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# **Subscription Models in the Restaurant Industry: A Behavioral Economics Perspective**

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## Abstract

This thesis explores the growing use of subscriptions in the restaurant industry, focusing on how these models influence consumer behavior and drive profitability. By examining both behavioral economics and consumer psychology, the research highlights how businesses strategically design these programs to exploit consumer mistakes such as overestimation, inattention, and the sunk cost fallacy. The study delves into tactics like auto-renewal contracts and teaser rates to illustrate how they subtly encourage consumers to spend more than intended. Additionally, it investigates the psychological motivations behind consumer participation in these programs, including the insurance effect, the taxi-meter effect, and the convenience effect. This work offers a nuanced understanding of the delicate balance between consumer convenience and potential exploitation, shedding light on the implications of these increasingly prevalent business strategies for both restaurants and consumers.

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# 1 Introduction

Subscription models involve customers making regular payments in exchange for ongoing access to a service or product. This approach ensures a steady revenue stream for businesses but also caters to the modern consumer's preference for convenience, diversity, and a stronger connection with the brands they support (Gal-Or & Shi, 2022; McDonald & al., 2023). In recent years, the subscription model has evolved to offer highly personalized experiences, tailored recommendations, and the flexibility to quickly adapt to changing customer needs (Bray & al., 2021; Umashankar & al., 2023).

Beyond its role as a business strategy, the subscription model reflects the growing demand for seamless access and exclusive content, which is increasingly valued by consumers. These services not only provide customers with convenience but also offer unique, member-only features that enhance user loyalty and satisfaction (Bray & al., 2021).

The rise in consumer familiarity with subscription-based models has led to their adoption across diverse sectors. A notable example is the restaurant industry, which has undergone significant changes in consumer preferences and dining behaviors in recent years (Tyagi & Bolia, 2021). To keep pace with these shifts and differentiate themselves in a competitive landscape, many restaurants are now leveraging subscription-based offerings (Manning, 2021). These subscriptions deliver benefits while simultaneously providing restaurants with a dependable revenue stream and strengthened customer relationships (Lee et al., 2012; Bischof et al., 2020).

Besides these advantages offered by subscriptions, it also allows firms to exploit consumer mistakes. However, there remains a significant gap in understanding how these biases manifest within the restaurant industry, where subscription models are relatively new. This work seeks to bridge this gap by providing insights on consumer behavior in restaurant subscriptions, addressing the critical question: “Do restaurant subscriptions exploit consumers or offer them a more convenient option?”. By delving into the key factors influencing consumer decisions, this research seeks to offer a nuanced perspective on how traditional behavioral economics theories apply to and interact within this context.

The structure of this thesis is organized as follows: section 2 presents a thorough review of the existing literature, incorporating key research in the fields of behavioral economics and subscription models. Section 3 examines the subscription market within the restaurant industry, providing insights into the design and implementation of these models. Section 4 shifts focus to the strategies employed by firms, particularly in how restaurants craft these models to maximize profitability while navigating consumer behavior. This section will explore tactics such as long-term contracts, teaser rates and auto-renewal contracts. Finally, Section 5 delves into the psychological motivations behind consumer subscriptions, offering explanations for why customers are inclined to subscribe and continue their engagement with these services.

## 2 Literature review

Economic theory states that individuals behave rationally and aim to maximize their utility by selecting a pricing scheme for services that results in the lowest possible bill. This assumes they correctly predict their average usage. However, behavioral economics has demonstrated that this is not always the case. Daniel Kahneman and Amos Tversky's pioneering work, as summarized in Kahneman (2003), highlights this deviation. Their research, along with numerous empirical studies in behavioral economics (e.g., Gerpott, 2009; Grubb, 2009; Lambrecht & Skiera, 2006; Nunes, 2000), provides robust evidence that consumers' actual tariff choices often diverge from economic predictions. These divergences are due to psychological, cognitive, or motivational factors not accounted for in traditional economic models of rational market behavior with perfect foresight.

The most basic pricing structures are pay-per-use and flat-rate options (Altmann & Chu, 2001; Björk & Solomon, 2012). DellaVigna and Malmendier (2006) found that consumers frequently act irrationally when choosing health club memberships. They often opt for flat-rate tariffs that end up costing more than if they had selected a pay-as-you-go plan, given their actual usage. Similarly, in the context of local telephone services, Kridel et al. (1993) discovered that 65 percent of consumers who chose a flat-rate option would have saved money with alternative tariffs like measured billing services. Miravete (2003) observed that 59 percent of households overestimated their future phone service consumption when selecting contracts, resulting in significant overspending due to the flat-rate option. Additionally, Lambrecht and Skiera (2006)

reported that 48 percent of internet service subscribers with flat-rate plans would have benefited financially from pay-per-use plans.

In 1987, Daniel L. McFadden and al. demonstrated that customers preferred flat rates over per-minute billing for home telephone services, a preference known as the “flat-rate bias” (Train, 1991). This bias indicates that consumers often favor flat-rate tariffs even when a pay-per-use tariff would be cheaper based on their actual usage. According to Nunes (2000), the reasons behind tariff-choice biases can be divided into cognitive and motivational explanations. Cognitive explanations suggest that individuals unintentionally purchase more than they use because they overestimate the likelihood of consuming enough to justify a flat fee. Motivational explanations suggest that people intentionally purchase more than they expect to use because they derive nonmonetary benefits from a tariff that offers unlimited access for a fixed fee or is strictly use-dependent.

While the concept of flat-rate bias is well-documented in sectors like telecommunications and fitness services, the restaurant sector remains unexplored. My research aims to provide insights on consumer behavior in restaurant subscriptions, thereby extending the applicability of behavioral economic theories to this emerging field.

The literature has identified several effects that are supposed to drive the flat rate bias. Consumers often misjudge their service usage due to limited foresight, bounded rationality, or uncertainty in demand. This overestimation of demand, called the overestimation effect, coupled with overconfidence in their ability to predict usage accurately (Grubb, 2009), frequently leads them to choose flat-rate plans. For instance, DellaVigna and Malmendier (2006) observed that consumers overestimate future consumption due to overconfidence in their self-control during costly activities. Furthermore, time inconsistency, where consumers' preferences fluctuate unpredictably over time, also contributes to these suboptimal decisions (Hoch and Loewenstein 1991).

Another factor, the convenience effect, suggests that consumers sometimes find it burdensome to explore alternative plans. Some users perceive little value in searching for a plan that better suits their usage profile or resist changing plans altogether (Winer 2005). To minimize the effort of choosing, they might opt for the plan they believe is most common or standard. This can be rational if the process of choosing or changing plans is slow, confusing, or inconvenient, making the cost of changing outweigh the benefits. Flat-rate schemes often minimize the transaction costs associated with pay-as-you-go plans (Prelec and Loewenstein 1998).

Lambrecht & Skiera (2006) found that flat-rate bias cannot be solely explained by convenience or overestimation of usage. Mental accounting suggests that consumers manage mental budgets and attribute the disutility of payment directly to the utility derived from consumption (Heath and Soll 1996; Shefrin and Thaler 1992; Thaler 1985). According to the theory of mental accounting, the act of spending money on a purchase can cause immediate discomfort, which may diminish the enjoyment of the product or service being consumed (Prelec & Loewenstein, 1998; Soman, 2001). Then, paying per use diminishes the enjoyment of consumption because consumers associate the cost with the act of using the service. This discomfort, termed the "taxi-meter effect," leads consumers to prefer flat rates to avoid the constant awareness of accumulating costs. It appears that in general consumers want to enjoy a journey or an activity without worrying about their wallets.

Consumers also prefer flat rates to avoid unexpected high bills, seeking cost transparency and predictability. A flat rate acts as insurance against fluctuations in monthly bills, allowing consumers to consume more than initially planned without the risk of exceeding a fixed amount (Lee, 1988). Risk-averse consumers are willing to pay a premium for the certainty provided by flat rates (Miravete 2002; Train 1991; Winer 2005). Kridel et al. (1993) demonstrated that the option value attached to flat-rate plans is independent of actual usage.

The flat-rate bias appears in many contexts, such as gym memberships (DellaVigna & Malmendier, 2006), Internet access plans (Kridel, Lehman, & Weisman, 1993; Lambrecht & Skiera, 2006a), and mobile calling plans (Gerpott, 2007, 2009; Mitomo, Otsuka, & Nakaba, 2007).

This work seeks to expand the existing literature by exploring whether similar biases and effects identified in other sectors are also prevalent in the restaurant industry's subscription models. Evidence about the link between pricing and consumption in the restaurant industry is limited to all-you-can-eat buffets (Just & Wansink, 2011; Haws & Winterich, 2013). While these studies examine consumer choice given flat-rate pricing, our interest lies in determining the drivers of consumer choice in pricing plans.

Consumers' choices involve intertemporal decisions, requiring them to discount expected future utility. Uncertainty and potential changes in future needs significantly influence these decisions (DellaVigna and Malmendier 2004; O'Donoghue and Rabin 1999, 2000). In the case of long contracts, consumers' instantaneous utility for a service may be time dependent arising from potential changes in their future needs (e.g., Kahneman and Snell 1992; Simonson 1990;

Loewenstein et al. 2003). For example, Loewenstein, O'Donoghue, and Rabin (2003) show that people anticipate a change in their preferences over time. Consumers anticipation of changing tastes and utility may affect their intertemporal decisions when subscribing to contract-based products or services and in particular when such contracts last over such long durations as two to four years.

Consumers often exhibit present-biased preferences, discounting future utility inconsistently (Thaler 1981; Loewenstein and Prelec 1992; Laibson 1997; Ariely and Zauberman 2000; Ariely and Loewenstein 2000; Frederick et al. 2002). This naiveté about future behavior leads to choices like gym contracts where users overestimate their likelihood of cancellation, resulting in prolonged subscriptions to costly plans (DellaVigna and Malmendier 2006). Behavioral contract theory explores how firms exploit these biases. A long history of work (e.g. DellaVigna and Malmendier, 2004, Murooka and Schwarz, 2018) shows that auto-renewal contracts can be used to exploit a naive present-biased consumer's misperception about her probability of cancelling. Inattention and more passive renewal lead to a substantial increase in revenues for subscription services, which could be as high as three times greater than the revenues they would receive if subscribers were fully attentive and made an active renewal decision every month (Einav et al., 2023). Similarly, Grubb and Osborne (2012) illustrate how cellular service providers take advantage of consumers' biased beliefs and inattention to usage, leading to "bill shock" when consumers incur unexpected charges. This exploitation results in higher profits for firms at the expense of consumer welfare. Heidhues and Koszegi (2010) demonstrated that profit-maximizing contracts often feature low introductory rates and automatic renewals to attract consumers who underestimate their propensity for future self-control issues. Firms use these contracts to extract rents from consumers, who then face high fees when attempting to change plans (Eliaz and Spiegel, 2006; Heidhues and Koszegi, 2010). Johnen (2019) demonstrated that firms design automatic renewal contracts to maximize profits by exploiting the inertia of inattentive consumers. However, they also balance this strategy with the adverse selection of sophisticated consumers, who are more likely to manage their subscriptions and avoid high renewal prices actively. Overall, These studies collectively highlight the strategic design of subscription contracts to capitalize on predictable consumer shortcomings.

## 3 Presentation of the market and restaurant strategies

### 3.1 Types of subscriptions in the restaurant industry

Restaurant subscription plans have become a powerful tool for enhancing customer engagement, offering various models tailored to different dining habits and preferences. These subscriptions range from unlimited access to specific menu items to flexible credit-based systems and present innovative ways for restaurants to build customer loyalty and increase visit frequency.

**Unlimited Plans:** Some restaurants design subscription plans to encourage frequent visits by offering extensive access to specific menu items. For example, Panera Bread introduced its "MyPanera+ Coffee" subscription in 2020, which allowed subscribers unlimited hot coffee, iced coffee, and tea for a monthly fee of \$8.99. This innovative program quickly gained popularity. It attracted nearly 500,000 paid subscribers within six months. Panera Bread found during the pilot phase of its coffee subscription service the frequency of visits to Panera Bread increased by 200% and nearly 70% of orders included food (McKinnon, 2022). Building on this success, Panera expanded the program to the "Unlimited Sip Club," which added benefits like \$0 delivery on digital orders placed exclusively through Panera's channels. By 2022, members of the Unlimited Sip Club accounted for approximately 25% of Panera's transactions (Nation's Restaurant News, 2022).

**Limited Access Plans:** These plans provide near-unlimited access to specific items or services. For instance, Pret-A-Manger's subscription offers up to five hot or iced barista-made drinks a day for £30 a month. It allows members to get more value as they consume more. Pret emphasizes that the subscription pays for itself after about seven drinks per month, making the remaining drinks effectively free. While not technically unlimited, this model offers substantial value to high-frequency users which makes it an appealing option for customers who consume multiple drinks daily. This type of plan balances high usage with a practical cap. It ensures economic viability for the restaurant and delivers perceived value to the customer.

**Flexible Credit-Based Plans:** Flexibility is a key feature of many restaurant subscription models. Some restaurants, like El Lopo in San Francisco, offer credit-based subscriptions where members pay a monthly fee in exchange for dining credits. At El Lopo, members pay \$89 a month for \$100 in dining credits, which they can use on a wide variety of dishes and drinks. Subscribers have the option to order à la carte or enjoy a chef's selection tailored to their

preferences and appetite. Similarly, MeatPal offers tiered plans at different price points. With this system, customers have to choose their menu when booking. These models cater to personalized dining experiences and enable subscribers to tailor their usage according to their specific tastes and dining habits. This approach is particularly appealing to those who prioritize choice and customization in their dining experiences.

**Paid Loyalty Programs:** Loyalty programs have long been a staple in fast-food and fast-casual restaurants, typically rewarding repeat customers with points for each dollar spent. A newer trend is the introduction of paid loyalty and membership programs, where customers pay a subscription fee in exchange for enhanced perks. P.F. Chang's, an Asian and Chinese restaurant, has been a pioneer in this area with its Platinum Rewards tier. For a monthly fee of \$6.99, this subscription offers exclusive benefits such as faster point accumulation, unlimited free delivery, priority on the waitlist, and access to a dedicated “VIP concierge” for personalized assistance. This strategic pricing model has positioned P.F. Chang's as one of the leaders in restaurant subscription models.

**Diverse Subscription Models:** Beyond meal subscriptions, restaurants have explored various other models, such as meal kits, wine and beverage subscriptions, dessert or cocktail subscriptions, and exclusive dining experience memberships. These diversified offerings cater to different customer preferences and enhance the overall dining experience.

### 3.2 Growth and adoption of subscription models

Subscription services have experienced a huge increase in popularity, which altered how consumers access and pay for products and services. The subscription economy grew by more than 435% between 2011 and 2020. It highlights a significant shift in consumer behavior toward recurring payment models (Tzuo, 2021). In 2020 alone, the subscription e-commerce market was valued at \$57.0 billion with projected estimations that it will reach \$478.2 billion by 2025. This represents a compound annual growth rate (CAGR) of 68% during the forecast period (PRNewswire, 2020). This remarkable growth underscores the widespread adoption of subscription models across various sectors.

On average, American households subscribed to four streaming services in 2011 and spent approximately \$47 per month on these platforms (eMarketer, 2021). Moreover, overall

spending on subscriptions by U.S. consumers has increased significantly. The average household expenditure rose from \$237 per month in 2018 to \$273 per month in 2021 (West Monroe, 2021). This increase in spending reflects a growing reliance on subscriptions to meet a wide array of needs, ranging from entertainment to health and fitness services.

The reach of subscription models has even extended into the restaurant industry, indicating their expanding influence on diverse aspects of consumer life. The U.S. restaurant industry, in particular, has undergone a notable transformation, with the adoption of subscription models becoming increasingly prevalent. These models offer restaurants a steady revenue stream while providing customers with convenience and value.

A 2020 survey by PropertyNest revealed that 55% of New Yorkers were interested in paying a monthly subscription to their favorite neighborhood restaurant. By 2023, the National Restaurant Association found that 63% of adults were interested in a monthly subscription for ready-made meals to take away (National Restaurant Association, 2023).

The COVID-19 pandemic significantly accelerated the adoption of restaurant subscriptions (Deloitte, 2023). As dining rooms closed and social distancing became widespread, restaurants sought innovative ways to engage with customers. Subscription models emerged as a critical solution, allowing restaurants to provide regular meal deliveries, exclusive dining experiences, and membership benefits such as discounts and priority seating. This approach not only helped sustain customer loyalty during a challenging period but also gained traction post-pandemic. In 2021, over 42% of restaurants indicated plans to invest in customer loyalty programs (Nnamani, 2024).

Technological advancements have also been instrumental in simplifying the management of subscriptions. The integration of digital platforms and apps has streamlined payment processes and enhanced customer relationship management (Subramaniam, 2024). The increasing use of mobile devices and the growing preference for digital interaction have further fuelled the growth of subscription services (Stripe, 2023). Mobile apps and digital platforms make it easier for consumers to manage their subscriptions, receive personalized recommendations, and make payments seamlessly. As a result, the overall user experience is greatly enhanced, encouraging more consumers to subscribe.

While subscription models have seen widespread adoption in the United States, the situation in Europe presents a different picture. The concept of restaurant subscriptions is gradually gaining traction in Europe with examples such as the French pizzeria chain “Delarte” which offers

subscribers the opportunity to come and eat a pizza every day if they wish for the sum of €35 per month. However, this model has not yet achieved the same level of popularity as in the U.S. Several factors might account for this difference, including cultural preferences, varying consumer behaviors, and the structure of the restaurant industry in Europe.

### 3.3 Relevance and impact of subscription models

In recent years, the restaurant industry has increasingly embraced subscription services as a means to drive customer loyalty, enhance revenue stability, and deliver more personalized dining experiences. These programs, which range from coffee subscriptions to exclusive discounts and member-only events, offer restaurants a unique opportunity to cultivate long-term relationships with their customers. However, the success of these initiatives is heavily contingent upon meticulous planning, particularly in the realm of pricing strategies (McKinsey, 2021).

Determining the optimal pricing strategy for a restaurant's subscription service is a complex and pivotal task that can greatly influence the program's success. Pricing is not merely about covering costs; it plays a crucial role in shaping customer perception and satisfaction (Dalati, S., & Al Hamwi, A. (2016). These factors are vital in a subscription-based model where customer retention is of great importance. Restaurant managers must strike a delicate balance between offering value to customers and ensuring that the subscription service remains financially sustainable.

One of the primary challenges is establishing a price point that attracts a substantial number of subscribers while adequately covering the costs associated with delivering the promised value. This is particularly critical in the restaurant industry, where profit margins are often slim. A price set too high may deter potential subscribers, while a price set too low may result in unsustainable losses.

For instance, On the Border Mexican Grill introduced its Queso Club in 2021, a subscription service offering a year's worth of free cheese dip for just \$1. The program quickly garnered over 150,000 subscribers, who visited the restaurant seven times more frequently than the average guest. On the surface, this appeared to be a resounding success, with the program significantly boosting customer frequency. However, the restaurant chain soon realized that the

cost of providing the dip exceeded the revenue generated by the subscriptions, leading to the program's discontinuation. This case underscores the importance of not only attracting customers with enticing offers but also ensuring that the pricing structure is sustainable over the long term.

The example of On the Border's Queso Club highlights a critical lesson: while subscription services have the potential to transform customer relationships and revenue models, they are not guaranteed to succeed without careful consideration of all associated costs. Restaurants must thoroughly assess both the direct and indirect costs of delivering the subscription benefits, including food and labor costs, and weigh these against the projected revenue from subscriptions. Additionally, they must consider the broader impact on customer behavior and how the subscription might affect overall sales and profitability.

Furthermore, pricing in subscription models is intricately linked to customer relationship management. A well-calibrated subscription price can enhance customer satisfaction by providing perceived value, thereby leading to higher retention rates (McCormick, 2017). Conversely, if customers feel that they are not receiving sufficient value for their money, they may churn, negating the benefits of the subscription model. Thus, pricing is not solely a financial decision but a strategic one that influences customer loyalty and brand perception.

The flexibility and scalability of subscription models make them attractive to businesses of all sizes. Startups and small businesses can leverage subscriptions to establish a steady revenue base, while larger enterprises can use them to diversify their income streams and deepen customer relationships. However, restaurants must remain vigilant about potential challenges, such as subscription fatigue or market oversaturation, which can undermine the effectiveness of these programs if not carefully managed. Balancing the appeal of a subscription with long-term sustainability and consumer interest is crucial for success.

### 3.4 Subscription to drive loyalty

Building on the relevance of subscriptions in enhancing revenue stability, restaurants are increasingly turning to recurring payment models to foster customer loyalty beyond traditional points-based rewards systems. Squarup, A financial services platform, reported that among the hundreds of thousands of food and beverage vendors it serves, those offering subscriptions

experienced a 54% year-over-year increase between 2022 and 2023. Customer retention has also been strong, with 57% of subscribers remaining active after six months (Squareup, 2023). While only a small percentage of consumers actively seek restaurant subscriptions, those who do are typically the most valuable customers. According to a survey over 2,000 U.S. consumers, only 17% expressed strong interest in restaurant subscription services, whereas 58% were slightly or not interested at all. However, those interested in subscriptions tend to be high-value customers, with 78% of restaurant subscribers and 73% of interested consumers indicating strong loyalty to their preferred quick-service restaurants, compared to just 41% of uninterested consumers (PYMNTS, 2023).

One of the key benefits of restaurant subscriptions is the ability to generate recurring revenue, providing a steady stream of income that can significantly enhance financial stability. Unlike the traditional, often unpredictable daily sales, subscription models ensure a more consistent cash flow, allowing for better financial planning and resource allocation. By offsetting the fluctuations of daily sales, restaurants can reduce the financial strain caused by seasonal variations or unexpected downturns in customer foot traffic.

Given the ultra-slim 3-9% profit margins in most eateries, losing patrons can severely damage financial sustainability (Restaurant365). Innovative customer retention strategies, such as subscription services, are thus indispensable for long-term success. In an era of online dining reservations and food delivery services, restaurant subscriptions are crucial for standing out in a crowded market. A well-designed subscription program not only enhances customer satisfaction and dining behavior but also strengthens loyalty by making customers feel appreciated and valued. The exclusive benefits and services offered through subscriptions create a sense of satisfaction and connection, encouraging continued patronage at the establishment (Tran, 2024).

The cost of acquiring new customers is another critical factor to consider. It is widely recognized that acquiring a new customer can cost 5 to 25 times more than retaining an existing one (Harvard Business Review, 2014). Given this high acquisition cost, focusing on retention through subscription models becomes even more crucial. Loyal customers not only provide a reliable source of income but also help reduce overall marketing and acquisition expenses. By optimizing marketing spend and prioritizing retention, restaurants can achieve better returns on investment through their subscription programs.

Moreover, loyal customers engaged in subscription programs tend to visit more frequently and spend more per meal compared to non-subscribers. According to a McKinsey (2020), members of paid loyalty programs are 60% more likely to increase their spending on the brand post-subscription, compared to a 30% increase for members of free loyalty programs. In addition, paid loyalty programs drive higher purchase frequency, basket size, and brand affinity compared with free loyalty programs.

This increased spend can be attributed to the perceived value of the subscription benefits, as well as the stronger emotional connection subscribers feel toward the brand. This connection is often driven by a sense of belonging and the exclusive benefits that come with being part of a subscription program. Subscribers feel more valued and appreciated, which strengthens their loyalty and encourages continued patronage (Emilev, 2024).

Referrals from loyal customers also provide exponential word-of-mouth growth, further amplifying the benefits of subscription programs (Tran E, 2024). Satisfied subscribers are more likely to recommend the restaurant to friends and family, leading to new customer acquisition at a much lower cost. This organic growth through referrals is a powerful tool for restaurants, helping them expand their customer base without the need for expensive advertising campaigns.

## 4 Strategic exploitation of consumer behavior

Subscription models have become increasingly popular in the restaurant industry, but their success often hinges on leveraging consumer biases and behavioral mistakes. This chapter explores how businesses exploit these tendencies to maximize profits, often at the expense of the consumer's best interest.

Examples will primarily focus on large restaurant chains, such as Panera Bread and Pret A Manger, to illustrate how firms exploit consumer mistakes through subscription models. These chains are highlighted because they are often early adopters of new business strategies, including subscription services, and their practices set industry trends. Their scale and resources provide clear and observable examples of how tactics can influence consumer behavior.

#### 4.1 Long-term contracts and consumer overestimation

Perceived price is a crucial determinant of customer satisfaction, particularly in subscription-based services. Research indicates that customers are more satisfied when they perceive the price as fair and reflective of the quality and experience provided by the restaurant (Msallam, 2015). Specifically, this study demonstrates that perceived price fairness is positively correlated with customer satisfaction. When customers believe they are receiving good value for their money, their overall satisfaction increases, which in turn fosters loyalty and encourages positive word-of-mouth.

Subscriptions are especially appealing to consumers because they create a strong perception of value. This perception is often driven by the notion that subscribing offers a cost-effective way to regularly enjoy a service or product. To enhance this perception, restaurants often provide the option of long-term subscriptions with benefits such as lower monthly rates and exclusive perks in exchange for an upfront yearly commitment. With Panera, customers can subscribe to the service for around \$14.99 per month. Alternatively, customers can choose to pay for an entire year upfront at a discounted rate, which typically amounts to around \$119.99 per year, effectively offering 4 months free.

Rational consumers evaluate these offers by calculating potential savings based on their anticipated usage. They will subscribe if they believe their frequency of visits will justify the annual cost. These consumers carefully consider whether the subscription aligns with their habits and dining preferences. However, not all consumers approach subscriptions with such rationality. Some may overestimate how often they will utilize the service, driven by optimistic expectations or initial enthusiasm. This phenomenon, known as the "overestimation effect," occurs when consumers subscribe with the intention of frequent use but fail to follow through. As a result, these consumers end up paying for a subscription they do not fully utilize, leading to a poor return on their investment.

This overestimation is closely tied to time inconsistency, where consumers disproportionately value immediate benefits over future costs. It leads them to misjudge their actual usage of the subscription. Customers may not anticipate that their preferences will change over time, resulting in fewer visits to the restaurant and making the subscription less profitable for the customer but more profitable for the restaurant. In particular, consumers may tire of regularly visiting the same restaurant. While sophisticated consumers might accurately assess their likely

usage, naive consumers often fall into the trap of overestimating their future visits which leads to suboptimal subscription choices. This discrepancy highlights how businesses can exploit consumer optimism to drive subscription sign-ups, even when the long-term value for the consumer may be questionable.

#### 4.2 Auto-renewal contracts: leveraging consumer inattention

Consumer inattention is a factor that businesses frequently exploit through the use of auto-renewal contracts. Many customers forget to cancel subscriptions or passively allow them to renew which leads to extended periods of payment. This behavior often results in increased revenues for businesses, as consumers may procrastinate or fail to notice the need to unsubscribe. Typically, the process of cancelling a subscription requires navigating multiple steps, which are often deliberately cumbersome. This friction contributes to procrastination, causing consumers to delay or forget to unsubscribe, thereby extending their subscription beyond their intended usage period.

Although laws have been enacted to curb the misuse of automatic renewals by mandating clear disclosures, affirmative consent, and straightforward cancellation procedures, these practices still capitalize on consumer behavior. Even with these protections, many customers accept auto-renewal contracts for the sake of convenience, only to later forget to cancel. As a result, consumers continue to be billed for services they no longer use, inadvertently prolonging their subscriptions.

Several restaurant chains offering subscription services incorporate auto-renewal as a standard feature. Panera Bread's "Unlimited Sip Club" automatically renews each month, charging the customer unless they cancel before the renewal date. The terms and conditions on Panera's website clearly state that the subscription will continue to renew until the customer cancels, with cancellation required through the company's online portal.

Similarly, Pret A Manger's "Pret Coffee Subscription" auto-renews monthly. According to their terms, the subscription will continue to renew unless the customer actively cancels before the next billing cycle begins. Although Pret makes cancellation relatively easy with an option in their app, the default setting remains auto-renewal.

The information on how to cancel these subscriptions is not prominently featured on the main promotional pages but is available in the Frequently Asked Questions (FAQ) section of their websites. This placement suggests that while Panera and Pret are not actively concealing the cancellation process, they do not make it immediately visible either, relying on consumers to take the initiative to find this information. This approach indicates a level of transparency, as there is no legal requirement for restaurants to place such information in a highly accessible location.

However, not all chains follow this approach. In some cases, information on how to unsubscribe is not easily accessible, requiring customers to search through the terms and conditions to find it, as seen with PF Chang's rewards program. By not prominently displaying cancellation instructions, these businesses can take advantage of consumer inattention or the likelihood that some customers may be too indifferent or lazy to search through all the usage terms. This strategy allows them to retain subscribers who might otherwise cancel.

Auto-renewal contracts in the restaurant industry present a dual-edged strategy. They offer convenience and ensure continuous service for consumers but can also lead to unintended and prolonged financial commitments. Restaurants that utilize these contracts must carefully navigate the balance between leveraging consumer inattention and maintaining ethical standards by ensuring that cancellation information is accessible, even if not prominently displayed.

#### 4.3 Teaser rates: initial discounts and sunk cost effect

Teaser rates, where businesses offer a reduced price during the initial subscription period, are a common tactic used to capitalize on consumer behavior. This strategy creates a sense of urgency and excitement which encourages consumers to subscribe quickly. Panera Bread's coffee subscription program offered three months free to new subscribers in the summer of 2024. This is a prime example of using teaser rates to rapidly attract a large customer base. By incentivizing potential customers to try the product, businesses aim to quickly penetrate the market and establish early customer loyalty.

The psychological impact of sunk costs significantly influences consumer loyalty to these services. Once consumers have invested time or money in a subscription, they often feel

compelled to continue, even if the service no longer offers the best value. This sunk cost effect can lead to irrational decision-making, where consumers maintain a subscription solely to justify their initial investment. While some consumers are aware of this dynamic and manage it effectively, others fall into the trap of continuing a subscription long after it ceases to be beneficial.

For instance, Jang et al. (2012) found in their study that a substantial portion of respondents remained loyal to a restaurant's membership club despite a competitor offering a superior product. This finding illustrates how the initial cost of membership can create a psychological commitment, even when better alternatives are available. The impact of teaser rates and membership fees on consumer behavior underscores how businesses exploit mental accounting and commitment to retain subscribers.

#### 4.4 Leveraging subscription to drive consumer spending

Pret A Manger's subscription plan is designed to attract customers by offering what appears to be exceptional value. However, this strategy focuses only on a subset of Pret's offerings while excluding other popular items like sandwiches, salads, and baked goods. At first glance, the subscription seems like a great deal for customers, especially those who frequently purchase coffee or other drinks. However, the design of such a subscription plan subtly encourages customers to spend more than they might initially expect.

The mechanism behind this increased spending is rooted in behavioral economics, particularly in how consumers perceive value and manage their spending. When customers subscribe to a plan that provides them with daily drinks, they are likely to visit Pret A Manger more frequently to take full advantage of their subscription. Each visit reinforces the idea that they are getting more value from their subscription the more they use it. However, while they may be saving on their drinks, they are also repeatedly exposed to other tempting items that are not covered by the subscription.

This repeated exposure to non-included items creates what is known as the "cross-selling opportunity" for the business. Customers, drawn in by the "free" drink, may feel more inclined to purchase something else during their visit. This is where the subscription model effectively increases the likelihood of additional purchases. Customers might rationalize these additional

purchases by thinking that the money saved on drinks justifies spending more on food, even though they didn't plan to make these purchases initially.

From a business perspective, offering a low-cost subscription plan that covers only a portion of the product range can be a strategic move to boost foot traffic and drive sales of core products. Even if the subscription itself operates at a low margin or a loss, the increased frequency of customer visits and the potential for additional purchases can significantly enhance profitability.

## 5 Why consumers choose to pay more: motivational insights

Consumers do not always act rationally and may make financially unbeneficial subscription decisions due to cognitive factors as explored in the previous points. This is the concept of flat-rate bias. However, motivational factors can lead people to intentionally purchase more than they need, deriving nonmonetary benefits from these tariffs. Lambrecht and Skiera (2006) observed that customers who exhibit a flat-rate bias may not mind paying more than they would under a cheaper alternative, suggesting that this behavior can be considered rational. They suggest that certain features of flat-rate tariffs contribute to this bias: the insurance effect, the taxi-meter effect, and the convenience effect. This section aims to analyse to what extent these effects are present in the restaurant customer's choices.

### 5.1 Insurance effect: security in predictable costs

The insurance effect provides consumers with a sense of security by ensuring a consistent bill amount, regardless of actual usage. This acts as a form of financial insurance which shields consumers from unexpected high costs associated with pay-per-use models. For example, a restaurant subscription offering unlimited access at a fixed price allows customers to effectively budget their dining expenses, thereby providing peace of mind and reducing financial stress. This effect is particularly significant in contexts such as telecommunication tariffs, where predicting the amount of calls, SMS, and data usage can be challenging due to their unpredictable nature. For instance, the need to contact someone unexpectedly, such as

informing a school that a child is sick, underscores the value of a flat-rate model in telecommunications.

In contrast, dining at a restaurant is generally a more predictable activity, as it is often a discretionary choice rather than a necessity. Unlike phone calls, which can be obligatory in certain situations, there are relatively few circumstances that compel a visit to a restaurant. As a result, the motivation to opt for a flat-rate option in the restaurant industry is less likely to be driven by the insurance effect. Restaurant customers may have fewer reasons to prefer a flat-rate plan over a pay-as-you-go model to avoid high bills, given the more predictable and discretionary nature of dining out.

## 5.2 Taxi-meter effect: avoiding the pain of incremental costs

The "taxi-meter effect" refers to the psychological discomfort experienced when individuals are constantly aware of accumulating costs, similar to watching a taxi meter run while stuck in traffic. This concept may be relevant in the context of restaurant subscriptions, as customers can enjoy their meals without the persistent awareness of the cost associated with each visit or item ordered. The subscription model mitigates the financial stress of paying per meal and allows diners to focus on the dining experience rather than the expense.

This effect may be especially pronounced in higher-end restaurants, where the cost per visit is significantly higher, or for heavy consumers who subscribe to programs like those offered by Panera or Pret-A-Manger, which allow a certain number of drinks without additional charges. In these cases, the anxiety of watching the "meter" run might be more intense, making an unlimited dining subscription more appealing. The higher the perceived value of each meal, the stronger the desire to avoid the incremental costs associated with pay-per-use models.

Although definitive evidence for the "taxi-meter effect" in restaurants is limited, the "all-inclusive" vacation model may serve as an analogous example. Consumers in such settings tend to enjoy their experiences more because they are not constantly reminded of the incremental costs of each meal or drink, which they perceive as "free." This perception can lead to greater overall satisfaction with the experience (Thaler, 1999).

However, taxi-meter effect is generally less pronounced in restaurants compared to industries where costs are more directly tied to time or consumption. For instance, in services like taxi

rides or utilities such as electricity and data usage, costs accrue in real-time as the service is used, making the "meter" effect far more immediate and noticeable. Customers are often acutely aware of every minute or unit of consumption, leading to higher levels of anxiety about the final bill. Additionally, dining out is typically viewed as a discretionary, leisure activity, where customers might be more willing to spend for enjoyment, further mitigating the taxi-meter effect.

### 5.3 Convenience effect: the appeal of effortless decisions

The "convenience effect" refers to the ease and simplicity offered by flat-rate tariffs, which streamline the decision-making process and reduce cognitive load for consumers. Subscriptions eliminate the need for repeated purchasing decisions, thereby minimizing decision fatigue. In the context of contemporary consumer behavior, where individuals lead increasingly busy lives, the appeal of pre-planned meals or access to a predetermined number of meals per month without the need to decide each time where or what to eat is particularly compelling. This trend aligns with the broader movement toward simplifying consumer choices and enhancing user experience.

Pret A Manger's drink subscription offers customers regular, hassle-free dining experiences by removing the need for continuous decision-making and establishing a seamless, predictable routine. This convenience is highly valued by consumers who prioritize ease and efficiency in their daily dining habits.

In today's fast-paced world, time constraints often make traditional meal planning and decision-making challenging, especially for workers. A recent survey found that one in five workers feel they have too many meetings to take a proper lunch break (EzCater, 2023). With lunch breaks typically ranging from 30 to 60 minutes, the time available to choose where and what to eat, as well as the actual eating time, is limited. For these workers, subscribing to a fast-food or fast-casual restaurant, such as Pret A Manger or Panera Bread, provides an optimal solution. These subscriptions offer the dual benefits of convenience and speed, allowing workers to enjoy their meals without the added stress of daily dining decisions.

From an economic perspective, deciding where to eat can be seen as a transaction cost, a concept that refers to the time, effort, and resources required to make a decision. People make

an average of 200 to 300 decisions related to food consumption each day (Wansink & Sobal, 2007). Given the sheer volume of food-related decisions and the significant time constraints many individuals face, it is understandable that they might seek ways to simplify these decisions. By opting for a subscription service, consumers effectively minimize these transaction costs. A one-time decision to subscribe significantly reduces the need for daily decision-making, thereby conserving mental energy and time for other activities.

## 6 Conclusion

The exploration of subscription models within the restaurant industry reveals a complex interplay between consumer convenience and potential exploitation. As subscription-based services continue to proliferate across various sectors, understanding their impact on both consumers and businesses becomes increasingly important.

This thesis sought to answer the research question: “Do restaurant subscriptions exploit consumers or offer them a more convenient option?” Through a comprehensive examination of the subscription market in the restaurant industry, including firm strategies and consumer behavior, it becomes clear that the answer is nuanced. While subscriptions undeniably provide consumers with significant benefits such as convenience, personalized experiences, and exclusive access, they also create opportunities for businesses to exploit consumer biases and behavioral tendencies.

Tactics such as long-term contracts, teaser rates, auto-renewal contracts, and the integration of additional services can lead consumers to make suboptimal decisions, often resulting in them paying more than they initially anticipated. While these strategies can be highly profitable for businesses, they raise ethical concerns, particularly when they capitalize on consumer inattention or overestimation of future usage.

However, it is also essential to recognize that not all subscription models are inherently exploitative. When designed with transparency and consumer welfare in mind, they can create a mutually beneficial situation where consumers enjoy enhanced value and businesses gain a loyal customer base and stable revenue streams.

This research contributes to the broader understanding of how subscription models function within the restaurant industry, highlighting the dual nature of these offerings. It emphasizes the need for businesses to consider the long-term implications of their subscription strategies, not only in terms of their financial outcomes but also in relation to consumer trust and satisfaction. For policymakers, these findings suggest the importance of monitoring and regulating subscription practices to protect consumers from potentially predatory tactics.

While this thesis provides valuable insights into the dynamics of restaurant subscriptions, it is important to acknowledge its limitations. Primarily, this research is not empirical; it relies on existing literature and theoretical analysis rather than direct data collection or quantitative

methods. As such, the findings are interpretative and based on secondary sources, which may limit their generalizability across different contexts.

Additionally, the study focuses primarily on the restaurant industry in the United States. While the U.S. market is significant and influential, consumer behavior and market conditions can vary widely across different regions and cultures. Thus, the applicability of these findings to other geographical contexts remains uncertain. Future research could expand the scope by examining subscription models in the restaurant industry across various countries, allowing for a more comprehensive understanding of how cultural and economic differences influence consumer responses to these models.

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