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What a Latte Can Teach You About Human Nature, Decision-Making and the Economy

Abstract: The Big Picture Behind Small Purchases

This research examines the underlying drivers of small, discretionary purchases, such as the routine purchase of buying a latte, and how such seemingly insignificant decisions reflect deeper psychological, behavioural and systemic influences. Rather than focusing on the macroeconomic ramifications of spending, this paper seeks to understand the foundational paradigms of consumer behaviour by analysing theoretical frameworks from a multitude of disciplines including, but not limited to, behavioural economics, psychology, and literature.

By their ubiquity across diverse income brackets, findings reveal that small purchase habits hold significant cumulative effects (Bach, 2019); in uncovering the degree to which micro-purchases stem from rational economic decision-making, psychological predispositions, or systemic influences, the study can begin to contribute to discussions regarding how responsible spending can reinforce or redirect these effects.

Lastly, this research highlights the importance of considering the impact of small discretionary purchases in social policies. It will also enrich discussions regarding the role of consumer behaviour in fostering economic sustainability and social change.

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Introduction: Why Trivial Purchases Deserve Serious Thought

At first glance, buying a latte or subscribing to a streaming service might seem like a harmless, everyday choice. But what if these small, seemingly insignificant decisions are rooted in a labyrinthine mix of complex economic, psychological and social factors?

Consumer behaviour is a cornerstone of economic systems, influencing demand, shaping industries and driving macroeconomic trends. Small discretionary purchases are often presumed by consumers to exert negligible financial impact, yet, when aggregated across populations, these purchases hold significant economic power (ONS, 2024). As such, this dissertation seeks to disentangle the root causes of these purchases, exploring what motivates such behaviours.

Daily spending choices often reflect deeper behavioural patterns; many economists, psychologists and philosophers have tried to come up with theories to explain these irrational behaviours. The puzzle this research will address is determining which theoretical framework holds the most predictive power in explaining what drives individuals to make such purchases. By examining these root causes, this research will identify which theory best explains why consumers make small discretionary purchases, and in turn, will illuminate the primary drivers of these spending habits, thereby providing a deeper understanding of how everyday decisions ripple out to produce significant societal and economic effects.

For this dissertation, a “small discretionary purchase,” shall be characterised by its low cost, low risk, and non-essential nature, defined as an item bought with the intention of satisfying convenience and/or an immediate want. The term “small” refers to low-stake purchases with an arbitrary cut-off point at £20 to provide a clear framework for analysis (Bach, 2019; Hill et al., 2012). This research considers both the extensive margin – whether an individual chooses to purchase a good – and the intensive margin – how frequently these purchases occur and how much is spent over time. For instance, walking past an ice cream shop and spontaneously buying an ice cream would be considered an impulse purchase; conversely, buying bottled water instead of carrying a bottle could be viewed as convenience driven. In contrast, buying an ice cream or bottled water several times a week reveals a higher frequency of discretionary spending, demonstrating the intensive margin.

Understanding the root causes of small discretionary purchases is vital because of their collective macroeconomic impact. For instance, during the COVID pandemic, widespread panic and stockpiling led to global shortages of necessities (i.e., toilet paper), something that could have otherwise inaccurately been attributed to supply-chain shortages when it was largely driven by consumer behaviour and collective irrationality (J.P Morgan, 2020). Similarly, the 2024 CPI basket of goods highlights that ~ 49% of household spending was allocated to discretionary items such as restaurants and hotels, alcohol and tobacco, and other non-essential purchases (ONS, 2024). This high degree of household spending magnifies the power of seemingly insignificant spending decisions (Bach, 2019; Hill et al., 2012), however, there remains a gap in understanding how to guide consumers towards rational decision-making that optimises both their utility and the sustainability of their spending habits.

For social policy, small discretionary purchases have the potency to exacerbate financial vulnerability, particularly for low-income households, and influence how welfare benefits or cash transfers are used. Hence, in understanding which cognitive biases are most influential allows for policymakers to design

interventions that promote financial stability, protect consumers and maintain individual autonomy whilst guiding more prudent spending habits.

This research enhances existing literature by shifting the focus from the macroeconomic consequences of small purchases to the underlying drivers of behaviour. Whilst the ‘Latte Factor,’ (Bach, 2019) highlights the long-term financial impact of repeated small expenditures, less attention has been given to the root causes that compel such spending. This dissertation addresses this gap by synthesising insights from behavioural economics to psychology and modern consumerism, allowing the study to uncover why consumers engage in pseudo-trivial discretionary spending and whether these behaviours stem from rational choice, psychological predispositions, or systemic influences.

I address the core research question by employing a quantitative methodology that integrates theoretical frameworks with empirical analysis of primary data collected through surveys. I test well-established behavioural theories to find the strongest predictor of discretionary purchases, namely Prospect Theory, Mental Accounting, Denomination Effect, Self-Control Theory, Decision Utility and Hedonism. Eventually, the findings aim to contribute both to academic discourse and policy discussions the need to consider the underlying determinants of small purchases and their potential implications for social change and economic sustainability.

In summary, this dissertation will help disentangle the drivers of small discretionary purchases by exploring the interplay between psychological motivations, cultural influences, and systemic factors. Situating these purchases within a clear framework and acknowledging their broader economic implications will hopefully uncover key insights into consumer behaviour and its impact on modern economic systems. Much like frothy layers of a perfectly crafted cup of coffee, these purchases contain multiple dimensions – each revealing an underlying driver of consumer choice.

Existing Literature and Theoretical Frameworks: The Cost of Choice

Do individuals make small discretionary purchases because of how they assign value, a lack of self-control or pursuit of virtue? This study draws on diverse pieces of literature and theories across several disciplines in direct contrast with one another to investigate which school of thought exerts the most influence on small discretionary purchases. Firstly, microeconomic theories shall be explored since they provide valuable insights into the behavioural motivations that drive spending. Following on, theories rooted in psychology shall be briefly explored, as well as philosophical conjectures in a literary context to explore the notion that small indulgences have been long normalised as forms of self-reward. Thus, analysing interdisciplinary theories provides a holistic foundation to analyse decision-making processes.

i. More Than a Sip: Why a Coffee Costs a Latte

Classic economic models assume that consumers act within their best financial interest, maximising utility with each purchase. Recognised as the ‘normative model of rational choice,’ (Kahneman & Tversky, 1979), this framework assumes adherence to the axioms of utility theory:

$$U(x) = x^\alpha \tag{1}$$

Prior scholarship suggests that real-world behaviours frequently deviate from this assumption (Kahneman & Tversky, 1979; Thaler, 1985) and empirical evidence shows that consumer preferences tend to systemically violate the tenets of this theory; instead, consumers’ decisions are influenced by cognitive biases, emotional responses and contextual framing.

Prospect theory posits that individuals do not solely base utility on final wealth but assess gains and losses relative to a specific reference point. Mathematically, it replaces the utility function (1) with a value function, $v(x_i)$ given by:

$$V(x) = \begin{cases} x^\alpha, & x \geq 0 \text{ (for gains)} \\ -\lambda(-x)^\beta, & x < 0 \text{ (for losses)} \end{cases} \tag{2}$$

The function introduces convexity in the loss’ domain, reflecting loss aversion (Kahneman & Tversky, 1979).

Prospect theorists would expect consumers to assess their purchase relative to a subjective reference point. Loss aversion then implies that not meeting the benchmark may feel more consequential than the satisfaction of meeting it. For instance, a consumer buys a £20 scarf, expecting it is of high quality. If the scarf meets expectations, their utility is x_1 . However, if it is fraying, utility would be $-x_2$, illustrating that $x_1 < |-x_2|$.

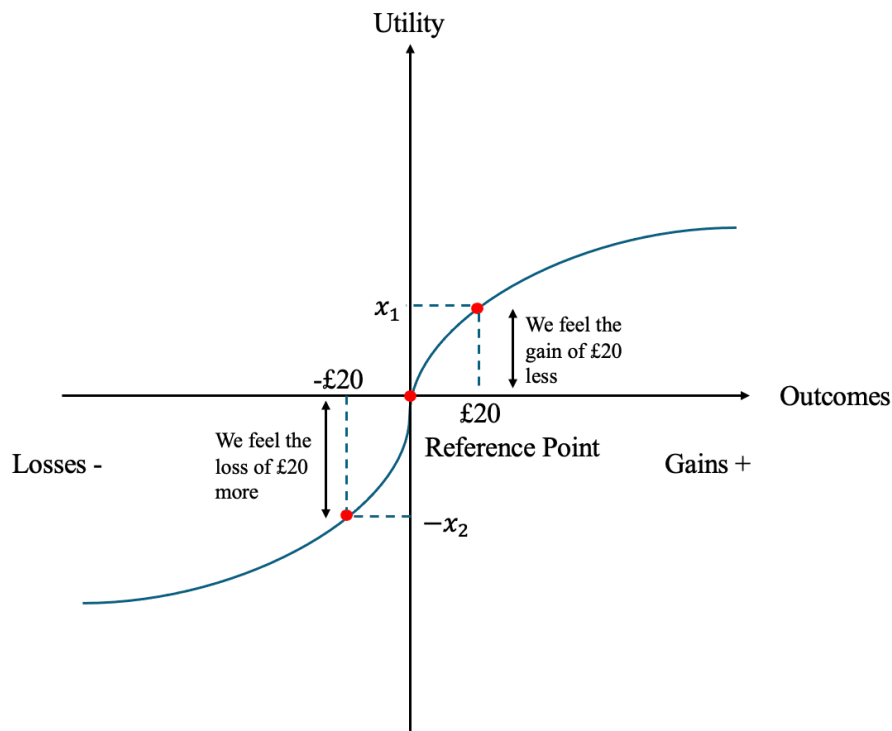


Figure 1: *Prospect Theory Value Function demonstrating 'Loss Aversion,' where outcomes are evaluated relative to a reference point (£20). The curve is steeper for losses than for gains reflecting loss aversion. A loss of £20 leads to a larger fall in utility ($-x_2$) than the increase in utility from a gain of £20 ($+x_1$).*

This behavioural asymmetry can be tested by framing outcomes as either gains or losses. Prospect theory predicts heightened sensitivity to phrasing that emphasises what is foregone (Kahneman & Tversky, 1979), such as framing a £5 coffee as “£5 further from your savings goal” rather than “a daily treat.” Similarly, reference dependence, loss aversion, and diminishing marginal utility can be observed in scenarios involving anticipated purchases, perceived shortfalls, or price-based regret, offering clear pathways for interpreting how prospect theory manifests in small discretionary spending decisions.

Additionally, consumers exhibit bounded rationality by relying on heuristics (mental shortcuts) to simplify purchasing decisions (Simon, 1955). These shortcuts become especially salient under prospect theory because of concavity in the value function (2), meaning that minor price or quality changes rarely trigger extensive re-evaluation. Firms capitalise on these heuristics by presenting offers that minimise perceived losses, tapping into the consumer’s heightened sensitivity to loss aversion. For example, an

individual receives a Gail's loyalty card: "Buy 9 coffees, get the 10th free." This scheme serves as their reference point, subtly framing each purchase as closer to a "reward." Due to bounded rationality, the consumer forgoes comparing prices or quality of the coffee elsewhere; instead, they rely on the habitual heuristic meaning that any deviation from this routine is viewed as a loss relative to the progress on their loyalty card already made. Thus, the consumer continues buying coffee at Gail's.

Decision-making scenarios that manipulate reference points, framing or time-limitations reveal whether consumers overreact to losses, underweight small price differences or revert to habitual choices, supporting prospect theory and heuristic-based decision-making. Examining how individuals behave in such contexts provides a practical means of testing whether heuristics and prospect theory play a role in shaping everyday spending decisions.

Thaler's (1985) theory of mental accounting provides rich microeconomic theory for understanding how individuals deviate from classical economic assumptions of fungibility. Instead, money is non-fungible, and individuals mentally categorise finances into separate accounts, each with its own implicit rules and spending justifications, influencing both spending and saving behaviours. Thaler also distinguishes between the intrinsic value of a good (acquisition utility) and the perceived value of the good (transaction utility), showing that consumers derive additional satisfaction from a good if they 'perceive,' it to be a good deal, separate from the good's inherent fiscal value.

Mental accounting predicts consumers to engage in more low-cost, indulgent purchases if they are spent from an account earmarked for discretionary use. For instance, a tax refund may be labelled as 'found money,' so spending this 'bonus,' money on a purchase feels more than justified because it belongs to an account mentally allocated for discretionary use. Had the same amount come from a regular payslip, the consumer would have hesitated according to Thaler, as that money is mentally reserved for expenses.

Mental accounting can be empirically assessed by testing how consumers change spending decisions when the perceived source or purpose of the money changes. Scenarios involving unexpected income, or labelled budgeting offer insights into how compartmentalisation lowers the psychological threshold for spending. Additionally, preferences towards promotional items reflect the pursuit of transaction utility.

In sum, mental accounting demonstrates how money belongs to distinct accounts each governed by its own subjective rules, providing a nuanced and psychologically grounded explanation for why consumers engage in purchases.

Thirdly, the denomination effect (Raghubir & Srivastava, 2009) suggests individuals are less likely to spend money when it is in large denominations, i.e., a £50 note, compared to smaller denominations of five £10 notes. This phenomenon indicates that larger notes are perceived as more valuable and significant, thereby invoking a stronger psychological barrier against spending. To contrast, smaller denominations appear more ‘disposable,’ encouraging more frequent or impulsive lower-value discretionary purchases. This insight motivates small discretionary purchases because the form in which money is presented shapes consumer spending. Today, the use of credit cards and cashless, digital payments further diminishes the salience of cash denominations (Soman, 2001), reducing the emotional cost that typically restrains impulsive spending. Whilst the denomination effect (Raghubir & Srivastava, 2009) suggests that smaller denominations lower spending inhibition by making each transaction seem less painful, the absence of tangible money when using card payments further attenuates this pain, leading to increased small and discretionary purchases. For example, a consumer may hesitate to break a £50 note for a £4.50 coffee yet may effortlessly make the purchase using a contactless card.

The denomination effect can be examined through scenarios that manipulate payments formats and size – whether cash or digital – to observe willingness to spend. By comparing responses, payment visibility and

divisibility can be assessed with respect to small-scale spending behaviours. Overall, this theory demonstrates how the tangibility of money can amplify discretionary spending behaviours, reinforcing the idea that financial decision-making is shaped by psychological barriers as opposed to solely rational calculations.

ii. What a Marshmallow and Basketball Tickets Have in Common

Psychological models provide valuable insights into the psychosomatic mechanisms that prompt consumers to make small, discretionary purchases. Psychologists draw on emotional responses to determine what drives such behaviours. By understanding these pathways, psychologists can underscore how anticipation, pleasure and immediate gratification can catalyse behavioural spending.

Mischel et al.'s (1972) seminal "Marshmallow Experiment," reveals that whilst delayed gratification can lead to long-term benefits, many individuals succumb to the allure of instant rewards. The experiment also concluded that any individual could delay gratification, those with "ego strength," (Mischel et al., 1972) had stronger cognitive control to voluntarily delay a reward at the expense of greater long-term benefits. Self-control theory (Mischel et al., 1972) supposes that consumers make small discretionary purchases if they do not have the self-control and foresight to delay the consumption of a good for greater long-term benefits. Bach (2019) demonstrates that although \$5 on a latte every day may seem insignificant and rewards the consumer with immediate satisfaction; in delaying this reward, the consumer could save \$1825 per year instead. Investing this cash in monthly deposits at a modest 6% annual ROI could yield \$1875.01 after one year. The foregone interest, whilst seemingly negligible and worth all the daily coffees, would amount to \$24,909.66 in 10 years (FinancialMentor, 2019).

This theory can be tested by evaluating consumers' willingness to delay gratification across low-stake decisions. Scenarios that juxtapose immediate consumption with long-term benefits help identify the capacity for self-control. Furthermore, impulse-driven purchases and regret also signal the degree to which consumers succumb to present bias.

In today's fast-paced culture, the ability to delay gratification is oftentimes tested by the sheer accessibility of instant rewards, whether it's choosing between a cooked meal, ordering fast food or resisting the small chocolate bars conveniently placed at checkout, self-control plays a crucial role in financial decision-making. Just as Mischel's participants who distracted themselves from the marshmallows were able to delay gratification, consumers who focus on financial planning are better at resisting unnecessary spending (Bach, 2019).

Self-control theory dovetails with the concept of decision utility versus experience utility (Kahneman et al., 1997) where individuals prioritise the immediate satisfaction derived from consumption (decision utility) over the longer-term value of their experiences (experience utility). For instance, a consumer who highly values x_1 believes $u(x_1) = \theta_H x_1$ where $\theta_H > 1$. However, after consumption the consumer discovers their actual satisfaction $u(x_1) = \theta_L x_1$ where $\theta_L < 1$. Thus, the individual is now left with disappointment and regret, reflecting the classic overestimation of pleasure in a "hot state," (θ_H) versus a "cold state" (θ_L), in which rational reflection is more salient (Loewenstein, 1996).

These hot-cold shifts can be empirically investigated by prompting consumers to reflect on previous purchases that failed to meet expectations, or to present hypothetical scenarios where anticipated and realised satisfaction diverge. Such approaches enable an assessment of how accurately consumers forecast utility and the role of impulse in driving suboptimal choices.

These behavioural inclinations are affirmed by empirical data that consumers often favour short-term 'hot' emotional states over long-term welfare. For instance, a study on basketball ticket purchases (Kahneman et al., 1997) reveals how fans may focus on the short-lived thrill of securing tickets, even when the future enjoyment of the event might be uncertain, thereby highlighting that the cognitive load of assessing each transaction's future impact is often eschewed in favour of convenient, near-instant rewards.

iii. What a 19th Century Aesthete Can Teach Us About Online Shopping

Finally, contemporary culture increasingly valorises ‘micro-indulgences’ (Barclays, 2024); the COVID-19 pandemic further accelerated this trend, with online shopping surging by 90% between January 2020 to 2021 (ONS, 2022). Under lockdown, e-commerce became more than a functional tool but evolved into a source of comfort. This normalisation of routine indulgence underscores the broader cultural emphasis towards immediacy and convenience, revealing how social and technological shifts can foster instant gratification. However, this phenomenon is far from new. The tension between indulgence and restraint has been a contentious subject of philosophical and literary exploration long before the rise of digital consumerism.

“Pleasure is the only thing worth having a theory about”

Oscar Wilde’s ‘The picture of Dorian Grey,’ (2003) is prefaced by the principle of aestheticism, exploring the pursuit of beauty and its moral consequences (Saputri, 2018). Lord Henry’s simple, yet assertive statement epitomises the novel’s hedonistic ethos, where the relentless pursuit of gratification governs the lives of the characters. The use of ‘only,’ is synonymous with exclusive, underscoring the notion that no other alternatives to pleasure exist, creating a sense of inevitability in human desires. By associating ‘pleasure,’ with ‘worth,’ Wilde implies that indulgence holds both an intrinsic, and observable value; by framing pleasure as something worthy of a ‘theory,’ Wilde ironically elevates a visceral and impulsive force to the realm of intellectualism, suggesting that even our rudimentary desires are subject to analysis and reflection (Wilde, 2003). This juxtaposition underscores the tension between reason and impulse, a conflict central to both the novel and human nature. The statement also underscores the duality of pleasure as both a source of fulfilment and a path to ruin. In the novel, the pursuit of pleasure brings fleeting satisfaction but ultimately corrupts Dorian (Saputri, 2018; Wilde, 2003), illustrating the peril of indulgence untampered by restraint.

Dorian's descent into vanity and excess resonates with human behaviour today. As Dorian is seduced by his aesthetic desires, contemporary society faces similar temptations, thus convenience-based purchasing emerges as a modern manifestation of aesthetic hedonism. From frictionless online purchases to the rise of buy-now-pay-later schemes, contemporary culture not only facilitates these 'micro-indulgences' but normalises them (Barclays, 2024). In a digital marketplace designed for frictionless transactions, consumers can indulge their desires with minimal effort. Thus, Wilde's exploration of aestheticism transcends its fin-de-siècle context, finding relevance in today's culture, where the persistence of impulsive spending and the pursuit of fleeting satisfaction reveals that pleasure remains an enduring and defining force in both personal and societal behaviour.

Whilst hedonism is typically assessed using Likert-scale measures, decision-making scenarios are more effective for simulating real-world temptations. Under hedonism, individuals are expected to systematically favour immediate pleasure, especially when the cost is small. Presenting participants with choice between indulgence and restraint helps identify how they are driven by pleasure-seeking motivations. These scenarios permit for multiple theories to be examined, helping reveal whether hedonic impulses outweigh other cognitive biases of consumer choice.

This parallel between Wilde's aesthetic hedonism and today's instant-gratification economy underscores the timeless nature of human desire, proving that whilst society has evolved, our fundamental attraction to pleasure and indulgence has remained unchanged. The prevalence of impulse and convenience-based decision-making today underscores that, despite advancements in technology and shifts in societal norms, the fundamental human proclivity to chase transient pleasures remains remarkably unchanged. As such, Wilde's reflections on aestheticism and indulgence continues to inform, and indeed, challenge, our understanding of financial decision-making, suggesting that the tension between fleeting gratification and prudent foresight is not merely a quirk of modern consumer culture, but an ongoing interrogation of values that shape financial and personal decision-making- an ever persistent and defining feature of human nature.

In summary, the decision to buy a latte, a magazine, or a last-minute snack is rarely a simple exchange of money for goods. Instead, it reflects a complex interplay of loss aversion, habit formation, and human nature, all working within the constraints of cognitive biases, emotional responses and systemic influences. By recognising that each framework may capture different yet overlapping facets of consumer behaviour can demonstrate how small daily choices inform broader implications for financial well-being and social policy. This approach paves the way for understanding how these theoretical concepts manifest in everyday decisions, where they converge or compete and finally, how they are understood in practice.

Methodology: Designing Decisions

This study employs a quantitative, survey-based approach to understanding the underlying drivers that cause small, discretionary expenses. The aim is to estimate the probability of a specific cognitive bias in predicting an individual's likelihood of making a small discretionary purchase. This relies on a binary choice model to assess the predictive power of key behavioural concepts on consumer spending behaviour. This econometric approach tests whether consumers exhibit one or more of the following: Prospect Theory, Mental Accounting, Denomination Effect, Self-Control Theory, Expectation Utility and Hedonism.

i. How to Measure Behaviour (Without a Ruler)

Primary data was collected via an anonymous online survey distributed through social media platforms to a self-selected sample. This survey comprised binary-response decision-making games and open-ended questions to elicit structured and behavioural insights. Responses were automatically recorded in a secure spreadsheet linked to Google Forms. Participants were asked to reflect on their past spending behaviours, introducing the possibility of recall bias. Additionally, the brevity of the survey limited the depth with which the theoretical constructs could be explored.

Although the approach was efficient, it functioned primarily as a convenience sample by drawing on contacts from friends and family, thus limiting the generalisability of the findings. As a result, the sample is unlikely to represent the broader population; caution should be exercised when extrapolating results.

Despite these limitations, this methodology is appropriate for a small-scale exploratory study. The survey was designed in compliance with ethical research guidelines and its anonymity likely reduced social

desirability bias. However, going forward, a more systematic sampling frame, and more diverse pool of respondents, would bolster the external validity of the research and support more robust causal inferences. Nevertheless, the collected data provides integral insights into the interplay between consumer impulsivity, convenience-based decision-making, and broader demographic and psychographic characteristics relevant to this research.

ii. *Big Enough to Matter, Precise Enough to Count*

Sample size was determined using a standard survey-based sample size formula:

$$\text{Sample Size} = \frac{\frac{z^2 \times p(1-p)}{e^2}}{1 + \left(\frac{z^2 \times p(1-p)}{e^2 n} \right)} \quad (3)$$

Where n =population, p =population proportion, e =margin of error (MOE) and z =z-statistic (Jeffrey M. Wooldridge, 2020).

The industry standard for survey-based research typically relies on a 95% confidence interval, yielding a z-statistic of 1.96, with a 5% MOE, thus, requiring a sample size of 385 participants. However, given the scope and exploratory nature of this study, a 10% MOE was deemed sufficient, reducing the required sample size to 98 respondents, ensuring statistical robustness and feasibility of the survey.

iii. *Translating Econometrics into Everyday Meaning*

The relationship between small discretionary purchases and behavioural factors is modelled as a stochastic probability regression function (PRF), where all variables are binary [0,1]:

$$P(Y_i = 1 | X_i) = G(\beta_0 + \beta_1 X_{1i} + \beta_2 X_{2i} + \dots + \beta_k X_{ki} + e_i)$$

(4)

The survey comprised 9 multiple choice decision-making scenarios, with each response reflecting a different theory. This is estimated using the logit transformation, giving the following functional form:

$$\text{logit}(\text{Small Discretionary Purchase}_i) = \ln\left(\frac{P(Y_i = 1)}{1 - P(Y_i = 1)}\right) = \beta_0 + \beta_1 \text{Prospect Theory}_i + \beta_2 \text{Mental Accounting}_i + \beta_3 \text{Denomination Effect}_i + \beta_4 \text{Self - Control Theory}_i + \beta_5 \text{Expectation Utility}_i + \beta_6 \text{Hedonism}_i + e_i$$

(5)

Small Discretionary Purchase_i is the binary outcome variable, with $Y_i = 1$ indicating an individual makes a small discretionary purchase and $Y_i = 0$ otherwise. The behavioural predictors also reflect binary choices, e.g., if the participant's choice in a given scenario reflects loss aversion, prospect theory takes the value 1; 0 otherwise [see Appendix A1].

The model follows a binary choice specification where $G(z)$ is a logistic function for all real numbers z . This functional form ensures that predicted probabilities lie strictly in the $[0,1]$ interval (Jeffrey M. Wooldridge, 2020). The constant β_0 represents the baseline case of rational decision-making (Rational Choice Theory) and e_i is the stochastic error term. To prevent perfect multicollinearity and the dummy variable trap, Rational Choice Theory is excluded as a regressor. Thus, β_0 represents the log-odds of making a discretionary purchase when no behavioural bias is present, capturing rational decision-making.

The most suitable estimation method for estimating the predictive power of each theory on making a small, discretionary purchase given the presence or absence of a certain behavioural bias is a Logistic Regression (Logit) model. The model is estimated through maximum likelihood estimation (MLE), yielding consistent, asymptotically normal and asymptotically efficient parameter estimates (Jeffrey M. Wooldridge, 2020). These properties ensure that as sample size increases, the estimates converge to the true parameters, allowing for valid inference.

This approach relies on several key assumptions. Firstly, in assuming that the functional form is correctly specified signifies that omitted variable bias (OVB) can be minimised meaning that the regression coefficients predict close to the true associations. Whilst confounders (e.g., personality or socio-economic status) may influence purchasing decisions, the behavioural variables included are grounded in well-established literature, thereby capturing much of the variance; it is assumed that unobserved factors do not severely bias coefficients. Second, the model assumes independent and identically distributed (i.i.d) observations, meaning that each respondent's purchasing decision is made individually. Furthermore, although the probability curve is sigmoidal, in assuming linearity in parameters, the odds ratio of making a discretionary purchase can be expressed as a linear function of the behavioural predictors. These assumptions are standard (Jeffrey M. Wooldridge, 2020) but also help mitigate any biases in the estimates for marginal effects or model parameters.

The analysis will be conducted using STATA's logit command to estimate coefficients, interpreting them in log-odds and odds ratio. Additional diagnostic checks, such as comparing log-likelihood values, pseudo-R squared, and information criteria will indicate whether including each cognitive bias significantly improves the model's goodness-of-fit. To complement logistic analysis, ordinary least squares (OLS) regression on the number of small discretionary purchases made will offer an alternative lens through which behavioural factors shaping consumer decisions can be viewed. The initial specification will not include interaction effects due to the binary nature of independent variables, though such interactions may be explored subsequently if theoretical reasoning or statistical diagnostics suggest meaningful interactions between behavioural biases.

The final model selection will be guided by likelihood-based tests and predictive accuracy metrics to ensure retention of the most parsimonious and statistically robust specification.

This methodological approach enables rigorous examination of how behavioural theories influence decision-making regarding small discretionary purchases, directly testing whether specific cognitions significantly alter purchasing probabilities.

Findings: The Numbers Behind the Cravings

This section presents the empirical findings of the study, examining how the theories explored influence consumers when making small discretionary purchases, as well as determining which theory best predicts when a consumer will make such a purchase. Using logistic regression modelling and demographic analysis from 98 survey respondents, the findings reveal complex relationships between behavioural theories, demographic factors, and spending habits.

i. The First Sip: Where Numbers Start to Brew

The descriptive statistics [Table 1] provide a foundational understanding of both the dependent and independent variables. Approximately 59% of respondents reported making small discretionary purchases ($\mu = 0.5918$, $\sigma = 0.4940$), indicating a balanced sample. Among the theories discussed, self-control appears as a prevailing cognitive bias ($\mu = 0.8571$), suggesting strong 'ego strength' (Mischel et al., 1972), whereby 86% of individuals exhibited self-control on average. Comparatively, mental accounting demonstrates that on average only 10% of individuals ($\mu = 0.1020$) engage in this cognitive bias.

The standard deviations across all variables indicate considerable variability to evaluate the relationship between the factors and small discretionary purchasing patterns.

Table 1: Descriptive Statistics of Behavioral Theories and Discretionary Purchases

	(1)				
	Count	Mean	Std. Dev	Min	Max
Prospect Theory	98	0.490	0.502	0	1
Mental Accounting	98	0.102	0.304	0	1
Denomination Effect	98	0.541	0.501	0	1
Self-Control	98	0.857	0.352	0	1
Decision Utility	98	0.469	0.502	0	1
Hedonism	98	0.571	0.497	0	1
Discretionary Purchase	98	0.592	0.494	0	1

A logit regression model [see Appendix: Table 2] highlights the relationship between each behavioural theory and the likelihood of making a discretionary purchase. Most notably, hedonism shows a strong positive relationship with small discretionary purchases ($\beta = 0.539$, $p < 0.001$), suggesting that exhibiting hedonism is associated with ~71% higher ($e^{0.539} \approx 1.71$) likelihood of making a small discretionary purchase, holding all else fixed.

Prospect theory has a moderate positive correlation ($\beta = 0.357$, $p < 0.001$), indicating that how individuals evaluate potential gains and losses significantly influences their purchasing decisions. Conversely, the denomination effect displays the strongest log-odds, albeit negative ($\beta = -0.724$, $p < 0.001$). The coefficient corresponds to log-odds $e^{-0.724} \approx 0.48$. Thus, individuals are on average 52% less likely to make a small discretionary purchase. Self-control similarly demonstrates a significant negative correlation ($\beta = -0.280$, $p < 0.01$), confirming that greater 'ego strength' is associated with reduced discretionary

spending. In contrast, mental accounting ($\beta=-0.132$) and decision utility ($\beta=-0.0925$) show weaker correlations with discretionary purchases, suggesting these factors may play more nuanced roles in purchasing decisions that are not fully captured by bivariate relationships.

Odds ratio logistic regression models also provide crucial insights [Table 3]; odds ratios were used for comparison and more intuitive interpretation across different theoretical frameworks. This approach shows predictive power improving substantially with the inclusion of additional variables, as evidenced by decreasing AIC and BIC values.

Hedonism consistently emerges as a powerful predictor across all models, with odds ratios remaining significant even as new variables are introduced. In model 1, hedonism yields an odds ratio of 25.97 ($p<0.001$), indicating this bias increases the odds of making a small discretionary purchase by nearly 26 times, holding prospect theory constant. Conversely, prospect theory is associated with an odds ratio of 13.06 ($p<0.001$), indicating that this cognitive bias increases the odds by 13, holding hedonism constant.

Table 3: Logistic Regression: Odds Ratios

	(1)	(2)	(3)	(4)
	Model 1	Model 2	Model 3	Model 4
Hedonism	25.97*** (0.000)	18.90*** (0.001)	230.6** (0.001)	207.6** (0.001)
Prospect Theory	13.06*** (0.000)	7.154* (0.019)	5.890* (0.043)	5.444* (0.049)
Denomination Effect		0.0207*** (0.000)	0.00806** (0.001)	0.00978*** (0.001)
Self-Control			0.143 (0.083)	0.162 (0.106)
Decision Utility			38.16* (0.032)	33.54* (0.034)
Mental Accounting				0.254 (0.545)
Constant	0.0799*** (0.000)	1.774 (0.593)	1.128 (0.926)	1.106 (0.939)
N	98	98	98	98
AIC	83.32	53.73	45.97	48.05
BIC	91.08	64.07	61.48	66.15

Exponentiated coefficients; p -values in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Interestingly, Model 3 achieves the best explanatory power whilst maintaining statistical significance for most variables. Hedonism (OR 230.6, $p < 0.01$), prospect theory (OR 5.89, $p < 0.05$), denomination effect (OR 0.00806, $p < 0.01$), and decision utility (OR 38.16, $p < 0.05$) are all significant. The denomination effect's odds ratio indicates that when the denomination effect increases by 1, the odds of making a small

discretionary purchase decrease by more than 99%. In other words, this factor substantially decreases the likelihood of making a small discretionary purchase. Model 3 achieves a better goodness of fit than model 4, making it more parsimonious; adding mental accounting (model 4), is not statistically significant and its inclusion worsens AIC and BIC.

The progressive improvement in model fit statistics (AIC decreasing from 83.32 to 45.97) confirms that such discretionary purchasing behaviour is best understood through a multifaceted lens incorporating several theories rather than any single framework. This reduction in AIC indicates that each additional theory contributes to the explanatory power of the model, as AIC would otherwise increase if these theories were capturing redundant information (Jeffrey M. Wooldridge, 2020).

Null Hypothesis	Test Statistic	p-value	Interpretation
$H_0: \beta_j = 0$	$\chi^2=27.10$	< 0.001	Reject H_0

Figure 2: Joint Significance of Behavioural Economic Theories: Wald Test Results

The Wald test supports the premise that the combination of all behavioural economic variables is statistically significant. The significant joint effect suggests that a comprehensive theoretical approach incorporating multiple decision-making frameworks provides more explanatory power than examining any single theory in isolation.

ii. Who Taps Without Thinking? The Age and Gender Bias

To gauge a more holistic understanding of how demographic factors affect purchasing behaviours, two linear probability models (LPMs) were constructed: (1) demographic variables and (2) demographics and behavioural theories [Table 4]. The variables ‘Male’ and ‘25-44’ were used as reference categories to avoid the dummy variable trap (perfect multicollinearity) (Jeffrey M. Wooldridge, 2020).

The demographic-only model (1) reveals only two age categories with significant effects. Firstly, 45- to 64-year-olds are 30.1 percentage points more likely to make discretionary purchases compared to the reference group. Comparatively, people aged 65+ are 49.9 percentage points less likely to make a discretionary purchase. This is congruent with expectations since 45- to 64-year-olds have higher earnings and thus more discretionary income, whereas 65+ tend to be more frugal with their finances and save.

Gender showed minimal impact on discretionary purchasing which contradicts expectations that gender plays a role. The non-significant coefficient for females ($\beta=-0.0601$) indicates that gendered marketing of products may not reflect inherent gender-based preferences but rather socially constructed associations. However, this trend may arise because the dependent variable is small (under £20). Thus, both genders are equally likely to engage in purchases at that price point.

Table 4: LPM of Discretionary Purchasing

	Demographics (Model 1)	Full Model (Model 2)
Female	-0.0046 (0.102)	-0.0601 (0.064)
Age_under18	-0.0015 (0.188)	-0.0258 (0.117)
Age_18to24	0.0999 (0.139)	0.0666 (0.096)
Age_45to64	0.3010** (0.138)	0.0712 (0.087)
Age_65plus	-0.4988*** (0.113)	0.0087 (0.096)
Prospect Theory		0.1525** (0.072)
Mental Accounting		-0.0787 (0.080)
Denomination Effect		-0.5064*** (0.088)
Self-Control		-0.1753* (0.103)
Decision Utility		0.1719** (0.078)
Hedonism		0.3979*** (0.094)
Constant	0.5023*** (0.121)	0.6334*** (0.226)
Observations	98	98
R-squared	0.1172	0.6829

Standard errors in parentheses. Reference category: Male, Age 25-44

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Note: Appendix Table A3 [Full table]

In the full model (2) the R-squared value increases from 0.117 to 0.683 confirming that behavioural

factors add considerable explanatory power, explaining 68.3% of variance. In model 2, hedonism is the strongest behavioural predictor ($\beta=0.398$, $p<0.01$), whereas denomination effect ($\beta=-0.506$, $p<0.01$) demonstrates significant negative effects when controlling for demographics. Conversely, mental accounting's coefficient ($\beta=-0.0787$) fails to reach statistical significance, suggesting its effects may be mediated by demographic factors or other biases.

Furthermore, the disappearance of demographic effects in Model 2 suggests that age and gender differences in purchasing behaviours are likely explained by behavioural factors. Notably, the LPM coefficients exceed the [0,1] range, potentially violating probability assumptions, nonetheless, the model remains valuable as a straightforward first approximation that provides easily interpretable marginal effects and serves as a useful comparison to the more technically correct but less intuitive logistic regression results.

To directly assess which behavioural theory holds the greatest predictive power, a comparative analysis using OLS was conducted [*see Appendix Table 5*]. All theories except mental accounting demonstrate statistically significant effects on high-value discretionary purchases when simultaneously included in the model. OLS is well-suited due to the continuous nature of the dependant variable, achieving greater statistical efficiency and sensitivity compared to the binary outcome. Under this regression, self-control ($\beta=-0.0817$, $p<0.01$) and hedonism ($\beta=-0.0763$, $p<0.01$) emerge as the strongest predictors. Notably, -7.63% is the expected change in the purchase ratio associated with hedonism increasing by 1, holding all else fixed. This is contrary to prior analysis and one potential explanation could be satiation, where individuals will face diminishing marginal utility if they consume beyond their point of satiety (Kahneman & Tversky, 1979), leading to fewer cumulative purchases over time.

The OLS model explains about 19% of the variance in multiple discretionary purchases (R-squared = 0.190), whilst the mean VIF of 1.290 indicates minimal multicollinearity, demonstrating reliability of the coefficient estimates.

To contextualise findings, participants were asked to reflect on instances of regret following small discretionary purchases [Table 6]. Notably, 52.6% respondents reported not needing the item after purchasing, closely followed by 40.2% admitting to buying it on impulse, suggesting a significant disconnect between pre-purchase decision utility and post-purchase experience utility (Kahneman et al., 1997). Many individuals reported seeking immediate comfort and pleasure, echoing hedonistic tendencies and that they are used to rationalising their spending. Whilst small discretionary purchases may deliver immediate gratification, many feel regret and not lasting joy. Had the research been experimental, whereby individuals had to abstain from small discretionary purchases, I believe we'd find that we wouldn't miss them.

Table 6: Top Reasons for Purchase Regret

Reason	C o u n t P e r c e n t a g e o f	
	nt	Respondents
Did not need it after purchasing	51	52.6%
Bought it on impulse	39	40.2%
Could have used money elsewhere	32	33.0%
Item was overpriced	29	29.9%
Did not meet expectations	22	22.7%

Note: Respondents could select multiple reasons, so percentages do not sum to 100%

iii. When Behaviour Meets the Bottom Line

Overall, these findings reveal that small discretionary purchases are a complex kaleidoscope of decision-making processes intertwined with behavioural and demographic factors. The consistent significance of hedonism across several correlation and regression analyses confirms that pleasure-seeking remains an ever-enduring feature of consumer behaviour, supporting the Wildean philosophy that “pleasure is the only thing worth having a theory about” (Wilde, 2003).

However, the equally strong negative influence of self-control suggests that immediate gratification conflicts with longer-term considerations, creating the psychological tension that characterises many purchasing decisions. The denomination effect's strong negative correlation also highlights how the physical (or digital) representation of money can inhibit spending.

Finally, the minimal influence of age and gender on small purchasing decisions challenges both age-targeted and gendered marketing approaches, suggesting that consumer behaviour may be more meaningfully segmented by psychological factors than by demographic categories.

In conclusion, these empirical findings demonstrate that small discretionary purchases are multifaceted; the fact that multiple behavioural theories maintain significance when simultaneously modelled suggests that consumer decision-making draws on various cognitive and emotional processes rather than adhering to any single theoretical framework. These findings not only enhance our theoretical understanding of economic behaviour but can also offer practical implications for marketing, financial education, and social policy.

Discussion: Key Lessons We Can Learn from A Cup of Coffee

This research reveals three key lessons, first, I encourage a reconceptualisation of decision-making processes, rather than viewing consumers as rational actors, their actions are a product of competing impulses. Second, these behavioural biases hold significant implications for individual well-being and the broader society. Third, incorporating these behavioural insights into social policy can help protect vulnerable consumers and reduce systemic inequalities. These lessons are crucial for all stakeholders as

they highlight the need for policies that integrate behavioural considerations to promote equity, wellbeing, and sustainable practices.

The first lesson for consumers is this research raises awareness about the invisible cognitive biases that drive them to make such purchases. Although 86% of respondents demonstrate some level of self-control, more than half still engage in routine discretionary spending without fully considering long-term consequences. Recognising this disconnect is crucial in policymaking, it allows for a new realm of interventions that are better designed to enhance financial stability and help individuals make choices that are more closely aligned with their long-term interests.

The second lesson teaches us that whilst £5 daily expenditures may seem inconsequential, its cumulative effect over time is substantial. When treated as an annuity, converting daily spending into monthly contributions, the future cost can be eye-opening. This insight challenges both consumers and policymakers to reconsider how everyday financial decisions contribute to broader economic stability. From a policy perspective, there is an opportunity to design interventions that nudge consumers toward more sustainable spending behaviours, for example, by promoting savings plans that counteract the allure of immediate gratification.

The third and perhaps most critical takeaway is that behavioural insights must be integrated into social policy to safeguard consumer welfare. Vulnerable groups, particularly those with lower financial literacy or from economically disadvantaged groups, are at greater risk of cognitive biases impeding their ability to save, avoid debt, or access essential goods. The OECD's Consumer Policy Toolkit (OECD, 2010) likewise argues that policy must address behavioural biases and information asymmetries to protect these populations. Thus, by framing discretionary spending as not just a personal financial choice but a public concern, policymakers can design interventions that promote equity and long-term stability.

i. Recommendations at the Register

From a practical standpoint, these results imply significant ramifications for firms and policymakers. Whilst firms can utilise this research to profit maximise by exploiting consumers, policymakers bear a responsibility to ensure that such tactics do not undermine consumer welfare or exacerbate inequality.

The pronounced influence of hedonism signifies strategies emphasising the experiential and pleasure-related aspects of goods can effectively stimulate socially beneficial spending behaviours. Governments could promote mental health by nudging consumers towards small discretionary purchases such as self-help books via positive framing and moral suasion (OECD, 2010). By harnessing the pleasure principle, small expenditures can become attractive means for individuals to actively engage with their well-being, advocating mental health as something rewarding rather than burdensome or stigmatised. This approach aligns with social policy objectives by integrating mental health into everyday consumption patterns, thereby contributing to broader public health outcomes.

The significance of the denomination effect suggests that payment designs minimise the ‘pain’ of spending. In response, policymakers can implement price-transparency mandates, encouraging institutions to adopt payment structures that reflect more accurate headline prices. For instance, streaming services, and even our favourite coffeeshops shall advertise low rates that do not include additional fees, whether it is ad-free viewing or an extra shot of espresso. As a result, consumers focus on the smaller more visible charge than the cumulative cost spread across hidden fees. Policies that tackle price transparency enables consumers to make better-informed decisions, thereby improving financial well-being.

Building on self-control theory, governments can strengthen pre-commitment strategies to help consumers better manage their overall spending. For example, automatic enrolment into workplace pensions in 2012 increased participation from 55% to over 80% in 2023 (DWP, 2024), benefitting low earners who are less likely to voluntarily opt-in but are often in most need of saving buffers. This sets a precedent for empirically demonstrating how defaults override inertia; the government could sponsor default opt-in savings apps that automatically round up small discretionary purchases to the nearest pound, saving the difference automatically into a cash ISA, thereby reducing the friction of saving small amounts. Thus, this method helps address structural inequalities in asset ownership.

Additionally, increased regulation of buy-now, pay-later schemes, such as Klarna, is essential to combat rising financial precarity, overspending, and indebtedness. Whilst Klarna's Pay-in-4 offers interest-free instalments, hidden late fees and high interest rates on other plans can significantly inflate the total cost of what once was a small purchase. By mandating clear disclosure of compounded interest rates and long-term debt implications, governments can better protect consumers through financial transparency, automated saving, and regulatory oversight to enhance consumer financial well-being.

Policymakers could also apply prospect theory by framing non-saving or impulse purchases as a loss. This could be achieved by employing targeted messaging that highlights the cumulative cost of small purchases, such as “This week, your purchases under £20 added up to £251.67.” Explicitly communicating the total amount spent on small purchases enables consumers to become more aware of the tangible opportunity cost and potential savings forfeited through habitual spending. Governments could also leverage “implementation intentions” (Gollwitzer, 1999) that connect situational cues with desired outcomes (e.g., “If I take the tube on Monday, I avoid paying the £17.50 congestion charge”). A conditional cash transfer (CCT) scheme could then reward households for reducing carbon-fuelled car use by offering monthly travel credits for public transport but forfeiting them if a mileage threshold were

exceeded. This loss-framed approach leverages individuals' natural aversion to losing benefits. With over 60% of the UK's required emission reductions by 2030 reliant on behavioural change, such strategies are not only effective but essential (Atkinson, 2025).

In sum, small discretionary purchases reveal how cognitive biases and structural inequalities intersect. Embedding behavioural insights into social policy is not merely a question of improving individual outcomes but fostering equity, inclusion and sustainability (OECD, 2010). Whilst preserving consumer autonomy and paternalism must be balanced, strategic nudges, disclosure mandates or price-framing regulation can be leveraged to shift behaviour. Recognising how financial decisions are shaped allows for policies that protect the vulnerable, support wellbeing and promote dignity – whether on an online checkout page, or over a morning cup of coffee.

ii. What This Latte Cannot Explain

Although statistically significant, the study has several limitations that merit discussion. Firstly, the sample size of 98 respondents was sufficient to identify key predictors yet was limited in its generalisability. Future research should aim to replicate these findings with larger, more diverse samples to ensure external validity across different populations and geographic contexts. Additionally, the study is cross-sectional where consumer behaviour is explored in one time frame. Although this design is adequate when identifying associations, it does not allow for inferences about causality or for understanding how these behaviours might change over time. Introducing longitudinal studies may be better suited in determining whether the observed behavioural biases are consistent, much like Wildean philosophy, or if they change in response to external factors such as economic downturns.

Thirdly, the findings repeatedly conclude that mental accounting had little significance and negligible bearing on consumer spending, contrasting Thaler's (1985) findings. This discrepancy may indicate that

mental accounting is more context-dependent than what was captured. Although the operationalisation of these theories is more convoluted than what I investigate, quasi-experimental designs may sufficiently signal their salience and clarify how they interact with other cognitive biases. Finally, whilst demographic factors may appear to be subdued by the presence of behavioural factors, future research may benefit from further exploring whether there are subtle or context-specific conditions where demographic effects materialise. Understanding these limitations is critical as they affect how the findings can inform social policy. Future research should address these issues so that policymakers could better target and support the diverse experiences and financial constraints of different consumer groups.

Conclusion: What the Latte Has Taught Us

In conclusion, this study highlights that small discretionary purchases are anything but trivial. They are multidimensional and deeply imbued in behavioural, psychological and philosophical processes, revealing three key lessons: 1. Consumers are far from purely rational, often driven by hedonistic motivations and subtle framing effects; 2. Small purchases can accumulate into meaningful financial impacts; 3. Behavioural insights have profound social policy implications, informing strategies to protect vulnerable populations that reduce inequality and increase welfare.

Just as a barista selects coffee beans to brew a latte, this research blends diverse theories with rigorous statistical analysis to uncover the rich ‘flavours’ underlying these decisions. Notably, mental accounting emerged as less significant in this context, suggesting that other biases may overshadow it in shaping small discretionary purchases.

The latte is not merely a daily indulgence or pick-me-up but a symbol of the quiet yet enduring negotiations between want, need and perceived worth. Understanding the forces behind these small decisions paves the way for policymakers to develop effective strategies that maximise utility whilst considering long-term financial wellbeing, from nudging individuals towards healthier consumption habits to designing auto-enrolment schemes. The greatest insight from this research is that financial outcomes are less about mathematical literacy and more about behavioural awareness, recognising that

the path to financial wellbeing begins not with spreadsheets, but with understanding the hidden forces that guide us – like that first sip of coffee – toward or away from that daily latte.

Bibliography: Because Ideas Need Receipts

Atkinson, L. (2025). *Net zero: The role of consumer behaviour*. UK Parliament. [https://doi.org/10.58248/](https://doi.org/10.58248/HS111)

HS111

Bach, D. (2019). *The Latte Factor: Why You Don't Have To Be Rich To Live Rich*.

Barclays. (2024). *Barclays reveals 2024's top 10 consumer spending trends, as card spend grew 1.6 per cent year-on-year*. <https://home.barclays/news/press-releases/2024/12/barclays-reveals-2024-s-top-10-consumer-spending-trends--as-card/>

DWP. (2024). *Official Statistics Workplace pension participation and savings trends of eligible employees: 2009 to 2023*. Department for Work & Pensions. [https://www.gov.uk/government/statistics/workplace-pension-participation-and-savings-trends-2009-to-2023/workplace-pension-participation-and-savings-trends-of-eligible-employees-2009-to-2023#:~:text=The%20overall%20participation%20rate%20of,million\)%20participating%20the%20year%20previous.](https://www.gov.uk/government/statistics/workplace-pension-participation-and-savings-trends-2009-to-2023/workplace-pension-participation-and-savings-trends-of-eligible-employees-2009-to-2023#:~:text=The%20overall%20participation%20rate%20of,million)%20participating%20the%20year%20previous.)

FinancialMentor. (2019). *Latte Factor Calculator*. <https://www.financialmentor.com/calculator/latte-factor-calculator>

Gollwitzer, P. M. (1999). Implementation intentions: Strong effects of simple plans. *American Psychologist*, 54(7), 493–503. <https://doi.org/10.1037/0003-066X.54.7.493>

- Hill, S. E., Rodeheffer, C. D., Griskevicius, V., Durante, K., & White, A. E. (2012). Boosting beauty in an economic decline: Mating, spending, and the lipstick effect. *Journal of Personality and Social Psychology, 103*(2), 275–291. <https://doi.org/10.1037/a0028657>
- Jeffrey M. Wooldridge. (2020). *Introductory Econometrics: Vol. Seventh edition*. Cengage Learning; eBook Collection (EBSCOhost). <https://search.ebscohost.com/login.aspx?direct=true&db=nlebk&AN=2639179&site=ehost-live>
- J.P Morgan. (2020). *How COVID–19 has transformed consumer spending habits*. <https://www.jpmorgan.com/insights/global-research/retail/covid-spending-habits>
- Kahneman, D., & Tversky, A. (1979). Prospect Theory: An Analysis of Decision under Risk. *Econometrica, 47*(2), 263–291. JSTOR. <https://doi.org/10.2307/1914185>
- Kahneman, D., Wakker, P. P., & Sarin, R. (1997). Back to Bentham? Explorations of Experienced Utility. *The Quarterly Journal of Economics, 112*(2), 375–405. JSTOR.
- Loewenstein, G. (1996). Out of control: Visceral influences on behavior. *Organizational Behavior and Human Decision Processes, 65*(3), 272–292. <https://doi.org/10.1006/obhd.1996.0028>
- Mischel, W., Ebbesen, E. B., & Raskoff Zeiss, A. (1972). Cognitive and attentional mechanisms in delay of gratification. *Journal of Personality and Social Psychology, 21*(2), 204–218. <https://doi.org/10.1037/h0032198>
- OECD. (2010). *Consumer Policy Toolkit*. OECD Publishing. <https://doi.org/10.1787/9789264079663-en>.
- ONS. (2022). *How our spending has changed since the end of coronavirus (COVID-19) restrictions*. <https://www.ons.gov.uk/businessindustryandtrade/retailindustry/articles/howourspendinghaschangedsincetheendofcoronaviruscovid19restrictions/2022-07-11>
- ONS. (2024). *Consumer price inflation basket of goods and services: 2024*. <https://www.ons.gov.uk/economy/inflationandpriceindices/articles/ukconsumerpriceinflationbasketofgoodsandservices/2024>

- Raghubir, P., & Srivastava, J. (2009). The Denomination Effect. *Journal of Consumer Research*, 36(4), 701–713. <https://doi.org/10.1086/599222>
- Saputri, A. (2018). Hedonism as Seen in Oscar Wilde's 'The Picture of Dorian Gray'. *Lexicon*, 4. <https://doi.org/10.22146/lexicon.v4i1.42136>
- Simon, H. A. (1955). A Behavioral Model of Rational Choice. *The Quarterly Journal of Economics*, 69(1), 99–118. JSTOR. <https://doi.org/10.2307/1884852>
- Soman, D. (2001). Effects of Payment Mechanism on Spending Behavior: The Role of Rehearsal and Immediacy of Payments. *Journal of Consumer Research*, 27, 460–474. <https://doi.org/10.1086/319621>
- Thaler, R. (1985). Mental Accounting and Consumer Choice. *Marketing Science*, 4(3), 199–214. JSTOR.
- Wilde, O. (2003). *The Picture of Dorian Gray*. Penguin Books.

Appendix:

STATA CODE: A1 Construction for logistic regression (binary and variable outcome)

The following STATA code generated binary explanatory variables for each theoretical framework, as well as binary and continuous outcome variables representing small discretionary purchasing behaviour.

This allows for both logistic modelling and OLS analysis:

```
* Prospect Theory
gen prospect_theory = 0
replace prospect_theory = 1 if inlist(scenario2_coffee, "Option B: Debate whether you really need it but
end up buying it anyway.") | ///
    inlist(scenario4_online, "Option A: "Limited time offer" or "only a few left in stock!")
| ///
    inlist(scenario4_online, "Option B: Free shipping if I add a small extra item") | ///
    inlist(scenario5_snack, "Option B: Hesitate but buy it anyway.")

* Mental Accounting
gen mental_accounting = 0
replace mental_accounting = 1 if inlist(scenario3_vending, "Option B: Occasionally, when I'm bored or
craving a snack.") | ///
    inlist(scenario4_online, "Option B: Free shipping if I add a small extra item.") | ///
```

```

    inlist(scenario3_vending, "Option D: Never, I plan my purchases ahead of time.") | ///
    inlist(scenario6_budget, "Option C: Justify it by thinking about how much you saved
elsewhere this week.")

```

* Denomination Effect

```
gen denomination_effect = 0
```

```
replace denomination_effect = 1 if inlist(scenario4_online, "Option E: The item is priced at £9.99 instead
of £10.00, which makes it feel cheaper") | ///
```

```
    inlist(scenario6_budget, "Option A: Buy the £25 meal anyway, it's only £5 extra")
```

```
| ///
```

```
    inlist(scenario5_snack, "Option C: Avoid the purchase because breaking a large note
feels like a bigger commitment.")
```

* Self-Control Theory

```
gen self_control = 0
```

```
replace self_control = 1 if inlist(scenario2_coffee, "Option C: Resist the urge and keep walking.") | ///
```

```
    inlist(scenario4_online, "Option D: I only buy what I planned, no spontaneous
purchases.") | ///
```

```
    inlist(scenario3_vending, "Option C: Rarely, only when I have no other options.") | ///
```

```
    inlist(scenario1_lunch, "Option C: Skip lunch and wait until dinner.")
```

* Decision Utility

```
gen decision_utility = 0
```

```
replace decision_utility = 1 if inlist(scenario6_budget, "Option B: Stick to the £20 budget and choose
something else.") | ///
```

```
    inlist(scenario1_lunch, "Option A: Buy a pre-packaged meal deal from a supermarket
(£4.50).")
```

* Hedonism

```
gen hedonism = 0
```

```
replace hedonism = 1 if inlist(scenario1_lunch, "Option B: Wait until lunchtime and find food local to the
office (£8 meal at a nearby canteen.") | ///
```

```
    inlist(scenario2_coffee, "Option A: Buy another coffee without much thought (£3.50).")
```

```
| ///
```

```
    inlist(scenario3_vending, "Option A: Almost every day.") | ///
```

```
    inlist(scenario5_snack, "Option A: Buy the snack without thinking.") | ///
```

```
    inlist(scenario4_online, "Option C: Seeing influencer reviews and social proof")
```

* Binary outcome variable for discretionary purchases based on scenarios

```
gen discretionary_purchase = 0
```

```
replace discretionary_purchase = 1 if inlist(scenario2_coffee, "Option A: Buy another coffee without
much thought (£3.50).") | ///
```

```
    inlist(scenario2_coffee, "Option B: Debate whether you really need it but end up
buying it anyway.") | ///
```

```
    inlist(scenario5_snack, "Option A: Buy the snack without thinking.") | ///
```

```
    inlist(scenario5_snack, "Option B: Hesitate but buy it anyway.") | ///
```

```
    inlist(scenario6_budget, "Option A: Buy the £25 meal anyway, it's only £5 extra") | ///
```

```
    inlist(scenario3_vending, "Option A: Almost every day.") | ///
```

```
inlist(scenario3_vending, "Option B: Occasionally, when I'm bored or craving a
snack.") | ///
inlist(scenario4_online, "Option A: \"Limited time offer\" or \"only a few left in
stock!\") | ///
inlist(scenario4_online, "Option B: Free shipping if I add a small extra item.") | ///
inlist(scenario4_online, "Option C: Seeing influencer reviews and social proof")
```

* The proportion of discretionary purchases per respondent (continuous dependent variable)
gen discretionary_purchase_ratio = (item1_discretionary + item2_discretionary + item3_discretionary +
item4_discretionary + item5_discretionary) / 5

TABLES:

Table 2: Logistic Regression Model

Table 5: OLS Consumer

	(1) Small Discretionary Purchase
Hedonism	0.539***
Prospect Theory	0.357***
Denominati on Effect	-0.724***
Self-Control	-0.280**
Decision Utility	-0.0925
Mental Accounting	-0.132
<i>N</i>	98

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Behaviour Theory Comparison

Variables	(1) Model 1
Prospect Theory	-0.0444** (0.0207)
Mental Accounting	-0.0291 (0.0323)
Denomination Effect	-0.0504** (0.0222)
Self-Control	-0.0817*** (0.0278)
Decision Utility	-0.0480** (0.0228)
Hedonism	-0.0763*** (0.0245)
Constant	0.198*** (0.0418)
Observations	98
R-squared	0.190
Mean VIF	1.290

se pval in parentheses

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Table 4A Determinants of Behavioural Factors

This table demonstrates how demographic variable influence different theoretical principles that affect purchasing decisions

	(1) Prospect Theory	(2) Mental Accounting	(3) Denomination Effect	(4) Self-Control	(5) Decision Utility	(6) Hedonism	(7) Combined
Prospect Theory	0.329*** (3.51)						0.153** (2.13)
Mental Accounting		-0.107 (-0.73)					-0.079
Denomination Effect			-0.725*** (-11.07)				(-0.98) -0.506***
Self-Control				-0.444*** (-6.01)			(-5.73) -0.175*
Decision Utility					-0.040 (-0.40)		(-1.70) 0.172**
Hedonism						0.478*** (4.96)	(2.22) 0.398***
Age_under18	-0.031 (-0.18)	-0.035 (-0.18)	-0.109 (-0.86)	-0.092 (-0.50)	-0.029 (-0.15)	0.025 (0.20)	-0.026 (-0.22)
Age_18to24	0.057 (0.43)	0.090 (0.65)	0.063 (0.58)	0.020 (0.15)	0.072 (0.51)	0.031 (0.28)	0.067 (0.69)
Age_45to64	0.277** (2.12)	0.286** (2.04)	-0.015 (-0.17)	0.251* (1.78)	0.269* (1.87)	0.187 (1.58)	0.071 (0.82)
Age_65plus	-0.432*** (-3.22)	-0.469*** (-3.58)	-0.262*** (-2.92)	-0.494*** (-4.30)	-0.523*** (-4.46)	-0.268*** (-2.92)	0.009 (0.09)
Female	0.126 (0.57)	0.177 (0.59)	0.413* (1.67)	0.454* (1.87)	0.216 (0.67)	0.101 (0.26)	-0.060 (-0.93)
Male	0.203 (0.93)	0.200 (0.67)	0.490* (1.95)	0.494** (2.01)	0.237 (0.73)	0.114 (0.30)	
Constant	0.205 (1.00)	0.339 (1.14)	0.554** (2.10)	0.475* (1.76)	0.323 (1.04)	0.164 (0.43)	0.633*** (2.80)
Observations	98	98	98	98	98	98	98

t statistics in parentheses. Reference categories: Age 25-44, Male (in combined model).

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$