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CONSUMER RESPONSE TO DRIP PRICING: INTEGRATING BEHAVIOURAL BIASES AND ANALYSING THEIR INTERACTION ACROSS TRANSACTION STAGES

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ABSTRACT

A common and frequently contentious technique, drip pricing is when businesses promote a base price up front, then gradually disclose extra costs later in the purchasing process. Its impli-cations on customer behaviour and business profitability are well documented in the research, which also highlights a number of underlying psychological biases. In order to fully model con-sumer reactions to drip pricing, this paper suggests a unified theoretical framework that incorpo-rates several different behavioural micro-foundations, including anchoring and adjustment, mental accounting, salience, self-justification, perceived search costs, limited attention (shroud-ing), perceived price complexity, search and switching costs, and the status quo bias. This mod-el examines how these biases mentioned above interact within a multi-stage purchasing process with the intention to affect consumer choice and pleasure, going beyond crude "naive" versus "sophisticated" consumer contradictions. Additionally, the paper integrates the observed profita-bility of drip pricing by showing how businesses take advantage of these cognitive biases, which frequently defy conventional economic forecasts. The study concludes that drip pricing is a potent strategy that increases company profitability but frequently lowers customer welfare and satisfaction by exploiting consumer psychological inertia.

Keywords: *Drip Pricing, Behavioural Biases, anchoring and adjustment, Surcharges.*

1. INTRODUCTION

Online pricing today remains infected with drip pricing strategies, with loads of businesses showing only a fraction of their prices just to attract customers and then start adding costs with each step in the purchasing process, leading to a much higher valuation than what the customer started with.

Drip pricing is a pricing strategy that has become widespread in a variety of industries, especially online commerce, where they first only display a fraction of a product's price before and then start disclosing additional costs later in the purchasing process caried out by the customer (Rhodes, 2023). Examples we mostly see include hotels, rental car expenses, airline tickets(mostly), and online entrance fees (Rasch et al., 2019) (Shulman &

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Geng, n.d.). it has ability to trick customers and skew market outcomes therefore this technique is arguable and frequently draws attention from consumer protection organisations and competition authorities worldwide (Santana et al., 2020). There are few regulators that have stepped in-The European Commission and the U.S. Department of Transportation (DOT),. The DOT has also issued regulations forcing airlines to advertise their entire fares and demanding a 24-hour reservation hold without penalty (Santana et al., 2020). According to critics, drip pricing is a fraudulent method that harms customers by raising search and financial expenses (Santana et al., 2020). On the other hand, some companies argue that the practice is neither detrimental nor deceptive because the whole price is eventually revealed prior to the final purchase and customers are not required to finish the transaction (Bender, 2014).While traditional economic theory often struggles to explain the persistence and profitability of such complex pricing strategies, often predicting that competitive forces would dissipate any gains, empirical evidence overwhelmingly suggests that drip pricing benefits firms by increasing demand and profitability, often at the expense of consumer surplus (Sugden et al., 2019) .Drip pricing often causes consumers to underestimate the overall cost, conduct inadequate research, and eventually make less-than-ideal financial decisions, which lowers customer satisfaction (Rasch et al., 2019).One noteworthy characteristic is the "stickiness" of initial decisions, where customers frequently stick with their first option even after learning later that the total costs were greater (Santana et al., 2020) .

Numerous behavioral biases, such as anchoring and adjustment (Tversky & Kahneman, 1974), the endowment effect, loss aversion, self-justification, and perceived search costs expenses (Santana et al., 2020), are suggested by the literature as explanations for these observed behaviors. Nevertheless, there is a dearth of research on a cohesive theoretical model that incorporates these various behavioral micro-foundations into an all-encompassing framework. The intricate interplay of biases influencing customer judgments in multi-stage purchase processes may not be well captured by many current theoretical contributions that reduce consumer behavior to "naive" or "sophisticated" categories as per (Heidhues & Kőszegi, 2017) and (Gabaix & Laibson, 2006).

2. LITERATURE REVIEW: BEHAVIOURAL BIASES IN DRIP PRICING

What makes drip pricing work lies in how it uses hidden mental shortcuts to shape choices people make (Tversky & Kahneman, 1974). To grasp this fully, we have to pull together several thought patterns backed by real-world data.

Key Behavioural Micro-Foundations The consumer response to drip pricing, which is generally observed are rooted in several psychological and cognitive biases mentioned below:

 ISSN-2581-8953

Anchoring and Adjustment: Consumers generally "anchor" on the prominently displayed initial, lower base price and then insufficiently adjust their price notions when surcharges are revealed later, leading to underestimation of the actual total cost(Tversky & Kahneman, 1974).This anchoring effect is a well-explained heuristic and has also been empirically proven by (Santana et al., 2020), (Blake et al., 2021a) and (Dertwinkel-Kalt et al., 2020) and therefore consumers are willing to pay for the product. Even a minimal increase in fees, when presented obliquely, can affect customer reactions.

Endowment Effect and Loss Aversion: After starting the purchasing process, customers develop a sense of commitment or ownership to the product, making customers reluctant to abandon, even with later-revealed fees, and they perceive this process as a loss (Kahneman et al., 1991).

Self-Justification and Inertia: To protect their self-image as smart shoppers, customers may justify their not-so-right initial choice and resist switching their choice to run away from admitting mistakes (Julli, 2019).

Status quo bias: The status quo bias given by (Kahneman et al., 1991b) refers to a preference for the current state of affairs relative to any change in that state. Inertia, or the thought that switching from an existing choice to a new choice may take too much time or effort, makes them reluctant to restart their search, which is consistent with a general status quo bias. This status quo bias contributes to the behaviour, explaining this stickiness with their initial choice(Santana et al., 2020) , even though a better alternative exists.(Santana et al., 2020) Research, particularly a study (referred to as Study 3 in their paper), also investigated the role of self-justification explaining why consumers exposed to drip pricing remain committed to their initial, often suboptimal, choices.

Perceived Search Costs: Consumers may believe the cost in terms of time and effort of restarting a search or comparing options is greater and weighs more than the potential benefits, even though actual costs are low(Rasch et al., 2019) Also, mistaken beliefs that all firms charge similar additional fees also add to this due to which the perceived gain from switching reduces further(Santana et al., 2020).

Salience and Mental Accounting: Additional fees appear less salient in drip pricing and not only influence consumer attention (Brunner & Zihlmann, 2023) but also perceived fairness(Rasch et al., 2019). Consumers may process. This technique of sequentially revealing surcharges is processed as separate "losses" due to mental accounting by customers, which makes it harder to determine the "real" final price(Totzek & Jurgensen,2021).

Relative/Proportional Thinking: Add-on prices are added fractionally during the process, and some customers evaluate by comparing this add-on price to the base price. When the base price is huge, then this comparison makes them less sensitive to add-on prices(Brunner & Zihlmann, 2023).

 ISSN-2581-8953

3. RESEARCH METHODOLOGY

This paper is a non-empirical i.e secondary based, systematic literature review and conceptual synthesis approach to develop a theoretical framework that offers a unified behavioural perspective on consumer responses to drip pricing. It is qualitative in nature.

Our objective is to:

1. Integrate and analyse how behavioural biases interact to influence consumer choice and satisfaction across different stages of a drip pricing transaction.
2. Theoretically reconcile the observed profitability of drip pricing with traditional economic predictions.

4. RESULTS AND DISCUSSION

The consumer journey through drip pricing can be conceptualised as a multi-stage model where firm strategies exploit specific consumer behavioural biases, leading to predictable outcomes. This model outlines the sequential interactions between firms and consumers, from initial price presentation to post-purchase consequences.

Stage 1: Initial Price Presentation and Consumer Selection

Firm Action: "Bait" or "Headline" Price Disclosure

At the initial point of interaction, firms present only a low "bait" or "headline" price to represent only a fraction of the actual total cost, and this half-disclosed price can be an inaccurate representation of the good's final price (Thaler, 1980). Firms in the market are fiercely competing on these base prices.

Consumer State and Biases:

This initial lower base price acts as the anchor for consumers' price (Tversky & Kahneman, 1974). This anchor acts as a critical point of comparison, attempting to lower perceived overall search expenses at the beginning stage of purchase due to anchoring and adjustment phenomenon (Didwania, 2022).

Customers, especially "naive" customers, may under evaluate the overall expenses involved and fail to properly anticipate or process extra fees being added (Gabaix & Laibson, 2006).

Consumer Outcome:

According to (Greenleaf et al., 2016), At first, Customers are far more inclined to go for the choice with the lowest base price due to intial selection biase. This phenomenon happens because, at this point, the basic price is sometimes the only comprehensive price information accessible to them.The phenomenon explained earlier,

 ISSN-2581-8953

where initial choices remain "sticky" even after the full price is disclosed (Santana et al., 2020) make firms capable of completing their goals by presenting themselves as less expensive than rivals, and ultimately, they draw more customers.

Stage 2: Surcharge Revelation and Decision Re-evaluation

• Firm Action: Incremental "Drip" Price Disclosure

As consumers progress through the purchasing process, for example, navigating pages, reaching the checkout screen, etc, additional mandatory or optional fees are incrementally disclosed (Didwania, 2022) and the full total price is typically revealed at these later steps.

Consumer State and Activated Biases (Mechanism of "Stickiness"):

What sticks at first shapes how much feels fair later - even when extra costs add up. People do not perform mind accounting and shift their view of overall cost enough when charges change due to insufficient adjustment, so extra charges barely register in the mind (Tversky & Kahneman, 1974). That moment you opt for something and choose it, your mind starts to hold onto it, as if it already belongs to you due to the endowment effect (Kahneman et al., 1991a). Spending time during the process, trying options in that, clicking buttons, scrolling - all this builds a quiet sense of belonging and attachment in the customer. When a price goes up, walking away from the ongoing purchase seems not only unfair but also stings, as giving up what you have already begun building. That pain of letting go pushes many customers to pay more rather than quit. This whole phenomenon is called loss aversion. Due to self-justification and inertia, people stick with the first choices they made because for them switching feels like failure. Motivation shifts toward saving face, not facts. They want to save their image of smart shoppers; therefore, give more weightage to their initial choice. Past picks gain comfort weight, hard facts be damned (Santana et al., 2020). Early decisions gain a life of their own. Now and then, people think swapping or reinitiating a search takes too much hassle in terms of time and money, both because they perceive search costs. They figure it isn’t worth even the small savings they can make after switching, assuming every company demands equal extra costs. That assumption tends to shrink what gains could actually be. Research by Santana and team in 2020 backs up how strong this illusion can be what stands out. People focus on differences, not sizes, because of salience. A small extra charge might feel insignificant compared to a larger main product price, and it attracts less attention (Brunner & Zihlmann, 2023). When buyers weigh the extra cost against the pricier core item, they tend to see it as manageable due to relative thinking, nudging sales upward for now. If price changes happen one by one, each step stands alone like a tiny loss, softening how bad it seems (Totzek & Jurgensen, 2021).

 ISSN-2581-8953

Consumer Outcome:

Once chosen, most customers become reluctant to switch and stick with it without much thought, even when price differences are shown. Restarting the pick process happens rarely, even if cheaper options appear later. They are reluctant to switch, and what begins as a comparison often ends in fixation on early results. Reluctance to switch leads to more money blunders leads to an increase in financial mistakes, and people make costlier decisions without fully realising it. Even after seeing clear signs about extra money, they rarely do anything to stop these choices. The risk grows sharply under certain conditions.It is seen that with drip pricing there is reduction in satisfaction, and people often feel worse about their decisions. Even if the price isn't that bad, feelings toward the choice seem to drop. That unease shows up even when the deal seems fair. What happens when price tricks hide the full picture? People generally tend to stop looking for better deals and options once hidden costs show up. That shutdown in comparison search means clearer choices rarely win. Hidden expenses quietly block the way toward lower prices. Fewer comparisons take place because of how information is framed early on. What happens is that the search slows down after initial exposure to extensive terms.It is seen that when buyers are exposed to detailed descriptions, a lot of things tend to happen in their minds and discouragement in search behaviour is noticed. They lose motivation, the momentum breaks due to overwelmed state of mind, and the urge to shop around fades under these heavy disclosures.

Stage 3: Post-Purchase Outcomes and Market Impact

Consumer Welfare Implications:

Even after buying, what people feel as unfair at checkout tends to stick around even after post-purchase, which leaves the feelings of discontent and persistent dissatisfaction that lasts long (Totzek & Jurgensen, 2021).People usually pay extra without realising it, and therefore the financial output is poorer than what was required, planned or expected(Santana et al., 2020). This suboptimal financial outcome, where this extra cost might delay reaching personal targets, possibly making access to essentials difficult(Julli, 2019). Even if there is a feeling of dissatisfaction, still, it is seen that few lessons are learnt. Despite trying before, people still fail to recognise how drip pricing works and how it hurts them (Blake et al., 2021b) ,people hardly learn from their experience.

Market Dynamics:

Firms initially put the base price low and fight in the industry on this low base price very furiously, and get the way out to set up higher drip pricing afterwards(Rasch et al., 2019).Incremental increase of price in drip pricing technique can lead to higher total prices and lower consumer surplus as compared to standard all-inclusive pricing (Bertrand competition), and also increase firms' profit(Rasch et al., 2019).

Few customers have the idea and awareness of drip pricing, while others do not have and companies take advantage of

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this gap and try to make profits. This is possible only when a few customers lack this awareness. But if the case is that most of the customers lack this awareness, then the market tends to push the final price low due to rising pressure, and in that case, profits might strink and companies would not be able to take advantage of the situation(Shulman & Geng, n.d.).The presence of behavioural consumers can lead to an endogenous base good price floor, which can reduce competition as firms have less incentive to redistribute profits from add-ons to the base product market(Brunner & Zihlmann, 2023).

Conceptual Framework: The Consumer Journey Through Drip Pricing Model

Figure 1: Theoretically reconcile the observed profitability of drip pricing with traditional economic predictions.

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Existing literature on drip pricing can be broadly categorized into traditional economic models and more recent behavioural economic approaches.

Historically, academic literature on pricing practices, including those involving add-on fees, often theorized a "profit-irrelevance" result. This perspective suggests that any gains firms might derive from hidden or "shrouded" add-ons are ultimately competed away through lower base price, leading to zero economic profits for seller in equilibrium(Lal & Matutes, 1994). (Verboven, 1999) says that firms use loss-leading prices for basic goods and then charge high prices for mandatory add-ons. Models assuming rational consumers predict that as long as there are no costs to disclosing information about add-on prices, consumers will not be harmed(Gabaix & Laibson, 2006). Rational consumers are expected to anticipate high add-on prices, which would then dampen demand, thus neutralising any initial advantage for firms(Milgrom, 1981).

These traditional models often abstract away from "missed sales" concerns (Gabaix & Laibson, 2006)or assume homogeneous consumers, Lal and Matutes (1994).

However, this theoretical prediction often collides with common belief in the popular press and empirical observations, which suggest that firms indeed benefit from shrouding add-on fees, leading to increased profits and higher overall demand. Evidence indicates that withholding information about add-on fees can benefit firms and that firm profits increase with hidden add-on fees. For instance, (Blake et al., 2021a) found out that drip pricing a 15% fee increases sales and revenues by 21%.

This discrepancy is harmonized by incorporating specific behavioural mechanisms and market structures into the theoretical framework. Due to consumer Myopia, naivete, and bounded rationality, consumers may fail to fully anticipate or process additional fees. Even when full price information is eventually revealed, consumers are resistant to changing their initial selection due to several factors, such as Perceived Search Costs, inaccurate Beliefs about Alternatives, Self-Justification and Loss Aversion, Coexistence of Informed and Uninformed Consumers, Behavioural Willingness to pay (WTP) distortion, platform incentives, and a few others as discussed above in the model.

CONCLUSION

Drip pricing is fundamentally understood as a strategic pricing practice that leverages consumer behavioural biases and market frictions to generate profits that would otherwise be eroded in a perfectly rational and transparent market(Shulman & Geng, n.d.). By presenting a low initial price and incrementally revealing additional fees, firms exploit cognitive phenomena such as anchoring effects, consumer myopia or naivete, and psychological switching costs rooted in self-justification and perceived search costs(Santana et al., 2020). These mechanisms explain how firms can maintain higher total prices and profits than predicted by classical competitive models that assume fully rational, informed consumers(Shulman & Geng, n.d.).

The existing theoretical and empirical work mentioned above clearly shows that drip pricing is not highlighted enough, and this pricing method can be a manipulative marketing technique (Julli, 2019) which is certainly widely used across various industries. It can lead consumers to make financially suboptimal choices, experience

 ISSN-2581-8953

lower satisfaction, and feel cheated (Santana et al., 2020). Santana also mentioned that when additional prices are added to the base price, and consumers are provided with total price information, they often persist with their initial, more expensive selection even after the opportunity to restart due to the psychological biases and perceived economic costs of switching their choices. As per(Santana et al., 2020)also future research should strive for more real-world empirical evidence, dig deeper into the distinction of mandatory versus optional fees, and explore richer competitive environments beyond two options. Further investigation is also warranted into the long-term effects of consumer learning and fairness perceptions, as well as the impact of subtle variations in disclosure and individual consumer differences. Understanding these complexities will promote transparent and fair market practices, which is the need of the hour. It can also help both managers and policymakers as it provides a more comprehensive and actionable understanding(Didwania, 2022).

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