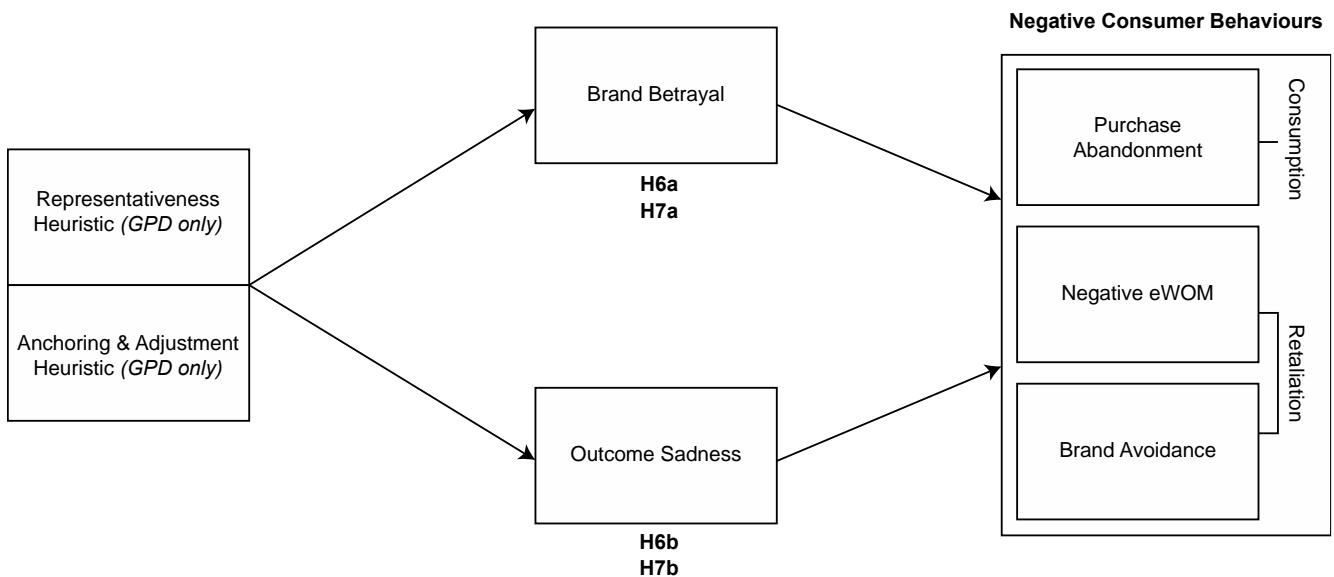


Fig. 3 - Heuristic Model

Chapter 3: Methodology

3.1 Overview

The present chapter discusses the methodological approach which will inform the present research focused on understanding the impacts of GPDs on consumer affective and behavioural outcomes. Within the specified chapter, an in-depth outline of the proposed philosophical foundations, research design, participant sampling, data collection method, ethical considerations, and quality assurance will be discussed in-

depth. Overall, the present research adopts a quantitative research approach, informed by a positivist research paradigm.

3.2 Research Philosophy & Paradigm

“A research philosophy is a set of basic beliefs that guide the design and execution of a research study, and different research philosophies offer different ways of understanding scientific research.” - (Tamminen & Poucher, 2020, p. 535)

The starting point of all research must begin with determining the appropriate philosophical stance which will guide the research. Selecting the correct philosophical foundation is done by first assessing what paradigm the research should be understood from. Research paradigms are described as “our understanding of *what* one can know about something and *how* one can gather knowledge about it” (Grix, 2018, p. 104). They are a set of shared assumptions about our worldly experiences that are used as the conceptual frameworks of all organised research and study (Kuhn, 1962). Likewise, research paradigms are categorized by four key components: ontology, epistemology, methodology, and methods (See table. 7 for descriptions of each component) (Ragab & Arisha, 2017). Social science research generally falls under one of three possible guiding paradigms which are opposing in views, *positivism*, *post-positivism*, and *interpretivism*, dependent on the beliefs of the researcher (Grix, 2018; Ragab & Arisha, 2017).

Table 7 - Components of a Research Paradigm

Ontology	Ontology is described as “the researcher’s view of the nature of reality or being” (Don-Solomon & Eke, 2018, p. 2). Simply put, ontology represents a researchers belief of ‘what is fact’ (Ragab & Arisha, 2017).
Epistemology	Epistemology is the branch of philosophy which focuses on the specific ways in which knowledge can be acquired and validated (Rehman & Alharthi, 2016). It is the philosophical concern of “what constitutes acceptable knowledge” in research (Saunders et al., 2007, p. 108)
Methodology	Methodology is the overarching system and guidelines that are foundational to conducting research investigations and informing the research methods which will be employed (Ragab & Arisha, 2017).
Methods	Methods are the specific procedures and instruments which researchers use towards data collection and analysis (Don-Solomon & Eke, 2018; Rehman & Alharthi, 2016).

3.2.1 The Three Paradigms

Positivism is the philosophical paradigm in research which supports that reality and meaning is derived from experiences which are directly observable and verifiable (Shannon-Baker, 2023). Ontologically, positivism is realistic and empirical; the nature of reality and knowledge is independent of humans in that it is not constrained to our perceptions and judgements (Ragab & Arisha, 2017). From an epistemologically view, positivism is therefore objective; the acquisition of knowledge should be independent from the biases inherent in human interpretation and focused on the pure data (Rehman & Alharthi, 2016). From a methodological point of view, positivism is scientific, looking at causal relationships between tangible phenomena. Therefore, the study of phenomena through the use of controlled experimental methodologies are highly applicable (Park et al., 2020).

Within the positivist paradigm, Guba and Lincoln (1994) suggest four pillars of ‘good quality research’, stating that research should hold high: internal validity, external validity, reliability, and objectivity. That is to say, positivist research should focus first,

that the measured independent variable(s) which are causing the effect(s) on dependent variable(s) are controlled against the influence of extraneous variables. Secondly, that results are generalisable to various contexts. Thirdly, that the research is replicable. And lastly, the researchers have conducted the research in a manner in which their subjective feelings have not contaminated the research or findings (Ghauri et al., 2020; Rehman & Alharthi, 2016; Saunders et al., 2019). Although positivism's strengths come from the paradigm's associations with high structure, objectivity, and generalizability, the paradigm has been criticized by some researchers; some suggest that positivism is less suitable and may fall short in research focused on social phenomena due to their increased complexities and therefore should be kept within natural studies (Grix, 2018; Houghton, 2011; Rehman & Alharthi, 2016), though others have rebutted these claims (i.e. Hasan, 2016).

Interpretivism juxtaposes positivism as the philosophy least concerned about the objective reality. The paradigm rejects that any truth can be universally verifiable and supposes that all universal facts and truths differ dependent on an individual's interpretation of a given phenomenon or situation (Alharahsheh & Pius, 2020; Guba & Lincoln, 2005). Thus, the ontological focus of interpretivism is humanistic in nature, in that multiple realities may exist and that "the world is socially-constructed, created by the minds of individuals" (Ragab & Arisha, 2017, p. 3). Epistemologically, interpretivism believe the way which data should be acquired is through generating deeper understandings of the human experience from multiple subjective viewpoints.

Thus, research with interpretivist foundations is generally associated with qualitative in-depth exploratory studies, such as interviewing or ethnographies (Alharahsheh &

Pius, 2020; Saunders et al., 2019). The main criticism of interpretivism is that the associated methods require objectivity of the researcher; resulting in greater researcher biases and prejudices, which may lead to erroneous conclusions. As stated by Pham (2018, p. 4) “research outcomes are unquestionably affected by the researcher’s own interpretation, own belief system, ways of thinking or cultural preference”. A secondary criticism focuses on the complexity of the studies phenomenon in specific contexts, resulting in a lack of generalizability across people and contexts (Ghauri et al., 2020; Rehman & Alharthi, 2016; Shah & Corley, 2006)

Post-positivism is seen as the marriage between the two aforementioned juxtaposing paradigms of positivism and interpretivism (Grix, 2018; Rehman & Alharthi, 2016). The paradigm was theorized as an attempt by researchers to address the criticisms of either of the surrounding paradigms. The core belief of post-positivism is that – similar to positivism – knowledge and reality are independent of humans. However, like interpretivism, the paradigm rejects that our understandings of phenomena cannot be perfectly verified due to the ‘complexity of social phenomena’ (Rehman & Alharthi, 2016, p. 53). Ontologically, post-positivism is akin to critical realism; there is the observable world (in which we see and understand fact) and the real world (which is imperceptible and unavailable to us). Resultantly, our observable reality can be measured, but our measurements will always be imperfect (Bisel & Adame, 2017) . Therefore, methodologically, post-positivist research is often considered mixed-methods, employing multiple research strategies from both ends of the spectrum and triangulating the findings towards an understanding of a studied phenomenon. For a visual spectrum of the three spectrum specified research paradigms, see the following Fig. 4.

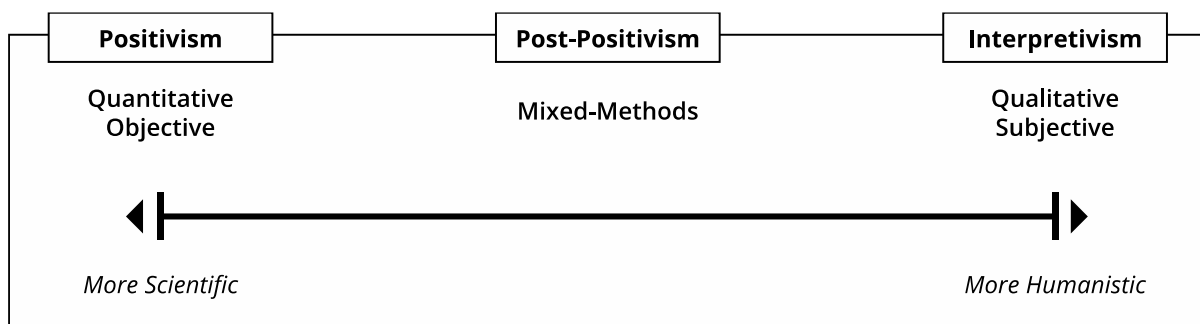


Fig. 4 - Research Paradigms Spectrum

I, the author of this thesis, philosophically align myself and my beliefs with positivism as defined above. Therefore, all approaches and methods that are discussed within the following section(s) will be selected in alignment with a positivist philosophy.

3.3 Research Approach

3.3.1 Deductive vs. Inductive Research

When considering how to approach research within a given paradigm, two broad methods of reasoning are generally considered: deductive and inductive reasoning (Ghauri et al., 2020; Saunders et al., 2019).

The *Deductive* method is known as a ‘top-down’ research approach which focuses on testing preformulated hypotheses which are based on theory developed from observing phenomena in our empirical reality (Trochim & Donnelly, 2008). Ghauri et al. (2020, p. 20) define deductive reasoning as “the logical process of deriving a conclusion from a known premise or something known as true.” Due to the inherently empirically driven nature of deductive reasoning, researchers often consider it to be more of a scientific (as opposed to humanistic) approach. Likewise, deductive

approaches are more commonly associated with research which takes on positivistic research paradigms (Park et al., 2020; Rehman & Alharthi, 2016; Saunders et al., 2019). The deductive approach begins with the researchers preconceptions of the reality of a given subject and consists of four main steps (see Fig. 5 for the approaches visualised, adapted from Trochim and Donnelly (2008)). First, worldly phenomena are theorized based on our current understandings. Second, hypotheses are generated based on this knowledge. Third, data is acquired through structured and controlled observational methods (e.g., experiments, surveys, etc). Lastly, data is analysed to reject or support any existing relationships between the studied variables.

In opposition to deduction, the *inductive* approach is known as a 'bottom-up' method. Unlike deductive approaches which begin with theory, inductive approaches first begin with an empty glass; the first focus is on identification of patterns in our reality before theorising. As such, inductive reasoning is defined as “the systematic process of establishing a general proposition on the basis of observation or particular facts” (Ghauri et al., 2020, p. 20). Due to the observation-before-assessment nature of inductive research approaches, they are often adopted in research which is grounded in an interpretivist paradigm (Saunders et al., 2019). This is due to the methodological approaches associated with interpretivist research being more observatory (i.e.

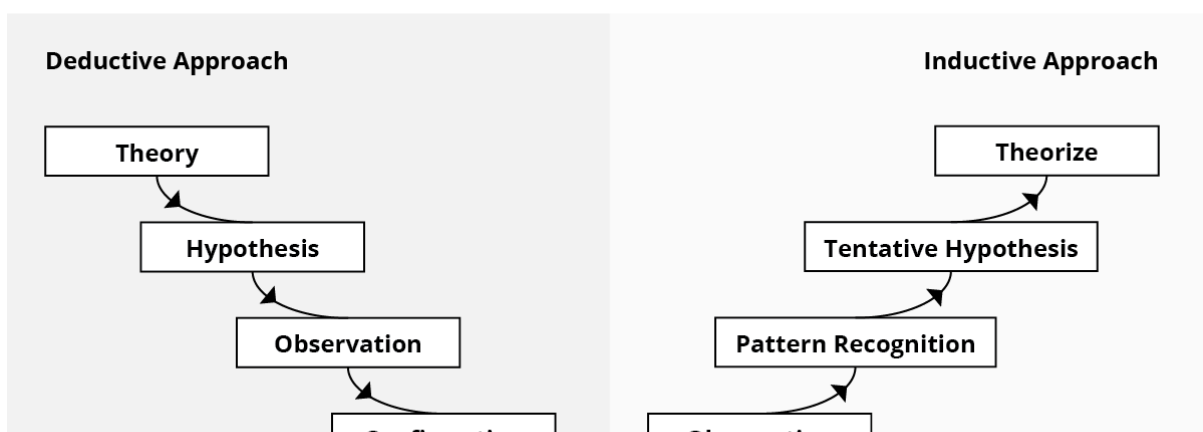


Fig. 5 - Deductive vs. Inductive Research Approaches, adapted from Trochim and Donnelly (2008)

interviews, ethnography), with data being mostly verbal as opposed to statistical (Rehman & Alharthi, 2016). Though it is possible for inductive approaches to include numerical data within qualitative methods, they are not to be relied upon. Unlike the deductive approach, where the researcher maintains a fully objective stances, subjective researcher interpretations of patterns within observations are key to formulating meaning here (Saunders et al., 2019).

The present research aims to understand causal relationships between GPD promotions and consumer affective and behavioural responses. As stated in the literature review, the research aims to test seven hypotheses within the given context of research (see Table. 8 for an overview of each hypothesis). Aligning with the goals of the present research, as well as aligning with the aforementioned philosophical beliefs of the author stated in Chapter 3.2.1, a positivist paradigm is most appropriate and will be adopted as the foundational philosophical framework to inform the current work. Furthermore, within the present research a deductive research approach will be adopted, aiming specifically on verifying a priori hypotheses that have been generated through existing theoretical underpinning (Park et al., 2020). Aligning with the four pillars of ‘good quality positivist research’ (i.e. Guba & Lincoln, 1994), the present research adopts a methodology which aims to be high in internal and external validity, reliability, and objectivity. Next, the research design, including the proposed research methods, sampling, data collection, ethics, and quality assurance will be discussed.

Table 8 - List of Hypotheses

Hypotheses	
H1	Low-reward outcomes from GPDs (vs. CPDs) increase consumer intentions of purchase abandonment and consumer retaliation behaviours (negative eWOM and brand avoidance).

H2	Increased intentions of purchase abandonment and consumer retaliation behaviours from customers receiving low-reward outcomes from GPDs (vs. CPDs) are mediated by greater levels of perceived betrayal.
H3	The negative effect of low-reward GPD (vs. CPD) outcomes on betrayal is increased (decreased) for customers with greater brand loyalty.
H4	The negative effect of low-reward GPD (vs. CPD) discount outcomes on betrayal is increased when the product involvement is high (vs. low).
H5	The negative effect of low-reward GPD (vs. CPD) discount outcomes on betrayal is increased when the product type is hedonic (vs. utilitarian).
H6a	Reduced intentions of purchase abandonment and consumer retaliation behaviours from customers receiving representativeness adjusted (vs non-representativeness adjusted) GPDs are mediated by lesser levels of perceived betrayal.
H6b	Reduced intentions of purchase abandonment and consumer retaliation behaviours from customers receiving representativeness adjusted (vs non-representativeness adjusted) GPDs are mediated by lesser levels of reward outcome sadness.
H7a	Reduced intentions of purchase abandonment and consumer retaliation behaviours from customers receiving anchor-absent (vs anchor-present) GPDs are mediated by lesser levels of perceived betrayal.
H7b	Reduced intentions of purchase abandonment and consumer retaliation behaviours from customers receiving anchor-absent (vs anchor-present) GPDs are mediated by lesser levels of outcome sadness.

3.4 Research Design

3.4.1 Quantitative Research

When designing research it is important to strongly consider which methodological choice – qualitative, quantitative, or mixed-methods – is most appropriate for the work at hand. It is generally accepted that within qualitative research, the investigator(s) aim to explore broad research questions associated within a given topic through exploratory methods (Creswell & Creswell, 2018). Unlike qualitative research which is mainly considered as exploratory by nature (Evangelinou-Yiannakis, 2017), quantitative research focuses on examining relationships between variables (Ragab & Arisha, 2017; Saunders et al., 2019). Likewise, quantitative research can be considered confirmatory, as it is mainly used to validate and produce generalised findings from theoretically driven questions (Ragab & Arisha, 2017). Therefore,

quantitative research is often aligned with research hypotheses which provide answers to more specific research questions (Creswell & Creswell, 2018).

As stated previously, the specific goals of the present research are to provide scientific and verifiable answers to the seven proposed hypotheses that were generated through theory development in the previous section, the literature review, in order to answer the research questions outlined in Chapter 1. Specifically, the work focuses on uncovering the observable and measurable relationships between GPD use and downstream affective and behavioural outcomes. Further, aligning with the philosophical beliefs of the author, the present research adopts a positivist philosophical paradigm and deductive research approach. Following existing literature which states that quantitative methods align most closely with positivist research paradigms, as well as the understanding that quantitative research is most appropriate for verifying theory-based hypotheses, it is proposed here that employing quantitative methods (as opposed to qualitative or mixed-methods) for the present research is most appropriate. Beyond this, literature relevant to the present topic adopts similar quantitative methodological approaches (e.g., Alavi et al., 2015; Attari et al., 2022; Duke et al., 2018)

3.4.2 Pilot Interviews

Interviews

Typically, interviewing is considered to be an interpretivist research method and in most cases is less commonly employed in a positivist research paradigm (Ghauri et al., 2020; Rehman & Alharthi, 2016). While this is not disagreed with, interviews can indeed be used in positivist research. As stated by Fujii (2017, p. 8) “positivist traditions

tend to regard interviewing as a method for extracting information from interviewees, as if the researcher were like a surgeon wielding a scalpel or a miner digging for gold". Thus, the purpose of interviews for positivists is not to question how different individuals make sense of their worlds, but should be designed to extract precise information of interest to the researcher.

With this said, the present research will adopt interviewing to help clarify the theorisation within the literature review and to support the initial scope of the present research surrounding GPD use in marketing. Likewise, should any unexpected sentiment surrounding GPDs arise within the interview stage, these findings could be used to enhance or explain future research sections. Therefore, the interviewing portion of the present research will be used for two key reasons: first, to clarify the current theoretical understandings, and second, to shed light on any key topics of interest that could be explored. The data collated from interview subjects will not be used towards the final knowledge claims of the research outcomes, thus, the interviews will be considered as pilot interviews only (Shakir & ur Rahman, 2022).

Structural Typologies of Interviews

When considering the implementation of interviews within the overarching research design, researchers must decide on what 'type' of interview is most appropriate for the work at hand. Saunders et al. (2019) suggest that interviews can be separated into three main structural types: unstructured, structured, or semi-structured. The three types of interview structures will now be described before selecting the most appropriate structure for the present design.

Unstructured Interviews

Also known as in-depth interviews, unstructured interviews are the most informal form of interview; “they are used to explore in depth a general area in which you are interested” (Saunders et al., 2019, p. 438). These interviews are considered unstructured as there are no predetermined questions, themes, or comments which are used to guide the interview. Due to the open-ended nature of questions used in unstructured interviews, they often are considered to more closely resemble conversations than interviews (Burgess, 2003; Evangelinou-Yiannakis, 2017). Instead of attempting to predict applicable questions and themes based on previous findings or a priori judgements, unstructured interviews fully submit to the narrative of the interviewee (Zhang & Wildemuth, 2009). As unstructured interviews are the least standardised of the three interview typologies and highly inductive by nature, they are most suited to interpretivist research paradigms.

Structured Interviews

On the opposite end of the spectrum, structured interviews are the most formal type of interview for data collection. Structured interviews are considered fully standardised as they consist of pre-determined sets of questions in which the answers are asked by the researcher on a questionnaire (Saunders et al., 2019). They are used to collect quantifiable data that can easily be replicated in various interview settings and analysed as data (Ghauri et al., 2020; Wilson, 2012). Due to the standardised nature of structured interviews, they are often used as a data collection method for data that can be used for quantitative analysis.

Semi-structured Interviews

Semi-structured interviews are a marriage of the former two interview typologies. These interviews begin with the researcher developing a pre-determined list of themes, goals, and questions surrounding the area based on driving literature. Saunders et al. (2019) suggests that the way these themes and questions will interlink with the interviewing procedure “will depend on your philosophical assumptions”. That is to say, semi-structured interviews are applicable for both positivist and interpretivist, but depending on the philosophical view they will either lean towards a more systematic and structured (i.e. positivist) design or more open-ended and unstructured (i.e. interpretivist) design. The key advantage of semi-structured interviews compared to the other types lies in their flexibility; the researcher can focus on gaining reliable data on structured themes and questions, while also leaving to probe for further information should they believe that the participants has knowledge which can provide further insights into a given topic (Heath, 2023; Ragab & Arisha, 2017).

Interview Structure Selection for the Present Research

As stated, the main goal of the pilot interviewing phase of the present research is to clarify existing theoretical framework and hypotheses. Therefore, of three typologies, semi-structured interviews are the most applicable for the specified goals due to their high flexibility in knowledge acquisition (Heath, 2023; Ragab & Arisha, 2017). Unstructured interviews would not be as appropriate, as they would not be an appropriate method to clarify the present work with pre-established themes which have been generated through the amalgamation of a large repertoire of literature on the present subject (i.e. the literature review). While structured interviews could be useful for generating quantifiable data on the given topic, they would not be less useful in

terms of generating in-depth insights related to the hypotheses. Therefore, within the present work semi-structured interviewing will be adopted for initial pilot exploration.

Analysing Pilot Interview Data

Semantic-level Thematic Analysis will be employed as the method of analysis for the pilot interviews following guidance from Braun and Clarke (2006). Thematic analysis is a flexible method of analysis that can be used across a variety of research paradigms. The main goal of thematic analysis is to identify themes and patterns which are present in a dataset of qualitative data. Braun and Clarke (2006) propose two primary approaches of identifying themes when conducting thematic analysis – *inductive* or *theoretical* (i.e. deductive). An inductive approach can be considered a ‘bottom-up’ approach to conducting thematic analysis in which the findings are not driven by theory. Thus, in an inductive approach to thematic analysis, the researcher should not hold preconceived notions of any themes that will emerge from the data. The other approach – the theoretical approach – the themes are generally driven by the researchers theoretical interest in a topic, and thus is more ‘analyst-driven’ (Braun & Clarke, 2006, p. 84). A theoretical approach to thematic analysis will be adopted here, focusing mainly on themes aligned with the topics of interest in the present work.

Another important decision within thematic analysis is the depth of level of themes to explore. Themes can either be identified as latent or semantic. Semantic themes are generally considered themes which are specifically described within the data itself, while latent themes go deeper than what is stated in the data and are research-led assumptions of the deeper meaning behind the data. Therefore, latent themes require significant interpretation of meaning from the researcher, while semantic themes are

generally more descriptive summaries of what was present at a surface level. As the employed research paradigm is not an interpretivist-aligning paradigm, the choice to work at a semantic level is more appropriate and therefore will be the selected approach for theme depth.

Overall, within the present work, a top-down semantic-level theoretical thematic analysis will be employed. Guidelines specified by Braun and Clarke (2006) for conducting 'good thematic analysis' will be followed to increase rigour within this portion of the research.

3.4.3 Experimental Methods

“In the contentious world of causal claims, randomized experimentation represents an even-handed method for assessing what works” - (Gerber & Green, 2012)

Experiments are considered a scientific procedure which researchers can employ to test causal relationships between two or more variables (Ghauri et al., 2020; Highhouse, 2009). Experiments are generally conducted by creating two or more groups whose outcomes are measured following exposure (or lack of exposure) to some variables or treatments. They are considered to be fair, transparent, and reproducible, and are a very common methodological choice in marketing and advertising literature (Gerber & Green, 2012; Gneezy, 2017; Simester, 2017; Vargas et al., 2017). Through the experimental method, researchers can validate their hypotheses, offering measurable findings which support or oppose their initial theory.

A properly designed experiment must be controlled and randomised (Gallo, 2016; Saunders et al., 2019). Controlled refers to the researcher ensuring to the best of their ability, that the variables which are being tested are isolated from extraneous variables which could confound the results (Shaughnessy et al., 2015). Randomisation of participants is a necessary, as it reduces biases which could provide any of the tested groups an advantage or disadvantage (Gerber & Green, 2012). Failure to randomize and control extraneous variables may result in threats to the validity and reliability of an experiment. Validity refers to how accurately the findings represent the intended variables to be measured in the research, while reliability considers how reproducible the findings of an experiment are (Christensen et al., 2011; Mcleod, 2023; Price et al., 2015).

As the present work employs a quantitative methodology, focused on providing answers to specific hypotheses, randomized experimentation is the most appropriate methodological strategy to adopt. Experiments are generally be separated by their context, either being conducted in a controlled lab-setting, or in a real-world field setting (Shaughnessy et al., 2015; Vargas et al., 2017). Within the present research, both of these typologies as considered, which will now be discussed.

Lab-style Experiments

Lab experiments are experiments which take place in highly controlled artificial settings (e.g., in a lab, online panel) (Ghauri et al., 2020). Due to the highly controlled nature within the setting of lab experiments, it is easier for investigators to ensure the exclusion extraneous (i.e. confounding) variables within the design (Vargas et al., 2017). Likewise, suspected variables which can may interact with the relationship in

question can easily be measured and controlled for as inclusionary variables within the analysis (Frost, 2023).

When designed correctly, lab experiments are considered to hold high internal validity. That is to say, the accuracy of measurement for intended variables is generally higher than other experimental methods (e.g. field studies). However, as noted across a multitude of literature, one of the pitfalls of lab experiments is a lack of external (i.e. generalizable to other contexts) and ecological validity (i.e. generalizable to real-life settings) (Andrade, 2018; Vargas et al., 2017). While the limitations associated with ecological validity cannot be solved through lab experimentation, external validity limitations can be somewhat diminished through further replication of findings in varied contexts (Cunic, 2022; Vargas et al., 2017). In order to generate more ecologically valid findings, field experiments should be employed.

Field Experiments

“Using field experiments, scholars can identify causal effects via randomization while studying people and groups in their naturally occurring contexts.”
(Baldassarri & Abascal, 2017, p. 41)

Similar to lab experiments, a field experiment aims to generate evidence for causal relationships with variables. The main difference between the two methods is the context of experimentation. Lab experiments – as duly named – are conducted in a highly controlled setting such as online or within a lab, while field experiments are conducted within the ‘field’, that is, in real world, natural settings (Shaughnessy et al., 2015). For example, if a researcher were studying the behaviours of marketing price

promotions in a grocery retailing context, they may be inclined to consider partnering with a grocery store and run a study where they can measure the behaviours of real customers as they shop.

There are a few key advantages employing such a design in one's research methods. Firstly, these studies are run in naturally occurring contexts, therefore they are considered to have greater ecological validity than lab experiments; the ability of a field experiment to be generalizable to real-world settings is inherent to its contextual design (Andrade, 2018; Gneezy, 2017; Vargas et al., 2017). However, these forms of experiments are known to be more rife with threats to internal validity as the ability to control all extraneous variables is not possible in non-artificial environments (Akbari & Wagner, 2021; Baldassarri & Abascal, 2017).

Overall the differences in advantages associated with lab-focused experiments and field experiments can be understood within the following Table 9. Based on the advantages and limitations of both types of experimental research, a study which employs both methods would be considered more well-rounded in terms of overall validity of findings. Thus, the present research will incorporate both lab and field experiments to investigate the outcomes of GPD usage in marketing.

Analysis of Quantitative Data

The descriptive statistics and main results of the experiments will be analysed using IBM's SPSS (Statistical Package for Social Science), while moderation and mediation analyses will be conducted using PROCESS in SPSS (Hayes, 2018). For experimental research in marketing and consumer behaviour (as well as a range of other business-

related disciplines) SPSS as well as PROCESS are widely adopted and considered as trusted conventions when conducting quantitative analysis (Alavi et al., 2015; Arkkelin, 2014; Hayes, 2018). The specific analysis conducted within these software will be outlined in detail within each of the respective studies.

Table 9 - Comparison of Lab & Field Experiments

Comparison of Experimental Research Strategies		
Attribute	Lab Experiments	Field Experiments
Context	Artificial	Real World
Internal Validity	High	Low
External Validity	Low - Medium	Medium - High
Ecological Validity	Low	High

3.4.4 Participant Sampling

Sampling refers to the process of outlining and acquiring individuals to participate in a research study. It is widely accepted in research that there are two chief approaches for selecting a sample (i.e. subset of participants, units, etc) from the population at hand (i.e. the group of individuals (or units) of interest to the researcher) – these approaches are *probability sampling* and *non-probability sampling* (Ghauri et al., 2020; Ragab & Arisha, 2017).

Probability sampling refers to sampling methods where the sample is selected by some method of randomisation from an exhaustive list of possible participants (i.e. the sample frame). Therefore, every individual within the population has a chance to be selected for the research. This form of random selection can be done in many ways,

including: simple random sampling, systematic sampling, stratified sampling, or cluster sampling (see Ghauri et al., 2020). Due to this approaches ability to randomly select participants from an exhaustive sample frame, it is known as the 'gold standard' (Dever & Valliant, 2014, p. 1) of sampling as the risk of bias in the sample is considerably low.

Non-probability sampling refers to non-randomised sampling methods where the sample is selected based on some specified criteria (e.g., geographic location, researcher judgement, convenience). Non-probability sampling is generally considered a more limited approach compared to probability sampling, mainly due to limitations of generalizability and researcher selection bias (Ghauri et al., 2020). That is to say, due to a lack of randomisation from a sample frame, it is not possible to ensure the selected sample is representative of the population. Likewise, since the sample is generated through some form of researcher-selected criteria, the bias associated with the sampling is inherently greater (Lehdonvirta et al., 2021; Saunders et al., 2019)

Although probabilistic sampling is considered the gold standard sampling methods due to its inherent advantages (e.g., more representative of the population, less biased) it would be impossible to access a sampling frame of the entire population of online shoppers in the USA as this data is not publicly available. Likewise, non-probability sampling methods are employed within reputable extant literature which is relevant to the work at hand (Alavi et al., 2015; Duke et al., 2018). Based on probability sampling being non-feasible, as well as following the standards of relevant extant work, non-probability sampling methods will be employed within the present thesis. Specifically, the present work will adopt purposive sampling across the field study and all five online

lab experiments. The sample for the field study will be gained through paid advertising through Meta Business Suite and Google AdWords. For the experimental studies, the research employs CloudResearch, a trusted and reliable online panel for participant sampling (Eyal et al., 2021; Litman et al., 2021).

Also known as judgement sampling, purposive sampling is a sampling technique which involves the researcher selecting participants who possess key criteria or attributes which the researcher to be the best representative population to the research at hand (Etikan et al., 2016; Ghauri et al., 2020). It is considered a form of non-probability sampling (i.e. non-random sampling), as there is an element of selective judgement within the process which introduces some level of researcher bias to the sample. While there are inherent limitations in terms of introducing bias to the sample, the strategy is highly efficient and useful when the target population has specific characteristics that are important for the final sample to hold (Moss et al., 2019). For example, in the present research it is important that participants are familiar with online shopping, as the context of all of the studies focuses on GPD use in digital retailing. Likewise, the sample will include participants from the United States of America, as the USA is known to be the largest and most mature e-commerce market compared to other Western nations (Oberlo, 2023). To ensure that participants align with these specified criteria (i.e. regular online shoppers from the USA) filtering measures will be employed using online sampling panels. Furthermore, within each experimental study participants will be required to specify that fit within the inclusion criteria.

3.4.5 Ethical Considerations

All facets of the present research will stringently follow the ethical guidelines and suggestions proposed by the University of Edinburgh (2023). Likewise, formal ethical approval was gained from the University of Edinburgh Business School Office of Ethics, Research, and Integrity previous to conducting any data collection. Specifically, following the University of Edinburgh's Research Ethics Framework, the present research had gained approval for 'Level two' ethics (University of Edinburgh, 2023). Four guiding principles. Beyond the university level ethical approval and guidelines, various well known ethical guidelines and checklists for conducting business-related research (e.g. BERA, 2018; Hair et al., 2019) were consulted. In terms of data handling ethics and procedures, I, the researcher took part in formal Data Handling & Management Training through the University of Edinburgh's Institute of Academic Development.

Aligning with the University of Edinburgh's ethics policies and suggestions from other ethical bodies, the present research specifically focused on:

1. Ensuring that any and all potential risks associated with participating in the research were minimised.
2. Ensuring that all participants in all research studies consented and understood their rights when taking part in the research / sharing their data.
3. Ensuring participants understand that taking part in the research was completely voluntary and they would not be penalized in any way for withdrawing from the research.

4. Ensuring participants knew how their data would be stored and handled (i.e. online available to the principal investigator and stored securely as encrypted files).
5. Ensuring that participants understood that any personal information they submitted to the research would be handled with the utmost confidentiality and anonymity.
6. Ensuring that all data from field work was compliant with the most recent Data Protection Act Gov UK (2018) and its implementation of General Data Protection Regulations (GDPR).

3.4.6 Data Cleaning & Quality

In research, data cleaning is the process of identifying and dealing with erroneous or questionable data and outliers within a dataset to improve the integrity of the data (Arevalo et al., 2022; Hair et al., 2019; Osborne, 2013). One of the main limitations of online experiments is an increased amount of invalid or careless responses from participants (Leiner, 2019). Aligning the data cleaning procedure to follow guidelines which are considered 'good practice' is important to reduce the chances of a) removal of correct data and b) introducing research bias into the overall data cleaning procedure. Following well accepted data cleaning guidelines, the present work will consider the following criteria when conducting data cleaning in the experimental portions of this research: unrealistic completion speeds, quality of responses, and assessment of attention checks.

Unrealistic completion speeds

Unrealistic survey completion speed considers how quickly a participant was able to complete the survey compared to its length. As stated by (Leiner, 2019), “careless responses are most reliably identified by questionnaire completion time”. Therefore, should a participant complete a questionnaire unreasonable fast (e.g. finishing a 10 minute survey in 90 seconds), then it is sensible to assume the participant rushed through and did not take the time to fully read the survey nor take the time to think about the questions or stimuli presented to them (Arevalo et al., 2022; Wood et al., 2017). Participants who are considered to have completed the survey too quickly (see Leiner, 2019) will have their data removed from the final dataset.

Quality of Responses

There are certain signs which indicate that a response may be of poor quality and therefore should be cleaned from the dataset, including identical consecutive responses and conflicting responses. Data of participants identified doing either will be cleaned from the final dataset.

Identical consecutive responses, also known as ‘straight-lining’ (Kim et al., 2018) is when participants rush through a survey, providing the exact or nearly exact same responses to a multitude of questions without differentiation.

Conflicting responses, in which participants provide inconsistent or logical contradictions between measures are a common indicator of poor data quality (Arevalo et al., 2022). For example, if participants were to state they were very likely to continue with their purchase and also stated they were very likely to abandon their

purchase, this would be considered logically inconsistent as this would be contradictory.

Assessing the quality of attention checks

Memory recall attention checks (Abbey & Meloy, 2017) are forms of attention checks in which participants are asked to recall information which was previously mentioned within the survey (e.g. “what product was mentioned on the previous page?”). Attention checks are a highly objective way to identify if participants have or have not paid attention to important information relevant to the study. Attention checks will be implemented into the experiments of the present work, as they are commonplace within experimental work in the field of marketing (Lisjak et al., 2021; Paas & Morren, 2018). Individuals who fail attention checks will have their data deleted from the final dataset.

3.5 Chapter Summary

The focus of this chapter was to discern an appropriate methodological structure for the present research. Overall, the research follows a positivist philosophical research paradigm, and thus the approach to the present work is deductive. Further, the work will employ quantitative research methods, specifically field experiments and online lab experiments as the main mode of testing the hypotheses. In line with the goals of the study, a non-probability purposive sampling procedure will be adopted. The work will adhere strict ethical guidelines set out both by the university and research ethics organisations. The following chapters 4 to 10 will focus on each specific phase of the empirical research, beginning first with the pilot interviews, followed by the five online

lab experiments, and lastly the field study. The following Table 10 briefly summarises each of the research phases within this thesis. Likewise, the following Fig. 6 visualises the full research model.

Table 10 - Summary of Research Phases

Phase	Purpose	Design
Pilot Interviews	To clarify the theoretical scope of the present research and to potentially uncover unexpected sentiment surrounding GPDs that could be useful for explaining found effects in experiments.	Semi-structured interviews
Experiment 1	<p>The first experiment generates an initial understanding of how equivalent inferior (here a 5% discount) or superior (here a 35% discount) results in intentions to engage in negative consumer behaviours (i.e. purchase abandonment and consumer retaliation), dependent on if the discount is received through a CPD or GPD.</p> <p>Furthermore, the study aims to explore brand betrayal as a mediating variable in this relationship. Within this study, two GPD designs are compared to test if gamblified visual design impacts the found effects.</p> <p><i>Hypotheses tested: H1, H2</i></p>	<p>6 Scenarios Between-Subjects</p> <p>Product Context: TV Reward Amounts: 5%, 35%</p> <p>3 (Promotion Type: CPD vs. GPD (non-gamblified design) vs. GPD (gamblified-design) x 2 (Reward Outcome: Inferior (5% discount) vs. Superior (35% discount)</p>
Experiment 2	<p>Focusing specifically now on low reward outcomes of GPDs (vs. equivalent CPDs, the second experiment specifically aims to: a) replicate the findings of Experiment 1 in a different product context, and b) assess brand loyalty as a potential moderating variable in the relationship between low-reward GPDs vs. CPDs on perceptions of brand betrayal.</p> <p><i>Hypotheses tested: H3</i></p>	<p>2 Scenarios Between-Subjects</p> <p>Product Context: Nike Shoes Reward Amount: 5%</p> <p>2 (Discount Type: CPD vs. GPD)</p>
Experiment 3	<p>The third experiment explores two different product-related characteristics as potential moderators, including product involvement (low vs. high) and product value type (i.e. hedonic vs utilitarian) to understand how these variables can potentially alter consumer feelings of brand betrayal.</p>	<p>8 Scenarios Between-Subjects</p> <p>Product Contexts: Laundry Detergent, Scented Candle, Washing Machine, Cruise Reward Amount: 5%</p>

	<i>Hypotheses tested: H4, H5</i>	2 (Product Involvement: Low vs. High) x 2 (Product Value Type: Hedonic vs. Utilitarian) x 2 (Promotion Type: CPD vs. GPD)
Experiment 4	<p>The fourth experiment investigate if the managerial intervention of manipulating the representativeness heuristic through visual design changes can reduce negative perceptions of brand betrayal and reward outcome sadness of low-outcome GPDs, thus leading to reduced negative consumer behavioural outcomes.</p> <p><i>Hypotheses tested: H6a, H6b</i></p>	<p>3 Scenarios Between-Subjects</p> <p>Product Contexts: Jeans Reward Amount: 5%</p> <p>Promotion Type: GPD (Standard) vs. GPD (Representativeness Adjusted) vs. CPD (control)</p>
Experiment 5	<p>The fifth and final experiment investigates if the managerial intervention of manipulating the anchoring and adjustment heuristic through visual design can reduce perceptions of betrayal and reward outcome sadness, and thus reduce negative consumer behaviours.</p> <p><i>Hypotheses tested: H7a, H7b</i></p>	<p>3 Scenarios Between-Subjects</p> <p>Product Contexts: Jeans Reward Amount: 5%</p> <p>Promotion Type: GPD (Standard) vs. GPD (Anchor Absent) vs. CPD (control)</p>
Field Study	<p>The field study is a large-scale e-commerce experiment which required the development of a real online brand and digital retailing website. The purpose of the study is to generate real-world insights into the differences between GPDs and CPDs across inferior and superior discount levels. The study focuses on understanding how varied rewards from each promotion type can impact purchase abandonment and other website usage metrics (e.g. time on spent on the website, page views per visit, etc).</p>	<p>4 Scenarios Between-Subjects</p> <p>Product Contexts: Swimwear Reward Amount: 5%, 35%</p> <p>2 (Promotion Type: CPD vs. GPD) x 2 (Reward Outcome: Inferior (5% discount) vs. Superior (35% discount))</p>

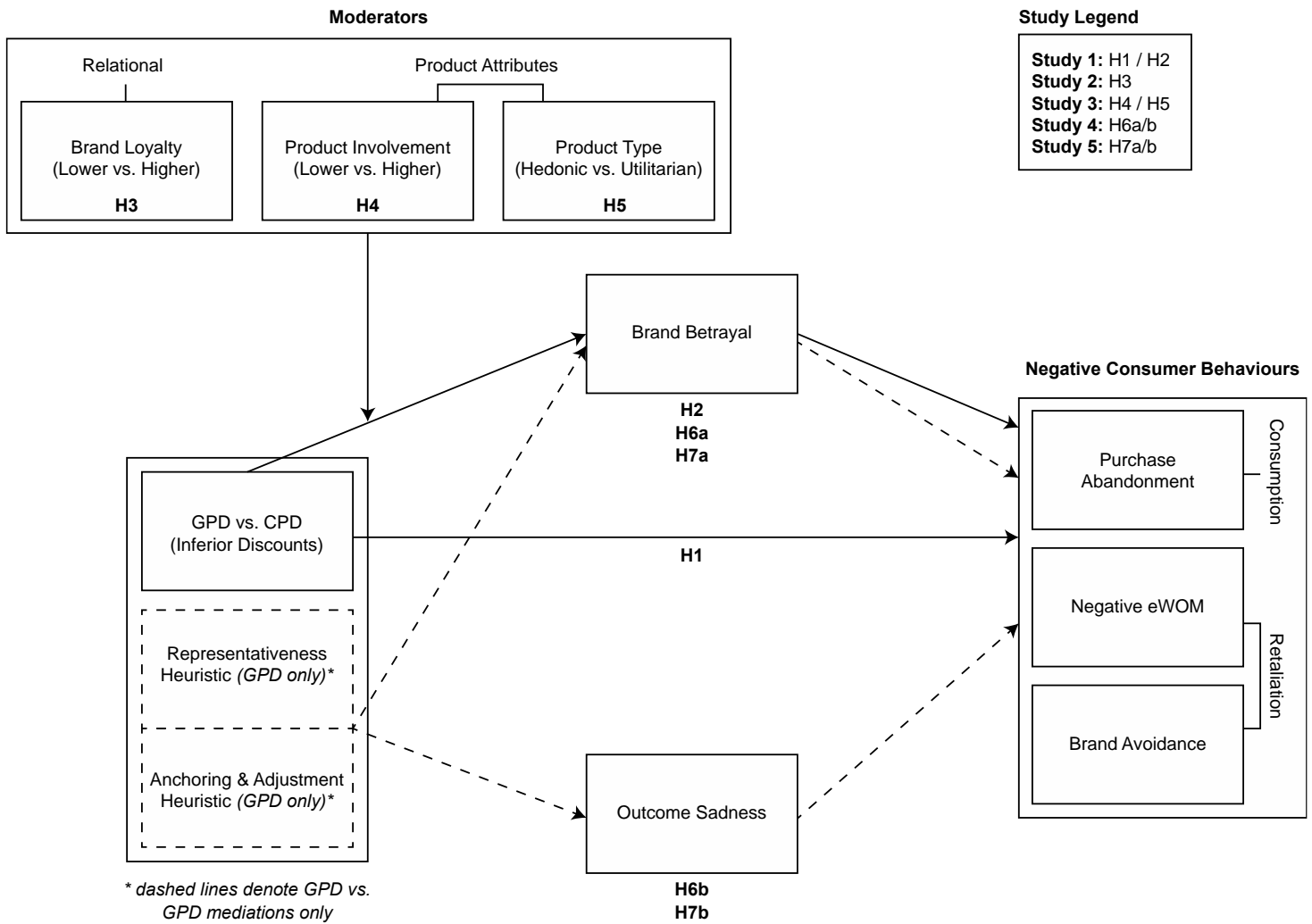


Fig. 6 - Complete Research Model

Chapter 4: Pilot Interviews

4.1 Introduction

The present chapter provides an overview of the pilot interviews that were conducted for this work. In accordance with the previous section 3.4.2 which focused on the overarching methodology of this work, the pilot interviews are meant to achieve two specific goals. First, the pilot interviews will be used to provide initial clarification that the theory aligns with participant views of GPD uses in digital retailing. Second, to

potentially provide any additional insights into the theory already explored, or reveal unexplored streams for the current and future research. Therefore, the data from these pilot will be used to provide a preliminary understanding of participant views to help support the main quantitative portion of the empirical research (Tashakkori & Teddlie, 1998; Van Teijlingen & Hundley, 2001).

4.2 Procedure & Sample

A purposive sampling procedure was adopted for the pilot interviews. As stated in section 3.4.4, the choice to select a purposive sampling method was due to the research requiring participants to hold certain characteristics relevant to the research topic at hand (e.g. regular online shoppers) (Etikan et al., 2016; Ghauri et al., 2020). Having previous experience interacting with GPDs was also beneficial that the insights were based on previous real-world outcomes. Overall, the sample consisted of six participants, information of each interviewee can be seen in Table 11.

Table 11 - List of Interviewees

Pseudonym	Age	Sex	Education	Duration	eShopping Frequency (monthly)	Avg. Order (£GBP)
Kenji	33	M	Higher	25:47	4-12x	£43
Mia	25	F	Masters	41:06	10x	N/A
Christian	29	M	PhD	31:57	2-5x	£20
Omar	27	M	Masters	11:31	2x	£20
Thom	30	M	Undergrad	24:54	2-4x	£45
Jack	28	M	Undergrad	15:35	5-10x	£40

After qualifying interviewees participants as regular online shoppers and individuals showing interest in participating in the research, they were sent a summary of the research and a consent form to read which outlined all of their rights as a participant

(See Appendix A for summary and consent form). When the interview begun, all participants were asked to provide verbal consent that they had fully understood the purpose of the interviews and were willing to participate. As stated in Section 3.4.2, the interviews were semi-structured. The interview begun with some icebreaker questions, such as asking general questions about their demographics and shopping habits. After, participants were shown a visual example of a GPD and asked if they have ever come across a similar promotion in their past online shopping experiences. Elicitation through presenting visual stimuli in interviews is a common approach in interviewing to help evoke feelings and memories associated with the presented information (Clark-Ibáñez, 2004; Harper, 2002). The discussion then moved the participant discussing their emotions and actions which resulted after their interactions. Their overall feelings towards the promotions and brands which use them were then discussed, followed by moderating variables. For a full list of the interview question structure, please see Appendix B.

4.3 Findings

As discussed in-depth in section 3.4.2 of the Methodology chapter, semantic-level Thematic Analysis was the employed method of analysis within this portion of the research, following the guidelines of ‘good thematic analysis’ outlined by Braun and Clarke (2006). The following Table 12 outlines a short summary of the four relevant themes of discussion within the research.

Table 12 - List of Emergent Themes

Theme	Description
High GPD Prevalence	Familiarity of GPDs in e-commerce is high, with suggestions that GPDs are prevalent and commonplace in digital retailing.

Poor Discount Outcomes	The results of GPDs are perceived to be skewed in probability towards receiving a poor discount outcome.
Negative Downstream Outcomes	Receiving a poor discount outcome from a GPD leads to negative affective outcomes, driving negative consumer behavioural intentions.
Potential Moderating Variables	A theme which considers several sub-themes of when or in which cases negative downstream effects will be amplified or diminished.

4.3.1 High GPD Prevalence

Early in the interview, participants were shown a mock-up of a gambled price discount in the form of a ‘spin-to-win’ promotion, as it is the most common form in retailing (Behl et al., 2020), and were asked if they had ever come across a similar promotion while shopping online. 100% of the participants had claimed that they had come across a GPD at least once before when shopping, however one of the participants (Thom) had only come across a similar promotion within physical retailer (in person). Two of the participants claimed that they saw these forms of promotions ‘very often’ as shown in the following quotes:

“Yep, very often...” - Kenji

“Yeah I have actually seen the spin to run before, quite often, yeah and they've got the kind of different options on the roulette wheel. I definitely have seen it on Missguided, which is an online clothing shop I think they did it on things like Shein as well, which is another online clothing store and I can't think we're out definitely seen it a few places mostly clothing online places.” – Mia

Participant Mia stated that her experience with GPDs were often used by big brands such as Missguided and Shein which are both considered top fashion retailers

worldwide in terms of their net sales (Statista, 2022a, 2022b). Though Jack stated that they have only seen GPDs on independent clothing sites.

“I've seen them on, like independent clothing websites. I wouldn't say I've seen them on big sites. So like you're big shopping sites, I don't know, I'm just using a few examples like Topshop or SportsDirect, but in terms of when I've gone to like independent clothing site, I've definitely seen them, yeah.” – Jack

Likewise, Christian had only seen them on an independent phone case brand's online shop.

“Yes, once. I was looking to buy an iPhone case and it was this particular brand where I wanted to shop, so I went, I saw them, I think I saw an ad or Instagram or somewhere so I checked their website and they had this spinny wheel.” – Christian

When asking Thom about his experience with GPDs, he stated that he had only seen them in a physical retailing big-box store in Canada

“Not online, but it was in person in store. It was at Lowes Canada, it's a hardware store home goods home improvement store, it's a big chain store.” - Thom

Lastly, Omar had claimed to have come across a GPD once, which was also designed in a spin-to-win gamblified style.

“I have actually, yeah once. It was a fashion retailer online. I can't remember the exact one, but it was clothes related. It was the same format as that spin to win.” - Omar

Overall, apart from Thom who had only interacted with a GPD in person, all of the participants were familiar with GPDs online. Those who had shopped online more frequently (Mia and Kenji) naturally had come across them more often. Based on the participant answers, it was also noted that these forms of GPDs have been implemented among both large brands (e.g. HomeDepot, Shein, Missguided) as well as independent brands. Likewise, the retailer product categories also differed (e.g. fashion, tech accessories, home improvement).

4.3.2 Poor Discount Outcomes

When asking participant familiarity with these forms of promotions, they were also questioned on what the standard offering ranges were from their experience, as well as what outcomes they have received when interacting with GPDs.

“It was the form of a wheel and, like you clicked it. I remember it had like free next day delivery and percent savings, and money, however much say five pounds, so it had like different options [...] I feel like it was a bit of a scam because I swear like every time you would just get free next day delivery” – Mia

Mia stated that although the promotion claimed to have multiple offerings, she believed it to be a scam as the discount outcome received upon multiple interactions kept

resulting in the lowest possible reward. The idea that the odds of receiving a low reward in GPDs as the norm is echoed by Kenji, who states:

[The discount received] "...is normally like a small percentage not as advertised when you first see it, so there will be like 50% off and this and that, but you normally get a tiny little 5% off." - Kenji

When discussing if the odds of receiving a high discount seemed to be stacked against the customer, Jack stated:

"I think that's just general. The business at the end of the day would like to make their profit margins as high as possible, so I would kind of understand why they're having the small margin for the higher percentage [% off]." - Jack

Agreeing with the sentiment that odds are unfairly weighted against valuable, Omar stated that he came across the following GPD:

[On discount range] "Lowest was 2% off, well actually there was try again next time, which is technically zero and then the highest was 50% off." - Omar

When following up on which outcome was received, Omar stated that he received "Try again next time" and followed by saying the following about the likelihood of receiving losing scenarios:

“I feel that you know the outcome of ‘try again next time’ is the most likely outcome each time” - Omar

Overall, participants overwhelmingly felt that based on their experience with GPDs, there were unfair chances of winning the lowest stated prize was significantly greater than any other possibility. The following theme to be discussed highlights the negative downstream consequences of receiving low reward outcomes from GPDs.

4.3.3 Negative Downstream Outcomes

Upon receiving an inferior discount outcome, majority of the interviewees stated how they felt various negative feelings in general and towards the brand. For example, Mia stated:

“I spun the wheel it lands on free delivery and I guess you feel a little bit lied to. You feel like, why are you advertising that you're going to give me 25% off, 10 pounds off, five pounds off, why are you advertising this and actually giving me free delivery, which you give to every paying customer? So I suppose I did feel slightly betrayed by the brand, that's a good way of putting it, because they kind of falsely advertised something, I felt.” – Mia

She follows by saying:

“It's a tough one isn't it because you're still getting a discount and you weren't expecting one but you've seen that there's an opportunity to receive a lot higher discounts, so you can't help but still feel kind of deflated and a bit let down

because you've taken your chance and you've been interrupted with this promotion and you've essentially lost. I think you feel a bit like you lost kind of a game almost, because you've been to this wheel and to take a chance, and then you end up with the lowest outcome, so I think I would feel a bit like I've lost.” - Mia

Overall, she felt that the brand lied to her and betrayed her trust, as it felt as if the brand was falsely advertising discounts which were not available. This sentiment regarding GPDs as a morally transgressive act was shared with Omar, who stated the following about how it felt:

“I think like dishonest, it was also a feeling of disappointment, but mainly dishonesty because I think the fact you're often trading in personal information in return for what could be a benefit, but in actual facts, you didn't get anything out of it. That felt pretty poor.” - Omar

Aligning with Mia and Omar, Jack felt that similarly about the experience of receiving low discounts from a GPD, in that the brands are failing to look after and show care for their customers:

“I'm the one actually buying the product off that business. I'm the one that should be looked after personally. I think in the times we live in now, it's like a buyer's market. Buyers should be looked after. They should be cared for. They should be given the best product given the best service. But given the best discount if I've seen the company offering out 30% or 25% these big offers and

then I'm getting given 5%. I'll be honest, I probably just leave it and just either look elsewhere or, yeah just, yeah, leave it. I won't buy that product.” - Jack

In Jack's quote he stated that he would leave the product and look elsewhere, aligning with this, Kenji states:

“I think they are sort of cheating me and they are my pet hate [...] If there was someone similar doing the exact same thing [offering the same products], without it [the GPD], I would go with them instead” - Kenji

He followed by stating how the use of GPDs impacts brand equity:

“To an extent it devalues companies I think, because there's a certain type of company that uses these discounts and it's normally not strong brands and you only see it with the cheaper products or brands, so it instantly makes you feel like they're not as desirable.” - Kenji

Aligning with Jack and Kenji's statements, many other participants mentioned that based on their experience they decided to discontinue their purchase, for example:

“I just felt at that moment that it felt like a negative experience and I think my next steps were actually just to back out and not proceed to purchase anything at all.” – Omar

“If I had been tempted with the 35% off, didn’t get it, and got 5% I’d probably look elsewhere and think “ugh” if they are going to even offer me 5% off I can get it somewhere else cheaper or think, “meh, I’ll see what else is out there” so I would discontinue with my purchase” – Mia

“I mean I was obviously disappointed, to some degree, in the end it’s just an iPhone case, but just because I got the 5% I didn’t complete my purchase.” - Christian

Beyond abandoning their purchase, some of the participants elaborated further, suggesting that they would avoid the brand in the future. For example, Mia stated:

“I’d avoid them until they, actually, maybe I’d keep trying the wheel and if I actually had a positive outcome from it, then I would shop with them, but I would probably just avoid them [...] I think losing is a lot worse, then, like the feeling of losing makes me feel a lot stronger. It’s almost not worth the pain of losing I feel like often with gambling, you have to lose five times before you win once and I just would rather not put myself through that and I just avoid scenarios, where I lose I suppose.” – Mia

While Mia was somewhat on the fence about giving the brand a second chance, Omar was more specific about not offering them his business again, stating:

“I haven’t gone since and I don’t think I would go back. It tends to be that there’s a lot of competition out there and you know when if a brand does something

that negatively affects you once. You're just gonna go to their competitors. There's no reason to go back to them and give them a second chance.” - Omar

Overall, the interviewees majorly supported that they perceived poor outcomes from GPDs as morally transgressive (e.g. ‘betraying’, ‘cheating’, ‘dishonest’), with many claiming their previous interactions had led them to abandon their cart and avoid the specific brands in the future. The next theme of analysis focuses on discussions which revealed potential moderating variables which could increase or decrease the suggested impacts of GPDs

4.3.4 Potential Moderating Variables

Product Involvement

When discussing their perceptions of GPDs based on different products, some of the participants suggested that GPDs may be more effective when considering products of low involvement, for example Thom stated:

“If it was a product I would purchase on a very regular basis, so say it say I purchased the coffee every day for work or on my way to work, and it was a variable promotion it wouldn't bother me in any way shape or form if it was a smaller or higher discounted price on a spectrum, because the cost is something small like that or a repeated purchase which is not significant. It would make it more interesting in terms of the purchase on a day to day basis as well.” - Thom

“I think [it’s more acceptable] on anything that’s a repeat purchase and is likely of non-significant monetary value to the purchaser, or to the consumer.” – Thom

Kenji and Jack agreed with this sentiment, stating:

If it’s a bigger purchase like a TV and it could save 50 pounds or 100 pounds and it will make a difference, if it’s toothpaste and I’m paying two pounds or 1.50 for it, I don’t care as much. I guess if it’s a small purchase it could be more fun because you’re not losing as much and if it’s a bigger purchase you kind of expect to get the best promotion.” – Kenji

I think lesser items I would be more willing to purchase anyway if I got 5%. So I know it’s quite hard for me to put a number on it, but I’d say between like 0 and 50 pounds. Like if I was buying a bunch of toilet roll tissue, etcetera, etcetera and I’ve got a lower percent. I’d be more willing to be like, “ugh screw it, I’ll just purchase it anyway - let’s hope next month I get 30 or 25%!” - Jack

Overall, the participants generally felt that if product involvement was lesser, then GPDs may be more acceptable and be more interesting than traditional CPDs. Interestingly, they also felt that GPDs would be more viable on regular repeat purchases.

Brand Loyalty

When discussing with the interviewees how they would feel if the brand using the promotion was one they are highly loyal to, some of the participants felt that there

would be no difference in feelings, though Thom felt that he would feel that the brand he is dedicated to was not looking after him properly as a loyal customer.

“You know, I do love Nike. My brand loyalty is high so I would be a bit disappointed if given the 5%, given the fact that I’m willing to spend £100 or £200, on these certain items and yeah, I feel like I’m not really being looked after.” – Jack

Omar stated that due to his previous experience, if a brand he was loyal to attempted to use a similar promotion, he would simply not engage with it.

“Personally, I don't think I would try it again if it involved giving personal information because I think that the damage was done first time around with a different company.” - Omar

When asked how he would feel about the brand he is loyal to using them, he followed by stating:

“I would feel more negatively towards them again, just because of the deception around it and yeah, the dishonesty about the odds of winning.” - Omar

The overall the sentiment from Omar was that he would feel more negatively towards a brand he was loyal to due to the deceptive and dishonest nature of GPD use.

Heuristics

Early on in the discussion with Omar, he had suggested that the deception behind GPDs was partly due to brands failing to add any form of disclaiming information on how likely (or unlikely) it was to receive each reward:

“I'd say they are [GPDs] deceptive and like it would be nice if they had a disclaimer on say that the odds of getting the top discount of say 50% off, or the odds of getting the 0% 'try again next time'. I think if they had that as a disclaimer, it would change the way that I look at these things, but they often don't.” – Omar

Later in the interview, he was asked if he would feel as negatively if brands had adjusted the representation of the GPD to more accurately visualize the odds of winning (e.g., either through disclaiming the odds or through proportionally sized segments of the GPD, in the case of a spin-to-win), the interviewee then stated:

“Not so much as if they were all equal there would, yeah. It wouldn't be as bad because, I think that's the thing that's always missing with these is either visually or through a disclaimer to show or to illustrate the odds of winning.” – Omar

When discussing if removing the anchor from the stimuli would change her perceptions, Mia stated she would view the GPD as equally deceptive but less exciting and have less ability to cognitively assess the situation:

“I would not be as excited by it, I think, because I can't see what's on offer here, so all for all I know, there could be free delivery under every single one of them. Whereas [normally] you can kind of see, like when you see that 40% or, for that 25% off you've kind of already done, the math in your head and you know how much you're saving, whereas with this, I have no idea what to expect.” – Mia

The other participants claimed that doing so would not change their perceptions of the GPD.

One surprising insight that emerged was the idea that if the promotions were designed with the ability for customers to select one from one of many hidden promotions, then the promotion would seem less deceptive, as the result would not be chosen by an algorithm but by their own choice. For example, Thom and Mia stated:

“I think in this case it would be more tolerable to receive a lesser reward because I was the one who selected that specific box as opposed to letting the computer select it. It was my choice, as opposed to a choice that wasn't mine. I think it's more of an involved game or involved promotion at that point where you make the selection yourself.” – Thom

I also would personally prefer, if I could choose a card, because then I feel like the fate is in my hands, rather than if a computer automatically chose it and because that just feels like more kind of setup and slightly less fun because I'm just doing it all, for me, or is this a bit more interactive if I got to select which one I wanted. – Mia

4.3.5 Summary of Interviews

Overall, the interviews were an interesting preliminary exercise to ensure that the theoretical background which informed the hypotheses aligned with the views of interviewees. Within the sample, all participants had experienced interacting with GPDs on at least one occasion in a retailing environment. Further, all participants had suggested that they had received an inferior reward compared to the maximum potential offer.

In terms of their feelings towards these outcomes, sentiment strongly supported that negative affect occurred in each participant. Listing the words from their experiences, it is here noted that interviewees felt the following emotions: lied to, scammed, betrayal, let down, like they had lost, disappointed, that the brand had been dishonest, poor, deceived, and uncared for. These feelings directly aligned with the literature pointed towards the practice being morally transgressive and betraying. As discussed in Section 2.5.5, brand betrayal can arise when consumers perceive that they have been taken advantage, exploited, lied to, cheated, or deceived (Grégoire et al., 2009; Reinikainen et al., 2021). The claims found within these interviews provide strong initial support for the theorisation of brand betrayal occurring following GPD use. Furthermore, beyond affect, nearly all of the interviews followed by stating that due to the poor outcomes, they had abandoned their purchase with the brand, with some interviewees purposefully opting to retaliate by avoid the brands in the future (Reimann et al., 2018). These behavioural findings are in line with Shahid Sameeni et al. (2022) who found that following perceived violations of the brand-consumer fairness norm (e.g. cheated, misled), individuals were more likely to retaliate and avoid

brands. Overall, the interviews supported brand betrayal as suitable construct of examination within the present work.

As for the proposed moderators, there was strong support from interviewees that GPDs would be more appropriate for products of lower involvement. This aligns with sentiment from extant literature (Alavi et al., 2015; Goldsmith & Amir, 2010) who suggest that the impacts of GPDs may differ based on level of product involvement. There was some discussion surrounding the differences between brand loyalty and GPD use, with interviewees suggesting that they would not feel looked after by a brand they trust if used by them, though similar sentiment was felt in general after losing from GPDs, therefore any support for the hypothesized direction was minimal. One interviewee in particular had strong feelings regarding the necessity to include some sort of representation (i.e. through disclaimer or design) of the odds in order to decrease how deceptive GPDs felt. In terms of removal of the value anchor (i.e. visibility of potential reward outcomes), one participant stated that it would feel equally as morally transgressive but would be less exciting and remove their ability to cognitively assess the situation. An interesting insight that emerged which could be a topic for future research on GPDs was the idea of a GPD where the customer could select from a multitude of hidden rewards. Overall, the interviewing stage was very useful in providing clarification and further justification for the proposed hypotheses. The next portion of the thesis will now turn to the experimental phase of the research to test the hypotheses.

Chapter 5: STUDY ONE – Uncovering Main Effects

5.1 Introduction

This chapter discusses the first experimental study of the manuscript. The main objective of study one is to examine the effect of GPD vs. CPD promotions of equivalent value on purchase abandonment and consumer retaliation, and whether such effects are explained by increased levels of betrayal. Totalling six possible scenarios, a 3 (Promotion type: CPD vs. GPD_{Non-GamDes} (non-gamblified design) vs. GPD_{GamDes} (gamblified design) X 2 (Reward Outcome: Inferior – 5% vs. Superior – 35%) between-subjects design was adopted to test H1 and H2, which are stated as follows:

H1 – Low-reward outcomes from GPDs (vs. CPDs) increase consumer intentions of purchase abandonment and consumer retaliation behaviours (NeWOM and brand avoidance).

H2 – Increased intentions of purchase abandonment and consumer retaliation behaviours from customers receiving low-reward outcomes from GPDs (vs. CPDs) are mediated by greater levels of perceived betrayal.

5.2 Stimuli, Procedure, & Measures

Scenario-based role-playing (SBRP) also known as vignettes were used within the experiment as they are common in marketing research when developing experiments as participants can semi-realistically experience a situation through their imagination (Rungtusanatham et al., 2011). Eckerd et al. (2021, p. 268) claim “correctly designed vignette experiments situate participants in an operational scenario, or a storyline, that is carefully crafted to realistically depict the problem setting.” Atzmüller and Steiner (2010) suggest that the use of vignettes in SBRP ‘counterbalance’ the weaknesses of traditional experimental approaches, stating that a series of experiments using vignette designs can increase external validity and generalizability of findings. However, vignettes may fall short if they are not designed in a way that participants can clearly understand the manipulated variables. Further, participants often “function as passive observers” (Lee et al., 2021, p. 1289); they view the stimuli from a third-party perspective and therefore the experience is lesser than real interaction. Albeit, some authors suggest that the inclusion of design mechanisms such as video, photo, audio, or interactive stimuli may assist engagement and overall validity and realism of research using vignettes (Caro et al., 2012; Eckerd et al., 2021; Lee et al., 2021). In order to ensure the scenarios were easily understandable, the scenarios and stimuli were presented to several colleagues and students at the local university of the researcher for confirmation of understanding.

Participants began the experiment by first providing their consent and completing inclusion criteria questions. Those who did not consent or meet the inclusion criteria were promptly removed from the experiment and their data deleted. Following these checks, participants were provided information about the vignettted scenario. In all

scenarios, participants were told to imagine they were interested in purchasing a new TV, and that they had gone shopping online for a new TV at a fictitious brand named TVSource.com, further imaging that it was a brand they are familiar with and is generally well trusted. While browsing the online shop, they found a TV they were interested in purchasing which cost \$554 (\$USD), inclusive of tax and shipping. The selected price was based on existing research on average TV selling prices in the United States (Statista, 2018). Immediately after stating the price, an attention check was implemented to ensure participants had read the stimuli as intended (i.e. “What was the stated product were you shopping for?”). Participants were then randomly allocated to one of six scenarios in which they were shown a CPD, GPD_{Non-GamDes} (non-gamblified design), or GPD_{GamDes} (gamblified design). The designs of the three promotion types can be visualised in the follow Fig. 7.

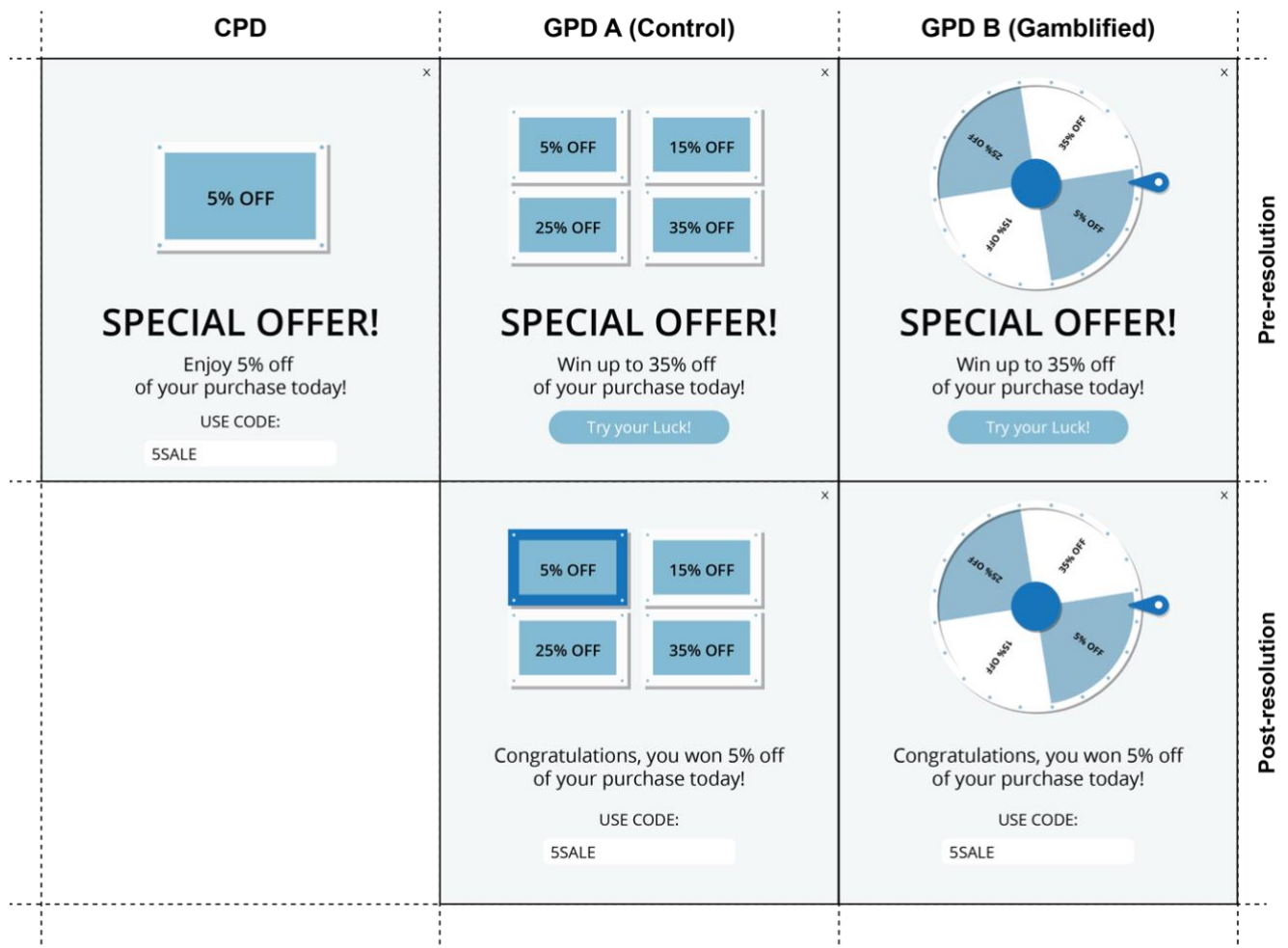


Fig. 7 - Study 1 Stimuli

Participants in the CPD (certain) conditions, were presented with the above visualised CPD, receiving either 5% (inferior) or 35% (superior) as a discount reward, dependent on random allocation. Participants in either of the two gambled_{Non-GamDes} conditions were presented with GPD A, either winning a discount reward outcome of 5% (inferior) or 35% (superior). Lastly, participants in either of the two gambled_{GamDes} conditions were presented with GPD B, and likewise would either receive a 5% (inferior) or a 35% (superior) discount reward. Therefore, for each discount design (CPD, GPD_{Non-GamDes}, or GPD_{GamDes}) the discount result was either inferior (5%) or superior (35%). Inferior and superior reward outcomes were selected based on research by Del Rio Olivares et al. (2018) which investigated consumer perceptions of standard acceptable discount

amounts. Likewise, this corroborated with findings from the interviewees who's insights suggested these amounts would be an appropriate range for minimum and maximum discount offerings.

Immediately after viewing the CPD scenario, participants were required to complete a manipulation check measuring the level of perceived outcome uncertainty (e.g. "Based on the preceding scenario, how uncertain or certain are you of what the exact value you would need to pay for the TV will be?"). For the GPD scenarios, the participants were exposed first to the pre-resolution visualisation, then they were presented a two-item, seven-point uncertainty manipulation check (e.g., "How uncertain or certain are you of what the exact value you would need to pay for the product will be?" – Very uncertain (1) to Very certain (7)). Next, participants were shown the respective post-resolution visualisation in which the final discount outcome was revealed.

As stated, the gambled price discounts were designed in two visually distinct ways: one non-gamblified design (i.e. GPD A), matching the design-style of the certain condition, and the other designed as a lucky wheel (i.e. GPD B), which is the most common form of uncertain promotion in real-world practice (Behl et al., 2020; Shopify, 2022). For the gamblified design scenario, a custom website was developed by the researcher in which the GPD with the gamblified-design could be physically interacted with by participants. This website was made by the researcher, with the foundations of the interactive GPD promotion initially generated through a plugin. The visual design of the GPD generated by the plugin was altered to be in alignment with the other scenarios using custom CSS and JavaScript. The choice to include two gambled conditions of different designs was two-fold. Firstly, to offer greater ecological validity

and realism within the study (Lee et al., 2021), and secondly, to add greater assurance that the resultant effects between CPDs and GPDs were due to the gamblified nature of a GPD, as there would be added control for any potential confounding impacts of visual design and interactivity, thus increasing internal validity (Dafoe et al., 2015; Mattila et al., 2021).

Following receiving their reward, an instructional check was implemented to ensure participants understood the correct reward they received (e.g., “Did you receive a discount towards the final price of the TV?” – “Yes, (5% / 15% / 25% / 35%). After the manipulation checks, participant’s feelings of brand betrayal were measured using a three-item, seven-point Likert scale, amended from Reimann et al. (2018). Next, intentions for purchase abandonment and the two brand retaliation behaviours (i.e. negative eWOM and brand avoidance) were measured. Each of the negative behaviours were measured using three-item, seven-point Likert scales; purchase abandonment was amended from Albrecht et al. (2017), while negative eWOM and Brand Avoidance were amended from Grégoire et al. (2009). As a method of bias reduction, the order of the DVs within the study were randomized for each participant (Loiacono & Wilson, 2020; Manfreda & Vehovar, 2012). Likewise, participants were randomly allocated to each group to ensure each observation is randomly sampled and holds independence amongst the other observations (Hahs-Vaughn, 2016). Lastly, covariates including gender, age, and e-shopping frequency were measured alongside demographic information. Moral judgement of the way the brand offers promotions was also measured for supplementary analysis reasons, using a three-item, seven-point Likert scale amended from Olson et al. (2016). For a full list of measures used within the study, please see the following Table 13.

Table 13 – Study 1 Measures

Construct	Item	α
Purchase Abandonment	It is likely that I would abandon my cart to buy the product elsewhere	.94
	I would likely exit the retailers website to purchase the product at another retailer	
	I would not continue with my product purchase at this online retailer	
Negative e-Word of Mouth	I would negatively review this brand online	.97
	I would write a negative online review about the retailer	
	I would complain about the retailer online	
Brand Avoidance	I would avoid buying from this retailer	.96
	I would cut off my relationship with the retailer	
	I would withdraw my business from the retailer	
Brand Betrayal	I felt betrayed by the retailer	.96
	I felt that the retailer let me down	
	I felt deceived by the retailer	
Moral Judgement	The way the seller offers their discounts is very ethical	.94
	The retailer follows an ethical standard when offering discounts	
	The way the retailer offers discounts to their customers is morally acceptable	
e-Shopping Frequency	How often do you shop online?	N/A
Discount Manipulation	Did you receive a discount towards the final price of the product?	N/A
Certainty Manipulation	How uncertain or certain are you of what the exact value you would need to pay for the product will be?	r = .75
	At this point, how unclear or clear is the exact value you would need to pay for the product?	

5.3 Sample

Purposive sampling (also known as judgement sampling) was employed for the present study (see section 3.4.4 for more details). This form of sampling involves the researcher selecting participants based on specific attributes that the researcher believes are representative of a target population (Hair et al., 2019). CloudResearch, a reputable online panel was used to gain access to our sample. The use of cloud panels for research sampling is commonplace within marketing research and has been

proven to be reliable (Eyal et al., 2021; Litman et al., 2021). Inclusion criteria ensured that participants met the following criteria:

- Participants were at least 18 years of age
- Participants considered themselves as regular online shoppers
- Participants were residents of the United States

Quality control mechanisms were enabled in CloudResearch, including: VPN blocking, duplicate IP blocking, suspicious geocode blocking, and low-quality participant blocking.

Overall, a sample of 600 participants were recruited for the study. As per the data-cleaning methods specified in section 3.4.6 of the methodology, 31 participants data were removed from the study. The final sample consisted of N = 569 participants, 56.9% female, with a mean age of 41.01 years old (SD = 12.94). The following Table 14 shows the per cell split of the sample which were randomised between groups.

Table 14 – Study 1 Per Cell Sample Size

	Inferior (5%)	Superior (35%)	Total
CPD	95	93	188
GPD_{Non-GamDes}	98	92	190
GPD_{GamDes}	94	96	191

5.4 Results

5.4.1 Assumptions & Construct Reliability Checks

Kolmogorov-Smirnov and Shapiro-Wilk tests of normality were both significant ($p < .001$), suggesting that the data deviated from a normal distribution. However, it is well

known that both tests are highly sensitive to large datasets (Field, 2018). Furthermore, many statisticians suggest that ANOVA tests are generally considered highly robust when working with larger samples sizes (Blanca Mena et al., 2017; Field, 2018). Box's M test of equality of covariance matrices was significant ($p < .001$) and therefore the assumption of homogeneity of variance-covariance matrices had been violated. However, Box's M test is also known to be highly sensitive to large data sets as well as any non-normality within distributions (Anderson, 2006; Field, 2018). Likewise, it has been shown in research that using F-Statistics such as the ANOVA are generally robust so long as the per cell sample sizes are "relatively equal", which they are within the present work (Blanca et al., 2018; Tabachnick & Fidell, 2007, p. 88). Based on this knowledge, sufficient confidence is held in parametric testing, however these are acknowledged limitations of the research and thus some caution should be taken in generalising the findings.

Principal component analysis with Varimax Rotation (also known as Kaiser-Varimax rotation) was conducted in order to support discriminance between each of the items in the dependent variable constructs. Varimax rotation is a common statistical technique used in PCA which maximizes the variance among items in a set of measures in order to increase correlations between related items and decrease the correlation among extraneous factors, thus improving interpretability of the results (Dilbeck, 2017). The results supported discriminance across the measured DVs (see Table 5.) as each of the components loads with the related construct items ($> .70$) but not with unrelated construct items ($< .70$) (Young, 2018).

Table 15 – Principal Component Analysis

Item	Component 1	Component 2	Component 3	Component 4
------	-------------	-------------	-------------	-------------

ABANDON1	*.790	.203	.358	.350
ABANDON2	*.823	.221	.343	.287
ABANDON3	*.847	.222	.215	.257
NEWOM1	.228	*.857	.325	.252
NEWOM2	.248	*.848	.260	.260
NEWOM3	.199	*.823	.324	.324
AVOIDANCE1	.386	.329	*.732	.372
AVOIDANCE2	.328	.435	*.723	.360
AVOIDANCE3	.326	.417	*.732	.360
BETRAYAL1	.314	.327	.309	*.806
BETRAYAL2	.329	.256	.329	*.815
BETRAYAL3	.324	.293	.386	*.773

5.4.2 Manipulation Check

A one-way ANOVA supported the certainty manipulation ($F(2, 566) = 148.92$) suggesting that participants in GPD scenarios perceived the discount offering to be significantly more uncertain than in the CPD scenario ($M_{\text{CPD}} = 5.24$, $SE = .108$ vs. $M_{\text{GPD-non-gamedes}} = 2.91$, $SE = .107$ vs. $M_{\text{GPD-GamDes}} = 3.02$, $SE = .107$, $p < .001$). There was a non-significant difference in terms of level of uncertainty comparing the two GPD scenarios ($M_{\text{Diff}} = .108$, $p = .478$).

5.4.3 Main Effects

To test the direct effects of the two GPD and one CPD scenario on the three negative brand behaviours (H1) and perceived brand betrayal, a two-way Multiple Analysis of Covariance (MANCOVA) was run using participant age, gender, and e-shopping frequency as covariates. The results of the MANCOVA found a significant interaction effect between the IVs (promotion type) x (reward outcome) on consumer intentions of purchase abandonment ($F(8, 560) = 7.10$, $p < .01$, $\eta^2 = .025$), NeWOM ($F(8, 560) = 3.19$, $p < .05$, $\eta^2 = .011$), brand avoidance ($F(8,560) = 7.22$, $p < .01$, $\eta^2 = .025$), and feelings of brand betrayal ($F(8, 560) = 11.40$, $p < .01$, $\eta^2 = .039$). A table containing the full main effects can be seen in Appendix C.

Post-hoc pairwise comparison analysis was done to further understand the specifics of these interaction effects. Overall, the estimated marginal means are shown in Table 16, followed by the pairwise comparisons in Table 7, and finally the effects are visualised in Fig. 8. The discussion next turns towards explaining the presented results. For clarity of the analysis of the findings, the discussion of the pairwise comparisons within the main effects is separated into inferior and superior reward conditions.

Table 16 - Estimated Marginal Means

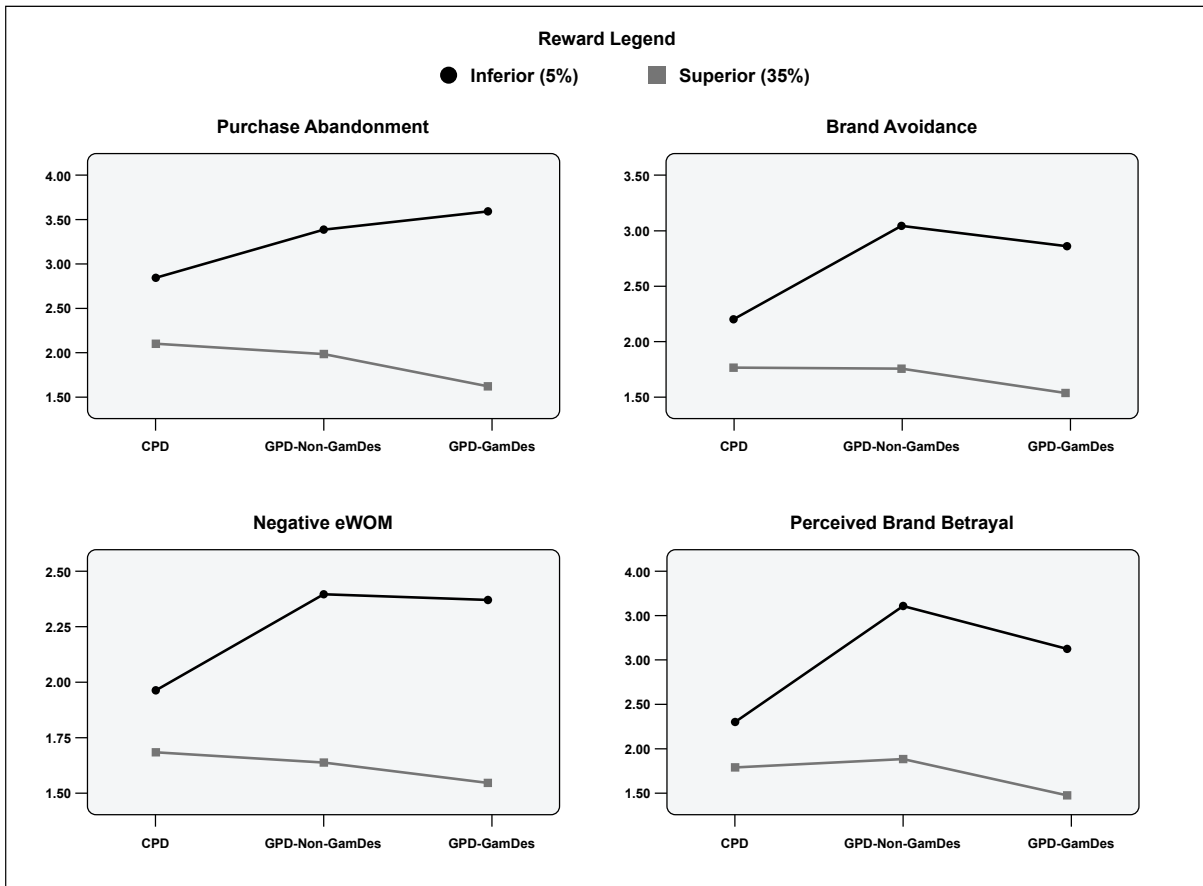
Dependent Variable	Promo	Discount	Mean	SE
Abandonment	CPD	Inferior (5%)	2.843	0.151
		Superior (35%)	2.062	0.153
	GPD _{Non-GamDes}	Inferior (5%)	3.342	0.150
		Superior (35%)	1.994	0.154
	GPD _{GamDes}	Inferior (5%)	3.536	0.152
		Superior (35%)	1.611	0.150
NeWom	CPD	Inferior (5%)	1.963	0.118
		Superior (35%)	1.695	0.120
	GPD _{Non-GamDes}	Inferior (5%)	2.383	0.117
		Superior (35%)	1.648	0.120
	GPD _{GamDes}	Inferior (5%)	2.366	0.119
		Superior (35%)	1.539	0.117
Avoidance	CPD	Inferior (5%)	2.220	0.128
		Superior (35%)	1.790	0.130
	GPD _{Non-GamDes}	Inferior (5%)	3.030	0.127
		Superior (35%)	1.784	0.131
	GPD _{GamDes}	Inferior (5%)	2.918	0.129
		Superior (35%)	1.611	0.127
Betrayal	CPD	Inferior (5%)	2.316	0.14
		Superior (35%)	1.803	0.141
	GPD _{Non-GamDes}	Inferior (5%)	3.571	0.138
		Superior (35%)	1.836	0.142
	GPD _{GamDes}	Inferior (5%)	3.072	0.141
		Superior (35%)	1.458	0.139

Table 17 - Pairwise Comparisons

Pairwise Comparisons						
Dependent Variable	Discount	(I) Promo	(J) Promo	M _{Diff} (I-J)	SE	p
Abandonment	Inferior (5%)	CPD	GPD _{Non-GamDes}	-.499*	0.213	0.019
			GPD _{GamDes}	-.693*	0.215	0.001
		GPD _{Non-GamDes}	CPD	.499*	0.213	0.019
			GPD _{GamDes}	-0.194	0.213	0.363
		GPD _{GamDes}	CPD	.693*	0.215	0.001
			GPD _{Non-GamDes}	0.194	0.213	0.363
	Superior (35%)	CPD	GPD _{Non-GamDes}	0.068	0.217	0.755
			GPD _{GamDes}	.451*	0.214	0.036
		GPD _{Non-GamDes}	CPD	-0.068	0.217	0.755
			GPD _{GamDes}	0.383	0.215	0.075
		GPD _{GamDes}	CPD	-.451*	0.214	0.036
			GPD _{Non-GamDes}	-0.383	0.215	0.075
NeWom	Inferior (5%)	CPD	GPD _{Non-GamDes}	-.420*	0.166	0.012
			GPD _{GamDes}	-.403*	0.168	0.017
		GPD _{Non-GamDes}	CPD	.420*	0.166	0.012
			GPD _{GamDes}	0.017	0.166	0.917
		GPD _{GamDes}	CPD	.403*	0.168	0.017
			GPD _{Non-GamDes}	-0.017	0.166	0.917
	Superior (35%)	CPD	GPD _{Non-GamDes}	0.047	0.17	0.783
			GPD _{GamDes}	0.156	0.167	0.351
		GPD _{Non-GamDes}	CPD	-0.047	0.17	0.783
			GPD _{GamDes}	0.11	0.168	0.514
		GPD _{GamDes}	CPD	-0.156	0.167	0.351
			GPD _{Non-GamDes}	-0.11	0.168	0.514
Avoidance	Inferior (5%)	CPD	GPD _{Non-GamDes}	-.810*	0.180	0.000
			GPD _{GamDes}	-.698*	0.182	0.000
		GPD _{Non-GamDes}	CPD	.810*	0.180	0.000
			GPD _{GamDes}	0.112	0.181	0.534
		GPD _{GamDes}	CPD	.698*	0.182	0.000
			GPD _{Non-GamDes}	-0.112	0.181	0.534
	Superior (35%)	CPD	GPD _{Non-GamDes}	0.006	0.184	0.972
			GPD _{GamDes}	0.179	0.182	0.324
		GPD _{Non-GamDes}	CPD	-0.006	0.184	0.972
			GPD _{GamDes}	0.173	0.182	0.342
		GPD _{GamDes}	CPD	-0.179	0.182	0.324
			GPD _{Non-GamDes}	-0.173	0.182	0.342
Betrayal	Inferior (5%)	CPD	GPD _{Non-GamDes}	-1.255*	0.197	0.000
			GPD _{GamDes}	-.756*	0.198	0.000
		GPD _{Non-GamDes}	CPD	1.255*	0.197	0.000
			GPD _{GamDes}	.500*	0.197	0.011
		GPD _{GamDes}	CPD	.756*	0.198	0.000
			GPD _{Non-GamDes}	-.500*	0.197	0.011
		CPD	GPD _{Non-GamDes}	-0.033	0.201	0.871

Superior (35%)	GPD _{Non-GamDes}	GPD _{GamDes}	0.345	0.198	0.082
		CPD	0.033	0.201	0.871
		GPD _{GamDes}	0.378	0.198	0.057
	GPD _{GamDes}	CPD	-0.345	0.198	0.082
		GPD _{Non-GamDes}	-0.378	0.198	0.057

Fig. 8 - Main Effects of Uncertainty on DVs



Inferior Reward Conditions

The results support H1. Specifically, in inferior reward conditions (conditions in which the participant received a 5% discount outcome), the findings suggest that compared to CPDs, GPDs – irrespective of visual design – led to significantly greater abandonment, both retaliation intentions, and feelings of betrayal. ($p_s < .05$) Furthermore the results suggested no significant differences between the two GPD scenarios on any of the three purchase abandonment and retaliation behaviours (p_s

> .363). However, significant differences were found in respect to perceptions of betrayal between the two GPD scenarios ($p < .05$). This finding suggests that the addition of gamblified design mechanics may somewhat reduce perceptions of betrayal across GPD conditions ($M_{\text{GPD-Non-GamDes}} = 3.57$, $SE = .14$ vs. $M_{\text{GPD-GamDes}} = 3.07$, $SE = .14$, $p < .05$). Though, this effect is not so strong that gamblified design GPD is equal with CPDs on its impacts of betrayal; as aforementioned, both gambled conditions still did result in significantly greater perceived betrayal when compared to the CPD condition.

Superior Reward Conditions

In superior reward conditions (i.e. conditions resulting in a 35% discount outcome), there was no significant differences between two of the three retaliation intentions (negative eWOM ($ps > .35$) and avoidance ($ps > .32$)) across any of the three groups. There was one significant difference between the gamblified designed GPD (i.e. $\text{GPD}_{\text{GamDes}}$) and the CPD condition, suggesting that the addition of gamblified design may somewhat reduce purchase abandonment intentions in superior reward conditions ($M_{\text{GPD-GamDes}} = 1.61$, $SE = .15$ vs. $M_{\text{CPD}} = 2.06$, $SE = .15$, $p < .05$). The non-gamblified design GPD (i.e. $\text{GPD}_{\text{Non-GamDes}}$) showed non-significance differences against the other two groups in superior reward conditions ($ps > .08$).

5.4.4 Moderated Mediations (CPD vs. GPDs)

Three moderated mediation analyses (5000 bootstraps, 95% CI) were run in SPSS using Hayes (2018) Process model 7 to test H2 (one analysis for each DV). As there were three types of promotions, the analyses used multicategorical coding. The coding within the analyses can be understood in the following Table 18. As shown, the coding

of X1 compares the CPD and GPD_{Non-GamDes} scenarios, while X2 compares the CPD and GPD_{GamDes} scenarios. Betrayal was included as the mediator. Covariates matched the MANCOVA, including participant age, gender, and e-shopping frequency. The results of the analysis indicated that all three moderated mediations were significant, as 0 was not present in the 95% confidence intervals (LLCI > 0 < ULCI). The indices of moderated mediation are detailed in Table 19.

Table 18 - Multicategorical Coding

Condition	X1	X2
CPD	0.00	0.00
GPD _{Non-GamDes}	1.00	0.00
GPD _{GamDes}	0.00	1.00

Table 19 - Indices of Moderated Mediation

	Eff	SE	LLCI	ULCI	Eff	SE	LLCI	ULCI	Eff	SE	LLCI	ULCI
	Purchase Abandonment				Negative eWOM				Brand Avoidance			
	Overall Index of Moderated Mediation											
	-.85	.20	-1.26	-.47	-.59	.15	-.90	-.31	-.79	.19	-1.17	-.41
	Inferior (5%)											
X1	.97	.18	.61	1.33	.67	.13	.42	.94	.90	.16	.56	1.21
X2	.58	.17	.24	.94	.40	.12	.16	.67	.54	.16	.21	.87
	Superior (35%)											
X1	.02	.12	-.21	.27	.01	.08	-.15	.18	.02	.11	-.19	.25
X2	-.26	.10	-.46	-.07	-.18	.07	-.33	-.04	-.24	.09	-.42	-.05

As shown in Table 19, all three moderated mediations were significant. When analysing the indirect effects for each level, the results show that in inferior (5%) reward scenarios, the effect of betrayal significantly mediates the relationship to the three negative consumer behaviours, irrespective of gamblified design. This finding supports H2, suggesting that in inferior reward outcomes, GPDs (regardless of design, and compared to equivalent CPDs) increased perceptions of brand betrayal, thus increasing consumer intentions to abandon their purchase and to retaliate through

NeWOM and brand avoidance. For superior (35%) reward levels, X1 (i.e. CPD vs. GPD_{Non-GamDes}) was non-significant, while X2 (i.e. CPD vs. GPD_{GamDes}) was significant. This finding suggests that in superior reward scenarios, the addition of gamblified game mechanics can increase positive affect, leading to increased benefits in terms of reducing abandonment and retaliation intentions.

Moderated Mediations (GPD_{Non-GamDes} vs. GPD_{GamDes})

Differences in the level of perceived betrayal between the two GPD conditions were present in the results. Therefore, further moderated mediation analyses were required to directly compare if any differences between the two varied GPD scenarios on negative behaviours through betrayal existed. Specifically, three more moderated mediation analyses were run comparing the two GPDs as IVs, brand betrayal as the mediator, and reward outcome as the moderator on the a-path. Covariates matched those aforementioned analyses. The results of the moderated mediation analyses found non-significant (LLCI < 0 < ULCI) differences across the groups for all three retaliation behaviours. Purchase Abandonment: (Eff = .09, BootSE = .22, LLCI = -.35, ULCI = .54), Negative eWOM: (Eff = .06, BootSE = .15, LLCI = -.24, ULCI = .37), Brand Avoidance: (Eff = .09, BootSE = .21, LLCI = -.34, ULCI = .50).

5.4.5 Supplementary Analysis

Moral Judgement as a Serial Mediator

Within section 2.6.2 of the literature review, and aligning with extant literature (Grégoire & Fisher, 2008; Reimann et al., 2018; Reinikainen et al., 2021) there have been suggestions that brand betrayal likely arises serially through perceptions that an action is perceived to be more morally transgressive than another. For theoretical

validation, supplementary analysis was carried out to assess if GPDs were considered less morally acceptable than equivalent CPDs and if the mediating effect of betrayal on purchase abandonment and retaliation was serially mediated through customer's moral judgement of the brand's promotion (i.e. how morally acceptable they believed the brand's promotion to be). That is to say, moral judgment was the first order mediator and brand betrayal followed as second order (e.g. IV → Moral Judgement → Brand Betrayal → DVs). To test this, six multi-categorical Hayes Model 6 serial mediation analyses (5000 bootstraps, 95% CI) were run in SPSS using each of the conditions (CPD, GPD_{Non-GamDes}, GPD_{GamDes}) as the IV, moral judgement and brand betrayal as mediators (moral → betrayal), and one of the three negative brand behaviours as a DV, and one of each reward level of the analysis as the statistical model does not allow for moderators. Covariates matched the previous analyses. The coding of the multicategorical conditions matched the main moderated mediation analyses. The results of the six analyses were found to be significant as both confidence intervals were greater than 0 (LLCI > 0 < ULCI). Further, the results supported that brand betrayal is serially mediated through moral judgement. This suggests that as one's moral judgement of a brand's promotion decreases (i.e. is perceived as less morally acceptable) following an inferior GPD, their level of brand betrayal increases, leading to negative behaviours. The results can be seen in the following Table 20.

Table 20 – Indices of Serial Mediation Analyses

	Eff	SE	LLCI	ULCI	Eff	SE	LLCI	ULCI	Eff	SE	LLCI	ULCI
IV → Moral Judgement → Brand Betrayal → DV												
	Purchase Abandonment				Negative eWOM				Brand Avoidance			
Indices of Serial Mediation for Inferior (5%)												
X1	.29	.07	.14	.46	.24	.06	.12	.38	.29	.07	.15	.45
X2	.31	.08	.15	.48	.26	.07	.13	.41	.31	.08	.16	.49

	<i>Indices of Serial Mediation for Superior (35%)</i>											
X1	.08	.03	.02	.15	.06	.02	.01	.12	.08	.03	.02	.15
X2	.04	.03	-.01	.11	.03	.02	-.01	.08	.04	.03	-.01	.11

As shown in the results, the results support that irrespective of gamblified design in GPD inferior reward conditions, increased levels of betrayal result from reduced moral judgement of the brand's use of promotions. This finding supports the theoretical validation of the measured construct. In superior reward conditions, the results suggested that the serial effect of betrayal is only present when comparing X1 (CPD vs. GPD_{Non-GamDes}) but not X2 (CPD vs. GPD_{GamDes}). This suggests that the decreased levels of betrayal in this condition are affected by another construct – likely one associated with the gamblified game mechanic design.

5.5 Summary of Findings

The first study focused on examining the impacts of receiving either inferior and superior reward outcomes from GPDs vs. equivalent CPDs on consumer purchase abandonment and retaliation behaviours. Within the study, the first two hypotheses of the research were tested.

Providing an initial answer to the first research question (RQ1, see Chapter 1), the results supported H1, suggesting that in inferior reward outcomes, intentions to abandon one's purchase and retaliate against the brand (i.e. negative eWOM and brand avoidance) are significantly greater when receiving the reward outcome from a GPD (vs. CPD). This finding aligns with extant literature which suggests that uncertainty is aversive in consumer contexts and may lead to decreased purchase intentions (Choi et al., 2013; Gneezy et al., 2006) but is in opposition with extant

research which has shown how the hedonic pleasure of GPD or uncertainty resolution can be a reward in itself and increase purchasing behaviours (Akbari & Wagner, 2021; Shen et al., 2019).

Furthermore, the mediations offered support for H2 and provided an initial answer to RQ2, suggesting that in inferior reward settings, the level of retaliation is mediated by consumer's perceived level of brand betrayal. That is to say, as perception of betrayal increase from receiving an inferior reward from a GPD (vs. CPD), as do intentions to retaliate against the brand. This finding holds significant irrespective of whether or not the GPD was designed in a gamblified manner, and the mediating effect of betrayal between only the two GPDs did not significantly differ. Further, this finding aligns with extant literature, which shows that perceptions of brand betrayal lead to negative avoidance- and retaliation-focused behaviours (Reimann et al., 2018; Reinikainen et al., 2021). Likewise, literature shows that customer feelings of incongruence between the offered price and their expected price can exacerbate feelings of a moral violation (i.e. fairness violation), leading to reduced purchasing outcomes (Choi et al., 2013; Xia et al., 2004). Supplementary analysis corroborates with this claim, showing that in inferior-reward scenarios, this effect was serially mediated through feelings of moral judgement of the brand's actions. The findings from this study directly support the *microbetrayal effect* which was conceptualised in section 2.5.6 of the literature review. That is to say, although consumers faced no losses or damages by the brand (in fact, they had received a positive outcome - a discount on their order), the outcome still led to perceptions of reduced moral judgment of the brand, which resulted in greater perceptions of betrayal compared to an equivalent traditional discount (i.e. CPD), thus increasing purchase abandonment and consumer retaliation intentions.

In superior reward conditions, there were non-significant differences between the CPD and both GPD scenarios in terms of negative eWOM and avoidance. However, there were significant differences between the CPD scenario and the GPD_{GamDes} (i.e. gamblified design) scenario on purchase abandonment, which suggested that in superior reward outcomes, the implementation of gamblified game mechanics in the design of the promotion may reduce purchase abandonment. Furthermore, although perceived brand betrayal was non-significant, the result between the CPD and GPD_{GamDes} was approaching significance ($p = .057$). Beyond this, when comparing the superior reward conditions, though non-significant, the mean scores of each of the negative consumer behaviours showed a reduction in intentions across the GPD_{GamDes} conditions, which was an interesting finding. Overall these findings align with gamblification and gamification (the umbrella category of literature of which gamblification is a sub-stream) which suggests that the implementation of these types of mechanics can increase positive affect and consumption behaviour surrounding interactions (Chou, 2015; Deterding et al., 2011; Hamari et al., 2014; Macey & Hamari, 2022). Overall, the findings suggest that GPDs may have a double-edged effect, as the results suggest that superior discount outcomes from GPDs may result in some benefit (vs. equivalent CPDs), but strongly support that inferior discount outcomes from GPDs result in negative consumers outcomes (vs. equivalent CPDs). The present work specifically focuses on investigating the darker side (and the more common outcome) of receiving an inferior reward. However, based on these findings it would be useful and interesting for future research to build upon the findings here and focus more deeply on investigating the possible outcomes of winning superior reward outcomes from GPDs, compared to equivalent CPDs.

The choice to include two GPD conditions within the study (i.e. non-gamblified design vs. gamblified design) was done to create stimuli that represented GPDs with greater realism, thus supporting greater ecological validity, and also to maintain control over any potential confounding effects of gamblified designs (Akbari & Wagner, 2021; Lee et al., 2021). Comparing just the two GPD scenarios against one another, the direct effects on abandonment and retaliation, nor the mediating effects of betrayal on these DVs did not significantly differ across any of the conditions. While betrayal itself did significantly differ in inferior reward scenarios (i.e. was slightly reduced in the gamblified GPD condition compared to the non-gamblified GPD condition), both resulted in significantly greater betrayal than the CPD. Thus, this finding supported that the implementation of gamblified game-design mechanics could slightly reduce betrayal somewhat, but still far from the point where it would match that of an equivalent CPD. From these findings, there is greater confidence and reason for future studies to attend to employ gamblified design mechanics when comparing CPDs and GPDs to a) support greater ecological validity, and b) to provide greater confidence that any effects occurring would likely occur across both design types (as GPDs with gamblified designs performed better than those without).

Moving forward in the series of studies, the research will focus on further comparing the impact of GPDs vs. CPDs on purchase abandonment and consumer retaliation behaviours with the confidence that irrespective of gamblified design, inferior outcomes from GPDs have comparable effect on betrayal and consumer retaliation behaviours. Now, the research continues to the second study of the series, which focuses at understanding the potential impacts of brand loyalty on the main effects.

Chapter 6: STUDY TWO – The Moderating Role of Brand Loyalty

6.1 Introduction

This chapter of the manuscript outlines the second study of the series. The main objectives of the study are to firstly, replicate the main effects in a different product context, and secondly, to assess the moderating effect of brand loyalty (H3, listed below) – a variable that is both theoretically and managerially relevant. Within this study, the focus is specifically on low reward outcomes of GPDs (vs. equivalent CPDs), as the main aim of the research focuses on negative consumer behaviours where these will be more prevalent, as supported in the findings of the first study. Thus, the design of the study includes two possible scenarios (Discount Type: CPD vs. GPD (gamblified design)).

H3 – The negative effect of low-reward GPD (vs. CPD) outcomes on betrayal is increased (decreased) for customers with greater brand loyalty.

6.2 Stimuli, Procedure, & Measures

Scenario-based role-playing (SBRP) was once again used within this study to increase external validity (Eckerd et al., 2021; Rungtusanatham et al., 2011). Based on the findings of the first study, which found non-significant differences between gamblified and non-gamblified designed GPDs on negative consumer behaviours in inferior-

reward scenarios, the present study maintains the gamblified design within the GPD for greater ecological validity and realism (Behl et al., 2020; Lee et al., 2021).

Participants were first required to read a short study overview, provide informed consent, and be screened through inclusion criteria questions. Participants were then asked to imagine a scenario in which they were shopping online for new running shoes from Nike. Nike was selected as a brand for this study focused on loyalty, as Nike ranks amongst brands with the highest level of customer loyalty (Duffy, 2019; Kunst, 2022). Likewise, sports apparel was selected as fashion was the most commonly stated context by interviewees. Further, changing the context from home electronics to sports apparel was done to improve external validity (Hair et al., 2019; McDermott, 2011). Previous to being presented any stimuli, participant's level of brand loyalty towards the retailer was measured on a three-item, seven-point Likert scale (e.g. "I consider myself loyal to Nike"), amended from (Watson et al., 2015). Upon completing the brand loyalty measures, participants were asked to imagine that while browsing Nike's website, they came across a pair of trainers they liked and while continuing to browse, a discount promotion had popped up on their screen, which was overlaid over a page on Nike's website showing an assortment of non-gender specified trainers. Depending on the scenario in which participants were randomly allocated, they were either presented a GPD or CPD. As per the focus of the study on negative they provided outcome was a low discount offering (here 5%). Uncertainty manipulation checks were implemented as per the previous study. Dependent variables (retaliation behaviours) were then measured, followed by the mediators and moderators, and finally the covariates and demographic information, the same as study 1. For a full list of measures, see the following Table 21.

Table 21 – Study 2 Measures

Construct	Item	α
Purchase Abandonment	It is likely that I would abandon my cart to buy the product elsewhere	.96
	I would likely exit the retailers website to purchase the product at another retailer	
	I would not continue with my product purchase at this online retailer	
NeWOM	I would negatively review this brand online	.95
	I would write a negative online review about the retailer	
	I would complain about the retailer online	
Brand Avoidance	I would avoid buying from this retailer	.97
	I would cut off my relationship with the retailer	
	I would withdraw my business from the retailer	
Brand Betrayal	I felt betrayed by the retailer	.95
	I felt that the retailer let me down	
	I felt deceived by the retailer	
Brand Loyalty	I consider myself loyal to Nike	.96
	I prefer Nike sneakers over any alternatives	
	For sneakers, Nike is the superior choice	
e-Shopping Frequency	How often do you shop online?	N/A
Certainty Manipulation	How uncertain or certain are you of what the exact value you would need to pay for the product will be?	.89
	At this point, how unclear or clear is the exact value you would need to pay for the product?	

6.3 Sample

Aligning with the previous study, purposive sampling was employed within the present study. The sample was collected from CloudResearch, a reputable online panel. The inclusion criteria aligned with the first study, and those who did not meet the criteria were promptly removed from the study with their data deleted. Within CloudResearch, the same quality control mechanisms (e.g., VPN blocking, duplicate IP blocking, suspicious geocode blocking, and low-quality participant blocking) were implemented. Likewise, individuals who had taken part in the previous experiment were blocked from taking part in this study.

Overall, a sample of 380 participants was collected for the study. Following the same data cleaning methods stated in Section 3.4.6 and used in the previous study, data of 15 participants was removed, leaving a final sample consisted of N = 365 participants, 53.4% female, with a mean age of 41.05 years (SD = 13.00). The following Table 22 shows the per cell split of the sample.

Table 22 - Study 2 Per Cell Sample Size

	Total
CPD	183
GPD	182

6.4 Results

6.4.1 Assumptions & Construct Reliability Checks

Similar to the first study, both Komogorov-Smirnov and Shapiro-Wilks tests of normality were significant ($p < .001$). Following the same logic as study 1, it is known that both tests are sensitive to large datasets (Field, 2018) and that ANOVA tests are robust against deviations from normal distributions. Therefore, this limitation is acknowledge, but sufficient confidence in parametric testing is held to move forward. Box's M test was non-significant ($p = .09$), suggesting that the assumption of homogeneity of variance-covariance matrices was not violated. PCA (Varimax Rotation) was conducted as per the first study, which supported discriminance between each of the dependent variable constructs.

6.4.2 Main Effects

Manipulation Check

The certainty manipulation was supported by a one-way ANOVA ($F(1, 363) = 119.74$) suggesting that participants perceived the GPD as significantly less certain than the CPD ($M_{\text{GPD}} = 3.26, SE = .15$ vs. $M_{\text{CPD}} = 4.99, SE = .15, p < .001$).

MANCOVA

In order to reassess H1 within the current study, a one-way MANCOVA was run in SPSS using promotion certainty (GPD vs. CPD) as the IV on the three negative consumer behaviours as DVs and betrayal. Covariates matched those used in the first study, including: participant age, gender, and e-shopping frequency. The results of the MANCOVA suggested that there was a significant effect of discount promotion certainty on all three negative consumer behaviours. Furthermore, the results supported H1, clarifying the findings of study 1, suggesting that participants receiving equivalent rewards were more likely to engage in negative brand behaviours when receiving the reward from a GPD vs. CPD promotion. Purchase abandonment: ($F(4,360) = 26.34, M_{\text{CPD}} = 3.44$ vs. $M_{\text{GPD}} = 4.46, SE = .19, p < .001, \eta^2 = .07$), Negative eWOM: ($F(4,360) = 10.23, M_{\text{CPD}} = 2.31$ vs. $M_{\text{GPD}} = 2.81, SE = .15, p < .001, \eta^2 = .03$), Brand Avoidance: ($F(4,360) = 11.30, M_{\text{CPD}} = 2.77$ vs. $M_{\text{GPD}} = 3.39, SE = .18, p < .001, \eta^2 = .03$), and Brand Betrayal: ($F(4,360) = 63.71, M_{\text{CPD}} = 2.29, SE = .11, M_{\text{GPD}} = 3.60, SE = .11, p < .001, \eta^2 = .15$). See Fig. 9 for a visualisation of the mean scores.

Low Reward Outcomes from GPDs vs. CPDs on Abandonment, NeWOM, Avoidance, and Betrayal

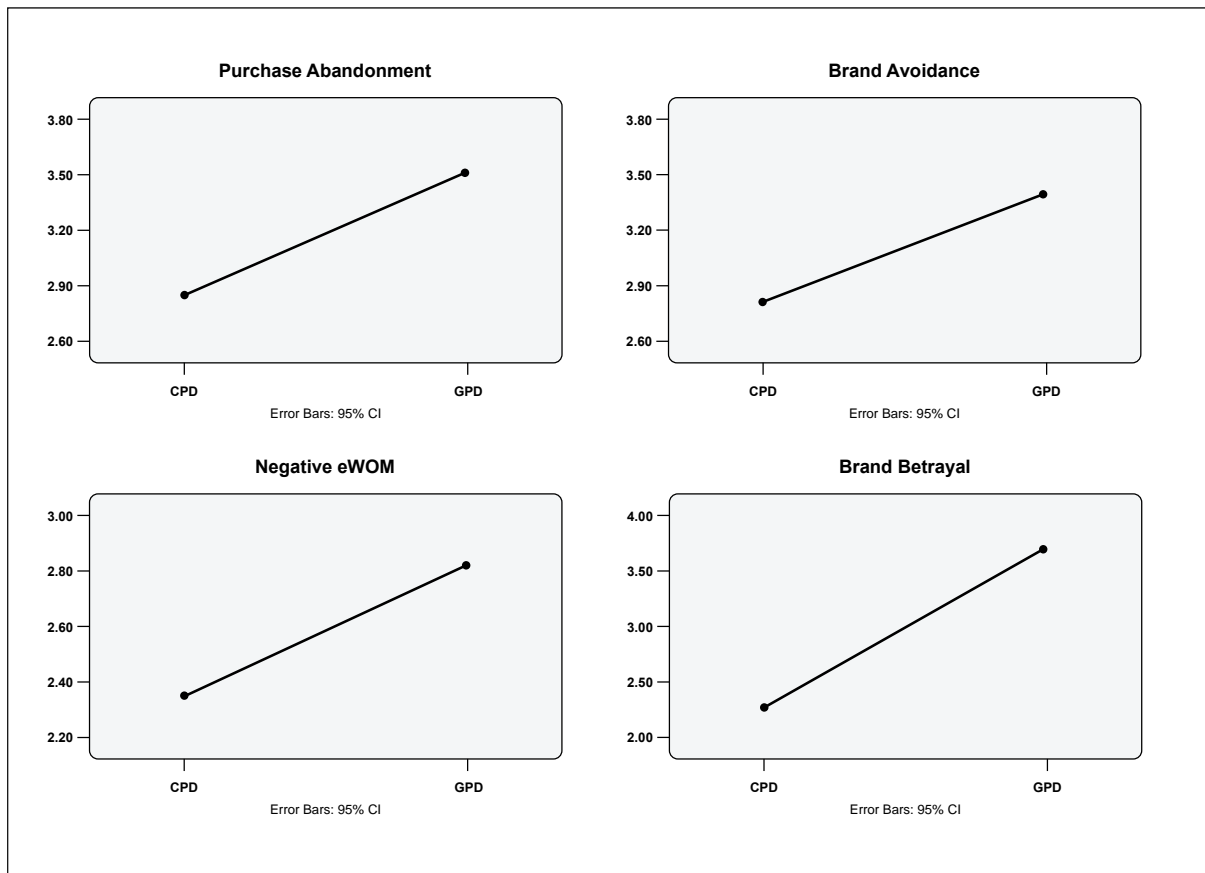


Fig. 9 – Main Effects of Uncertainty on DVs

6.4.3 Mediations

Three bootstrapped (5000 bootstraps, 95% CI) mediation analyses were run in SPSS using Hayes (2018) Process Model 4 (one for each DV) to retest the findings found Study 1 related to H2. The results of the mediation analysis were congruent with the findings of the first study, suggesting a significant mediating effect of brand betrayal on the path between discount promotion certainty and negative consumer behavioural intentions. The results suggested indirect-only mediations (see Zhao et al., 2010), as the c' paths for each analyses ($X \rightarrow Y$) were insignificant ($p_s > .08$), while the indirect effect of perceived brand betrayal was significant ($X \rightarrow M \rightarrow Y$) Purchase Abandonment: (Eff = .94, BootSE = .12, LLCI = .69, ULCI = 1.19), Negative eWOM:

(Eff = .62, BootSE = .10, LLCI = .42, ULCI = .84), Brand Avoidance: (Eff = .88, BootSE = .12, LLCI = .64, ULCI = 1.13). The results offer further support for H2, suggesting that intentions to engage in negative consumer behaviours following receiving a low discount increases as perceived brand betrayal increases from low reward GPDs (vs. equivalent CPDs).

6.4.4 Moderation

To test the moderating effects of brand loyalty on the relationship between discount promotion type and perceptions of brand betrayal (H3), a bootstrapped (5000 bootstraps, 95% CI) moderation model was run in SPSS using Hayes (2018) Process Model 1. The covariates matched that of previous analyses. The analysis resulted in a positive significant interaction effect between the IV and moderator ($\beta = .14$, $t = 2.28$, $p < .05$). The R^2 of the model was .19, suggesting that 19% of the variance in the dependent variable is explained by the IV. The results can be visualised within fig. 10, which shows the conditional effects of CPDs vs GPDs on brand betrayal at three different levels of brand loyalty (-1 SD, M, +1 SD). The results suggest that for CPDs, increasing levels of brand loyalty result in a buffering effect against perceived betrayal. That is, the more loyal an individual is to a brand, the less betrayed they feel when receiving a low-reward CPD. On the other hand, brand loyalty had minimal effect on betrayal in the GPD scenario; irrespective of brand loyalty, participants felt equally betrayed by the GPD promotion. Therefore, while H3 is technically supported as the discrepancy between the negative effects of GPDs and CPDs increases as brand loyalty increases, the effect did not exactly match the theorised expectation. This unexpected result will be discussed further in the summary of findings.

Brand Loyalty on Betrayal Between Low Reward GPDs & CPDs

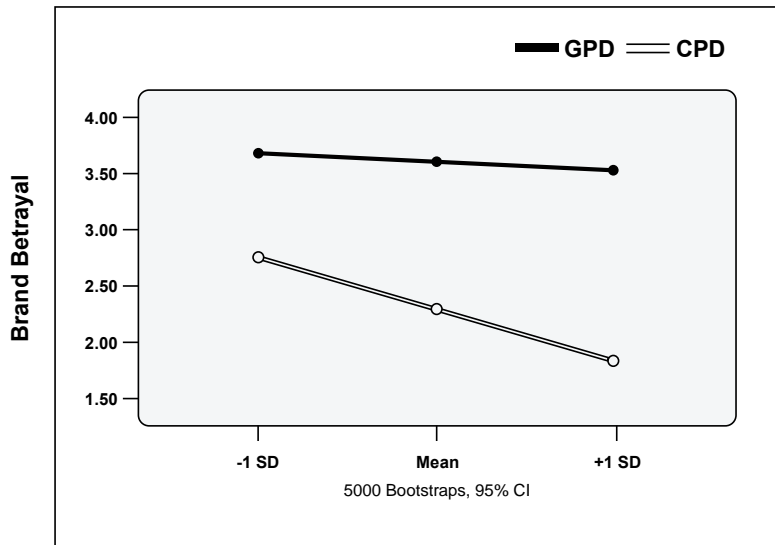


Fig. 10 - Moderating Role of Loyalty on Betrayal

6.4.5 Moderated Mediation

Three bootstrapped (5000 bootstraps, 95% CI) moderated mediation analyses using Hayes (2018) model 7 were run in SPSS. These analyses were run to assess the indirect effects of brand betrayal (mediator) at various levels of brand loyalty (moderator) on the relationship between discount certainty (i.e. CPD vs. GPD) (IV) and negative consumer behaviours (purchase abandonment, negative eWOM, and brand avoidance) (DVs). All three of the moderated mediation models were deemed significant showing an absence of zero in the confidence intervals ($LLCI < 0 < ULCI$). The results specifically suggest that the indirect effect of brand betrayal on retaliation is moderated by brand loyalty. That is to say, as the effect of brand betrayal on retaliation is greater (lesser) at higher (lower) levels of brand loyalty.

The full results of the moderated mediation analyses, including the conditional indirect effects of the moderator at varied levels can be seen further in the proceeding Table.

23.

Table 23 - Indices of Moderated Mediation

DV	Reward	Index	BootSE	BootLLCI	BootULCI
Abandonment	Overall	.10	.05	.01	.20
	- 1 SD	.65	.18	.27	.99
	Mean	.91	.12	.67	1.15
	+ 1 SD	1.18	.16	.86	1.50
Negative eWOM	Overall	.07	.03	.01	.14
	- 1 SD	.43	.12	.18	.69
	Mean	.60	.10	.41	.83
	+ 1 SD	.78	.14	.53	1.07
Avoidance	Overall	.10	.05	.01	.19
	- 1 SD	.61	.17	.27	.95
	Mean	.86	.12	.63	1.11
	+ 1 SD	1.11	1.7	.79	1.45

6.5 Summary of Findings

The first aim of the second study was to replicate the findings for H1 and H2 using different products in e-commerce. The results of this study offered support for H1 and H2, suggesting that low-reward outcomes from GPDs (vs. equivalent CPDs) lead to significantly greater intentions to abandon one's purchase as well as retaliate by providing negative eWOM online and avoiding the brand in the future.

The other aim of this study was to investigate the impact of brand loyalty on the main effects (H3), providing some initial answers to RQ3. In current literature, there is a juxtaposition of findings regarding the impact of brand loyalty in consumers on retaliation intentions when faced with a brand transgression. For example, some literature suggests that the greater a customer's loyalty, the greater a sense of betrayal

they may feel – that loyalty exacerbates betrayal. However, this is generally shown only when the misdeed is perceived as morally transgressive (Grégoire et al., 2009; Huber et al., 2010; Jabeen et al., 2022). On the other hand, there has also been literature with opposing findings, showing that brand loyalty may act as a buffer towards brand transgressions (Fetscherin & Sampedro, 2019; Haden & Hojjat, 2006). Due to these mixed findings, it was cautiously hypothesized that due to expected betraying nature of GPDs, increased levels of brand loyalty would increase (decrease) feelings of brand betrayal following receiving a low reward GPD (CPD) outcomes.

Within the present study, H3 was theorised that increased levels of loyalty would increase perceptions of betrayal in low-reward GPD outcomes. However, this was not exactly the case here. In the current study, the moderating effect of loyalty was only seen in CPD conditions. That is to say, for low-reward CPDs brand loyalty acted as a buffer to betrayal; as levels of brand loyalty increased, feelings of betrayal decreased. The findings for the CPDs align directly with literature, as it is likely participants perceived the low-reward CPD as a functional service failure, and therefore in this case, loyalty diminished feelings of betrayal (Fetscherin & Sampedro, 2019; Haden & Hojjat, 2006).

On the other hand, for low-reward GPDs, participants felt equally betrayed, irrespective of level of brand loyalty. Therefore (unlike theorized) brand loyalty did not act as an amplifier of betrayal, as the levels of betrayal here stayed constant regardless of loyalty level (Grégoire et al., 2009; Huber et al., 2010; Jabeen et al., 2022). A plausible reason for the effect found in the current work could be due to the magnitude of the betrayal being low (i.e. a microbetrayal). In comparison to previous

work which often focuses on betrayals of high transgressive magnitudes such as destruction of belongings (Kähr et al., 2016; Reimann et al., 2018), receiving a poor outcome from a misleading brand promotion such as a GPD is of course lower in betraying magnitude. Therefore, here it is supported that loyalty will not act as a buffer for the negative outcomes of GPDs but will for CPDs of equivalent low value.

The next study extends on the current findings by investigating how different product attributes can potentially impact the outcomes of betrayal and downstream consumer outcomes between CPDs and GPDs. Namely, the next study focuses on the product involvement and the product type constructs.

Chapter 7: STUDY THREE – The Moderating Roles of Product Attributes

7.1 Introduction

The current chapter outlines the third study of the series. The purpose of this study is to follow up on the findings of the previous studies by investigating the moderating effects of product involvement and product type on the relationship between discount promotion certainty and perceptions of brand betrayal (H4 and H5, stated below). The focus here is once again on low-reward outcomes, where negative consumer outcomes are more prevalent. The study employed a 2 (Promotion type: CPD vs. GPD) x 2 (Product Involvement: Lower vs. Higher) x 2 (Product Type: Hedonic vs. Utilitarian) between-subjects design, in which participants were randomly allocated to

one of eight possible scenarios. As the product involvement and product type dimensions have been shown to interact with one another (Stewart et al., 2019), the choice was made to include both within the same study.

H4 – The negative effect of low-reward GPD (vs. CPD) discount outcomes on betrayal is increased when the product involvement is high (vs. low).

H5 - The negative effect of low-reward GPD (vs. CPD) discount outcomes on betrayal is increased when the product type is hedonic (vs. utilitarian).

7.2 Stimuli, Procedure, & Measures

The study began by gaining informed consent from participants, followed by asking participants the same inclusion criteria questions specified in the previous studies. Participants who did not consent or meet the inclusion criteria were removed from the study with their data promptly deleted.

Upon completing the inclusion criteria checks, participants were asked to imagine they were browsing online looking for a specific product. The product which participants were asked to imagine was one of four possible randomly allocated products of varied involvement level (lower vs. higher) and product type (utilitarian vs. hedonic). The products used as manipulations within this experiment were selected based on extant marketing research by which has shown these products to be high or low in either dimension (Stewart et al., 2019). The four products and their relationship to each scenario are described in Table 24.

Table 24 – Study 4 Scenarios

Scenario	Product	Discount Type	Involvement Level	Product Type
1	Washing Detergent	Certain	Low	Utilitarian
2		Gambled		
3	Scented Candle	Certain	Low	Hedonic
4		Gambled		
5	Washing Machine	Certain	High	Utilitarian
6		Gambled		
7	Cruise Ticket	Certain	High	Hedonic
8		Gambled		

The adopted method of manipulating product dimensions (here involvement and value type) through presenting different products which are known in literature to hold varied levels is the most common strategy in marketing research (Atkinson & Rosenthal, 2014; Stewart et al., 2019; Zaichkowsky, 1985). Another option would have been to not manipulate the product offerings in each scenario, but instead to measure consumer perceptions of these dimensions on a continuous scale for the same product, however this method is limited as responses would more likely be neutral or skewed in one direction, depending on the product chosen. Likewise, non-manipulated continuous IVs are more commonly used when measuring participant personality traits or attitudes (Vargas et al., 2017). Therefore, the decision to manipulate and control these dimensions through varied products was selected for this experiment.

After the initial vignette, participants faced an attention check to ensure that they had understood what the specified product was. Participants who failed the attention check were removed from the study with their data deleted. Participants were then presented a manipulation check in which they reported how high (low) or utilitarian (hedonic) they

believed each of the specified products were. Amended from Zaichkowsky (1985), product involvement was measured on a five-item, seven-point Likert scale (e.g. “When I am shopping for _____, deciding which exact product to buy is an involving process for me.”) – Strongly disagree (1) to Strongly agree (7). Product value type was measured using a one-item, seven-point bipolar scale (i.e. “Indicate the extent you think _____ is more of a utilitarian (for usefulness) or hedonic (for enjoyment) product” – Strongly disagree (1) to Strongly Agree (7). For a full list of measures used within this study, see Table. 25. While browsing the specified product of interest from the brand, participants were then presented with the digital promotion stimuli, which offered them a discount on their current choice of product. The discount was either a CPD or GPD, similar to the previous studies. The reward outcome was 5% in all scenarios. The discount promotion certainty manipulation check was measured as per the previous studies. Dependent variables were then measured, followed by covariates and demographic information.

Table 25 – Study 4 Measures & Constructs

Construct	Item	α
Purchase Abandonment	It is likely that I would abandon my cart to buy the product elsewhere	.96
	I would likely exit the retailers website to purchase the product at another retailer	
	I would not continue with my product purchase at this online retailer	
Negative e-Word of Mouth	I would negatively review this brand online	.96
	I would write a negative online review about the retailer	
	I would complain about the retailer online	
Brand Avoidance	I would avoid buying from this retailer	.96
	I would cut off my relationship with the retailer	
	I would withdraw my business from the retailer	
Brand Betrayal	I felt betrayed by the retailer	.96
	I felt that the retailer let me down	
	I felt deceived by the retailer	
Product Involvement	When I am shopping for _____, deciding which exact product to buy is an involving process for me.	.87

	The brand of _____ I buy from makes very little difference to me.	
	In selecting from many types and brands of _____ available on the market, I would not care which one I buy	
	I would not care what _____ I would end up buying	
	The type of _____ I buy make very little difference to me	
Product Value Type	Indicate the extent you think _____ is more of a utilitarian (for usefulness) or hedonic (for enjoyment) product	N/A
e-Shopping Frequency	How often do you shop online?	N/A
Discount Manipulation	Did you receive a discount towards the final price of the product?	N/A
Certainty Manipulation	How uncertain or certain are you of what the exact value you would need to pay for the product will be?	r = .89
	At this point, how unclear or clear is the exact value you would need to pay for the product?	

7.3 Sample

As per the previous experiments, a purposive sampling method was adopted and participants were gained through the use of CloudResearch. The inclusion criteria aligned with both the previous experiments. The adopted data quality control mechanisms were the same as the previous study (e.g., VPN blocking, duplicate IP blocking, suspicious geocode blocking, and low-quality participant blocking). Furthermore, participants who had taken part in the previous two experiments were blocked from joining this experiment.

Overall, a sample of 680 participants were collected for the study. Following the standard data cleaning procedures used in previous studies, the final sample of the study included N = 650 participants. The mean age of participants was 41.48, 58.8% of which were female. Inclusion criteria matched that of the previous online experiments. The breakdown of per cell sample size is shown in Table 26.

Table 26 - Study 3 Per Cell Sample Size

Promotion Type	Product Involvement	Product Type	
		<i>Hedonic</i>	<i>Utilitarian</i>
CPD	Low	76	78
	High	84	82
GPD	Low	79	84
	High	80	87

7.4 Results

7.4.1 Assumptions & Construct Reliability Checks

Kolmogorov-Smirnov and Shapiro-Wilk tests both revealed significant results ($p < .001$), suggesting the data significantly deviated from normality. Likewise, Box's M test is known to be sensitive when working with large datasets (Field, 2018). However, as stated in the previous experiments, F-tests such as ANOVAs are robust against violations of normality, as well as violations of homogeneity when the per cell sample size is relatively equal (Blanca et al., 2018; Tabachnick & Fidell, 2007, p. 88). Overall these violations are limitations of the present work which are acknowledged and thus caution should be held when generalising the results. However based on the aforementioned literature, confidence is held in continuing forward with parametric testing.

PCA (Varimax rotation) was conducted to support discriminance across unrelated DV constructs measured in the experiment. Overall, the results of the PCA support discriminance as the loading of unrelated construct items are $< .70$ (Young, 2018).

7.4.2 Manipulation Checks

The certainty manipulation was supported through a one-way ANOVA ($F(1,648) = 1504.97$, $M_{GPD} = 2.83$, $SE = .06$ vs. $M_{CPD} = 6.45$, $SE = .07$, $p < .001$, $\eta^2 = .69$)

suggesting that participants facing GPDs felt that the discount outcome was significantly more uncertain than those in the CPD scenarios. A one-way ANOVA also supported the product involvement manipulation ($F(1,648) = 68.49$, $M_{\text{Lower-Involvement}} = 4.64$, $SE = .07$ vs. $M_{\text{Higher-Involvement}} = 5.71$, $SE = .07$, $p < .001$, $\eta^2 = .096$), suggesting that participants viewed the higher- (lower-) involvement products as significantly more (less) involving. Lastly, the product value type manipulation was supported through a one-way ANOVA ($F(1,648) = , M_{\text{Hedonic}} = 5.88$, $SE = .07$ vs. $M_{\text{Utilitarian}} = 1.54$, $SE = .06$, $p < .001$, $\eta^2 = .765$) supporting that product types were assessed by participants as intended.

7.4.3 Main Effects

MANCOVA

A three-way MANCOVA was run in SPSS using discount promotion certainty, product involvement, and product type as the IVs. The three retaliation behaviours as well as brand betrayal were used as dependent variables. Covariates matched previous studies. The results of the three-way MANCOVA suggested there was a significant three-way interaction effect between the IVs for the three negative consumer behaviours. Purchase Abandonment: $F(10, 639) = 4.28$, $p < .05$, $\eta^2 = .007$, Negative eWOM: $F(10, 639) = 8.57$, $p < .05$, $\eta^2 = .013$, Brand Avoidance: $F(10, 639) = 4.75$, $p < .05$, $\eta^2 = .007$). For the full main effects table, see Appendix D.

The three way interaction between certainty, product involvement, and product value type was investigated further through post-hoc pairwise comparisons. The data supports the following: for utilitarian products, the negative effects of GPDs on purchase abandonment and retaliation are not significantly different ($ps > .44$) across

lower or higher levels of involvement. However, for hedonic products, the negative effects of GPDs on these intentions are significantly increased (i.e. worsened) for high involvement products ($p_s < .05$). No significant three-way differences occurred for the CPD scenarios. The pairwise comparisons can be seen in the following Table 27 and visualised in Fig. 11.

Table 27 - Pairwise Comparisons

Pairwise Comparisons								
Dependent Variable	Promo	Type	(I) Inv.	(J) Inv.	M _{Diff} (I-J)	SE	p	
Abandonment	CPD	Hedonic	Low Inv.	High Inv.	0.234	0.255	0.359	
			High Inv.	Low Inv.	-0.234	0.255	0.359	
		Utilitarian	Low Inv.	High Inv.	-0.242	0.255	0.342	
			High Inv.	Low Inv.	0.242	0.255	0.342	
	GPD	Hedonic	Low Inv.	High Inv.	-.519*	0.256	0.043	
			High Inv.	Low Inv.	.519*	0.256	0.043	
		Utilitarian	Low Inv.	High Inv.	0.053	0.247	0.831	
			High Inv.	Low Inv.	-0.053	0.247	0.831	
	NeWOM	CPD	Hedonic	Low Inv.	High Inv.	0.327	0.177	0.066
				High Inv.	Low Inv.	-0.327	0.177	0.066
Utilitarian			Low Inv.	High Inv.	-0.184	0.177	0.300	
			High Inv.	Low Inv.	0.184	0.177	0.300	
GPD		Hedonic	Low Inv.	High Inv.	-.498*	0.178	0.005	
			High Inv.	Low Inv.	.498*	0.178	0.005	
		Utilitarian	Low Inv.	High Inv.	0.021	0.172	0.901	
			High Inv.	Low Inv.	-0.021	0.172	0.901	
Avoidance	CPD	Hedonic	Low Inv.	High Inv.	0.282	0.210	0.181	
			High Inv.	Low Inv.	-0.282	0.210	0.181	
		Utilitarian	Low Inv.	High Inv.	-0.045	0.210	0.830	
			High Inv.	Low Inv.	0.045	0.210	0.830	
	GPD	Hedonic	Low Inv.	High Inv.	-.428*	0.211	0.043	
			High Inv.	Low Inv.	.428*	0.211	0.043	
		Utilitarian	Low Inv.	High Inv.	0.156	0.204	0.444	
			High Inv.	Low Inv.	-0.156	0.204	0.444	

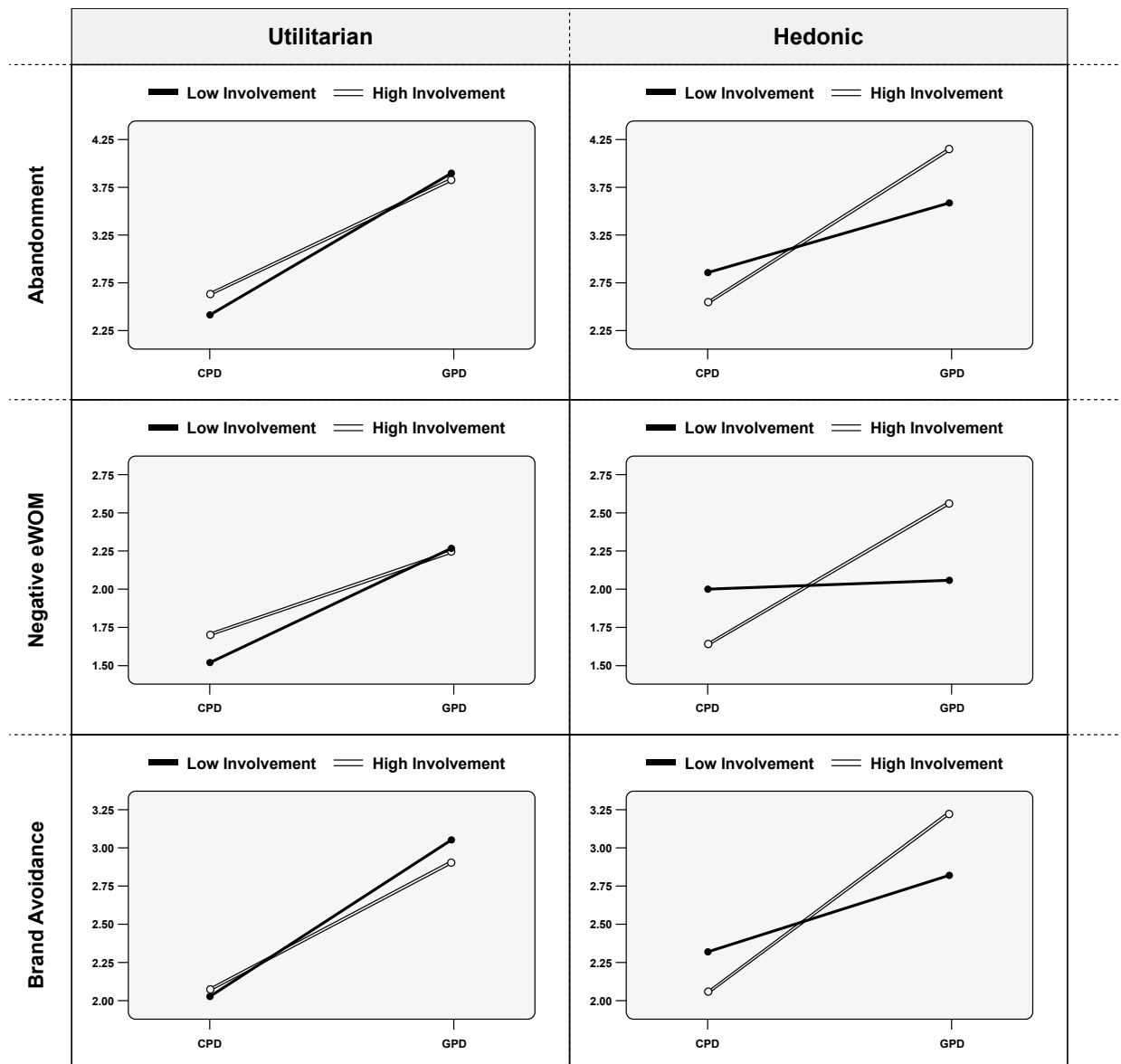


Fig. 11 - Visualising the Three-Way Interaction

No significant three-way interaction effect was found on perceived betrayal ($p = .80$). Likewise, the two-way interaction between promotion type and product value type on brand betrayal was found to be non-significant ($p = .589$), therefore H5 could not be supported. However, lending support for H4, a significant two-way interaction was found between promotion type and product involvement on brand betrayal ($F(10,639) = 11.30, p < .05, \eta^2 = .009$). Through post-hoc pairwise comparisons, this interaction revealed that level of product involvement significantly impacted perceptions of

betrayal after receiving a reward from GPD. Specifically, the level of perceived betrayal was found to be significantly greater when considering higher (vs. lower) product involvement products ($M_{GPD_LowInv} = 3.02$, $SE = .11$ vs. $M_{GPD_HighInv} = 3.37$, $SE = .11$, $p < .05$, $\eta^2 = .007$, see Fig 12). The impact of product involvement on betrayal was non-significant for CPDs ($p > .209$).

Involvement on Betrayal Between Low Reward GPDs & CPDs

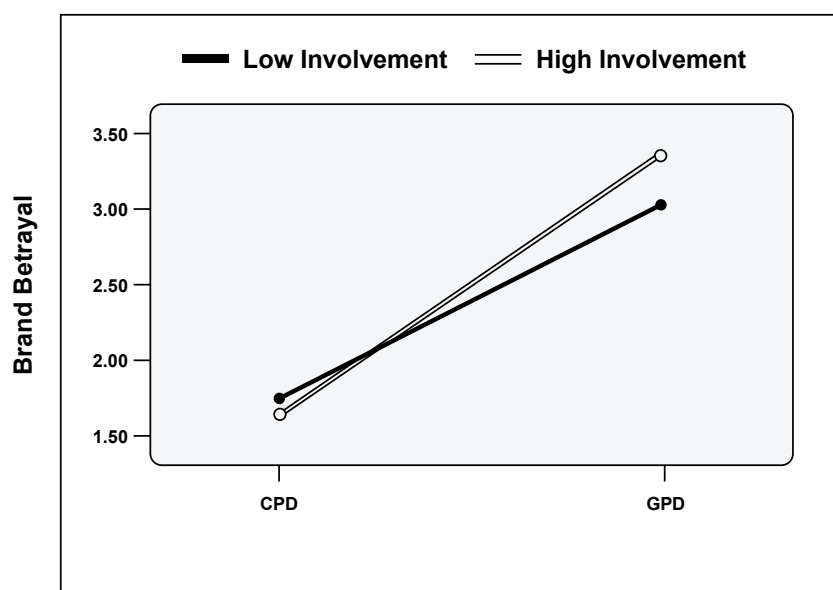


Fig. 12 – IV x Involvement on Betrayal

7.4.4 Moderated Mediation

Three bootstrapped (5000 bootstraps, 95% CI) moderated mediation analyses (model 7) were run in SPSS using Hayes (2018) PROCESS macro in order to assess the moderating effect of product involvement on the path between discount promotion certainty and brand betrayal on three negative consumer behaviours. Product value type was included as a covariate to be controlled for along with the previously stated covariates. The results of the moderated mediation analyses were deemed significant

(LLCI > 0 < ULCI) and can be seen in the following Table 28. The analyses present support for product involvement as a significant moderator on the a-path of the model, suggesting that as the level of product involvement increases, as does the negative effects of brand betrayal on purchase abandonment and consumer retaliation behaviours.

Table 28 - Indices of Moderated Mediation

DV	Involvement	Index	BootSE	BootLLCI	BootULCI
Abandonment	Overall	.31	.13	.06	.57
	Low Inv.	.68	.11	.49	.90
	High Inv.	1.00	.11	.78	1.23
Negative eWOM	Overall	.23	.09	.04	.43
	Low Inv.	.49	.08	.35	.66
	High Inv.	.72	.09	.55	.91
Avoidance	Overall	.30	.12	.06	.54
	Low Inv.	.65	.10	.46	.85
	High Inv.	.96	.10	.76	1.17

7.5 Summary of Findings

Overall, this study investigated the moderating role of product involvement on the relationship between discount promotion certainty and brand betrayal on purchase abandonment and the two consumer retaliation behaviours.

The results of the study add further answers to RQ3 and provide support H4, suggesting that consumer perceptions of betrayal following a low-reward from a GPD increase as the level of product involvement increases. As suggested by the aforementioned literature, as the level of product involvement increases, as does both the emotional and rational complexity of the consumer decision making process when making a purchase decision (Mettenheim & Wiedmann, 2021; Putrevu, 2010). This increased complexity and risk associated with high involvement product often results

in greater information processing in consumers, affecting consumption behaviour (Stewart et al., 2019). Aligning with the aforementioned literature, it is believed that heightened perceptions of betrayal when receiving a low-reward GPD for a high involvement product stem from the greater magnitude of importance attached to the purchase. That is to say, the perceived magnitude of the transgression following a low-reward GPD becomes greater due to the increased complexity and importance afforded to high-involvement purchase decisions.

H5 was not supported. There was no interaction effect between promotion type and product value type on feelings of brand betrayal, thus product value type did not play a significant role in the outcomes of betrayal following a low-reward GPD or CPD. This effect was unexpected, as a large portion of extant literature discussing utilitarian and hedonic products often consider hedonic products as more 'affect rich' (Arruda Filho et al., 2020; Bettiga et al., 2020; Kempf, 1999). Therefore, it was theorised that if emotions were already heightened from both the GPD uncertainty as well as the hedonic product, then a 'doubling down' effect would take place and therefore levels of betrayal would be greater. This however, was not the case as no significant interaction occurred. It is possible that this null effect could have resulted due to the hedonic values of the GPD overwhelming considerations of the hedonic values of the product, thus shifting consumer focus away from the product onto the GPD. Another alternative possibility is that consumers personal interests did not resonate well with the offered products, potentially dulling the effects.

There was a significant three-way interaction effect between promotion type, product type, and product involvement on all three negative consumer behaviours, however

this three-way interaction did not occur on betrayal. Specifically, the results suggest that the negative effects of higher levels of product involvement on abandonment and retaliation behaviours after receiving a low-reward GPD are only significant for hedonic products, and are non-significant on utilitarian products. Since this three-way interaction was only significant on downstream outcomes and not betrayal, this means that the effect is on the c' path ($X \rightarrow Y$) and not the a path ($X \rightarrow M$). Specifically, this finding suggests that the three-way interaction effect on downstream outcomes cannot be going through betrayal, and therefore the effect is considered a direct-only non-mediation effect (Zhao et al., 2010); the direct effect exists, but it is not an indirect effect through betrayal. Overall, this finding suggests that in this case, an omitted mediating variable likely exists which was not considered within the current theoretical framework (see Zhao et al., 2010). Future research is necessary to understand this finding further, as the current theoretical framework focused on betrayal is unable to support or explain this effect.

Throughout the previous three studies, the results have shown strong support that GPDs (vs. equivalent CPDs) offering low-reward discounts result in greater consumer perceptions of brand betrayal, leading to increased purchase abandonment and retaliation intentions. Therefore, in general it is here suggested that marketers should be cautious of their implementation as an e-commerce discount promotion strategy and be cognisant of their potential dark sides. However, theorising from existing literature, it may be possible to mitigate these effects by through managerial interventions by designing the promotion in such a way that alters consumer perceptions and judgements of the promotions prior to interaction. At this stage in the

research, the experiments shift focus towards investigating managerial interventions which could potentially turn off the negative effects of GPDs.

Chapter 8: STUDY FOUR – Adjusting the Representativeness Heuristic

8.1 Introduction

The present chapter covers the fourth experimental study of the series. The previous studies have chiefly supported that low-reward GPDs (vs equivalent CPDs) result in greater feelings of brand betrayal, which lead to negative downstream consequences. Here, the focus of the present study is to see if these effects can be turned off through managerial intervention. Specifically, within this study, the moderating role of the representativeness heuristic is investigated. As described in section 2.9.4, the representativeness heuristic is a mental shortcut which is used to estimate the probability or likelihood of an event to happen based on the degree of representation of a specific characteristic within a given subject, compared to an event which an individual has previously experienced (see Bhatia, 2015; Tversky & Kahneman, 1974). In the present study, this heuristic is manipulated to alter consumer expectations and perceptions of the probability of discount outcome.

Referring back to section 2.9.4 of the literature review, outcome sadness is included as an additional affective variable, as the present study manipulates consumer's subjective probability expectancies of offered discount outcomes. It has been shown

in literature that the greater the alignment of outcome expectancy and actual outcome within a scenario, the less sadness and disappointment is felt by individuals (Soscia, 2007; Tykocinski, 2001; van Dijk et al., 2003). Therefore, as stated in the below hypotheses, it is expected here that adjustment to the representativeness heuristic through alteration of the visual design of GPDs may not only reduce perceptions of betrayal, but also the emotion of outcome sadness. Totalling three possible scenarios (Promotion type: GPD (standard) vs. GPD (representativeness adjusted) vs CPD (control)), the experiment is between-subjects in design. For purposes of validating the findings of previous studies, the CPD condition has been added as a control, though the main focus here is on the outcomes of the two GPD scenarios of varied levels of representativeness.

H6a = Reduced intentions of purchase abandonment and consumer retaliation behaviours from customers receiving representativeness adjusted (vs non-representativeness adjusted) GPDs are mediated by lesser levels of perceived betrayal.

H6B = Reduced intentions of purchase abandonment and consumer retaliation behaviours from customers receiving representativeness adjusted (vs non-representativeness adjusted) GPDs are mediated by lesser levels of reward outcome sadness.

8.2 Stimuli, Procedure, & Measures

Informed consent was received and inclusion criteria were met for all participants previous to beginning the experiment. Participants were first asked to imagine they

were browsing online shopping for a new pair of jeans at a reputable clothing store. Whilst browsing, they were asked to imagine a discount promotion popped up offering them a chance to win a discount from one of two potential GPDs, dependent on which scenario they were randomly allocated to. Although the main focus of this experiment is to investigate managerial interventions to the representativeness heuristic between the two GPD scenarios, an equivalent CPD control condition was also added within the study for validation purposes. Therefore there was a one in three chance to be allocated to any of the conditions. The three conditions were as follows. In the first GPD (standard), all four segments of the price discount were equal in size as per the previous studies (i.e. cut in half vertically and horizontally). In the second GPD (representativeness adjusted), the representativeness heuristic was manipulated, and therefore the discount segments were non-uniform, with the lowest possible discount (i.e. 5%) taking up the majority of the potential space where the discount spinner could land (~60% of the visualized discount). Simultaneously, the greatest possible discount (i.e. 35%) took up the least amount of space possible (~5% of the visualized discount). The two intermediate rewards took up the rest of the space (~35% of the visualized discount). In the CPD control condition, the visualized promotion matched those within the previous study. To visualize the three discount promotions, see Fig. 13. Participants perception of the visual outcome probability manipulation was then measure on two seven-point Likert scales (e.g. "The probability of the promotion landing on the (lowest / highest) possible discount is..." - (1) Extremely unlikely to (7) Extremely likely). Participants then completed dependent variable measures followed by covariates and demographics. Variables used in previous studies were measured the same in this study. An added measure of reward outcome sadness was measured using a three-item seven-point Likert scale amended from Williams and Aaker (2002)

(e.g. “Based on the discount you received today, please state how much you disagree or agree with the following statements: I feel...” (sad / sorrowful / regretful) – (1) Strongly disagree to (7) Strongly agree). A full list of the measures used within the study can be found in Table 29.

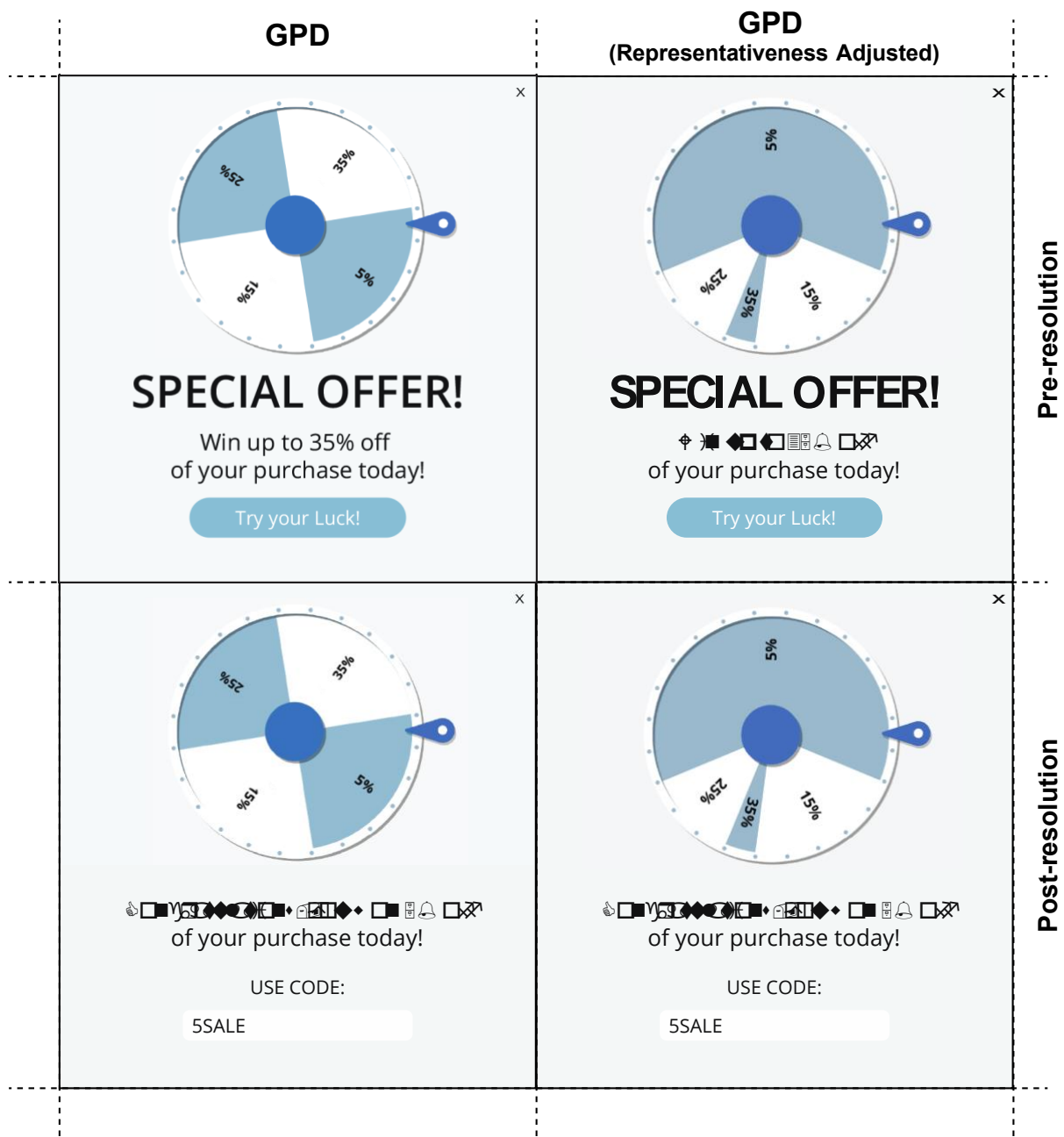


Fig. 13 - Study 4 Stimuli

Table 29 - Study 5 Measures & Constructs

Construct	Item	α
Purchase Abandonment Intention	It is likely that I would abandon my cart to buy the product elsewhere	.96
	I would likely exit the retailers website to purchase the product at another retailer	
	I would not continue with my product purchase at this online retailer	
Negative e-Word of Mouth	I would negatively review this brand online	.95
	I would write a negative online review about the retailer	
	I would complain about the retailer online	
Brand Avoidance	I would avoid buying from this retailer	.97
	I would cut off my relationship with the retailer	
	I would withdraw my business from the retailer	
Brand Betrayal	I felt betrayed by the retailer	.95
	I felt that the retailer let me down	
	I felt deceived by the retailer	
Outcome Sadness	I feel sad	.93
	I feel sorrowful	
	I feel regretful	
Subjective Probability	The probability of the promotion landing on the lowest possible discount is - (1) Extremely unlikely, 7 (Extremely likely)	r = .83
	The probability of the promotion landing on the highest possible discount is - (1) Extremely unlikely, 7 (Extremely likely)	
e-Shopping Frequency	How often do you shop online?	N/A
Discount Manipulation	Did you receive a discount towards the final price of the product?	N/A
Certainty Manipulation	How uncertain or certain are you of what the exact value you would need to pay for the product will be?	r = .81
	At this point, how unclear or clear is the exact value you would need to pay for the product?	

8.3 Sample

Aligning with the previous sampling methods, a purposive sampling method was employed with the sample being gained through CloudResearch. Inclusion criteria and data quality control mechanisms were the same as previous studies.

A initial sample of 225 participants was collected for the study, though after data cleaning procedures (following the same procedures as previous studies), the final

sample of the study included N = 203 participants. The mean age of the participants was 41.25 (SD = 11.73), 55.7% who were female. The participant sample was gathered through CloudResearch. The final per cell sample is shown in Table 30.

Table 30 - Study 4, Per Cell Sample Size

	Total
CPD _{Control}	59
GPD _{Standard}	75
GPD _{Rep-Adjusted}	69

8.4 Results

8.4.1 Main Effects

Assumptions & Construct Reliability Checks

Both Kolmogorov-Smirnov and Shapiro Wilk tests were deemed significant ($p < .001$), suggesting that the data deviated from a normal distribution. Box's M test was non-significant ($p = .33$) suggesting that there was no violation of homogeneity of variance-covariance matrices. Following the logic stated in the previous studies regarding the sensitivity of normality tests (Blanca Mena et al., 2017; Field, 2018), confidence was held moving forward with parametric testing, though this is once again an acknowledged limitation.

Although brand betrayal and sadness are conceptually separable (see Reimann et al., 2018), they are somewhat related constructs. Therefore, PCA with Varimax rotation was once again employed to ensure discriminance between the two affective variables (betrayal and sadness). The results of the PCA supported that the two factors are indeed separable, supporting the discriminance between the two. The

factor loadings of each of the items within each construct can be seen in the following Table 31.

Table 31 - Study 4, Principal Component Matrix with Kaiser-Varimax Rotation

	SAD1	SAD2	SAD3	BET1	BET2	BET3
Component 1	.863	.947	.925	.277	.286	.170
Component 2	.222	.194	.235	.920	.916	.926

Manipulation Checks

The representativeness heuristic manipulation was supported by a one-way ANOVA ($F(1,143) = 21.58$, $M_{\text{GPD}} = 3.06$, $SE = .14$ vs $M_{\text{GPD-Adjusted}} = 2.10$, $SE = .15$, $p < .05$, $\eta^2 = .13$), suggesting that participants in the representativeness manipulated GPD scenario felt that the probability of receiving an inferior reward was significantly more likely than those in the standard GPD. The certainty manipulation check was supported through a one-way ANOVA, revealing that both GPD scenarios were perceived as more uncertain than the CPD scenario ($F(2, 200) = 90.48$, $M_{\text{CPD}} = 6.11$, $SE = .18$ vs. $M_{\text{GPD-Standard}} = 2.84$, $SE = .16$, $M_{\text{GPD-Rep-Adjusted}} = 3.55$, $SE = .17$, $p < .001$, $\eta^2 = .47$). Further, participants perceived the adjusted GPD as significantly less uncertain than the non-adjusted GPD ($M_{\text{Diff}} = .71$, $p < .01$).

MANCOVA

In order to assess the differences in affective and behavioural responses of consumers across the three conditions, a one-way MANCOVA was run using promotion type as the IV, with brand betrayal, reward outcome sadness, and the three negative consumer behaviours as DVs. Covariates included age, gender, and eShopping frequency as per previous studies.

The MANCOVA revealed significant differences between the three conditions on brand betrayal ($F(5,197) = 11.27$, $SE = .11$, $p < .001$, $\eta^2 = .10$), outcome sadness ($F(5,197) = 4.66$, $SE = .09$, $p < .01$, $\eta^2 = .04$), and the three negative consumer behaviours (Purchase Abandonment: $F(5,197) = 6.90$, $SE = .12$, $p = .001$, $\eta^2 = .05$ / NeWOM: $F(5,197) = 6.90$, $SE = .12$, $p < .01$, $\eta^2 = .05$, Brand Avoidance: $F(5,197) = 6.90$, $SE = .12$, $p = .001$, $\eta^2 = .05$). Pairwise comparison analyses revealed that the CPD (control) condition significantly outperformed both of the GPDs, leading to more positive affective and behavioural responses across all dependent outcomes (all $ps < .001$). When comparing the results of the two gambled price discounts, the results revealed non-significant differences in terms of retaliation intentions ($ps > .46$) and perceived betrayal ($p = .99$). However, there was a significant difference between the two GPDs and participant level of reward outcome sadness ($M_{GPD} = 2.58$, $SE = .14$ vs. $M_{GPD-Rep-Adjusted} = 2.06$, $SE = .15$, $p < .05$). This finding suggests that reward outcome sadness was significantly lower when the representativeness heuristic was adjusted (i.e. the visual probability of receiving an inferior reward was perceived greater), see fig. 14.

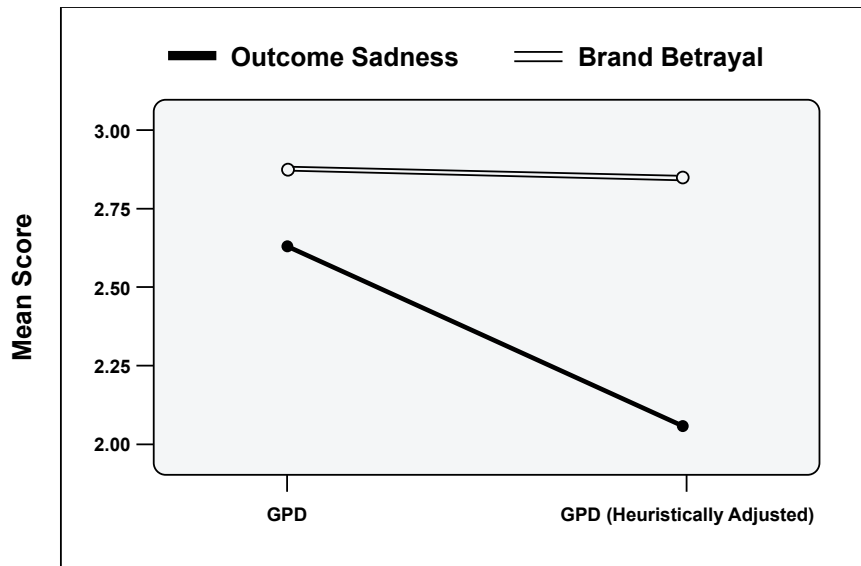


Fig. 14 – GPD vs. GPD (Representativeness Adjusted) on Sadness and Betrayal

8.4.2 Mediation Analysis (GPD_{standard} vs. GPD_{adjusted})

As betrayal was not significantly different between the two GPD scenarios, it could not be considered as a possible mediator between these scenarios, therefore H6a was not supported. The mediating effect of sadness was explored by conducting three bootstrapped (5000 bootstraps, 95% CI) Hayes (2018) Model 4 mediation analyses in SPSS (one for each negative consumer behaviour). Covariates matched those specified in the previous MANCOVA. All three mediation models were significant as 0 was not present within the confidence interval (LLCI > 0 < ULCI). Furthermore, all three mediations were considered indirect-only mediations (Zhao et al., 2010), as the c' path between the conditions and the retaliation behaviours showed non-significant direct effects ($p_s > .15$). For the complete mediation results, please see Table 32. The results of the mediation analysis supported H7b suggesting that the effect of reward sadness on retaliation behaviours after receiving a low-reward GPD is conditional on consumer perceptions of the likelihood of received a given reward. Specifically, greater

congruence between the perceived probability of discount and the actual reward outcome dampens feelings of reward outcome sadness, leading to reduced intentions to retaliate.

Table 32 - Mediation Analyses of Outcome Sadness

DV	Index	BootSE	BootLLCI	BootULCI
Abandonment	-.19	.11	-.44	-.01
Negative eWOM	-.21	.10	-.44	-.02
Avoidance	-.20	.11	-.45	-.02

8.4.3 Mediation Analysis (Multicategorical, main effects)

Three more mediation analyses (multicategorical) were conducted using perceived brand betrayal and reward outcome sadness as parallel mediators on all three conditions (CPD_{control}, GPD_{Standard}, GPD_{Rep-Adjusted}) to assess and compare the impacts of the two mediators on the main effects (i.e. GPD vs. CPD). The covariates matched those in the previous mediation analyses. The coding for the group comparisons can be seen in Table 33. The results of the multi-categorical parallel mediation analyses supported significance (LLCI > 0 < ULCI) of brand betrayal as a significant mediator on the relationship between discount promotion certainty and all three retaliation behaviours. Reward outcome sadness was not found to be a significant mediator when tested in parallel with brand betrayal on the effects between CPDs and GPDs (LLCI < 0 < ULCI). This finding supports the findings in previous studies, suggesting brand betrayal (as opposed to reward outcome sadness) as the main psychological mechanism driving consumer retaliation intentions after receiving a low-reward outcome from a GPD (vs. equivalent CPD). The results can be visualised further in Table 34. Therefore, while betrayal plays the main role in understanding the differences in outcomes between GPDs and CPDs, outcome sadness plays the main role in understanding the differences between only the two GPDs (standard vs.

representativeness adjusted) when considering consumer heuristic assessment of GPDs through representativeness adjustment, as shown in the analysis in the previous section.

Table 33 – Multicategorical Coding

Condition	X1	X2
CPD	0.00	0.00
GPD _{Standard}	1.00	0.00
GPD _{Rep-Adjusted}	0.00	1.00

Table 34 - Parallel Mediation Analyses (CPD vs. GPDs)

DV	Index	BootSE	BootLLCI	BootULCI
Brand Betrayal				
X1	.69	.20	.34	1.12
X2	.69	.19	.37	1.10
Reward Sadness				
X1	.005	.09	-.16	.19
X2	.001	.03	-.06	.07

X1 = CPD vs. GPD_{Standard} // X2 = CPD vs. GPD_{Rep-Adjusted}

8.5 Summary of Findings

When comparing only the two GPD conditions (i.e. standard vs. representativeness adjusted), it was found that brand betrayal did not significantly mediate the path between these conditions and negative consumer behaviours. Therefore, the findings of the study do not offer support for H6A; irrespective of the perceived probability of outcome, participants feel equally levels of betrayal across the GPD scenarios, thus it could not be considered a mediator. This finding is likely due to the fact that the promotion was still perceived as misleading and ‘unfair’ due to incongruence between higher possible outcomes and the actual outcomes (Choi et al., 2013; Xia et al., 2004).

That is to say, irrespective of individuals view of the outcome probability of the promotion, the fact remains that GPDs inherently suffer from inequality in distributive justice of outcome, as there are discrepancies between what different customers receive (Alavi et al., 2015). Here it is suggested that future research attend to this work further to consider potential managerial interventions in which the effects on betrayal (and not only outcome sadness) could be mitigated within GPDs.

The results do however support H6B in that adjustment to the representativeness heuristic does significant reduce the felt sadness associated with a low-reward outcome from a GPD, leading to lesser downstream negative consequences. Likewise, when just comparing the two GPD scenarios, reward outcome sadness was found to be an indirect-only mediator between GPDs and negative consumer behaviours, supporting it further theoretically as a mediator (Zhao et al., 2010). Here it is suggested that the representativeness heuristic can be manipulated through visual design, thus lowering participant inherent outcome expectations of receiving a superior reward outcome, as more visual emphasis on the representativeness increased the ability to cognitively assess the situation (Goldsmith & Amir, 2010; Kahneman & Tversky, 1972; Tversky & Kahneman, 1974). This in turn leads to reduced feelings of outcome sadness, as the discrepancy between the expected probability is lesser due to the expected final outcome being more easily cognitively assessed. This notion aligns with extant literature which suggests that the reduction of expectations (Soscia, 2007; van Dijk et al., 2003) and affirming assessed probabilities in hindsight (Tykocinski, 2001) can reduce feelings of negative emotions related to sadness and disappointment following non-desirable outcomes.

Finally, the parallel mediating effects of brand betrayal and outcome sadness (in GPD vs. CPD scenarios) on the downstream impacts of purchase abandonment and retaliation were investigated within this study. The findings show strong support that brand betrayal is the dominant mediating variable in the relationship between low-reward GPDs vs. CPDs on negative consumer behavioural intentions, as the effect of betrayal on these outcomes was significant with a strong effect, while sadness was insignificant when run in parallel. This finding is further supported as the mediation was considered an indirect-only mediation, as the effect was only significant through betrayal ($X \rightarrow M \rightarrow Y$) and not direct ($X \rightarrow Y$). Seminal research by Zhao et al. (2010) suggests that indirect-only effects evidence that the mediator hypothesized within the current theoretical framework is appropriate for the research at hand, further claiming that omitted mediators are unlikely (though of course possible).

Overall this study supports that adjusting the representativeness to reduce (increase) consumer expectations of the probable discount outcome being high (low) does not diminish feelings of brand betrayal, but does reduce outcome sadness. Furthermore, the findings support brand betrayal (as opposed to outcome sadness) as the chief mediating variable in the relationship between low-reward GPDs vs. CPDs and negative consumer behaviours. The next study builds further on the present study which focused on investigating the managerial intervention of adjusting the representativeness heuristic to reduce feelings of brand betrayal and outcome sadness. Specifically, the upcoming study investigates another managerial intervention theorized to reduce these forms of negative affect: the anchoring and adjustment heuristic (Tversky & Kahneman, 1974). It is theorized here that removal of higher-value price anchors present in the promotion could significantly reduce the

negative impacts associated with gambled price discounts, as consumers would no longer have a superior-price discount reference point to compare their received outcome with.

Chapter 9: STUDY FIVE – Adjusting the Anchoring & Adjustment Heuristic

9.1 Introduction

The current chapter outlines the fifth and final experimental study of the series. As shown in the previous studies, there are significant negative effects of receiving low-reward discounts from GPDs compared to traditional CPDs. The purpose now is to further investigate possible managerial interventions that can be done to reduce the negative consequences of implementing these types of promotions within one's marketing strategy. In the previous study it was shown that altering consumer's subjective probability assessments through heuristic manipulation (i.e. the representativeness heuristic) could reduce levels of sadness associated with a poor GPD outcome, though it did not impact perceptions of betrayal across GPDs, which remained high (relative to CPDs). The purpose of the current experiment is to build upon the previous study by investigating another heuristic which can be adjusted, namely, the anchoring and adjustment heuristic (Tversky & Kahneman, 1974). This heuristic is theoretically important within GPDs as one of their known limitations as a form of promotion comes from knowledge of an array of possible outcomes in which consumers can latch on to and compare the offer they received against (Alavi et al.,

2015; Goldsmith & Amir, 2010). This study specifically investigates if the visual absence of greater discount offerings (i.e. removal of the price anchoring effect) significantly mitigates perceptions of brand betrayal and outcome sadness following a low-reward outcome from a GPD (H7s, see below).

A secondary aim of the present study is to investigate the role of entertainment value as a potential competitive parallel mediator on the main effects. From research across the streams of gamification, and gamblification, entertainment is a construct that is inherently present in the mechanics of systems in these areas (Deterding et al., 2011; Hing et al., 2022; Hofacker et al., 2016). The same notion rings true in a report suggesting that majority of individuals see gambling as 'high quality entertainment' (Statista, 2020). Specific to GPD research, only one study has investigated the role of entertainment value as an outcome of GPDs, finding that greater entertainment value lead to greater perceptions of customer satisfaction with the GPD (Akbari & Wagner, 2021). Therefore, to compare the effects found in Akbari and Wagner (2021)'s work the level of perceived entertainment is added as a variable within the present study.

The experiments is between-subjects in design, totalling 3 possible scenarios (Promotion type: GPD (standard) vs. GPD (no anchor) vs. CPD (control)). Matching previous studies, the reward outcome is 5%. As per Study 4, the CPD condition was added for validation of previous findings, though the main focus of the current study is to investigate the impacts of managerial intervention (i.e. removal of the anchoring mechanism) between the two GPD scenarios.

H7a = Reduced intentions of purchase abandonment and consumer retaliation behaviours from customers receiving anchor-absent (vs anchor-present) GPDs are mediated by lesser levels of perceived betrayal.

H7b = Reduced intentions of purchase abandonment and consumer retaliation behaviours from customers receiving anchor-absent (vs anchor-present) GPDs are mediated by lesser levels of outcome sadness.

9.2 Stimuli, Procedure, & Measures

Informed consent was gathered followed by inclusion criteria checks as per the previous studies. Participants who did not provide consent or meet the inclusion criteria were promptly exited from the survey and their data deleted. To begin the study, participants were first asked to imagine they were browsing online for a new pair of jeans at a reputable clothing retailer. While browsing, they were told to imagine a digital promotion popped up, offering them a discount on their potential current order. Similar to the previous study, the discount promotion was one of the three stimuli, either a CPD (added as a control condition), a standard GPD, or a GPD (no anchor) in which all of the reward offerings were completely hidden, thus removing any price references for participants to anchor to (see Fig. 15 for visual examples of the stimuli). The outcome of all promotions resulted in the same low-reward equivalent discount outcome, a 5% discount. Upon visualising the stimuli, the anchoring manipulation check was measured. The anchoring manipulation was measured using a two-item, seven-point Likert scale measure (e.g. 'How aware are you of the maximum possible discount that you can receive from the promotion?' – Completely unaware (1) to

Completely aware (7). / 'How clear is the maximum potential discount being offered by the promotion?' – Extremely unclear (1) to Extremely clear (7)). The discount results of the promotions were then provided to the participant. Dependent variables were then measured, followed by covariates and demographic information. Due to findings early in the series of studies surrounding the role of gamblification, the construct of promotion entertainment was also measured using a three-item, seven-point Likert scale for supplementary analysis (e.g. 'Interacting with the promotion was...' (Entertaining / Fun / Amusing) – Strongly disagree (1) to Strongly agree (7)) amended from Moorman et al. (2002). For a full list of measures used within this study, see Table 35.



Fig. 15 - Study 5 Stimuli

Table 35 - Study 5, Measures & Constructs

Construct	Item	α
Purchase Abandonment	It is likely that I would abandon my cart to buy the product elsewhere	.95
	I would likely exit the retailers website to purchase the product at another retailer	
	I would not continue with my product purchase at this online retailer	
Negative e-Word of Mouth	I would negatively review this brand online	.95
	I would write a negative online review about the retailer	
	I would complain about the retailer online	
Brand Avoidance	I would avoid buying from this retailer	.96
	I would cut off my relationship with the retailer	

	I would withdraw my business from the retailer	
Brand Betrayal	I felt betrayed by the retailer	.93
	I felt that the retailer let me down	
	I felt deceived by the retailer	
Reward Sadness	I feel sad	.92
	I feel sorrowful	
	I feel regretful	
Entertainment	Entertaining	.96
	Fun	
	Amusing	
e-Shopping Frequency	How often do you shop online?	N/A
Anchor Manipulation	How aware are you of the maximum possible discount that you can receive from the promotion?	r =.93
	How clear is the maximum potential discount being offered by the promotion?	

9.3 Sample

Overall, a sample of 280 was collected for the experiment. After conducting the standard data cleaning procedures which have been carried out throughout all of the previous experiments, a final sample of N = 265 participants was left. The mean age of participants was 40.99 years (SD = 12.28), 49.4% of which were male. Similar to the previous experiments, the participant sample was accessed through CloudResearch. The final per cell sample is shown in Table 36.

Table 36 - Study 5 Per Cell Sample Size

	Total
CPD _{Control}	82
GPD _{Standard}	92
GPD _{Adjusted}	91

9.4 Results

9.4.1 Main Effects

Assumptions & Construct Reliability Checks

Kolmogorov-Smirnov and Shapiro-Wilk tests were both significant ($p < .001$), suggesting a deviation from a normal distribution in the DVs. Box's M test was non-significant ($p = .10$), therefore there was no violation of the homogeneity assumption. Overall, like previous studies, confidence is held in parametric testing based on these tests being known to be sensitive to larger sample sizes and literature supporting ANOVAs as robust against violations of normality (Blanca Mena et al., 2017; Field, 2018). PCA (Varimax rotation) supported discriminance between outcome sadness and brand betrayal (see Table 37).

Table 37 – Study 5 Principal Component Matrix with Kaiser-Varimax Rotation

	SAD1	SAD2	SAD3	BET1	BET2	BET3
Component 1	.887	.904	.805	.300	.311	.422
Component 2	.357	.359	.303	.884	.863	.896

Manipulation Checks

The price anchor manipulation was confirmed through a one-way ANOVA ($F(1,187) = 964.81, p < .001, \eta^2 = .83$), suggesting that participants in the anchor-absent GPD (vs. standard GPD) scenario had significantly less awareness of the maximum discount available ($M_{\text{GPD}} = 6.45, SE = .12$ vs. $M_{\text{GPD-NoAnchor}} = 1.55, SE = .12, p < .001$). The certainty manipulation was also supported through a one-way ANOVA ($F(2, 262) = 559, p < .001, \eta^2 = .81$), suggesting that both GPD scenarios were perceived as less certain than the CPD scenario. ($M_{\text{CPD}} = 6.41, SE = .11$ vs. $M_{\text{GPD-Standard}} = 2.53, SE = .10$ vs. $M_{\text{GPD-NoAnchor}} = 1.34, SE = .10, ps < .001$). As shown, the GPD without the anchor was also significantly less certain than the standard GPD, which was logical as no rewards were visible at all.

MANCOVA

In order to assess the differences between the three conditions, a MANCOVA was conducted using promotion type (i.e. CPD_{Control}, GPD_{Standard}, and GPD_{NoAnchor}) as the IV on brand betrayal, reward sadness, and the three negative consumer behaviours as DVs. Covariates matched those of previous studies. The MANCOVA suggested that there were significant differences between the conditions and the dependent variables. Brand betrayal: ($F(5, 259) = 13.82$, $SE = .09$, $p < .001$, $\eta^2 = .10$), Reward Outcome Sadness: ($F(5, 259) = 10.71$, $SE = .09$, $p < .001$, $\eta^2 = .07$), Purchase Abandonment: ($F(5,259) = 5.39$, $SE = .10$, $\eta^2 = .04$), Negative eWOM: ($F(5,259) = 5.67$, $SE = .06$, $\eta^2 = .04$), Brand Avoidance: ($F(5,259) = 6.16$, $SE = .08$, $p < \eta^2 = .04$).

Post-hoc pairwise comparisons were conducted to understand these effects further. Aligning with all of the previous studies findings, the pairwise comparisons revealed that the mean scores for brand betrayal, outcome sadness, and the three negative consumer behavioural intentions were significantly greater in the standard GPD condition compared to the CPD (control) condition ($ps < .001$).

When comparing the results between the CPD (control) condition and the heuristically-adjusted GPD (i.e. GPD with no visible price anchors), there were non-significant differences across consumer retaliation intentions ($ps > .27$). Though, significant differences between perceived betrayal, sadness, and purchase abandonment did still occur ($ps > .05$). Brand Betrayal: ($M_{CPD} = 1.73$, $SE = .16$ vs. $M_{GPD-NoAnchor} = 2.64$, $SE = .15$, $p < .05$), Outcome Sadness: ($M_{CPD} = 1.84$, $SE = .15$ vs. $M_{GPD-NoAnchor} = 2.35$, $SE = .14$, $p < .05$), and Purchase Abandonment: ($M_{CPD} = 3.07$, $SE = .16$ vs. $M_{GPD-NoAnchor} = 3.61$, $SE = .18$, $p < .05$)

When comparing the two GPD scenarios against one another (i.e. the standard GPD vs. the heuristically-adjusted GPD with no price anchors), the results suggested that the adjusted GPD resulted in significantly less outcome sadness ($M_{\text{GPD}} = 2.77$, $SE = .14$ vs. $M_{\text{GPD-NoAnchor}} = 2.35$, $SE = .14$, $p < .05$) and brand avoidance ($M_{\text{GPD}} = 2.84$, $SE = .14$ vs. $M_{\text{GPD-NoAnchor}} = 2.35$, $SE = .14$, $p < .05$) compared to the standard GPD. Betrayal, NeWOM and purchase abandonment were not significantly different ($ps > .19$), though the mean scores were in the hypothesized direction. Based on these findings H7a was not supported as the findings evidence a non-significant effect of the anchor removal on perceptions of brand betrayal - due to this non-significance, betrayal could not be considered a mediator on purchase abandonment and retaliation (see Fig. 16).

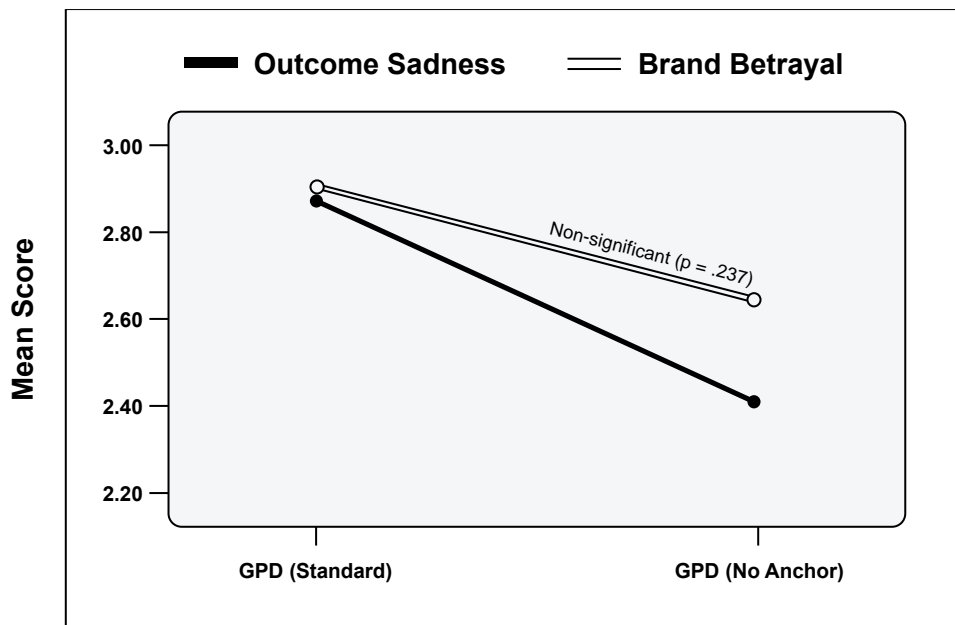


Fig. 16 - Representativeness Heuristic on Betrayal and Sadness

9.4.2 Mediation Analysis (GPD_{Standard} vs. GPD_{NoAnchor})

The mediating effect of outcome sadness (i.e. H7B) was explored through three Hayes (2018) Model 4 bootstrapped mediation analyses in SPSS (5000 bootstraps, 95% CI), one conducted for each negative consumer behaviour. Covariates matched with those in the previous analysis. Betrayal was not considered as a mediator when comparing the two GPD scenarios, as the effect of adjusting the anchoring heuristic resulted in non-significant findings in the previous MANCOVA analysis, therefore significant mediation was not possible. The results suggested that the all three mediations were significant, as 0 was not present within the 95% CI (LLCI > 0 < ULCI) and were considered indirect-only mediations as non-significant direct effects occurred on the c' path ($X \rightarrow Y$ $p_s > .65$) (Zhao et al., 2010). The results can be seen in the following Table 38. Overall, the results of these mediation analyses suggest that when comparing the two GPDs, lesser (higher) reward outcome sadness from a GPD which has (hasn't) been heuristically adjusted by removing the price anchoring mechanism leads to lesser (greater) intentions to abandon one's purchase and retaliate against the offering brand. In other words, when a price anchor is not present, reward sadness is reduced, leading to an overall reduction in negative consumer behaviours.

Table 38 - Indirect effects of X on Y, through Outcome Sadness

DV	Effect	BootSE	BootLLCI	BootULCI
Abandonment	-.23	.12	-.49	-.01
Negative eWOM	-.19	.09	-.39	-.01
Avoidance	-.24	.12	-.48	-.01

9.4.3 Parallel Mediation Analysis (Multicategorical, for exploration of entertainment)

Three more Hayes (2018) Model 4 mediation analyses (5000 bootstraps, 95% CI, one for each negative consumer behaviour) were run using PROCESS macro in SPSS to

compare the parallel mediating effects of brand betrayal, reward sadness, and entertainment on the main effects (i.e. CPD vs. GPD_{Standard} or GPD_{NoAnchor}). Covariates matched the previous analyses. The coding for the multicategorical comparisons were as follows in Table 39.

Table 39 - Multicategorical Grouping Coding

Condition	X1	X2
CPD	0.00	0.00
GPD _{Standard}	1.00	0.00
GPD _{NoAnchor}	0.00	1.00

X1 = CPD vs. GPD_{Standard} // X2 = CPD vs. GPD_{NoAnchor}

The results shown in Table 40, suggest that brand betrayal acted as a significant mediator for each of the three behaviours, while entertainment and sadness only mediated abandonment and avoidance behaviours (LLCIs > 0 < ULCIs). Entertainment and sadness did not significantly mediate negative eWOM intentions (LLCI < 0 < ULCI). Overall, the results support brand betrayal as the strongest mediator of the three negative consumer behavioural intentions, however the role of entertainment value was found to be a strong alternative mediator in the opposite direction (i.e. competitive mediator) for two of the behaviours, purchase abandonment and brand avoidance. Although significant, the mediating effect of outcome sadness produced a comparably low effect size when run in parallel with brand betrayal.

Table 40 - Parallel Mediation Analyses

	Effect	SE	LLCI	ULCI	Effect	SE	LLCI	ULCI	Effect	SE	LLCI	ULCI
	Purchase Abandonment				Negative eWOM				Brand Avoidance			
	X → Betrayal → Y											
X1	.37	.13	.14	.65	.48	.12	.27	.74	.55	.14	.29	.85
X2	.29	.10	.10	.53	.37	.11	.17	.61	.42	.12	.20	.68
	X → Entertainment → Y											

<i>X1</i>	-.34	.14	-.64	-.08	-.06	.08	-.23	.08	-.30	.10	-.50	-.11
<i>X2</i>	-.37	.15	-.67	-.08	-.07	.08	-.24	.09	-.32	.10	-.54	-.12
	<i>X</i> → <i>Sadness</i> → <i>Y</i>											
<i>X1</i>	.25	.10	.08	.47	.06	.06	-.02	.22	.16	.07	.03	.31
<i>X2</i>	.14	.06	.02	.29	.04	.04	-.01	.14	.08	.04	.01	.18

Lastly, to rule out the potential that the level of fun present in GPDs significantly buffers the negative main effects that have been presented thus far, the main effect model was re-run controlling for users perceived level of fun. This analysis did not significantly alter the results between CPDs and either of the GPDs, as all direct paths which were significant, still remained significant, suggesting that the effect of entertainment produced by the addition of gamblification does not significantly impact the main effects.

9.5 Summary of Findings

The purpose of the present study was to investigate the effect of the price anchoring heuristic on GPD outcomes of brand betrayal and brand sadness on downstream negative consumer behaviours. Overall, H7b was supported, suggesting that removing the price anchoring mechanism in GPDs lowers the overall negative impact of GPDs on feelings of outcome sadness, which in turn reduces consumer intentions to abandon their purchase and retaliate against the brand. This finding aligns with extant literature which states that pricing information can act as a benchmark for discount estimation (Alavi et al., 2015; Kahneman & Tversky, 1979; Zong & Guo, 2022), and when incongruence between expectations and actual outcomes occur, negative affect can ensue (Alavi et al., 2015; Xia et al., 2004). Unexpectedly, H7a was not supported, suggesting that price anchoring does not seem to be the driving force behind feelings of betrayal following a low-reward outcome from a GPD. With this said,

the overall mean scores of betrayal did move in the same direction (i.e. lesser betrayal in the heuristically adjusted GPD scenario).

This finding was unexpected, considering research suggests one of the main pitfalls of GPD is the tactics inability to provide distributive justice (i.e. some customers get treated better than others) (Alavi et al., 2015) as well as that incongruence with an expected price outcome can lead to consumer perceptions of unfairness (see Choi et al., 2013; Xia et al., 2010). It is likely that since participants viewed the outcomes of the GPD without a price anchor as increasingly uncertain, negative uncertainty effects (Gneezy et al., 2006) could still have taken place. That is to say, although there was a lack of information regarding potential discounts, this information reduction did not necessary translate into a change in consumer perceptions of deception within the advertisement, as the magnitude of uncertainty was relatively high in both promotions. Thus, if the innate level of deceptiveness did not differ between the two gambled discounts, it would make sense that betrayal would not differ between the two GPD scenarios. Future research should interpret this second finding with caution and attend to re-attempting manipulating the anchoring and adjustment heuristic for further understanding. For example, does this effect replicate at greater or lesser discrepancies between high and low possible outcomes (i.e. 10% vs 40% instead of 5% and 35%)? Do results differ if other unrelated numeric anchors are present on-screen when shopping online (e.g., prices of products, shoe sizes, etc)?

Parallel mediation analyses investigating the impact of CPD vs. GPDs on purchase abandonment and the two retaliation behaviours revealed entertainment value of GPDs to be a strong alternative mediating mechanism in the opposite direction (e.g.

a competitive mediator (Zhao et al., 2010)). This finding is interesting and aligns with existing work which suggests that the entertainment value of GPDs (vs. CPDs) drives positive consumer behavioural intentions (Akbari & Wagner, 2021). Although interesting and worth exploring further in future research, the main finding which has been shown throughout the series of studies - that low-reward GPDs (vs. equivalent CPDs) result in significantly greater levels of purchase abandonment and retaliation behaviours - make it difficult to promote GPDs as promising for marketing use. Overall, it is still support that GPDs have a darker side on consumers when reward outcomes are low, and therefore should be used with caution if considered by marketers.

Chapter 10: Field Study

10.1 Introduction & Preface of Failed Outcome

This section of the manuscript discusses the field study which was run for the present research. The main purpose of the field study was to gain data with higher ecological validity on the real-world impacts of GPD vs. CPDs on consumer website usage and purchasing behaviours. In order to conduct this study, a live e-commerce website selling swimwear which internet users could browse and order real products from was created (to view the e-commerce website, please visit www.sailyr.com which is still live and active, for the time being).

It is also important to preface this section by unfortunately stating that due to issues that emerged during data collection (which will be discussed further), the field study was not successful and produced negligible data worthy of analysis. However, this

portion of the research is included as the field study was a part of the project which took significant time and effort to design and create. Therefore, within this section an outline of the study will be discussed before reflecting on issues faced, what was learned from the overall outcome, and how this first attempt will inform my future research plans.

10.2 Design & Sample

A 2 (Discount Type: CPD vs. GPD) X 2 (Reward Outcome: Inferior – 5% vs. Superior – 35%) between-subjects design was employed for this field study. The intended sample for the field study was N = ~1000 participants. However, as stated due to issues with the data collection which will be discussed further in this section, the study was cut short and the final sample was N = 78 (14,283 reached in advertisements), 100% male, aged between 25-34 and from the United States of America.

Purposive sampling was employed for the present study, as the products sold on the e-commerce website (i.e. men's swimwear, to be discussed further) are a product targeting a specific demographic of customers. Due to these targeting requirements, purposive sampling was selected as it is appropriate when targeting a sample who possess specific attributes, interests, or characteristics (Hair et al., 2019). The sample was collected through the use of pay-per-click (PPC) advertising through Google Adwords and Meta Business Suite. The targeting criteria for the advertisement included: Male participants, aged 25-34, from the United States, and English speaking.

10.3 Designing the Data Collection Environment

Initially, the data collection for the present study was going to be done through partnering with a specific retailer who had already been using GPDs and CPDs in their price promotion strategy. However, at the last moment, the partner decided to retract their offer of sharing data. The researcher of this study took it upon himself to create an online digital retailing ecosystem which could provide similar data. Specifically, an online men's swimwear brand (www.sailyr.com) was designed and developed by the researcher to collect real behavioural data on GPDs vs. CPDs in digital retailing.

There were several key steps in order to set up a digital retailing environment for data collection. These steps chiefly included: sourcing a manufacturer, designing products, developing an e-commerce website, linking data analytics platforms, and driving traffic to the website. The overarching process and choices within each step will now be discussed.

10.3.1 Sourcing a print-on-demand product manufacturer

The first step of the field study was to source a manufacturer to create the products which could be sold on Sailyr. While many types of product manufacturers exist, print-on-demand manufacturing was selected, as it ensured that the researcher did not have to physically house any of the products, as all of the logistics associated with creating and delivering the product to any customers would be handled by the manufacturer. After searching, a suitable manufacturer was found that offered white-label men's swimwear, which could be fully customized in branding and design at a reasonable price.

As stated, men's swimwear was selected as product to sell. The main reasons for the present product choice of men's swimwear came down to apparel as a choice of industry, as well as feasibility and accessibility (offerings of the manufacturing). GPD use has been evidenced in a variety of industries (Akbari & Wagner, 2021; Alavi et al., 2015; Tan & Chen, 2021), however referencing back to the interviewing stage of this manuscript (i.e. section 4.3), the dominant industry where participants found GPDs was in the fashion sector. When selecting one of the industries, it was important to align the choice with the feasibility of creating a product that would be available in the constraints of the PhD research timeline. Therefore the selected industry was mainly due to the accessibility of fashion in print-on-demand manufacturing. Likewise, within the selected manufacturing partner, the most customizable product which was available was men's swimwear. Though, the product selection does inherently face the limitation of being a mostly male-specific product, which is a limitation acknowledged here.

10.3.2 Branding & Product Design

The next step in the process was to develop the e-commerce platform and products that would be sold. A suitable catchy domain name for the brand relevant to water-based activities was selected which was a play-on-word of sailor (Sailyr). After some iterations, the final logo for the brand was designed and is shown below (Fig. 17).



Fig. 17 - Sailyr Logo

17 branded swimwear products were then designed and developed in six sizes (XS – 2XL). These products were available for purchase on the final website for \$36.99 (USD). A few examples of the branded products designed for purchase in the field experiment can be seen below in the following Fig. 18.



Fig. 18 - Sailyr Product Examples

10.3.3 Developing the e-commerce Website

Shopify was used to develop an e-commerce website. The full website can be accessed and viewed by going to www.sailyr.com. Shopify was selected as it is known

as a leading e-commerce content management system (CMS) worldwide (Thornhill & Howard, 2023). Likewise, the researcher has significant web development experience using Shopify and therefore it would be most efficient to use. After designing the website's user interface, analytics software including Google Analytics and LuckyOrange was linked to the website interface.

Google Analytics is a leading analytics software used to measure demographic and behaviour information of website visitors through cookies. LuckyOrange is an analytics software which enables in-depth behavioural tracking, including heatmaps, mouse tracking, and automatic screen recording software. This means that for each user visiting the website, their entire usage was recorded as a video if needed for analysis. The recorded usage only showed the movement of their mouse on the webpage (only their movement on Sailyr.com, no other data or webpage tabs were accessible or visible). Aligning with research ethics, and General Data Protection Regulations (GDPR), in order to visit and use the website, participants were required to read and agree to specific terms of use, which outlined the website data collection and tracking methods. Visitors who did not accept these terms were not tracked and their data was not collected.

As shown in the following Figs. 19 and 20, two different promotion types (CPD / GPD) of two discount levels (5% Inferior / 35% Superior) were created for the study, only one of which would pop up for visitors, and would appear five seconds after the visitor accepted the terms and conditions (consent). These promotions could only be viewed and interacted with once per IP address to ensure that visitors did not attempt to reload the website to receive a different outcome. Likewise, the promotion code offered for

each user was algorithmically generated and unique – if used to purchase, the promotion would immediately become invalid for any future purchases.

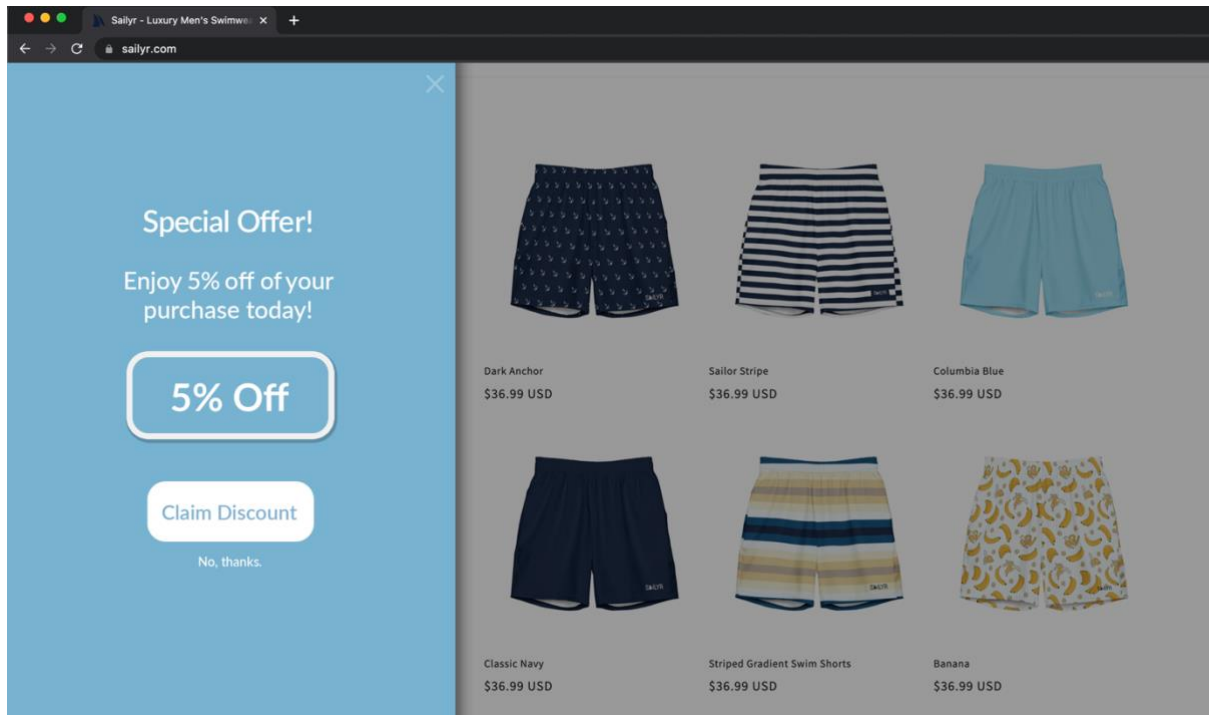


Fig. 19 - Field Study CPD example (inferior reward)

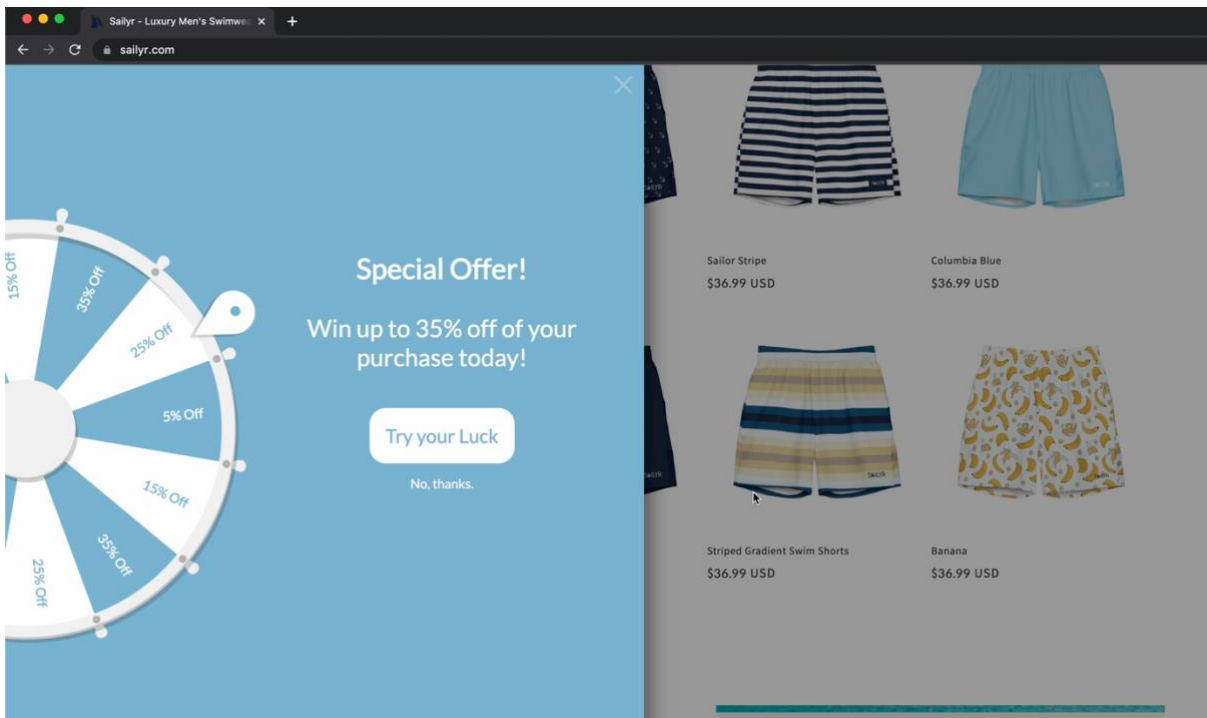


Fig. 20 - Field Study GPD visual example (pre-resolution)

Simultaneous A/B testing of both promotion types was not available using the employed web infrastructure, therefore A/B testing between the two promotions was to be done over a period of two weeks. A two week period was selected in order to provide more robustness against any day-of-week and ordering effects that could occur, following A/B test guidance from Kohavi et al. (2020). Specifically, each day the promotion shown to the sample for that specific day would be either a CPD or GPD, and the following day, the promotion type would change to the other for a two-week period. For example, the sample for day 1 would be shown GPD promotions, the sample for day 2 would be shown CPD promotions, day 3 would go back to GPD promotions, and so on. At the end of the first 7 days, the order would switch over, so for day 1 (of the next 7 days) it would begin with a CPD, followed by GPD, etc. The randomisation schedule can be visualised in Fig 21.

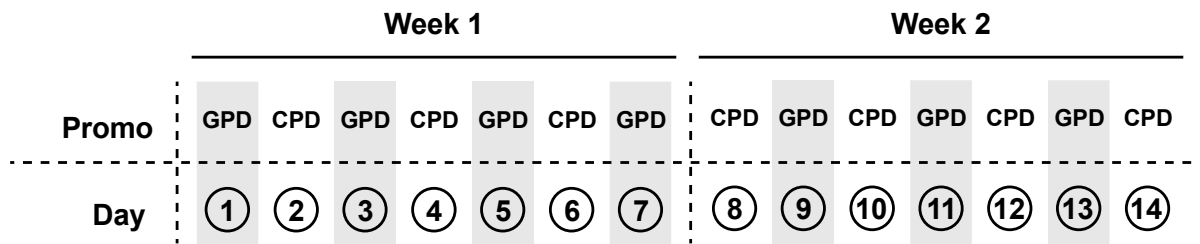


Fig. 21 - Field Study Data Collection Schedule

10.3.4 Driving Traffic to the Website

Once the website was up and running, it was tested to ensure that all of the analytics and tracking software measured visitors as intended. Likewise, GPD and CPD discount promotions were tested to ensure that IP blocking was in effect and would produce unique discount codes for each visitor. As stated, Google Adwords and Meta Business Suite were employed as platforms for pay-per-click (PPC) advertising to drive traffic to the website. PPC advertising through Google Adwords and other reputable paid channels has become widely accepted form of participant sampling in recent marketing literature (Kronrod et al., 2012; Malodia et al., 2023). A visual example of the advertisement that visitors would have seen before coming to the website can be seen in the following Fig. 22.



Fig. 22 - PPC Advertising Example

10.4 Where it All Went Wrong

After the platform, products, all of the data collection software, and PPC campaigns were ready to launch, a pre-test was run using a 10% of the total budget (\$1000USD * 10% = \$100USD) expected to receive approximately 100 participants to generate initial data on how participants interacted with the website upon receiving a GPD / CPD promotion of varied discount level (5 vs. 35%). Overall the advertisement lead to 78 visitors to the website. From the sample, the average duration spent on the website was 16 seconds, and the average amount of pages viewed per user was 2.03, with 681 clicks on the website total. No sales were generated.

However, the main issue was visitors did not want to interact with the GPD promotion. Unexpectedly, over 94% of participants either immediately clicked the 'x' at the top of the promotion to close out of the GPD or simply left the website altogether as soon as

the GPD appeared. Of the individuals who did interact, all of them had immediately left the website upon receiving an outcome. This was verified by the LuckyOrange analytics software which is a digital screen recording software which tracks mouse movements of each participant using the website in real-time.

Although some research in the field of uncertainty and motivation would suggest consumers would be more likely to partake in uncertain promotions due to greater levels of curiosity (Ruan et al., 2018; Shen et al., 2015; Wiggin et al., 2019), this was not the case. The outcomes aligned more closely with the present findings in this series of research, as well as other extant literature that suggests consumers are averse to uncertainty (Gneezy et al., 2006; Kahneman & Tversky, 1979). It could also be possible that if these visitors had interacted with a similar promotion in the past and had a negative experience, and therefore may have chosen to avoid interacting the presently offered promotions altogether. Similar avoidance actions towards GPDs were stated by many interviewees in the pilot interviews and aligns with existing literature on avoidance behaviours in marketing (Kelly et al., 2020; Updegraff et al., 2004). One other possibility is the issue that Sailyr is an unknown, independent brand; individuals visiting the website would be coming for the first time and when the GPD promotion popped up, they may have potentially thought that the website was a scam.

It quickly became a realisation that due to the level of interaction shown, the costs of running this field study would be significantly higher than anticipated and unrealistic. That is to say, even if the entire budget of \$1000 was spent, it was unlikely that there would be sufficient data for analysis. Likewise, due to time constraints, there was not enough time to revamp the study in another way during the time of the PhD. Therefore,

the difficult decision was made to put the field study on hold for the time being and continue from another angle in the future. While this outcome was hard to chew on after all of the time, effort, and money that was put into planning and organizing this study, reflecting back it was the correct choice instead of attempting to continue throwing time and money into a non-viable experiment.

10.5 Personal Reflection of the Field Study

Overall, the unsuccessful outcome of the field study was of course very demoralizing and extremely upsetting at first; this was a portion of my PhD research which took significant time, effort, and resources. With this said, I am very early in my career as an academic and I knew creating and running this field study was going to be a high-risk high-reward decision. While it unfortunately turned out to be the former, I can confidently say that experiencing this failure has developed my strength as an academic researcher. I have now licked my wounds and moved on from viewing the experience as a time of darkness and can now see it in a more positive light. The development of the field study showed me that I am capable of designing ambitious experiments, but also revealed that in future endeavours I need to be more mindful in ensuring that: experiments are feasible, I can better anticipate and mitigate risks through early extensive testing, and that I should have a back-up plan in place should experiments be unsuccessful.

In the near future, I am determined to approach a similar experiment from another angle. While the exact method has not yet been decided, some of the things that I have considered are inspired by neuromarketing research. For example, automatic micro-expression analysis, facial emotion recognition, eye tracking, galvanic skin

response (GSR), or perhaps electroencephalography (EEG) could be employed. For any of the aforementioned data collection strategies, Sailyr could still be used as a form of stimuli, as it is a fully developed interactive e-commerce environment.

Here concludes the series of experiments and data collection. Next, the thesis moves towards the general discussion, contrasting the findings here to existing relevant literature.

Chapter 11: General Discussion

11.1 Chapter Overview

GPDs are a form of uncertain promotion that have emerged and become highly prevalent – especially in e-commerce (Behl et al., 2020), having been adopted en masse by both SMEs and large corporations. More than ever before, marketing scholars stress the importance of ensuring that consumer-brand relationships are frictionless, in attempts to increase consumer happiness, perceptions of brand image, and overall brand equity. Extant research on GPD use as a price promotional strategy is limited; several calls for further research on GPDs and gaps exist which the present research addresses, including: understanding how GPDs can backfire on consumption, how GPDs can affectively impact consumers, and uncovering several boundary conditions. The present investigation consisted of five online experiments, one field study (unsuccessful), as well as six initial pilot interviews. The present chapter focuses on discussing and interpreting the results found in this series of studies, linking the findings found here to existing theory in order to help understand

and shine light on the effects. This effort aims to clarify how the present work adds to the existing knowledge base of relevant theory by discussing the insights gained from this work. Likewise, this section outlines several topics for future research on GPDs.

11.2 The Impacts of Low-Reward GPDs on Negative Consumption & Consumer Retaliation Behaviours

In extant literature, there has been a significant divide between scholars on if or if not uncertainty is an applicable strategy to improve marketing endeavours. Early research on uncertainty theory and specifically uncertain in marketing pricing promotions suggests that consumers are averse to uncertainty (Gneezy, 2017; Kahneman & Tversky, 1979), and therefore it should be avoided in marketing practice. However, over recent years sentiment in the majority of research has done a 180, suggesting that due to the motivational qualities of uncertainty (e.g. curiosity engenderment) (Ruan et al., 2018; Wiggin et al., 2019), and the hedonically pleasing and entertaining nature of uncertainty resolution (Knobloch-Westerwick & Keplinger, 2006; Shen et al., 2015). Specifically, many authors suggest that due to these facets of uncertainty, its use in marketing price promotions can have significant benefits towards increasing consumption (Goldsmith & Amir, 2010).

Specific to GPDs, the majority of the findings from extant literature suggests positive benefits of using GPDs vs. CPDs, lacking consideration of the negative possibilities that could result from an undesirable outcome (Kovacheva & Nikolova, 2023; Tan, 2022). For example compared to CPDs, research suggests that GPDs do not negatively impact internal reference prices of products and therefore encourage

repurchasing behaviours in consumers (Alavi et al., 2015). Other work suggests that GPDs provide high entertainment value, which drives overall satisfaction, leading to positive word of mouth behaviours (Akbari & Wagner, 2021). Some suggest GPDs are a double-edged sword, in that negative attitudes about the GPDs attractiveness exacerbate negativity, while positive attitudes increase positivity (Tan & Chen, 2021). A large portion of extant research on GPDs and uncertain price promotions in general focuses on consumer's perceived attractiveness of GPDs in a motivational or preferential sense, rather than investigating the downstream outcomes (Attari et al., 2022). From this research calls have emerged for research to understanding the negative side of uncertain price promotions such as GPDs, and specifically when they backfire and result in undesirable consumer behaviours, for example:

“Research has looked at the positive aspects (benefits) of uncertainty marketing tactics. We lack an understanding of when and why these tactics may backfire” suggesting that future research should *“investigate the conditions under which uncertainty marketing may result in undesirable outcomes”*

- Kovacheva and Nikolova (2023, p. 18), JAMS

Providing answers to RQ1 (see Chapter 1), the present work joins the discussions and highly mixed debate of uncertainty and gamblification implementation in price promotions by uncovering a darker side of GPD use, which emerges following less desirable discount outcomes (Alavi et al., 2015; Goldsmith & Amir, 2010; Kovacheva & Nikolova, 2023). Through the entire series of studies in the present research, the results have consistently shown that low-reward GPDs (compared to equivalent CPDs offering the same discount amount) result in significantly greater intentions for

consumers to engage in negative consumer behaviours. Specifically, supporting H1, the research here shows that in these instances, consumers are more likely to abandon their current purchase with the offering brand, or show a greater likelihood to engage in retaliation behaviours including negative eWOM and future brand avoidance. This effect was significant throughout the entire series of experimental studies. Likewise, this effect held irrespective of: A) if the GPD was gamblified or not gamblified in visual design (Study 1), B) if the GPD's representativeness was heuristically adjusted to be visually perceived as offering lower probabilities for high reward outcomes (Study 4), or C) if the GPD had the price anchoring mechanism removed from its design entirely (Study 5).

In a more broad sense, the results of this thesis show that regardless of how the GPD is designed, low outcomes seem to be counterproductive to building up the brand-consumer relationship. While the present work looked mainly at abandonment and two retaliation behaviours, it is here believed that the negative effects could spread further and cause negative impacts to facets of the brand-consumer relationship such as negative perceptions of brand image or brand equity. This was also supported by interviewees in the pilot interview phase who stated that brands who use GPDs seem 'cheaper'. Investigating the more broad implications of GPD outcomes on brand equity related constructs would be a worthwhile future research endeavour.

Tan and Chen (2021) found that positive (negative) perceptions of discount attractiveness lead to increased (decreased) consumption behaviours in GPDs. However, these authors did not compare these GPD outcome to equivalent CPDs. In the present research, promotion effectiveness did increase as the realized discount

outcome increased within the same type of promotion (i.e. CPD vs. CPD or GPD vs. GPD), however when comparing the two conditions against one another the effects were only partially double-edged. Specifically, in low-reward conditions, GPDs underperformed CPDs in terms of intentions of purchase abandonment, negative eWOM, and brand avoidance as stated in the previous paragraph. In high-reward conditions comparing the two, GPDs did show some promise of reducing purchase abandonment, but impacts on retaliation intentions were insignificant.

It is likely that retaliation did not differ as consumers would not feel betrayed by the brand in either case and therefore would similarly feel no need to retaliate (Grégoire & Fisher, 2008; Grégoire et al., 2009; Reinikainen et al., 2021). Likewise, there are many theoretically sound reasons why high-reward GPDs could outperform CPDs in terms of purchase continuation, such as anchoring and adjustment effects (Kahneman & Tversky, 1979), hedonic uncertainty resolution effects (Ruan et al., 2018; Shen et al., 2019; Wiggin et al., 2019), or outcome expectation incongruence in a positive direction (i.e. a better outcome than expected) (Choi et al., 2013; Goldsmith & Amir, 2010; Soscia, 2007). Future research should attend to understanding which (if any) of these effects drive increased consumption behaviours in high-reward GPDs, as well as look at the impacts of receiving intermediate level rewards from GPDs on consumption behaviours (e.g. in a discount of 5-35%, what happens if you win 15% or 25%?).

11.3 The Microbetrayal Effect & Consumer Sadness

One of the aspects of previous literature on gamblified promotions which has often been overlooked is the impact of the uncertainty resolution outcomes on consumer

affect and how this affect shapes downstream consumer behavioural decisions. That is to say, majority of work focuses on the cognitive side of receiving a discount (i.e. how valuable the discount is) as opposed to the affective side of receiving a discount (i.e. how this discount makes me feel) (Raghubir et al., 2004). This is problematic, as this disregards the possibility for equivalently valued discounts to be assessed differently based on the promotion type they are received from. Based on this dearth, there have been specific calls for research to address this gap and focus on the affective face of these price promotions (see Akbari & Wagner, 2021; Alavi et al., 2015; Tan, 2022). For example:

"The outcome of a price gamble may also affect customers on an emotional level—for example, by arousing excitement, joy, or disappointment (in the case of losing)... Assessing the consequences of winning or losing gambled price discounts for various shopping behaviours constitutes a worthwhile and important research endeavour. - Alavi et al. (2015) Journal of Marketing

Providing a response to RQ2, the present work specifically focuses on contributing to this base of knowledge, uncovering brand betrayal as a key mediator in the relationship between GPD (vs. CPD) losses and downstream negative behaviours of purchase abandonment, negative eWOM, and brand avoidance. Brand betrayal is defined in literature as a consumer affective state which emerges following a value-based (i.e. moral) transgression in the normative brand-consumer relationship (Reimann et al., 2018). The majority of research focuses on betrayal contexts which are considered high-magnitude transgressions (e.g. brand misogyny, racism, destruction of consumer property) (Grégoire et al., 2009; Kähr et al., 2016; Reimann et al., 2018), though brand betrayal has been shown to occur in lesser magnitude contexts as well (e.g. being misled, taken advantage of), however it is an area with

very limited literature (Reinikainen et al., 2021), especially in the field of price promotions.

In the present work, the results suggest brand betrayal (Studies 1-5) to be a key mediator of the relationship between low reward GPDs (vs. equivalent CPDs) and the three aforementioned downstream negative consumer behaviours, supporting H2. The results aligned with extant literature on brand betrayal which shows that consumers may become reactive and hostile towards the offending brand (Grégoire & Fisher, 2008; Grégoire et al., 2009). Specifically, the results suggest that intentions to abandon one's purchase and retaliate through increased intentions of negative eWOM and brand avoidance following a low reward GPD are mediated through perceptions of brand betrayal. When comparing this effect to outcome sadness (Studies 4-5), it was found that the effect of brand betrayal was a significantly more impactful mediator of these relationships. Aligning with Akbari and Wagner (2021), supplementary analysis found promotion entertainment value to have a juxtaposing mediating effect on purchase abandonment and avoidance (Study 5), however, the negative outcomes of betrayal strongly outweighed these positive impacts. Overall, the present research suggests brand betrayal, among other tested emotional responses, to be the key affective outcome which mediates the purchase abandonment, negative eWOM and brand avoidance following a low-reward outcome from a GPD (vs. equivalent CPD).

This thesis defines this result as the Microbetrayal effect, where consumers feel a sense of brand betrayal (e.g., the perception of being misled, cheated, deceived) by a brand which is in reality providing them with a positive outcome (here a discount on their purchase). Therefore, although there is a monetary gain claimed by consumers,

consumers still may feel that a sense of betrayal due to the lesser morality associated with the uncertain GPD promotion (Studies 1-5). Therefore here the Microbetrayal effect is defined as a perceived moral transgression following a brand's voluntary or involuntary actions which offer actual benefit (i.e. non-negative) to a consumer, but are irrespectively perceived as aversive. Therefore, the effect focuses on the irrational response of receiving an actual benefit (a positive outcome) and the ensuing negative response of still perceiving the outcome as betraying (feelings of being cheated, misled, or deceived).

Further support for the Microbetrayal effect was shown in Study 1 when conducting a supplementary analysis, which revealed that the aforementioned mediating effect of brand betrayal was serially mediated by consumer perceptions of the brand promotion being immoral. Likewise, within the exploratory interview stage of the research many participants had claimed emotions such as "lied to", "scammed", "betrayed", "let down", "that the brand had been dishonest", "deceived", and "uncared for by the brand" when recalling their personal experiences interacting with a brand offering GPDs. Lastly, extant research has shown that incongruence of discount expectation and actual discount outcomes (a key facet and pitfall of GPDs, (Alavi et al., 2015)) can lead to perceptions of unfairness (Choi et al., 2013), a common feeling which engenders betrayal. Future research should focus on finding similar Microbetrayal effects that may present themselves throughout the field of marketing and promotions. For example, do customers who have had repeated transactions with a business feel a similar sense of betrayal when offered a promotion which offers less benefit than another known existing promotion which is only available to new customers who

haven't proven their loyalty (i.e. they may be perceived by existing customers as undeserving)?

11.4 The Role of Brand Loyalty

Providing an initial response to RQ3, the next discussion point focuses on moderating impacts of brand loyalty on the downstream consequences of promotion type. In marketing research, brand loyalty has been shown to have mixed and complex effects following a brand transgression. For example, much research suggests that following a transgression, brand loyalty acts as a buffer; loyal customers give brands the benefit of the doubt and can more easily overlook an error on their end (Fetscherin & Sampedro, 2019; Haden & Hojjat, 2006). However, other literature has shown the complete opposite effect. That is to say, because of the increased strength of the consumer's relationship with the brand, the transgressive effects are amplified (Grégoire et al., 2009; Huber et al., 2010; Jabeen et al., 2022). The main consideration for these effects which is often brought up in literature is that following a performance transgression (i.e. service failure, poor performance), loyalty is more of a buffer to negativity, while following a moral (i.e. valued-based) transgression (i.e. betrayal, deception, unfairness), loyalty amplifies negativity.

The present work adds to this mixed discussion, revealing that undesirable GPD outcomes fall somewhere in the middle. Specifically, the results of the present work (study 4) show that for low-reward CPDs, brand loyalty buffers perceptions of betrayal, leading to reduced negative behavioural outcomes. However, for low-reward GPDs, brand loyalty acts neither as a buffer or an amplifier, as participants held relatively higher feelings of betrayal (compared to equivalent CPDs) irrespective of their level of

loyalty. While this was not necessarily the hypothesized outcome (H3), this finding is important and interesting as this suggests that the negative aspects of GPD outcomes can affectively impact customers at a relatively high magnitude irrespective of their pre-existing level of loyalty towards the brand, which in turn lead to intentions to abandon one's purchases and retaliate.

This finding does not necessarily align with either side of literature. It is believed here that this null effect of loyalty on GPDs was due to the relatively low magnitude of betrayal (i.e. Microbetrayal). That is to say, while participants didn't view the GPD loss as a functional transgression (and therefore loyalty did not buffer the negative affect), the magnitude of betrayal was not so great that loyal customers felt that the effect had completely dismantled their view of the brand. Overall, the finding suggests that everyone, regardless of level of loyalty, found the low-reward GPD as aversive. Based on this finding, brands should be cautious to implement GPDs in their strategy as the negative effects could be aversive to both pre-existing loyal customers, as well as new customers. Future research is needed in this area to further understand if and how pre-existing loyalty plays a role in varied gamblified promotion contexts. To do so, researchers could manipulate the magnitude of betrayal by increasing the differences between lowest and highest possible GPD outcomes and measure the impacts of loyalty. For example, if a customer received a 1% discount when the maximum stated offer was 50%, would an increase in brand loyalty amplify the negative perceptions of betrayal?

11.5 The Role of Product Characteristics

In the third experimental study of the manuscript, the impacts of two product characteristics including product involvement and product value type were investigated as moderators on the main effect towards betrayal. This section discusses the findings related to each of these characteristic dimensions, providing further answers to RQ3.

11.5.1 Product Involvement

In marketing literature, product involvement regards a consumer's internal beliefs of importance and interest in a specific product or service (Zaichkowsky, 1985). As the level of perceived involvement increases within a consumer, as does the complexity of the buyer decision making processes, as the decision holds more importance in the eyes of the consumer. The product involvement construct is important within marketing literature, as it has been shown to affect consumption behaviour and thus, brands often vary their strategy when marketing products of different involvement levels (Belanche et al., 2017; Stewart et al., 2019). However, the product involvement construct has not been formally investigated within GPD promotions. Specific to GPD literature, some authors have suggested that it is likely GPDs would be less effective for high involvement products (Alavi et al., 2015; Goldsmith & Amir, 2010). Likewise, it has been suggested in general uncertainty price promotion literature that consumers prefer certainty when product cost is high, and uncertainty when product cost is low (Gaertig & P Simmons, 2020). In the present work, it was theorized that due to these increased complexities and the greater inherent importance in high involvement purchasing decision, low-reward GPDs (CPDs) would result in greater (lesser)

negative affect (i.e. brand betrayal) when the item of prospective purchase was higher in involvement.

The findings of the study supported this notion and thus H4 directly, with the data showing that following a low-reward GPD (vs. equivalent CPD), feelings of betrayal were significantly greater when considering products higher (vs. lower) in product involvement. Many participants in the interviewing stage of the research supported this, stating that the impact of low-reward GPDs would be less negatively impacting if the product was lower in involvement.

Managerially, this finding is important as GPDs have been employed by existing firms selling products which may be considered high involvement (e.g. Star Alliance selling flights, 3DPrintingCanada selling 3D printers). Based on these findings marketers should be cautious to implement GPDs, especially if selling high-involvement products. An interesting future topic of research associated with GPDs and the role of product involvement-related characteristics would be to consider if GPDs could be more effective for recurring purchase products. For example, unlike one-time or infrequent purchases (e.g. TV, cruises), if an individual was purchasing a product with high frequency (e.g. daily coffee), could the hedonic benefits of uncertainty which has been shown in other literature (i.e. Akbari & Wagner, 2021; Ruan et al., 2018) negate the Microbetrayal effects? This concept was also discussed with some participants in the pilot interviews who believed that GPDs may be acceptable in low-involvement, repeat purchase scenarios.

11.5.2 Product Value Type

Products are generally considered to hold hedonic- or utilitarian-value dimensions (or both depending on how consumers deem them). Hedonic products are considered those which are consumed for pleasure or for their experiential nature, while utilitarian products are used for their functional and practical benefits (Dhar & Wertenbroch, 2000; Hirschman & Holbrook, 1982; Voss et al., 2003). Due to these differences, the ways in which and why individuals shop and interact for products holding these values naturally differ (Chiu et al., 2014). It has been suggested in literature that the hedonic product shopping experience is more affect rich, with emotion playing a larger role (compared to utilitarian product shopping) in the final buyer decision making, while utilitarian product shopping is more based on reasoning and cognition (Arruda Filho et al., 2020; Homburg et al., 2006; Klein & Melnyk, 2016). Due to the affective nature of hedonic products (vs. utilitarian) and the found impacts of low-reward GPDs on negative consumer affective responses of brand betrayal, it was theorized that a 'doubling-down' effect would occur in which low-reward GPDs under hedonic shopping experiences would amplify the negative outcomes of betrayal, when compared to utilitarian shopping experiences. However, the data did not align with this theorised hypothesis (i.e. H5); there were non-significant differences between the two product types on betrayal. It is possible that these null results occurred due to the hedonic nature of the GPD promotion overwhelming the participant's focus of the hedonic and utilitarian value differences between the offered products. That is to say, customer focus could have shifted away from the product values and more towards the GPD promotion interaction and outcome. Alternatively, it is possible that due to the experimental design or product choices, participants could have felt less invested in the offered products, also potentially muting the effects.

While there was no effect of product type on brand betrayal, there was a three-way interaction effect which occurred between the three independent variables, promotion type (GPD vs. CPD), product involvement (lower vs. higher), and product type (utilitarian vs. hedonic) on the downstream negative consumer behaviours: purchase abandonment, negative eWOM, and brand avoidance. This interaction effect was non-significant on betrayal.

The interaction effect specifically supported that the negative effect of increased product involvement after receiving a low-reward GPDs on these three negative consumer behaviours was only significant in hedonic products. Since there was non-significant three-way interaction effects of the IVs on brand betrayal, this suggests that this effect was not be mediated by brand betrayal, and therefore there is likely an omitted variable in the theoretical framing when specifically considering this three-way interaction (Zhao et al., 2010). It is possible that the null effect of product involvement on utilitarian products could have occurred as utilitarian products are considered necessities. For example, unlike hedonic purchases which are more susceptible to anticipatory guilty (Lu et al., 2016; Zemack-Rugar et al., 2016), if a consumer is in need of a new utilitarian product (e.g. detergent, toilet paper, washing machine), they would be more likely to purchase the product irrespective of how they emotionally feel about the situation as its function is a necessity. Perhaps due to this, there could be a lessened effect of purchase abandonment in utilitarian products regardless of involvement level. Likewise, since utilitarian purchases are more cognitive and less emotionally involved (Scarpi, 2021), it is possible that general affect is dulled here and therefore the effect of involvement on retaliation would be lesser. However, these notions are just potential possibilities. Future research is necessary to understand why

this effect has actually occurred and what variable(s) may be mediating this relationship on negative consumer behaviours.

11.6 The Role of Heuristics

The final two studies in the experimental series (study 4 and 5) focused on investigating the role of manipulating heuristics to reduce the negative effects of receiving low-reward GPDs. The purpose of these studies were to understand if it was possible to mitigate the negative impacts of GPDs through managerial intervention. Within these studies, the representativeness and anchoring and adjustment heuristic were formally investigated. Through varied visual designs of the GPDs, these heuristics were manipulated to alter participant's perceptions of their subjective beliefs of the probability of a high (low) outcome (study 4), as well as their knowledge of what possible reward outcomes were on offer (study 5).

11.6.1 The Representativeness Heuristic

The representativeness heuristic is defined as a cognitive bias which individuals employ to subjectively estimate the probability of an event happening, based on the degree of representation of an attribute within the event, compared to another known event (Bhatia, 2015; Kahneman & Tversky, 1972). Within the scope of the present work, the designs of the existing GPDs were visually manipulated (see study 4) in order to alter consumer assessments of the probability of winning a low-reward (compared to a high-reward).

Unlike other forms of uncertain promotions and some GPD research in which the probability outcomes are formally stated to consumers (Alavi et al., 2015; Attari et al., 2022; Shen et al., 2015), in real-world GPDs, these probabilities are generally unknown (Behl et al., 2020). Based on this, some authors have suggested that future research attend to building knowledge of the consequences of GPDs when probabilities are unknown (Alavi et al., 2015). When outcome probabilities are unknown in uncertain price promotions, research has suggested that consumers act as if they expect the best possible outcome to occur, this is known as the innate optimism effect (Goldsmith & Amir, 2010).

Within the present research, it is supported that when low-reward outcome representation is increased, the representativeness heuristic takes place and consumers subjectively expect that the discount final outcome be lesser. Resultantly, feelings of outcome sadness are significantly reduced when compared to a GPD that is not heuristically adjusted, leading to decreased intentions to abandon ones purchase and retaliate, supporting H6b. Considering the innate optimism effect (Goldsmith & Amir, 2010) that is engendered by unknown reward probabilities, this finding makes theoretical sense, as adjusting the representativeness heuristic seems to minimise outcome optimism. Likewise, from an understanding of congruency expectation theory and its applications in marketing, it is known that the closer (further) the congruence of an expected outcome is compared to the actual outcome, the less (more) disappointed individuals feel (van Dijk et al., 2003; Xia et al., 2004).

It was also hypothesized that a reduced effect on betrayal would take place (H6a), as theory has suggested that expectancy (in)congruence plays a role in perceived

unfairness and moral violations in brand-consumer relations (Choi et al., 2013). Likewise, in the interviewing stage, one participant in particular had outlined several times that the main reason for his strong beliefs that GPDs were highly deceptive were due to brands failing to represent the actual outcome probabilities appropriately. Although both literature and interviewees pointed towards betrayal being lessened through reduced outcome expectancies, the data did not reflect this sentiment. Across both GPD conditions, there was a non-significant effect on brand betrayal, failing to support H6a. That is to say, both groups of participants felt equivalently betrayed irrespective of which GPD they received a discount from. A plausible reason for this finding could be due to the inherent pitfall of distributive justice of reward associated with GPDs (e.g., the assumption that other customers may have received a better possible reward and the brand had held back on giving them their best offering), therefore consumers could feel betrayed regardless of expectation (Alavi et al., 2015). Future research is needed to verify this hypothesis and provide further knowledge into the impacts of distributive justice perceptions in GPDs.

Overall, it was shown that adjusting the representativeness heuristic in low-reward GPDs decreases perceptions of outcome sadness, but not perceived brand betrayal. Therefore, based on this study it is recommend that the implementation of GPDs be designed in a way that highlights the outcome probabilities, either through visual representation or potentially through a disclaimer statement.

11.6.2 The Anchoring and Adjustment Heuristic

Beyond the representativeness heuristic, the present work also focused on understanding if removal of the anchoring and adjustment heuristic within the design

of a GPD could reduce the negative outcomes of betrayal (H7a) and outcome sadness (H7b). The anchoring and adjustment heuristic is a cognitive bias in which consumers latch on to (i.e. anchor to) a numeric figure and use it as an initial starting point for a decision or judgement. This bias is not always rational; the value which is anchored to may be completely unrelated or illogical for the decision or judgement at hand (Tversky & Kahneman, 1974; Zong & Guo, 2022). From this starting point, individuals will adjust from the anchored value towards what they deem an acceptable judgement. One of the key attributes of GPDs is the fact that multiple outcome possibilities can arise upon resolution (Alavi et al., 2015). This value can range from a losing outcome (no discount at all), to a relatively high value. As supported by the interviewees and theorised in the literature review, this was one of the reasons as to why negative affect (e.g. brand betrayal, outcome sadness) and behaviours (purchase abandonment, negative eWOM, and brand avoidance) occur following receiving a low-reward outcome, compared to an equivalent CPD.

The results of this experiment fail to support H7a, suggesting that removing visible price anchors (thus reducing individual's ability to anchor to higher reward values) does not significantly reduce perceptions of brand betrayal when receiving a low reward; individuals viewed the promotions as equally betraying. However, the removal of the price anchor does significantly reduce feelings of reward outcome sadness, supporting H7b. The first finding, suggesting that removal of the price anchoring effect did not reduce feelings of brand betrayal was surprising, as existing theory suggests that consumers are innately optimistic towards receiving the highest possible outcome when faced with a GPD promotion (Goldsmith & Amir, 2010) and incongruence between an expected discount and received discount can lead to perceptions of

unfairness and dishonesty, a driving factor of brand betrayal (Choi et al., 2013; Grégoire & Fisher, 2008; Leonidou et al., 2017; Reimann et al., 2018). Therefore, it was theorized that removal of the price anchor would in turn significantly reduce betrayal, thus reducing negative behavioural outcomes. Albeit non-significant, the mean scores of betrayal were lesser in the hypothesized direction when the anchor was removed from the design.

The most likely possibility here is that the perceived brand betrayal associated with GPDs could be driven mainly by consumer aversion to uncertainty mixed with a poor outcome, as opposed to the price anchoring mechanism (Gneezy et al., 2006; Kahneman & Tversky, 1979). That is to say, due to the increased level of uncertainty within the anchorless GPD being high, even though participants had no value to anchor to, they still believed that the promotion was deceptive and misleading, and thus backfired (Li et al., 2022). Another possibility could be that due the low value of the received outcome, individuals may have still believed they had missed out on greater discount opportunities, even though they were not stated here. An opportunity lies here for future research to investigate further how the anchoring and adjustment mechanism impacts consumer perceptions of GPDs vs. CPDs at different discount levels. Likewise, within the consumer shopping experience, there will naturally be numeric values that could be anchored to outside of the actual promotion (e.g., the price of the product, product sizes, etc.). Future research should consider these possible anchors if investigating similar effects of anchoring in GPD use.

As stated, support was found for removal of the value anchor reducing feelings of outcome sadness, further reducing downstream negative consumer behaviours (H7b).

In line with the theory surrounding expectation (in)congruence and the known asymmetry between perceived losing and winning outcomes in uncertain scenarios (Kahneman & Tversky, 1979; van Dijk et al., 2003; Zong & Guo, 2022), it is logical that this effect resulted. That is to say, since consumers had a significantly greater lack of perception to assume what the maximum possible outcome could be when interacting with an anchor-absent GPD, there was less cognitive ability to comparably appraise the received discount with any hypothetical other possibilities. Likewise, due to the increased level of uncertainty, it is also possible that outcome expectations were inherently lower as a psychological defence mechanism following a poor outcome (Tykocinski, 2001; van Dijk et al., 2003), thus reducing reward outcome sadness.

Overall, the results support that managerial interventions such as heuristic manipulation within the design of GPDs can reduce the level of outcome sadness associated with losing, but not perceptions of brand betrayal. This can either be done through designing the GPD in such a way that the visual design suggests that the probability of receiving a top-tier reward is lesser (i.e. the representativeness heuristic), or through the removal of other observable price anchors within the promotion which show a greater value (i.e. anchoring heuristic). While this finding has high managerial relevance and offers new considerations of how to design GPDs to reduce negative affect, and thus, negative behaviours, it should be noted that in all respects the CPD discounts of equivalent value still outperformed GPDs irrespective of design. Therefore, while there are ways to mitigate some of the negative affect and negative consumer behaviours, these negative effects are still significantly greater than CPDs. Therefore the present research would recommend marketing practitioners be highly cautious when implementing GPDs as a price promotion strategy.

11.7 Overall Contributions

Overall, the present work offers 5 contributions - four theoretical and one managerial. These contributions are discussed in depth in the proceeding section.

11.7.1 Theoretical Contributions

Contribution #1 – A Shifted Perspective to the Dark Side of GPDs

The first contribution of the paper is the shift towards a perspective focusing on revealing the ‘dark side’ or negative consequences that can come from implementation of GPD promotions in digital retailing. Though extant literature chiefly focuses on positives aspects of GPD implementation and how their use can enhance marketing activities, there have been calls in existing literature to address how GPDs can backfire (Kovacheva & Nikolova, 2023; Tan, 2022), and how receiving varied outcomes between customers (e.g. some customers receive more than others) can negatively impact consumers (Alavi et al., 2015; Goldsmith & Amir, 2010). To the best knowledge of the author, this is the first paper to formally investigate this pitfall of GPDs, when compared to equivalent CPDs. Here it is shown that undesirable discount outcomes can lead to significant downstream consumer behavioural consequences (abandonment and retaliation) which may be long-lasting and damaging to brands – effects which are shown to be mediated by feelings of brand betrayal.

By focusing on the dark side of GPDs and understanding these ‘worst case’ scenarios, the present research joins existing discussions on the dark sides of other forms of marketing price promotions (Kristofferson et al., 2016; Park & Yoon, 2022).

Furthermore, the results of the present work open the dialogue for future research mainly in the field of price promotions in marketing to consider that even positive outcomes (i.e. non-negative outcomes) from price promotions can backfire and have significant negative consequences. Scholars in the general area of marketing price promotions should consider this newfound knowledge on how non-negative outcomes can lead to negative consumer behaviours as an initial stepping stone towards further investigations aimed at generating knowledge into how other forms of price promotions may backfire. That is to say, GPDs are only one specific form of uncertain (or gamblified) price promotion. Many others exist (i.e. hidden price discounts, uncertain rewards, etc) and could have the potential to backfire under similar non-negative conditions. Thus, the present work opens the discussion to scholars in the general area to further investigation and consideration into the potential dark sides of other marketing price promotion strategies.

Furthermore, considering how recent pushes in the field of marketing has emphasized the importance of relationship building and ensuring consumer-brand experiences are positive and seamless, this contribution has significant implications both theoretically and managerially. Additionally contributing to the fields of information systems and gamification (and gamblification) literature on its consumer effectiveness (Matthew et al., 2021; Triantoro et al., 2020), scholars in these fields should have greater consideration of cases in which the implementation of game-design mechanics or interactivity may cause adverse effects, instead of improving effectiveness.

Contribution #2 – Microbetrayal Effects

The second contribution of the research comes from considering consumer outcomes following GPD resolution from an affective (as opposed to cognitive) lens. Instead of focusing on the cognitive appraisal of a received discount, the current work instead takes an affect-based approach, considering how consumers feel in 'the moment' of resolution when and immediately after interacting with GPDs. By taking this affective approach, it is found that in low-reward GPDs (vs. equivalent CPDs), consumers feel a greater feeling of brand betrayal (dominant among other affective variables measured). Here it is suggested that scholars should give greater consideration the affective-face of price promotions (Raghubir et al., 2004) when investigating similar phenomena, as consumers do see discounts solely for their utility (i.e. the precise value), as shown in this research.

In existing consumer psychology literature investigating brand betrayal, research focus greater emphasis on betrayals of very high magnitude, where customers face significant loss or suffering due to a brands actions or omissions (Grégoire & Fisher, 2008; Reimann et al., 2018). Generally, these betrayals are very obvious and clear that the brand has 'done the customer wrong'. Unlike the existing literature, the present work uncovers how positive outcomes (e.g. receiving a discount on a purchase) can actually engender feelings that the brand had acted in a morally transgressive way, leading consumers to feel a sense of brand betrayal. This specific effect contributed by the present work is coined as a 'Microbetrayal effect'. This finding begs the question, are there other actions that brands conduct which may be initially perceived as positive at first glance, but in reality can elicit the Microbetrayal effect and result in negative downstream consumption and retaliation behaviours? This contribution

opens the dialogue for future scholars in marketing and consumer psychology to focus on understanding other ways in which brand actions might be considered as betraying, even if from the outside (i.e. a marketers perspective) they may look to be positive. For example, do brands offering better deals to new customers only induce Microbetrayal effects in loyal customers who are excluded from redeeming a similar deal? Based on the findings here, it is plausible that such an event could lead to brand-switching intentions in existing customers. Likewise, contributing to existing discussions in information systems literature on in-game reward systems and gamblified digital product offerings (Adam et al., 2022), scholars should consider if and how undesirable outcomes from these systems affectively impact game players (i.e. poor outcomes from loot boxes).

Focusing on price promotion literature, this contribution also raises the question to scholars to consider how Microbetrayal effects from non-negative outcomes may impact further affective and attitudinal responses. That is to say, the present work mainly examined how perceptions of betrayal lead to negative behavioural responses (i.e. consumer purchasing behaviours and retaliation). However it is possible that other negative consequences could arise, as betrayal literature has frequently been tied to negative attitudinal responses (Gobin & Freyd, 2014; Nguyen & Nguyen, 2021). For example, can the use of GPD price promotions (or price promotions which adopt uncertainty mechanics in general) also be consequential to long-term damage to brand judgements (i.e. damage to brand trust, reputation, image, or brand hate)?

Similarly, scholars focusing on Microbetrayal effects from price promotions may consider the antecedents to betrayal and well as how consumer preconceptions and

past experiences may shape these interactions and outcomes. For example, scholars may consider how consumer preconceptions and past experiences with GPDs may shape microbetrayal effects as well as other interaction intentions, as a priori judgements and expectations may differ dependent on user's past experiences. Likewise, considerations of what emotions following GPD resolution (or other similar uncertain promotions) precede feelings of betrayal (i.e. brand deception: 'the brand deceived me!', distributive justice: 'the brand offered someone else more than me!') could be research areas of interest stemming from the present work.

Contribution #3 – Uncovering Boundary Conditions

The third contribution of the research is the exploration of various consumer- and product-related attributes which can ultimately reduce or exacerbate the negative outcomes of low-discount GPDs (vs. equivalent CPDs) on perceptions of brand betrayal. Specifically in Study 2, the present work found significant effects of brand loyalty, while in Study 3, product attributes (i.e. involvement and value type) were considered as a boundary conditions.

Brand Loyalty

The results of the present work demonstrate that brand loyalty can act as a buffer to betrayal for low discount CPDs, but not for equivalent value GPDs. While the result for CPDs aligns with current literature showing how brand loyalty can bulwark against undesirable functional outcomes (Fetscherin & Sampedro, 2019; Haden & Hojjat, 2006), the finding for GPDs challenges current understandings of the how brand loyalty can exacerbate negative effects following value-based (i.e. moral) transgressions (Grégoire et al., 2009; Huber et al., 2010; Jabeen et al., 2022). This

contribution highlights how brand loyalty can be nuanced and situationally dependent in its impact on consumer affect - here having a null effect through GPDs. Contributing to consumer-brand relationships within the overarching field of marketing, this finding presents an interesting anomaly within the present work, as the effect of loyalty was null. Therefore, this finding specifically highlights the need for a more comprehensive theoretical understanding of how brand loyalty may act as a determinant of specific outcomes beyond the current understanding which supports that 'increased brand loyalty buffers functional transgressions and amplifies moral transgressions'.

Product Attributes

The present contribution investigating the boundary conditions of GPDs also considered the impacts of product involvement and product type, where it was found that increased levels of involvement result in significant greater feelings of betrayal following a low discount GPD, while non-significant effects on CPDs occurred. Likewise, an interaction effect between involvement and value type on downstream negative behaviours was found which was unexplainable within the present theoretical framework.

These findings deepen the current understanding in literature focused on product attributes and price promotions, suggesting that the outcomes of price promotions can be perceived in significantly different ways dependent on the attributes of the product on offer. From this contribution, scholars should be especially mindful to how variations in product attributes can significant impact the outcomes and effectiveness of marketing price promotions.

Contribution #4 – A Focus on Heuristics and Cognitive Biases

The final theoretical contribution focuses on bringing in knowledge of heuristics and cognitive biases from early uncertainty research to literature on GPDs to help understand how the negative impacts of losing can be reduced through visual design choices when developing promotions (Tversky & Kahneman, 1974). While consumer shifts in immediate judgements of promotions through heuristics such as the anchoring and adjustment heuristic and the representativeness heuristic have been discussed in general price promotion literature (Banerjee et al., 2016; Puccinelli et al., 2013) little examination has been done in work on GPD price promotions. Likewise, these discussions surrounding heuristics chiefly focus on understanding impacts on a priori judgements, but do not discuss the downstream resultant behaviours and impacts when promotion results are (in)congruent with these a priori assessments (Alavi et al., 2015; Armor & Taylor, 2002; Davis & Bagchi, 2018).

In current research on GPDs, as well as uncertain promotions, the major form of consumer assessment of probabilities and outcomes is either explicitly stated (e.g. there will be X% chance of A and X% chance of B) or unmentioned in the procedure. When probabilities are not explicitly stated, heuristics are employed by customers to form judgements. Applying theory from early research on heuristics and biases (Tversky & Kahneman, 1974) to GPD literature, here it is shown that consumer immediate affective and downstream behavioural responses to GPDs are significantly impacted by their a priori judgements and assessments of the promotions. It is specifically shown that the representativeness heuristic and anchoring and adjustment heuristic both play a pivotal role in understanding how outcome sadness and downstream negative consumer behaviours are affected by the visual design of GPDs.

Future marketing scholars investigating any work related to price promotions, especially those which are gamified or gamblified should be cognisant of not only these two heuristics, but also other potential heuristics or cognitive biases which could possibly impact the way consumers respond to pricing events when designing experiments. Furthermore, the findings here call for further research in marketing to examine heuristics more broadly in price promotions to help generate a deeper understanding how of how a priori judgement can alter downstream consumer behaviours. Concurrently, this opens the discussion of other design choices in the fields of information systems and UI/UX, which is inherently related to research on e-commerce in marketing to help understand the many possible impacts that design choices can make on marketing promotion effectiveness, or those which can alter consumer perceptions either positively or negatively (e.g. dark patterns).

11.7.2 Managerial Implications

Overall the research has focused on phenomena which are highly practical and relevant to 'real world' applications of price promotions in marketing. Recent guidance from the Journal of Marketing by van Heerde et al. (2021) has urged scholars to focus on the 'real world of marketing' or research high in 'ecological value'. Ecological value here is defined as "the degree to which research reflects and is relevant to marketing as it exists and evolves among marketing stakeholders and marketing ecosystems" (p. 1). Therefore, research contributions should be useful to "the thinking and actions of marketing stakeholders, including consumers, marketing managers, policy makers, and societal stakeholders, including critics." The author further claims that conducting

research which is closely adjacent to the reality of marketing phenomenon in real world practice may be more influential both academically and in practice.

Many of the aforementioned theoretical contributions also had important managerial relevance. Here, four overarching managerial implications are discussed for practitioners considering employing GPDs into their price promotion strategy:

1. Be aware of how GPD use can backfire

Over the entirety of the research – when considering low discount outcomes – CPDs have outperformed GPDs on all fronts when considering the negative impacts on feelings of brand betrayal and negative downstream behavioural consequences of purchase abandonment and retaliation. While there has been some evidence here that GPD promotions are more fun and perhaps could outperform CPDs if receiving top-value discounts, top-value discounts are not the norm (as both suggested by the interviewees and known in practice). Likewise, when receiving undesirable discount outcomes from GPDs, the positives of entertainment value were dominated by perceptions of brand betrayal as a driver of negative consumption and retaliation behaviours. Based on the findings presented in this thesis, the following recommendations are made for marketing practitioners as well as developers and companies offering third-party GPD apps or plugins for marketing use:

For marketing practitioners, be cognisant that GPDs are not all sunshine and rainbows. They should be aware that these promotions possess a darker side dependent on which reward is received among the offered array, and may potential lead to perceptions of brand betrayal, purchase abandonment, and retaliation

behaviours. Furthermore, from Study 2 it was supported that the negative impacts of GPDs held irrespective of customer levels of brand loyalty. Therefore, beyond simply recognising the possible downstream affective and behavioural outcomes, marketers should also consider that the negative implications may be engendered in both new and loyal customers alike.

For developers and/or third-party companies offering GPDs, it would be beneficial to include a discretionary warning for marketers on the possible backfiring effects of GPDs in order to be more transparent with practitioners and brands looking to employ these promotions. For example, a short warning statement could be provided for marketers along the lines of “undesirable outcomes from GPDs could potentially negatively emotionally impact consumers”. By doing so, these companies would be offering greater transparency to prospective brands on the potential outcomes of GPD use.

2. Know when (not) to use GPDs

Beyond understanding the possible implications of *how* GPDs can engender negative consumer affect and downstream behavioural responses, marketers should understand *when* GPDs are more (in)appropriate for use. That is to say, marketers should have a keen understanding of their own brand and if the application of GPDs would be more or less likely to provoke these specified negative effects. Within Study 3 it was revealed that as levels of product involvement increased, as did perceptions of brand betrayal following an inferior GPD outcome. Based on this finding, when deciding on GPD use as a price promotion, it is recommended that consideration be made on depending on level involvement of the offered products. That is to say,

although caution should be taken in any GPD implementation (based on the overarching negative findings), marketers should be especially cautious if their brand product offerings are considered high involvement.

3. Consider visual design choices if and when employing GPDs

Studies 4 and 5 focused on understanding if and how the visual design of GPD promotions impacted a priori judgements of the GPD and if these judgements altered the downstream negative affect felt by consumers post-resolution. Overall, it was revealed that through manipulation of the anchoring and adjustment heuristic as well as the representativeness heuristic, the overall levels of reward outcome sadness could be reduced in GPDs. Aligning with these findings, some of the interviewees in the pilot interviews expressed sentiment that in general, the design of GPDs is misleading and lacking in transparency – in turn making these individuals feel that the brand is more deceptive in their offerings. Based on these findings, the following suggestions are offered for marketing practitioners as well as GPD app designers:

For marketing practitioners, it is important that when using GPDs as a price promotion strategy, marketers pay keen attention to design choices that could potentially impact customer judgements and expectations. Within the present work, it was shown that visually designing the promotion to a) show greater (lesser) representation of low (high) discount outcomes (i.e. manipulating the representativeness heuristic), and b) hiding potential discount values (i.e. manipulating the anchoring and adjustment heuristic) resulted in reduced levels of reward outcome sadness. Aligning with these findings, it is recommended that marketers consider how heuristics play a role in consumer judgements, and design

their promotions in ways that could be perceived as less misleading (e.g. if designing a spin-to-win GPD, keeping all segments equal size could be perceived as misleading if the probability to win each reward is not equal). Likewise, although only the stated two heuristics were investigated here, more broadly speaking, marketers could be more considerate of how other design choices could possibly be misperceived (e.g. how the discount is framed, colour choices, etc).

For developers and/or third-party companies offering GPDs, it would be useful to develop functionalities for GPD apps / plugins which could help marketers using them more easily customize their promotion's visual design. For example, developers could program a function within their application that could automatically resize the discount segment area within a GPD promotion to match the percent chance of receiving the outcome (i.e. targeting the representativeness heuristic). That is to say, if there was a 5% chance to of received the top prize, this segment could only take up 5% of the promotion space.

4. Measure the effectiveness of GPD use over time

Throughout the thesis the negative impacts of receiving low discount amounts from GPDs were compared against equivalent CPD promotions. The overarching findings supported that GPDs may result in more negative effects than equivalent CPDs and therefore are not recommended for use. However, if marketers do decide to implement GPDs into their price promotion strategy, it is highly recommended that the effectiveness of their GPD campaigns be tested over time as well as compared to traditional CPD promotions (i.e. through A/B testing). Likewise, based on the findings which show how the visual design can alter downstream effects, it is also

recommended that GPD variations be tested against one another. By doing so, marketers can assess if GPD implementation is netting positive or negative results compared to CPDs, or if certain design choices are more successful than others. Through this comparative assessment marketers can optimise their promotions overtime to increase their effectiveness.

Chapter 12: Limitations & Future Directions

The present chapter focuses on acknowledging limitations within the present work, as well as offering suggestions for future research topics that may build further upon the findings of this work. Overall, five main limitations of the research are discussed in this chapter, including: 1) Ecological Validity, 2) Bias in Self-Reported Measures, 3) Generalisability of the Sample Population, 4) GPD Design Choices, and 5) Singular GPD Interaction Event.

12.1 Limitations

12.1.1 Limitation #1 – Ecological Validity

Ecological validity refers to the generalisability of results to real life situations. The current work is limited in its level of ecological validity as the findings are based off of online experiments as opposed to real-world interactions. Online experiments are known to be limited in ecological validity, as they are conducted in highly controlled environments that lack the context and risk of real life situations (Andrade, 2018; Vargas et al., 2017). Though effort was made to triangulate the controlled experimental findings with a field experiment (see Chapter 10), this portion of the research ultimately

did not work out as planned, generating negligible field data. With this said, sufficient confidence in the results is still held due to the main findings of the experiments aligning with the actual experiences and behaviours claimed to have been made by interviewees in their previous GPD interactions. Regardless, in order to address this limitation, future research should consider replicating the findings of the present work in real-world e-commerce contexts.

12.1.2 Limitation #2 – Bias in Self-Reported Measures

The second limitation of the present research is in the bias which comes with self-reported measures in experiments in terms of: A) social desirability bias and B) the intention-behaviour gap.

Literature has suggested that self-reported measurements are limited due to social desirability biases. This means that individuals may self-report attitudes and behavioural intention scales in a way which socially represents themselves most positively (Fisher & Katz, 2000). While this is acknowledged, the present work does not focus heavily in a context where portraying high social desirability is excessively important or even salient (e.g. as it would be in research on self-comparison, social media, etc). Therefore, while this limitation is acknowledged, confidence is held in the findings.

Addressing part B of this limitation, in the present work negative consumer behavioural intentions were measured, not the actual behaviour of said action. Known as the intention-behaviour gap, research has shown that the intentions of an individual do not always align with the actual actions they take in real life (Hassan et al., 2016; Sheeran,

2005). Thus, the measurement of intentions rather than actual actions limits the present research as only intentions were measured. However, confidence is held in the results as the use of self-reported behavioural intentions is commonplace within marketing literature. Support from similar findings between the experiments and interviews (where actual previous behaviours were stated) provides further confidence. Still, this is an important limitation to recognize. Here it is proposed that future research aim to replicate these findings in real world settings where actual consumer behaviours can be measured.

12.1.3 Limitation #3 – Generalisability of the Sample Population

The third limitation of the work is the generalisability of the work, both in terms of the singular geographic area of the sample, as well as the work focusing solely on e-commerce contexts.

As stated in the work, the inclusion criteria of the sample only included residents of the United States due to the States being the largest and most mature Western market for e-commerce use. Based on this, caution should be taken when generalising the findings to consumers from other geographic areas of the world, especially those where consumer cultures may differ. For example, it is possible that findings could differ if the sample were from certain countries, such as Australia or Singapore, which are both known to have a relatively higher prevalence of gambling (Lee et al., 2011; Misachi, 2017). In such cases, consumers could be more desensitized to promotional material like GPDs and thus the results could differ. Likewise, it is possible that results could differ if investigating populations of countries such as Germany or Austria where individuals are known to have higher risk-aversion preferences (Ferriera, 2018). Here

it is possible that the negative effects could be even worse. It would be a worthwhile pursuit for future research to consider if the results here are replicable or differ based on different geographic samples.

Beyond culture and geography, the research is also limited in its generalisability due to the context of all of the experiments being focused on e-commerce. It is known that consumer needs, wants, and expectations differ between digital retailing and physical retailing, therefore it is possible that varied outcomes could occur if investigating the phenomenon in physical retailing context (Akbari & Wagner, 2021). Considering different contexts, another worthy future research pursuit would be understand if these effects would differ in virtual reality or augmented reality retailing environments where the level of interactivity would be even greater than online (Pizzi et al., 2019).

12.1.4 Limitation #4 – GPD Design Choices

The fourth limitation focuses on the selected design choices within the GPD promotion stimuli used in the present work. These choices which limit the research include the spin-to-win promotion design and the selection of discount outcomes.

Due to the spin-to-win design A) being the most common form of GPD used in e-commerce (Behl et al., 2020) and B) this promotion design being used in extant literature (Akbari & Wagner, 2021), it was selected as the design type in this research. Using a gamblified design across all of the studies following S1 was a trade-off, increasing ecological validity and realism, however limiting the ability to isolate if part of the effect of the uncertain conditions was driven by the gamblified design. With this said, there was strong support from the first study that found no differences between

the gamblified design GPD and non-gamblified designed GPD in low rewards on the main effects.

Furthermore, other design types of GPDs do exist and should be considered within future research (e.g. slot machine, pick a card game, roll the dice, etc). It is possible that varied game design mechanics could interact with the main effects differently. For example, perhaps adding customer autonomy to the interaction by implementing a pick a card game could be seen as less betraying, as the result was non-algorithmic and based on one's own selection. Future research is needed to understand the potential impacts of varied promotion design choices which alter the ways consumers interact with these sorts of gamblified promotions.

Another limitation is the selection of discounts outcomes. The possible discount outcomes (i.e. 5 or 35%) were based on extant work which focused on acceptable low and high discount outcomes in retailing (Del Rio Olivares et al., 2018). However, GPDs are known to have intermediate level rewards which fall somewhere between the minimum and maximum outcome possibilities. Likewise, it is possible that retailers could increase or decrease their minimum offering. For example, it is commonly seen (and confirmed by interviewees) that these promotions generally have a complete loss scenario (e.g. 'better luck next time!' or 'unlucky') or that the minimum possible outcome would be greater (e.g. 10% off minimum). It is possible that altering the minimum and maximum discount potential could impact the effects. In the case of even less desirable lowest outcomes, it is likely the betrayal effect would be increased, while the effect may lessen as the minimum reward outcome increases. Future research should consider investigating these effects and aim to find a lowest outcome

breakpoint value in which GPDs losses would no longer be perceived as betraying (if at all).

Furthermore, it has been shown in marketing practice that GPD outcomes are not always monetary discounts; instead they may offer reward points or even free products upon resolution. It is possible that non-monetary offerings such as reward points could be processed and judged differently by consumers. Therefore, the findings of the research should be generalised with caution if not considering monetary discounts. This limitation opens an avenue for future research to consider the role of processing fluency on the effects.

12.1.4 Limitation #5 – Singular Interaction Event

The final limitation of the research focuses on how the experimental scenarios focus on a singular event (i.e. interaction with the CPD / GPD) once and at one point in time. In practice, it is possible that consumers might interact with the same brand's discount offerings on multiple occasions. For example, if a customer were to win the best discount one day, and then the following day receiving the worst possible outcome (or vice-versa), would this change the way they view or respond to the post-resolution outcome of a GPD? It is possible that interacting with the same GPD on multiple occasions could alter perceptions of betrayal. Based on the findings in the interviews, it is presumed that if multiple interactions consistently led to inferior (mixed) outcomes, perceptions of brand betrayal would likely increase (decrease). This of course is just a presumption – future research should consider investigating these potential outcomes over multiple interaction events. Along the same lines and based on the findings of Study 3, which focused on product involvement, as well as some of the

quotes from the interviewees, it would be a worthwhile investigation to focus on GPD effectiveness when a product is a consistent repeat purchase of low involvement (e.g. a daily coffee).

Chapter 13: Overall Conclusion

Overall, the present manuscript has focused on investigating and addressing the potential dark sides of implementing GPDs as an e-commerce price promotion strategy. Through five experimental studies and six pilot interviews, this research has supported that the compared to equivalent CPDs, undesirable outcomes from GPDs can result in negative consumer behaviours and perceptions of brand betrayal (here coined as the Microbetrayal effect). This effect was specifically shown to lead to greater purchase abandonment intentions as well as greater intentions to engage in two forms of brand retaliation, NeWOM and brand avoidance. Furthermore, the research has uncovered important moderating variables in this relationship, including brand loyalty and product involvement. Lastly, the research shows how practitioners can apply different visual design solutions to adjust consumer heuristic judgements of GPDs, leading to reduce outcome sadness and downstream negative behaviours which follow receiving an undesirable outcome.

Addressing the dark side of GPDs was not only theoretically valuable, as research in this area is highly limited, with existing calls in top marketing journals to investigate this phenomenon, but also holds high ecological value given the ever increasing emphasis of avoiding negative brand-consumer events. The overall takeaway from this research is that GPDs can cause significant negative emotional impacts to

consumers, which can lead to brand damaging consequences such as purchase abandonment and consumer retaliation. Scholars should aim to build upon this research by following the many potential interesting avenues for future research which were discussed. Marketers who do decide to implement GPDs within their current price promotion strategy should be cognisant of the ways in which these promotions can backfire, ensuring that GPD promotions are designed in the ways discussed in this thesis which were shown to reduce negative outcomes.

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APPENDIX A: Interview Consent Form

Interview Information / Consent Form

You are invited to participate in an interview which is expected to last approximately 45 minutes to 1 hour. The purpose of the interview is to gain insights into the perceptions of discounts on eCommerce websites. You have been invited to participate in this research as you have identified yourself as a regular online shopper. Before participating in the study please take the time to familiarise yourself with this information / consent form so that you are aware of what to expect as well as your rights as a research participant.

Procedures and Confidentiality

In this interview, you will be asked about your online shopping habits as well as your perceptions of coupons. Audio will be recorded during the interview. Any information you provide will be kept strictly confidential and your data will be stored securely in the University of Edinburgh's cloud storage. The data you provide within this interview will be recorded, and may be published online. Please note that your personal identity will not be identifiable by any data given or published. Your data will only be accessible by the primary researcher involved in this project.

Risks & Benefits

There are no foreseeable risks involved in the research. There is no compensation for volunteering in this research and the findings will not provide any direct benefit to you.

Voluntary Research

The nature of this research is voluntary, meaning that you are able to opt-out of the interview at any time, without reason and with no penalty. If you decide you no longer want to be part of the research, please state this to the interviewer and you will be able to exit the interview without penalty. You may also decline to answer any questions during the interview should you wish to.

Contacts & Questions

For any questions during the interview, please directly ask the interviewer you are assigned. For any further questions regarding the study post-interview, please contact the lead researcher, Sebastian Oliver, at Seb.Oliver@ed.ac.uk.

Participant Consent

By signing below, you agree that you have read all of the above information, have asked and have received answers to any questions you may have had, and consent to participating in the study.

Participant Signature

Date

APPENDIX B: Semi-Structured Interview

Questionnaire

Semi-Structured Interview Guide (for researcher use)

1. Background & Consent

- a. Introduce self & project
- b. If you choose to participate in this study, do you agree that you have clearly read the information sheet provided to you and understand all of the given information regarding the study and your rights as a participant?

If yes, continue

2. Demographics

- a. Age
- b. Gender
- c. Highest education

3. Online shopping & promotions (general)

- a. How often do you shop online?
 - i. Monthly orders?
- b. What products do you often shop for?
- c. What is your average purchase amount?
- d. Do you use coupons or promotions when shopping online?
 - i. How often?
 - ii. How do you usually get these coupons?
 - iii. How important or unimportant are they to your purchase?
 - iv. What percent value do you consider a coupon:
 1. Worthy of use
 2. An irresistible deal

--- SHOW GPD STIMULI EXAMPLE ---

4. Previous experience with GPDs

- a. Have you ever come a promotion like this before?
- b. Where did you see this? (website/products)
 - i. Are there any industries or types of stores you see these forms of promotions more commonly? (e.g. fashion stores)
- c. What was the design of the promotion when you saw it (e.g. spin-to-win, etc)
- d. What were the lowest / highest offered values
 - i. Based on your experience, how likely do you feel it is to win low or high discount outcomes?
- e. Do you remember the outcome you received? If yes...
 - i. Do you remember how you felt after this outcome?
 - ii. What was your reaction after this outcome? (*probe for behaviours*)
 - iii. How do you feel about brands that use similar promotions?

5. Potential boundary conditions

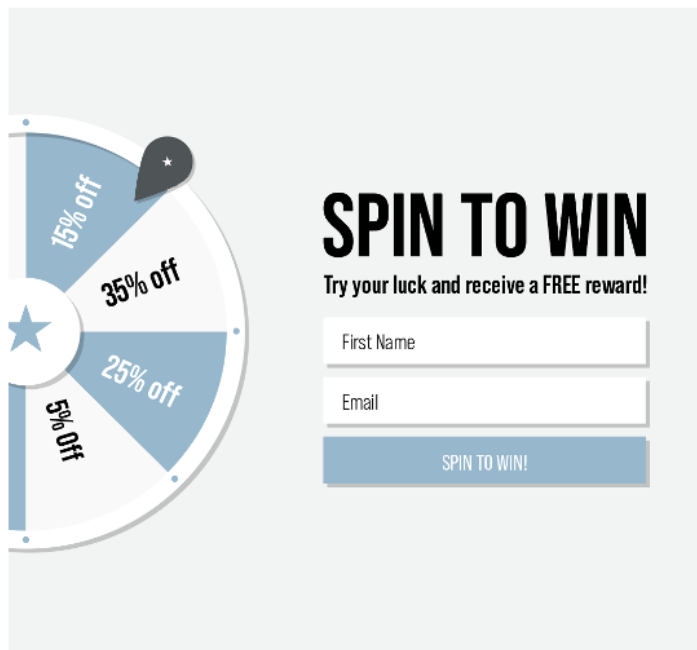
- a. Does the type of product you are looking at buying change how you would feel about this form of promotion? (Product characteristics)
 - i. If unsure, give examples of involvement / value type
 - ii. Ask again about any other product differences

- b. What is a company that you would consider yourself loyal customer to? (Brand loyalty)
 - i. If none, ask for a company they routinely purchase from.
 - ii. Would your feelings be the same or different if you received the same outcome you mentioned from this company vs. an unknown company?

- c. Would any changes in the design of these promotions change the way you feel if receiving a low outcome?
 - i. If unsure, how would you feel if the odds of winning each discount was more accurately visually represented? (representativeness heuristic)
 - ii. If unsure, how would you feel if the discount amounts were hidden? (anchoring and adjustment heuristic)
 - iii. Are there any other design choices or other ways marketers could change how you would assess these promotions?

6. Conclusion

- a. Do you have any further questions or comments about the study?
- b. Debrief / thank the participant



APPENDIX C: Study 1 Extras

MANCOVA, Table of Main Effects

Source	Dependent Variable	df	Mean Square	F	p	η^2
Corrected Model	Abandonment	8	38.572	17.719	.000	.202
	NeWom	8	10.711	8.079	.000	.103
	Avoidance	8	24.114	15.460	.000	.181
	Betrayal	8	41.562	22.372	.000	.242
Intercept	Abandonment	1	87.451	40.174	.000	.067
	NeWom	1	89.847	67.767	.000	.108
	Avoidance	1	79.004	50.650	.000	.083
	Betrayal	1	72.624	39.092	.000	.065
Subj. Shop Freq	Abandonment	1	.960	.441	.507	.001
	NeWom	1	11.111	8.381	.004	.015
	Avoidance	1	6.651	4.264	.039	.008
	Betrayal	1	4.398	2.367	.124	.004
Age	Abandonment	1	2.110	.969	.325	.002
	NeWom	1	.644	.486	.486	.001
	Avoidance	1	.702	.450	.503	.001
	Betrayal	1	.000	.000	.993	.000
Gender	Abandonment	1	.835	.383	.536	.001
	NeWom	1	1.864	1.406	.236	.003
	Avoidance	1	.477	.306	.581	.001
	Betrayal	1	.350	.189	.664	.000
Certainty	Abandonment	2	2.199	1.010	.365	.004
	NeWom	2	1.699	1.281	.279	.005
	Avoidance	2	7.811	5.008	.007	.018
	Betrayal	2	20.441	11.003	.000	.038
Reward	Abandonment	1	256.866	118.000	.000	.174
	NeWom	1	52.428	39.544	.000	.066
	Avoidance	1	139.051	89.147	.000	.137
	Betrayal	1	233.278	125.568	.000	.183
Certainty * Reward	Abandonment	2	15.460	7.102	.001	.025
	NeWom	2	4.230	3.190	.042	.011
	Avoidance	2	11.273	7.227	.001	.025
	Betrayal	2	21.308	11.470	.000	.039
Error	Abandonment	560	2.177			
	NeWom	560	1.326			
	Avoidance	560	1.560			
	Betrayal	560	1.858			

APPENDIX D: Study 3 Extras

MANCOVA, Table of Main Effects

Source	Dependent Variable	df	Mean Square	F	p	η^2
Corrected Model	Abandonment	10	29.037	11.208	.000	.149
	NeWOM	10	7.507	5.997	.000	.086
	Avoidance	10	14.287	8.107	.000	.113
	Betrayal	10	35.112	17.525	.000	.215
Intercept	Abandonment	1	162.584	62.757	.000	.089
	NeWOM	1	88.714	70.877	.000	.100
	Avoidance	1	122.990	69.792	.000	.098
	Betrayal	1	129.969	64.870	.000	.092
Age	Abandonment	1	10.157	3.920	.048	.006
	NeWOM	1	.991	.792	.374	.001
	Avoidance	1	3.396	1.927	.166	.003
	Betrayal	1	3.457	1.725	.189	.003
Gender	Abandonment	1	.121	.047	.829	.000
	NeWOM	1	2.230	1.782	.182	.003
	Avoidance	1	1.244	.706	.401	.001
	Betrayal	1	4.172	2.082	.149	.003
Subj. Shop Freq	Abandonment	1	.060	.023	.879	.000
	NeWOM	1	1.795	1.434	.232	.002
	Avoidance	1	.438	.248	.618	.000
	Betrayal	1	.644	.321	.571	.001
Certainty	Abandonment	1	260.497	100.551	.000	.136
	NeWOM	1	50.190	40.098	.000	.059
	Avoidance	1	124.653	70.735	.000	.100
	Betrayal	1	321.684	160.559	.000	.201
Involvement	Abandonment	1	2.273	.877	.349	.001
	NeWOM	1	1.122	.897	.344	.001
	Avoidance	1	.013	.007	.932	.000
	Betrayal	1	.601	.300	.584	.000
Type	Abandonment	1	1.871	.722	.396	.001
	NeWOM	1	3.104	2.480	.116	.004
	Avoidance	1	1.453	.824	.364	.001
	Betrayal	1	8.243	4.114	.043	.006
Certainty * Involvement	Abandonment	1	2.120	.818	.366	.001
	NeWOM	1	3.890	3.108	.078	.005
	Avoidance	1	2.611	1.482	.224	.002
	Betrayal	1	11.305	5.642	.018	.009
Certainty * Type	Abandonment	1	.188	.072	.788	.000
	NeWOM	1	1.452	1.160	.282	.002
	Avoidance	1	.354	.201	.654	.000
	Betrayal	1	.101	.050	.823	.000
	Abandonment	1	.091	.035	.851	.000

Involvement *	NeWOM	1	.001	.001	.979	.000
	Avoidance	1	.667	.378	.539	.001
	Betrayal	1	.587	.293	.589	.000
Certainty *	Abandonment	1	11.109	4.288	.039	.007
	NeWOM	1	10.725	8.568	.004	.013
	Avoidance	1	8.375	4.752	.030	.007
	Betrayal	1	.127	.063	.802	.000
Error	Abandonment	639	2.591			
	NeWOM	639	1.252			
	Avoidance	639	1.762			
	Betrayal	639	2.004			