«Decoding Buy Now, Pay Later in Egypt: A Dive into Adoption Drivers and Financial Behaviors»

"خدمة اشتر الآن وادفع لاحقاً في مصر: تحليل الدوافع والسلوكيات المالية"

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Abstract

The study examines the adoption of Buy Now, Pay Later (BNPL) services in the Egyptian market and their impact on consumer spending, saving, and borrowing behaviours. A structured survey questionnaire drove the analysis to capture data from a diverse sample of Egyptian consumers by including descriptive analysis and multi-regression models for data analysis. The results determined the main significant factors of BNPL adoption: convenience, affordability, registration simplicity, and promotional offers. BNPL utilisation also influenced the spending patterns of participants and was associated with increased expenditure; its effects on saving and borrowing were mixed. The outcomes contribute to the existing literature by shedding light on the factors driving the adoption of BNPL and the consequent impact on Egyptian consumer habits. The research has important implications for financial institutions, retailers, and policymakers seeking to navigate the evolving landscape of alternative payment methods and consumer financial behaviours by examining the Egyptian context.

Keywords: *Buy Now, Pay Later; BNPL adoption; Consumer behaviour; Spending habits; Saving habits; Borrowing habits; Financial technology; Egypt.*

الملخص

البحث يدرس كيفية اعتماد خدمات «اشتري الآن، ادفع لاحقًا» BNPL في السوق المصري وتأثيرها على سلوكيات الإنفاق والادخار والاقتراض لدى المستهلكين في السوق المصري. اعتمدت الدراسة على المنهج الكمي من خلال استبيان منظم طُبق على عينة مكونة من ٢٠٠ مستخدم مصري لخدمات " BNPL ". تم تحليل البيانات المجمعة باستخدام التحليل الوصفي ونماذج الانحدار. أظهرت النتائج العوامل الرئيسية المؤثرة في اعتماد هذه الخدمة: الملاءمة، والتكلفة، وسهولة التسجيل، والعروض الترويجية. أثر استخدام هذه الخدمة أيضًا على أنماط الإنفاق لدى المشاركين وكان

مرتبطًـا بزيـادة النفقـات، وأثـره علـى الادخـار والاقتراض كان متباينًا. تقدم هـذه الدراسـة فهمًا شامـلاً لكيفية تبني واستخـدام خدمـات "اشـتر الآن وادفع لاحقاً" يخ مصر، مما يتيـح رؤى حول ديناميكيات سلـوك المستهلك وتفضيلاتـه. تسلط النتائج الضوء على الحاجة لأطر تنظيمية مصممة خصيصًا وبرامج تثقيف للمستهلكين لحمايتهم. تساهم هذه الدراسة يخ الأدبيات المحدودة حول الموضوع من خلال تقديم رؤى تجريبية حول السوق المصري كسوق ناشئ.

1- Introduction

The digital transformation of the economy has led to the rise of electronic payment methods that allow users to transact online or offline without cash or cards. Mobile wallets, internet banking, Q.R. codes, contactless cards, and biometric verification are digital payment systems that provide customers and merchants with convenience, speed, security, and cost-effectiveness, as well as support financial inclusion and economic development (Khando et al., 2022).

One of the most recent and innovative digital payment methods is Buy Now Pay Later (BNPL), which allows consumers to purchase goods or services and pay in instalments over a period of time, usually with no or low interest and fees(Guttman-Kenney et al., 2023). BNPL has become a popular alternative to traditional credit cards, particularly among younger generations, as it offers flexibility, affordability, and instant gratification. Powell et al. (2023) found that BNPL also benefits merchants by increasing sales, conversion rates, customer loyalty, and average order value.

BNPL is a global phenomenon that has witnessed rapid growth in the last decade, especially in developed markets. According to GlobalData (2023), the BNPL market size will be valued at $309.2 billion in 2023 and is expected to grow at a compound annual growth rate (CAGR) of 25.5% over the forecast period. BNPL features have attracted many consumers to BNPL products, especially in the e-commerce sector. According to Worldpay (2021), BNPL accounted for 2.1% – or roughly $97 billion – of global e-commerce transactions in 2020 and is expected to double to 4.2% by 2024. Some of the leading BNPL providers in the global market are Klarna, Afterpay, Affirm, and PayPal, with millions of users and merchants across various sectors and categories.

Statista (2023) states that the US BNPL lending market grew by 2,400 % in 2022; total BNPL loans issued by the largest U.S. providers tripled in a single year, from $8.3 billion in 2020 to $24.2 billion in 2021. Similarly, according to Howarth (2023), the UK BNPL market was worth $10 billion in 2020 and is expected to reach $25 billion by 2024. The main factors driving the growth of BNPL in these markets are the increasing online shopping penetration, changing consumer preferences and

expectations, low-interest rates and fees, and regulatory support and innovation (Hidayat and Rudito, 2022).

BNPL differs from traditional card payments in several ways. First, BNPL products are structured as instalment loans with a down payment due at the sale and a fixed repayment schedule, usually ranging from 2 to 6 weeks. Second, BNPL products have more accessible lending terms, with no or limited credit checks, often zero interest, minimal fees, and no or limited adverse reporting to credit bureaus. BNPL providers make money by charging merchants fees of around 5-8%, substantially higher than the 2-3% charged by credit card companies (Di Maggio et al., 2022).

Several factors, such as increasing online shopping penetration, changing consumer preferences and expectations, low-interest rates and fees, and regulatory support and innovation, have also influenced the growth of BNPL. Online shopping has increased significantly during the COVID-19 pandemic, creating more opportunities for BNPL providers to partner with e-commerce platforms(Haikal et al., 2023). Consumers have also become more aware of and interested in BNPL products as they seek convenient and secure payment alternatives (McKinsey & Company, 2021).

Regarding BNPL in Egypt, it is also gaining traction in developing markets such as Egypt, with enormous and untapped potential for digital payment solutions. Egypt has a population of over 100 million people, of whom more than 60% are under the age of 30, and more than 50% are Internet users(CAPMAS, 2023). Moreover, Egypt has a low penetration of credit cards (less than 5%) and a high demand for consumer products and services, especially in the e-commerce sector (Pattabiraman, 2023).

Nevertheless, there is a lack of empirical evidence on how these new payment solutions affect the Egyptian consumer's behaviours with BNPL. Therefore, this study aims to examine the impact of new payment solutions on Egyptian consumer's behaviours as applied to BNPL. The study will focus on three aspects of consumer behaviour: adoption factors, effects on spending, saving, and borrowing habits, and satisfaction and loyalty levels. The study will contribute to the existing literature on BNPL by providing insights into a developing market context that has not been explored before. The study will also provide practical implications for BNPL providers, merchants, and policymakers interested in promoting and regulating this payment method in Egypt.

The rest of this paper is organised as follows: the literature review and hypotheses development are illustrated and focused on the impact of BNPL on consumer behaviour, followed by the research methodology, where research instruments, data collection and descriptive statistics are presented, especially the BNPL in the Egyp-

tian market. Then, hypotheses testing is discussed, followed by the research findings. Finally, implications, limitations and recommendations for future research are demonstrated.

2. Literature Review and Hypotheses Development

2.1 Theoretical Perspectives on BNPL Adoption and Usage

Although the popularity of Buy Now, Pay Later (BNPL) services as credit options has been on the rise among consumers, it also brings risks and challenges, such as overspending, excessive borrowing, and financial distress. Therefore, it is crucial to comprehend the factors that drive the adoption of BNPL and its impact on consumer behaviour using well-established frameworks.

This section provides an overview of the theoretical basis of what factors motivate individuals to adopt BNPL services and how their usage affects them, including: The Technology Acceptance Model (TAM); the Theory of Planned Behavior (TPB); and the Diffusion of Innovations (DOI) theory.

The Technology Acceptance Model (TAM) is a theory that explains how users accept and use technology based on their perception of its usefulness and ease of use (Davis et al., 1989). Perceived usefulness refers about how users believe a technology can enhance their performance or outcomes. On the other hand, perceived ease of use refers to users› beliefs in how effortless it will be to use a technology. These two factors influence users› attitudes towards adopting the technology, subsequently impacting their intention and actual usage. TAM can be applied to BNPL adoption by considering how BNPL services offer convenience, affordability and promotional offers that enhance the shopping experience. Users find BNPL services helpful because of their ease of registration, data protection measures and flexible repayment options.

According to Ajzen›s Theory of Planned Behaviour (TPB), human behaviour is influenced by three factors: beliefs, normative beliefs and control beliefs(Ajzen, 1991). Behavioural beliefs refer to the perceived consequences or outcomes of a behaviour. Normative beliefs are shaped by pressure and expectations from others regarding that behaviour. Control beliefs relate to the presence or absence of factors that facilitate or hinder a behaviour. These three belief systems influence an individual›s attitude, norm, perceived control, intention, and actual behaviour. In the context of BNPL adoption using TPB, one can examine how these services impact consumer behaviour by providing a sense of security through offers that boost confidence and satisfaction with BNPL as a payment option. Additionally, social proof and scarcity effects from BNPL services play a role in shaping consumers› norma-

tive beliefs about the popularity and legitimacy of this payment option. The ease and affordability of Buy Now Pay Later (BNPL) services can also impact how consumers perceive their control over their decisions by making BNPL seem accessible and readily available as a payment option.

The third theory is the Diffusion of Innovations (DOI), which explains how an innovation spreads through social system communication channels, with adoption dependent on perceptions of relative advantage, compatibility, complexity, trialability, and observability (Rogers, 2003). Based on the theory, the adoption rate of an innovation depends on five attributes: relative advantage, compatibility, complexity, trialability, and observability. Relative advantage refers to how an innovation is perceived compared to its predecessor. Compatibility measures the extent to which an innovation aligns with existing values, needs and experiences. Complexity gauges how difficult it is to understand or use an innovation. Trialability assesses the extent to which an innovation can be tested regularly. Observability determines how visible or noticeable the results of using an innovation are to others. DOI provides a dynamic perspective on BNPL adoption. BNPL has a relative advantage over traditional credit options through lower costs and greater convenience. Compatibility with digital lifestyles and flexibility meet consumer needs. Simple registration procedures reduce complexity. Promotions enable trialability. Publicised partnerships and social media marketing improve observability. According to DOI, these perceptions shape the consumer journey from awareness to interest, evaluation, trial, and adoption of BNPL services as an innovation.

Linking the three theories together demonstrates the main factors influencing consumers' decisions to adopt BNPL services: convenience, affordability, ease of registration, promotions, and financial security, as potentially integral to BNPL adoption decisions. These factors broadly represent perceived benefits, favourable beliefs, and innovation characteristics that make BNPL services appealing. While other drivers may also affect adoption, these five factors cover key themes identified across the three theories.

TAM highlights perceived usefulness and ease of use as primary drivers of adoption (Davis et al., 1989). Affordability and convenience reflect usefulness, while ease of registration enhances ease of use. TPB points to behavioural, normative, and control beliefs as predictors of adoption (Ajzen, 1991). Factors like promotional offers, financial security, and convenience shape positive behavioural and control beliefs about BNPL. DOI focuses on characteristics like relative advantage and complexity as determinants of adoption speed (Rogers, 2003). Convenience, affordability, and easy registration provide relative advantages and reduce complexity barriers. In the following sections, the discussion will briefly explain the effect of

BNPL adoption factors on consumer behaviour.

■ **Convenience:** Modern consumers prioritise convenience to simplify their shopping experience and reduce cognitive effort (Gerrans et al., 2022). BNPL services offer convenience in several ways, such as deferred payment, simplified transaction processes, and seamless integration with online platforms. According to Di Maggio et al. (2022), 42% of U.S. BNPL users ranked convenience as the most important factor in choosing BNPL over other payment methods as it can ease the emotional toll of paying, by delaying payment and splitting it into smaller instalments.

■ **Affordability:** It is essential for consumer decision-making because they want to maximise utility and minimise cost. BNPL services are affordable due to no interest, fees, or credit checks. These benefits make BNPL services more attractive than credit cards or personal loans, which often charge high interest rates and fees (CFPB, 2022).

■ **Ease of Registration :** It helps consumers adopt new technologies by reducing effort and uncertainty when trying new products and services (Davis et al., 1989). BNPL services simplify registration with a simple onboarding process, minimal information, and instant approval. Regrading Di Maggio et al. (2022), 28% of U.S. BNPL users ranked ease of registration as the second most important factor in choosing BNPL over other payment methods. Registration ease can increase the scarcity effect, which is the tendency to value rare or limited items more, By creating a sense of urgency and exclusivity through a limited-time offer or selective eligibility criteria (Azmi et al., 2022).

■ **Promotional Offers :** Retailers and service providers use promotional offers to attract customers by offering discounts, incentives, or rewards (Kotler and Keller, 2016). BNPL services offer promotional offers such as: cashback, coupons, vouchers, and loyalty points via Online or in-store displays, to create a strong visual appeal and stimulate consumer interest (Relja et al., 2023). Due to promotional offers, Gerrans et al. (2022) found that 36% of Australian BNPL users chose BNPL over other payment methods. Promotional offers can increase the contrast effect, which makes something seem more or less appealing based on comparison, by creating a contrast between the regular and discounted prices or between the BNPL option and the other payment options.

■ **Perceived Financial Security:** A final driver of BNPL adoption is perceived financial security. A subjective assessment of one's financial situation and prospects affects confidence and satisfaction with financial decisions (Lusardi and Tufano, 2015). Data privacy, protection, and flexible repayment options make

BNPL services seem financially secure and more appealing than traditional credit options, which risk data breaches, identity theft, and strict repayment schedules. BNPL services offer several advantages over traditional credit products to consumers who want secure and flexible credit alternatives (CFPB, 2022).

2.2 Impact of BNPL on Consumer behaviour

The impact of Buy Now Pay Later (BNPL) on customer behaviour can vary based on how consumers interpret and evaluate the information and incentives provided. The impact of Buy Now Pay Later (BNPL) on customer behavior is influenced by how consumers interpret and evaluate information and incentives. The framing effect, a key factor, refers to how different presentations of the same information can lead to different choices(Tversky and Kahneman, 1981). BNPL can accentuate the benefits and minimise costs of purchases, increasing the desirability and likelihood of buying. For example, BNPL can reduce the perceived cost of buying by splitting the total price into smaller, more manageable instalments, reducing spending guilt(Chen et al., 2012, Ah Fook and McNeill, 2020). Additionally, BNPL can increase purchase perceived value by offering discounts or bonus packs, making consumers feel more satisfied or rewarded. Moreover, BNPL can create a sense of urgency by imposing a time or quantity limit, which may put consumers under pressure to buy(Wu et al., 2021).

A further factor affecting consumer behaviour is the availability heuristic, which refers to how people rely on information that is more easily accessible or retrievable from memory when making decisions or judgments (Tversky and Kahneman, 1973). BNPL can influence the availability heuristic by resetting the importance of purchase benefits, costs, risks, and alternatives. For example, BNPL can highlight product attributes or quality to boost consumer confidence and optimism about purchases (Schomburgk and Hoffmann, 2023, Fornell et al., 2010). BNPL can also decrease the salience of the costs by hiding or delaying the payments, making consumers more ignorant about their purchases (Guttman-Kenney et al., 2023, Soni, 2023). Furthermore, BNPL can also impact risk salience by disclosing or withholding penalties for late or missed payments, making customers more cautious or irresponsible about their purchases (Lee et al., 2020, Powell et al., 2023). Additionally, by comparing items or services with competitors, BNPL can influence the salience of alternatives, making consumers more selective or loyal about their purchases (De La Rosa and Tully, 2022, Lusardi and Tufano, 2015).

Therefore, to capture the multifaceted nature of consumer behaviour, the research will use three distinct dimensions to measure it: spending habits, saving habits, and borrowing habits. These aspects show consumer financial behaviour relevant to BNPL usage and its implications.

● Spending Habits

One of the primary outcomes of BNPL usage is increased spending. Spending is a fundamental aspect of consumer behaviour, reflecting one's consumption choices and preferences (Solomon et al., 2016). However, excessive spending can also lead to financial problems and dissatisfaction(Richins and Dawson, 1992). Lowering the perceived cost and increasing the perceived benefit of BNPL purchases can increase spending (Azmi et al., 2022). Fortune Business Insights (2023), found that BNPL users spent more and had a higher retail share of total spending than non-users.

Several mechanisms can explain the impact of increased spending on consumer behaviour. First, increased spending can increase the hedonic adaptation effect, which is the tendency to quickly return to a stable level of happiness after experiencing positive or negative events (Frederick & Loewenstein, 1999). By increasing spending, BNPL purchases can increase hedonic pleasure (Azmi et al., 2022). However, this effect can fade as consumers adjust to their new consumption level and seek more or better products or services to maintain their happiness (Frederick & Loewenstein, 1999). Second, increased spending can increase the sunk cost fallacy, which is the tendency to continue an endeavour after investing money, effort, or time (Arkes and Blumer, 1985). BNPL services can increase consumer sunk costs by increasing spending and debt (Aalders, 2023). Thus, BNPL consumers may fall into the commitment trap of increased spending and debt repayment. Third, increased spending can increase the social comparison effect, which involves comparing one's situation or performance to others (Festinger, 1954). By increasing spending and consumption, BNPL services can increase peer, celebrity, and influencer social pressure and influence (Relja et al., 2023, Azmi et al., 2022). This can lead to a conformity bias of increased spending and imitation among consumers. Based on the above discussion, the first research hypothesis is as follows:

H1: BNPL adoption factors have a significant impact on consumers' spending habits.

H1.1: Convenience has a positive impact on consumers' spending habits.

H1.2: Affordability has a negative impact on consumers' spending habits.

H1.3: Ease of registration has a positive impact on consumers' spending habits.

H1.4: Promotions have a positive impact on consumers' spending habits.

H1.5: Financial security has a positive impact on consumers' spending habits.

● Saving Habits

Saving is another essential aspect of economic consumer behaviour. One key factor influencing consumer saving habits is intertemporal choice, which refers to how people trade off present and future outcomes when making decisions(Loewenstein and Thaler, 1989).

An intertemporal choice like BNPL lets consumers defer or advance payments, thereby affecting their current and future wealth and well-being. For example, BNPL can reduce consumer savings by increasing current consumption and cutting future income. By lowering upfront costs and increasing perceived value, BNPL may encourage consumers to spend more (Ah Fook and McNeill, 2020, De La Rosa and Tully, 2022).

According to several studies, BNPL users had lower savings rates and financial planning behaviours than non-users (Akana, 2022, Guttman-Kenney et al., 2023, Soni, 2023). Moreover, BNPL may crowd out other forms of saving, such as bank deposits or investments, by offering a more convenient or attractive alternative for financing purchases (Malamud et al., 2022, Papich, 2022, Haikal et al., 2021).

Consumer behaviour is affected by decreased savings in several ways. First, decreased savings can increase the present bias, which favours immediate rewards over the future (Thaler and Sunstein, 2009). BNPL services can increase temporal discounting of future outcomes and decrease intertemporal substitution of consumption by decreasing opportunity costs and increasing spending benefits (Akana, 2022). This can lower savings and increase consumption for BNPL customers. Second, decreased savings can increase the regret aversion bias, which is the tendency to avoid decisions that may disappoint(Bell, 1982). By decreasing incentives and increasing difficulty, BNPL services can increase the perceived risk and uncertainty of saving outcomes and decrease the perceived satisfaction and utility of saving, reducing BNPL customers' savings and increasing avoidance(Relja et al., 2023). Third, decreased savings can increase the status quo bias, which is the tendency to prefer maintaining one's current situation over changing it (Samuelson and Zeckhauser, 1988). BNPL services can increase the perceived cost and effort of changing saving habits and decrease their perceived benefit and value by decreasing motivation and increasing inertia, which again can lead to reduced savings and increased stickiness among BNPL customers (Relja et al., 2023, Azmi et al., 2022).

On the other hand, BNPL can also increase consumer savings by decreasing their current consumption and increasing their future income. BNPL may reduce consumer

spending by raising awareness of future payments or fees (Lee et al., 2020, Powell et al., 2023). BNPL may also motivate consumers to save by offering a goal or incentive for paying off debt or avoiding penalties in the future (Schomburgk and Hoffmann, 2023, Fornell et al., 2010). Furthermore, BNPL may complement other forms of saving, such as emergency funds or retirement accounts, by offering a more flexible or affordable option for financing purchases (Lusardi and Tufano, 2015, Bian et al., 2023). Based on the above discussion, the second research hypothesis is as follows:

H2: BNPL adoption factors have a significant impact on consumers' saving habits.

H2.1: Convenience has a negative impact on consumers' saving habits.

H2.2: Affordability has a positive impact on consumers' saving habits.

H2.3: Ease of registration has a negative impact on consumers' saving habits.

H2.4: Promotions have a negative impact on consumers' saving habits.

H2.5: Financial security has a negative impact on consumers' saving habits.

● Borrowing Habits

Similarly, BNPL can affect consumer borrowing habits in various ways. It can boost consumer borrowing by facilitating access to credit and stimulating their demand for credit by relaxing credit eligibility, availability, appeal and affordability criteria (Lusardi and Tufano, 2015, Bian et al., 2023).

Multiple factors could explain how borrowing affects consumer behaviour. First, increased borrowing can increase the debt illusion effect, which is the tendency to underestimate or ignore the actual cost and risk of debt (Aalders, 2023, Haughwout and van der Klaauw, 2015). By lowering credit barriers and creating a false sense of affordability, BNPL services can increase the perceived benefit and utility of borrowing and decrease the perceived cost and obligation of repaying (Xing et al., 2019). This can increase borrowing and decrease repayment awareness among BNPL users. Second, increased borrowing can increase the overconfidence bias, which is the tendency to overestimate one's own abilities or judgments(Moore and Healy, 2008). BNPL clients feel more confidence and optimism about their future income and expenses (Relja et al., 2023). Third, increased borrowing can increase confirmation bias, which is the tendency to seek or interpret information that confirms one's existing beliefs or hypotheses(Nickerson, 1998). BNPL services can boost their credibility and reliability as a credit option, which can expand borrowing and lower repayment evaluations for BNPL customers (Xing et al., 2019).

In contrast, BNPL can reduce consumer borrowing by restricting credit access through capping credit amounts or frequency, which may prevent consumers from borrowing more than they could (Malamud et al., 2022, Papich, 2022). BNPL may also discourage consumers from borrowing extensively by increasing credit transparency or accountability (Schomburgk and Hoffmann, 2023). Furthermore, BNPL may supplement other forms of borrowing, such as overdrafts or payday loans, by offering a more responsible or sustainable credit option (Ah Fook and McNeill, 2020, De La Rosa and Tully, 2022).

Based on the above discussion, the third research hypothesis is as follows:

H3: BNPL adoption factors have a significant impact on consumers' borrowing habits.

H3.1: Convenience has a positive impact on consumers' borrowing habits.

H3.2: Affordability has a negative impact on consumers' borrowing habits.

H3.3: Ease of registration has a positive impact on consumers' borrowing habits.

H3.4: Promotions have a positive impact on consumers' borrowing habits.

H3.5: Financial security has a positive impact on consumers' borrowing habits.

## 2.3 Research Framework for BNPL Adoption and Consumer Behavior

The following framework has been built to demonstrate the relationship between BNPL adoption factors and consumer behaviour. This framework is based on the theoretical and empirical evidence presented above, which supports the research hypothesis.

The dependent variables, which indicate various dimensions of customer behaviour, are displayed on the top layer: a. Spending Habits: This variable assesses how BNPL usage affects consumers' spending behaviour, including impulse buying, shopping frequency, and spending patterns. b. Saving Habits: This variable examines the impact of BNPL on consumers' saving behavior, such as savings rate, financial planning, and propensity to save. c. Borrowing Habits: This variable investigates consumers' borrowing behavior, including the frequency and amount of borrowing and the types of purchases financed through BNPL.

The bottom layer is where the independent variables, also known as BNPL adoption factors, are placed. The variables include convenience, affordability, ease of registration, promotional offers, and perceived financial security. Connecting Lines: Hypotheses that explore the relationships between the BNPL adoption factors and

consumer behaviour. These hypotheses serve as the guiding framework for the empirical analysis, which helps uncover the dynamics underlying consumer preferences and choices in the context of BNPL services.

Figure 1: Conceptual Framework
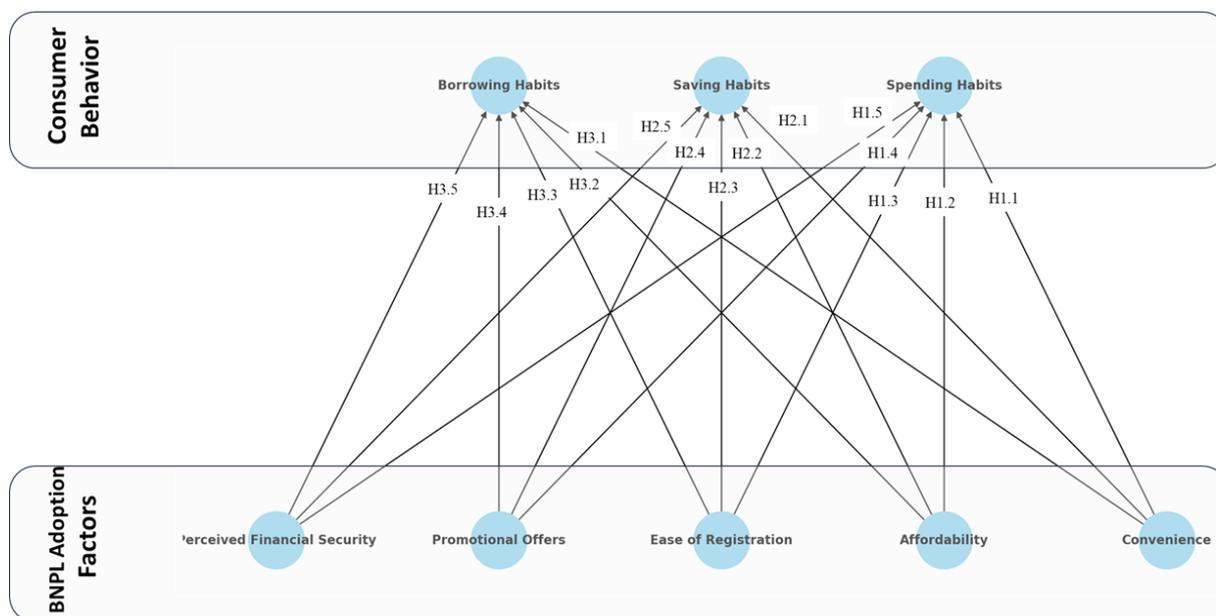
3. Methodology

The research approach adopted a deductive reasoning strategy to test hypotheses derived from the literature review. The study utilises a cross-sectional survey design to gather primary data from a sample of BNPL users in Egypt [1].

Besides the survey strategy, a descriptive analysis of the BNPL market in Egypt involves examining aspects related to this financial service. This extra analysis aims to show how BNPL is currently used and how it impacts consumer behaviour in the Egyptian market. The data was collected from official financial reports, regulatory bodies and relevant market research studies. The focus will be on obtaining information about the volume of BNPL transactions, the commonly purchased goods and services through BNPL and the average transaction amounts.

Regarding the survey, prior to distribution, the questionnaire is translated into Arabic and pre-tested with a pilot sample of 30 BNPL users to ensure its validity

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(1) Please check the questionnaire in the Appendix 1

and reliability [2]. The final questionnaire is administered online through Google Forms to a convenience sample of BNPL users in Egypt [3]. Egypt has been chosen as relevant for this study due to its fast-increasing BNPL businesses and the lack of thorough research on BNPL activities. Egypt's unique economic context, growing consumer tastes, and increasing digitisation make it a perfect place to study BNPL adoption and its effects on consumer habits. This study fills a significant research gap by focusing on Egypt, helping to understand how BNPL is reshaping consumer financial behaviour in an emerging market.

A convenience sampling design is employed due to practical constraints and ease of access for participants. In terms of analysis, descriptive statistics provide a summary of the sample's characteristics, while multiple regression analysis allows for testing multiple factors' impact on BNPL usage and consumer behaviour, addressing the research objectives.

The questionnaire employs established 5-point Likert and ranking scales to quantify consumer behaviours related to BNPL adoption and usage. It contains four structured sections progressing: Demographic Information, BNPL services, BNPL Adoption Factors and Effects of BNPL on Consumer Behaviour.

Table 1: Sample characteristics

		Frequency	*Percent*
Age:	18-25	40	20
	36-45	95	47.5
	46-55	35	17.5
	> 56	30	15
Gender:	Female	120	60
	Male	80	40
Martial:	Single	35	17.5
	Married	120	60
	Divorced	30	15
	Prefer not to say	15	7.5
N. Children:	1	55	27.5
	2	40	20

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(2) the Cronbach›s alpha coefficients for each scale to measure their internal consistency reliability. The Cronbach›s alpha coefficients were above 0.7, which indicates an acceptable level of reliability (Nunnally & Bernstein, 1994).

(3) the questionnaire distribution is carried out over a period of four weeks, from July 1st to July 31st, 2023.

	3	40	20
	> 3	30	15
	No Children	35	17.5
Educations:	High school	10	5
	Bachelor	140	70
	Master's / Ph.D. degree	50	25
Income:	< 5000	10	5
	5000 - 10.000	35	17.5
	11.000 - 20.000	55	27.5
	> 20.000	100	50
BNPL Service Providers:	ValU	80	40
	Contact	35	17.5
	Halan	30	15
	PremiumCard	20	10
	BelCash	15	7.5
	Souhoola	10	5
	Other	10	5
Location	Cairo	120	60
	Alexandria	40	20
	Giza	25	12.5
	Other Cities	10	5
	Rural Areas	5	2.5

The sample included people of various ages; the majority of participants, 47.5%, were between the ages of 36 and 45, and were most likely in their prime earning and spending years, making their spending habits and financial decisions crucial. Females comprised 60% of the sample, while men comprised 40%. Married people constituted 60% of the sample. The number of children among those who took part varied. People with one child comprised 27.5% of the sample, with two and three children accounting for 20% each.

Participants came from various educational backgrounds, as 70% of those who took part had a bachelor's degree or higher, 25% had a master's or doctorate, and 5% had only a high school diploma. Regarding income levels, income over 20,000 is the largest group, accounting for 50% of the sample. Higher-income levels imply more spending power and different financial priorities than lower-income levels. Participants used a variety of BNPL service providers as ValU was the most popu-

lar provider, with 40% of participants choosing it; Contact and Halan were used by 17.5% and 15% of the participants, respectively.

Finally, most participants were from Cairo, constituting 60% of the sample. Participants from Alexandria accounted for 20%, while those from Giza and other cities made up 12.5% and 5%, respectively. These sample characteristics provide insights into the demographic distribution of the participants and are crucial for understanding the broader context of the study's findings.

4. Results and Discussion

4.1 Buy Now Pay Later (BNPL) IN EGYPT MARKET

The Egyptian market is one of the fastest-growing markets for BNPL in the Middle East and Africa region. According to Research and Markets (2023), BNPL payments in Egypt grew by 130.6% annually, reaching US$ 182.9 million in 2021 and US$1,645.0 million in 2023. The main drivers of this growth are the rising e-commerce industry, the low penetration of credit cards, and the high demand for consumer products and services. Several local startups have emerged to offer BNPL services to Egyptian consumers and merchants, such as Shahry, Sympl, ValU, and Tamara. These startups have attracted thousands of users and partners since their launches in 2020 and 2021, respectively(Markets, 2022).

Buy Now Pay Later (BNPL) or Consumer financing, as defined by Egyptian law, refers to all forms of financing that enable borrowers to purchase durable goods for consumption purposes and repay their costs over an extended period. It primarily targets the household sector and can also benefit legal entities. Consumer financing is considered one of the main tools for achieving social justice. It allows middle and low-income classes to access financial services, contributing to financial inclusion, a fundamental pillar of the United Nations' Sustainable Development Goals and Egypt's Vision 2030. BNPL is a non-banking financial activity now subject to the supervision of the General Authority for Financial Regulation, as specified by the Consumer Finance Activity Regulation Law issued under Law No. 18 of 2020. The Egyptian government's focus on financial inclusion complements the goals of the BNPL industry. By offering accessible and convenient payment options, BNPL services can reach the unbanked and underbanked segments of the population, bringing them into the formal financial system and driving financial empowerment.

*Figure 2: BNPL Number of clients and Total financing value*
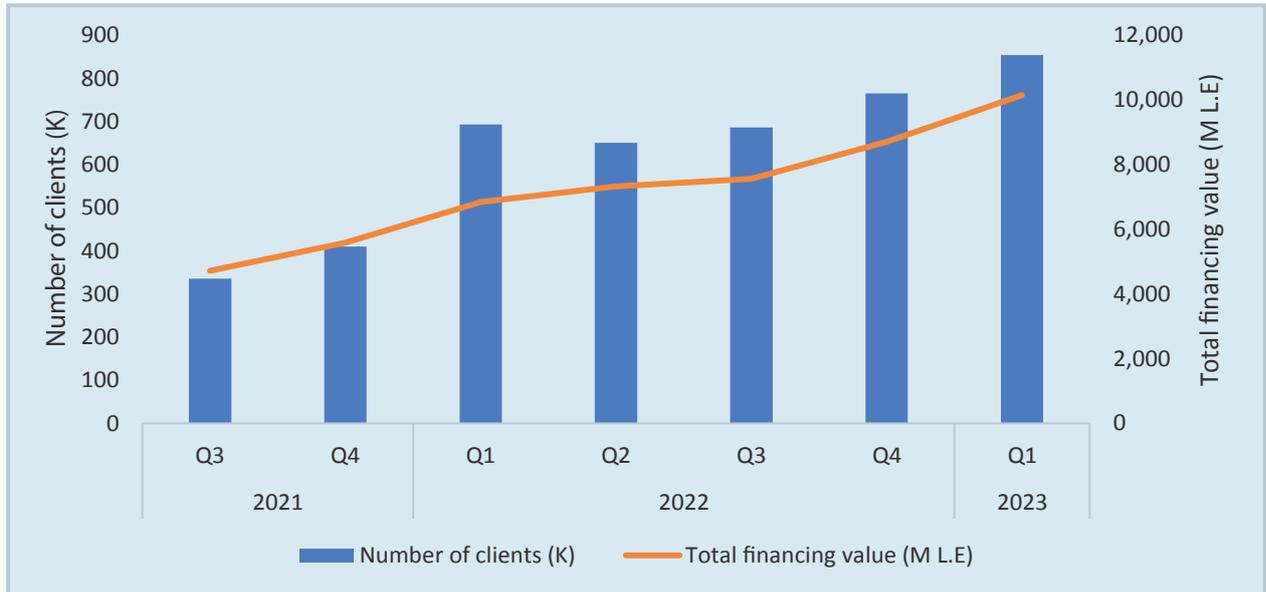
According to the quarterly report issued by the Financial Regulatory Authority on consumer financing *(BNPL)* in Egypt, there has been a remarkable shift in the usage patterns of instalment plans over the past two years. The provided data illustrates a significant upward trend in consumer financing in Egypt over the past two years. The number of customers availing of consumer financing, as presented in (Figure 2) has experienced substantial growth since its registration with the Financial Regulatory Authority in the third quarter of 2021. Starting at 336,000 customers, the figure nearly doubled to 686,000 in the corresponding quarter of 2022, demonstrating a remarkable increase of nearly 150% in just one year and a half. The momentum continued, with the first quarter of 2023 witnessing a further rise to 850,000 customers.

This surge in consumer financing reflects the growing popularity and accessibility of such financial services among Egyptian households. The ability to purchase durable goods for consumption and repay the cost over an extended period has undoubtedly appealed to a broad spectrum of customers, particularly those from middle and low-income segments. This type of financing has enabled many individuals and families to access products they might not have been able to afford outright, thereby contributing to increased consumer spending and economic activity. Consistency with the Mastercard New Payments Index (2022), where 88% of consumers in Egypt have tried a new payment method since the start of the pandemic, 76% of consumers plan to use emerging payment technologies more in the future, 71% of

consumers in Egypt prefer to shop online rather than in-store, and 68% of consumers are more likely to shop at small businesses that offer BNPL options.

Moreover, the total value of consumer financing provided has followed a similar upward trajectory. Starting at 4 billion Egyptian pounds in September 2021, the total financing extended exceeded 10 billion pounds by March, representing a significant doubling of the amount. This growth of approximately 115% over the past year and a half further underlines the increasing significance of consumer financing in the Egyptian financial landscape. The rise in consumer financing aligns with the same Mastercard index, as 69% of consumers in Egypt admit that they are more likely to make impulse purchases when using BNPL products, 74% state that they always pay their BNPL instalments on time, and 72% use BNPL products responsibly and within their means.

Figure 3: BNPL classification in Egypt
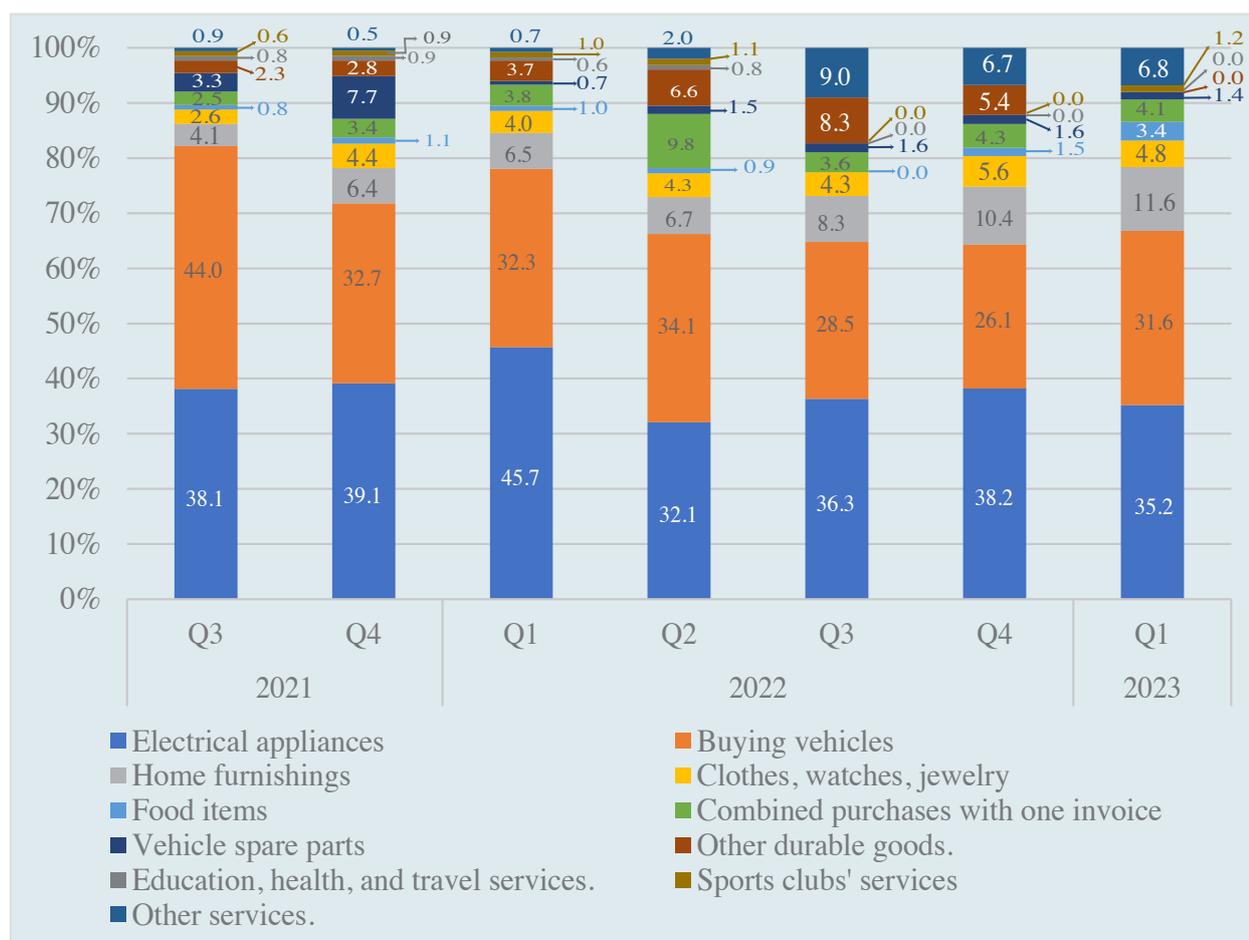
Source: Author calculation based on Financial Regulatory Authority, 2023

On the other hand, the reports show a remarkable shift in the usage patterns of instalment plans over the past two years as seen in (Figure 3). Notably, purchasing electrical appliances and new cars has seen a substantial increase of around 70%, totalling over 45 billion Egyptian pounds from the third quarter of 2021 to the first quarter of 2023. Electrical appliances topped the list with an average of 40% of total purchases, amounting to 20 billion pounds, doubling from approximately 1.7 billion to 3.5 billion during the period.

New car purchases followed closely in second place, accounting for over 30% of the total financing, reaching 15 billion pounds. The value of these purchases increased by 50%, rising from around 2 billion in the third quarter of 2021 to over 3 billion pounds in the first quarter of 2023.

Surprisingly, furniture and home furnishings took the third position with an average of 8% of the total purchases, totalling 4 billion pounds. Despite representing a relatively smaller share, this category experienced a very high growth rate, exceeding 500%. The value of furniture purchases surged from 180 million to over 4 billion pounds.

In the fourth place, combined purchases from various stores and retail chains, including clothing, bags, shoes, watches, jewellery, eyewear, and other durable goods, accounted for 5% of the total purchases. The increase in this category ranged up to 300%, reaching approximately 2 billion pounds for each item.

Vehicle spare parts of all kinds were ranked next, with total purchases of around 1 billion pounds. However, there was no significant increase in the purchase rates during the studied period, with a slight rise of approximately 140 million pounds each quarter.

Despite accounting for 1.5% of total purchases, the report shows that food purchases grew the most during the study period. Food purchases increased 800% from 36 million L.E in the first quarter to over 340 million L.E in the last quarter. According to CAPMAS (2023), Egyptian inflation, which surpassed 40% in April 2023, drove a sharp increase in food-related instalment plans. The cost of living in Egypt has risen due to high inflation, which has raised food prices. Food costs have increased, making it more difficult for consumers to meet their nutritional needs on a budget. As a result, many Egyptians used consumer financing options such as instalment plans to pay for necessities such as food.

Finally, other services, such as club subscriptions, health, medical, and tourism services, came in last, accounting for 1% of total purchases, totalling 3.7 billion pounds. Overall, the quarterly report data highlights Egypt's changing consumer

financing landscape, with significant growth in various sectors reflecting the country's evolving consumption patterns and economic conditions.

4.2. Hypothesis testing

The regression analysis results were conducted to examine the relationship between the model variables, as shown in Figure 4.

The Spending Habits Regression Model: Convenience (0.758) has a positive and statistically significant effect on spending habits ($p < 0.001$); this suggests that as the convenience of the BNPL service increases, consumers are more likely to engage in impulsive buying and spend more. Affordability (-0.234) also shows a significant impact but with a negative sign, implying that consumers may hesitate to spend impulsively if they perceive the BNPL option as financially burdensome. Ease of Registration (0.451) positively influences spending habits; a straightforward and user-friendly registration process may encourage consumers to purchase impulsively with BNPL. Promotional Offers (0.286) positively impact spending habits as attractive promotional deals may entice consumers to use BNPL for spontaneous purchases. Perceived Financial Stress does not show statistical significance; this variable may not significantly influence spending habits in this context.

Figure 4. Models Results
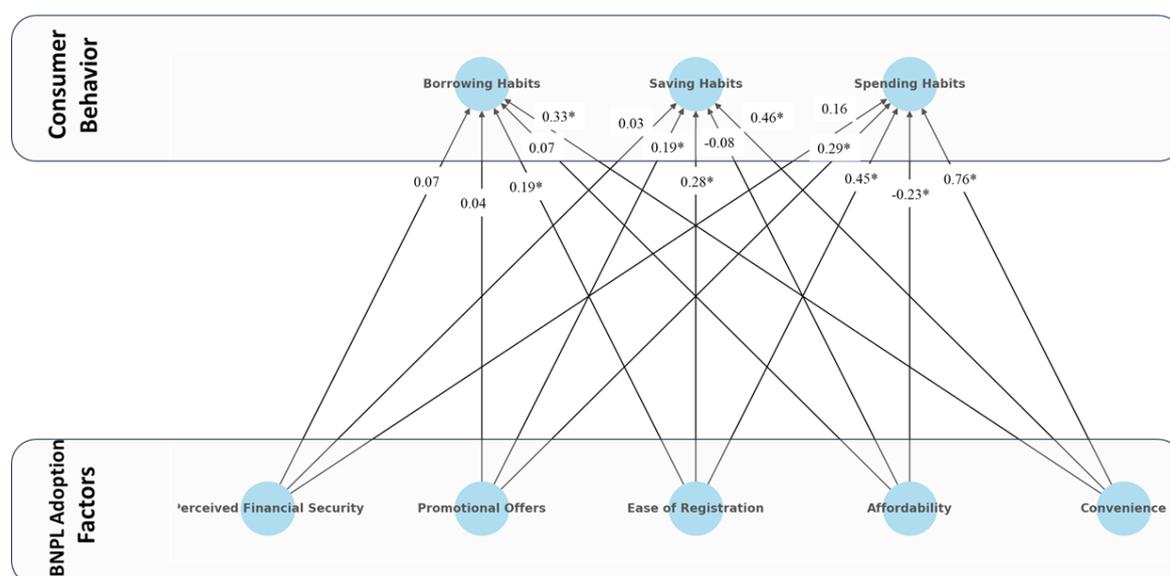
Source: Based on the output table of regression models in Appendix 2

Saving Habits Regression Model: Convenience (0.462) negatively influences saving habits. Consumers might be inclined to save less with BNPL when it offers ease and

convenience in budgeting for purchases. Affordability shows no statistical significance, suggesting that the affordability of BNPL may not significantly impact saving habits. Ease of Registration (0.283) negatively impacts saving habits. Consumers may be less motivated to save with BNPL if the registration process is user-friendly. Promotional Offers (0.187) negatively affect saving habits. Attractive promotions and incentives may discourage consumers from saving. Perceived Financial Stress has no significant influence on saving habits, as it may not directly impact consumers' saving behaviour in the context of BNPL usage.

Borrowing Habits Regression Model: Convenience (0.326) positively impacts borrowing habits; users may find BNPL attractive when it offers convenience and flexibility in payment options. Ease of Registration (0.188) positively influences borrowing habits; a hassle-free registration process may motivate consumers to opt for BNPL as a borrowing method. Promotional Offers have no significant impact on borrowing habits. Promotional deals may not be the primary driver for consumers' borrowing decisions with BNPL. Perceived Financial Stress, as in other models, shows no statistical significance.

Overall, the study found that convenience, ease of registration, and promotional offers are the most significant factors influencing consumers' adoption of BNPL products in Egypt, which align with previous studies identifying these factors as key drivers (Alcazar and Bradford, 2021, Eckler, 2020). However, affordability and perceived financial security were not found to significantly affect BNPL adoption, contradicting previous findings suggesting affordability and perceived risk as important factors (Featherman and Pavlou, 2003, Venkatesh et al., 2003). Egyptian consumers may prioritise convenience and promotional aspects over affordability, as their unique economic conditions, consumer culture, and retail sector characteristics may accentuate these factors.

5. Conclusion and Policy Implications

The study reveals that BNPL adoption in Egypt is driven by convenience, ease of registration, and attractive promotional offers. These factors may help financial institutions and retailers expand the market and foster long-term loyalty. However, it's crucial to recognise potential risks and establish a regulatory framework to protect customers from over-indebtedness and ensure transparency. Requiring BNPLs to report to credit bureaus and share data with other lenders could increase consumer credit awareness and encourage responsible borrowing.

Financial institutions and retailers should leverage convenience, ease of registration, and promotional offers when marketing BNPL products, as this study found these were the most influential drivers of adoption. However, providers must also closely monitor impacts on consumer behavior across spending, saving, and borrowing habits to mitigate potential risks from BNPL usage. Maintaining high customer satisfaction levels through payment flexibility, fee management, and user experience will be pivotal to sustaining loyalty.

For policymakers, this research highlights the need for dedicated BNPL regulations to fill gaps in disclosure, affordability assessments, and credit bureau reporting. Specific frameworks can address emerging risks like over-indebtedness and ensure consumer protections evolve with new financial services. Further, BNPL›s regulatory efforts should incorporate consumer education programmes to increase awareness and empower responsible usage.

The findings suggest tailored strategies are required for industry and policy stakeholders to maximise benefits while minimising harm as BNPL services rapidly gain prominence. Promoting advantages around convenience and ease of use must be balanced with appropriate oversight mechanisms related to consumer impacts and experiences. Ultimately collaborative efforts between providers, regulators, and consumers will be essential to foster responsible innovation in this fintech sector.

In conclusion, the study outcome contributes significantly to understanding BNPL adoption and usage in Egypt and offers actionable insights for stakeholders. Implementing the practical and policy implications will benefit financial institutions, retailers, and consumers and foster a healthy and sustainable BNPL market in Egypt. As BNPL services evolve, policymakers must remain proactive in adapting regulations to protect consumers while fostering innovation and access to affordable credit options.

6. Limitations

Despite the valuable insights gained from this study, several limitations need to be acknowledged. First, the cross-sectional survey design utilised in this research restricts the establishment of causal relationships between BNPL adoption factors and consumer behaviours. Future studies could employ panel or experimental designs to better understand the temporal dynamics and causal influences. Second, the sample size of 200 BNPL users may not fully represent the diverse population of Egyptian consumers. Enhancing the generalizability of findings would require larger and more diverse samples from various regions and demographics. Lastly, the study focused on

specific BNPL adoption factors like convenience, affordability, and promotional offers. Other factors like trust, perceived risk, and customer service may also influence consumer behaviour and merit further exploration. Therefore, considering a more comprehensive set of BNPL factors in future research would provide a more nuanced understanding of their impact on consumer behaviours.

7. Future Research Directions:

To build upon the current findings, future research could explore several avenues. Adopting panel studies would enable tracking changes in consumer behaviour over time, offering insights into the long-term impact of BNPL adoption. Additionally, conducting comparative studies across different countries and cultural contexts would illuminate the role of cultural factors and regulatory environments in shaping consumer responses to BNPL.

Investigating the influence of financial literacy and education on BNPL adoption and consumer behaviours could inform the design of targeted financial education initiatives. Moreover, incorporating behavioural economics principles into research could deepen our understanding of the psychological factors that influence BNPL usage, such as present bias and framing effects. Segmentation analysis would aid in identifying distinct groups of BNPL users with unique characteristics and behaviours, allowing for more targeted marketing strategies and product offerings.

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9. Appendixes

Appendix 1: Questionnaire: Exploring Buy Now, Pay Later (BNPL) Adoption and Consumer Behavior

This academic survey aims to understand the adoption of Buy Now, Pay Later (BNPL) services in Egypt and their effects on consumer behaviour. Your participation will provide valuable insights into this emerging financial service. The survey should take about 10-15 minutes to complete. Your responses will be anonymous and only used for research purposes. Thank you very much for your time and participation.

Section 1: Demographic Information

1.Age:

- [ ] 18-25

- *[ ] 36-45*

- [ ] 46-55

- [ ] > 56

2. Gender:

- [ ] Female

- [ ] Male

3. Marital Status:

- [ ] Single

- [ ] Married

- [ ] Divorced

- [ ] Prefer not to say

4. Number of Children:

- [ ] 1

- [ ] 2

- [ ] 3

- [ ] > 3

- [ ] No Children

5. Education:

- [ ] High school

- [ ] Bachelor

- [ ] Master's / PhD degree

6. Income:

- [ ] < 5000

- [ ] 5000 - 10.000

- [ ] 11.000 - 20.000

- [ ] > 20.000

7. Location:

- [ ] Cairo

- [ ] Alexandria

- [ ] Giza

- [ ] Other Cities

- [ ] Rural Areas

Section 2: BNPL services

8. When did you first start using BNPL services?

- [ ] Less than 6 months ago

- [ ] 6-12 months ago

- [ ] 1-2 years ago

- [ ] More than 2 years ago

9. Which BNPL services have you used? (Select all that apply)

- [ ] ValU

- [ ] Contact

- [ ] Halan

- [ ] PremiumCard

- [ ] BelCash

- [ ] Souhoola

- [ ] Other (please specify) …………..

10. How did you first hear about BNPL services?

- [ ] Social media ads

- [ ] Recommendation from friends/family

- [ ] Promotions from retailers

- [ ] Mobile apps

- [ ] Other (please specify)……….

11. What was the main motivation for you to start using BNPL services?

- [ ] Interest-free instalments

- [ ] Avoid large upfront payment

- [ ] Buy more expensive items

- [ ] Easier to budget spending

- [ ] Build credit score

- [ ] Other (please specify) ……………..

12. How often do you use BNPL services?

- [ ] Once a month

- [ ] 2-3 times a month

- [ ] Once a week

- [ ] 2 or more times a week

13. Which retail categories do you mostly use BNPL for? (Select all that apply)

- [ ] Electronics

- [ ] Fashion/clothing

- [ ] Home furnishings

- [ ] Travel/Vacation

- [ ] Vehicle purchases

- [ ] Healthcare/medical procedures

- [ ] Education expenses

- [ ] Other (please specify) ……………………

Section 3: BNPL Adoption Factors

14. How important were the following factors in your decision to use BNPL services? (5-point scale from Not at all Important to Extremely Important)

- Convenience

- Affordability

- Ease of registration

- Promotional offers

- Perceived financial security

Convenience:

15. Rate the importance of the following convenience factors in your decision to use BNPL:

- Quick checkout process

- Easy-to-use mobile apps/websites

- Simple registration

- No need for credit checks

- Lack of paperwork

16. I started using BNPL because it was more convenient than other payment methods for my lifestyle.

- [ ] Strongly disagree

- [ ] Disagree

- [ ] Neutral

- [ ] Agree

- [ ] Strongly agree

17. BNPL checkout is faster than entering my card details manually for each purchase.

- [ ] Strongly disagree

- [ ] Disagree

- [ ] Neutral

- [ ] Agree

- [ ] Strongly agree

Affordability:

18. Rate the importance of the following affordability factors in your decision to use BNPL:

- 0% interest instalments

- Lower cost than credit cards

- Fixed, predictable payments

- Can split total cost over multiple instalments

- Flexible repayment terms

19. I can afford to buy more expensive items by transferring payments with BNPL.

- [ ] Strongly disagree

- [ ] Disagree

- [ ] Neutral

- [ ] Agree

- [ ] Strongly agree

20. BNPL helps me avoid needing a large amount of cash upfront.

- [ ] Strongly disagree

- [ ] Disagree

- [ ] Neutral

- [ ] Agree

- [ ] Strongly agree

Ease of Registration:

21. Rate the importance of the following ease of registration factors in your decision to use BNPL:

- Short online application

- Instant approval decision

- No need to visit physical branch

- Minimal eligibility requirements

- Fast setup with retailers

22. The registration process for BNPL services was quick and hassle-free.

- [ ] Strongly disagree

- [ ] Disagree

- [ ] Neutral

- [ ] Agree

- [ ] Strongly agree

23. It was easy to get set up with retailers once approved for BNPL.

- [ ] Strongly disagree

- [ ] Disagree

- [ ] Neutral

- [ ] Agree

- [ ] Strongly agree

Promotional Offers:

24. Were promotional offers an important factor in the initial decision to try BNPL?

- [ ] Yes

- [ ] No

25. If yes, which promotional offers attracted you? (Select all that apply)

- Sign-up bonuses

- Cashback rewards

- Discounted purchase price

- Free shipping

- Other (please specify)………………………

26. BNPL promotions increased my awareness and encouraged me to try the service.

- [ ] Strongly disagree

- [ ] Disagree

- [ ] Neutral

- [ ] Agree

- [ ] Strongly agree

27. Generous signup offers were important in my decision to use BNPL.

- [ ] Strongly disagree

- [ ] Disagree

- [ ] Neutral

- [ ] Agree

- [ ] Strongly agree

Perceived Financial Security:

28. Rate the importance of the following perceived financial security factors in your decision to use BNPL:

- No late fees if the missed payment date

- Low fees compared to credit cards

- Predictable instalment amounts

- Can adjust due dates if needed

- Reminders/alerts about upcoming payments

29. I feel more financially secure knowing exactly what my monthly BNPL payments will be.

- [ ] Strongly disagree

- [ ] Disagree

- [ ] Neutral

- [ ] Agree

- [ ] Strongly agree

30. BNPL providers are transparent about fees, which made me comfortable using it.

- [ ] Strongly disagree

- [ ] Disagree

- [ ] Neutral

- [ ] Agree

- [ ] Strongly agree

Section 4: Effects of BNPL on Consumer Behavior

31. Since using BNPL services, how have your spending habits changed? (5-point scale from Decreased Significantly to Increased Significantly)

- Frequency of shopping

- Number of impulse purchases

- Amount spent per month

32. Since using BNPL services, how have your saving habits changed? (5-point scale from Decreased Significantly to Increased Significantly)

- Amount saved per month

- Having a budget/financial plan

Priority is placed on saving

33. Since using BNPL services, how has your borrowing changed? (5-point scale from Decreased Significantly to Increased Significantly)

- Number of loans/financing used

- Total debt amount

- Types of purchases financed

- Making minimum payments on time

34. In your opinion, what are the main benefits of using BNPL services? (Select up to 3)

- Affordability of purchases

- Convenience

- Buy more products

- Budget control

- Improve credit score

- Other (please specify)…………..

35. In your opinion, what are the main risks of using BNPL services? (Select up to 3)

- Increased spending

- Taking on too much debt

- Paying late fees

- Difficulty repaying instalments

- Hurts credit score

- Other (please specify)……………

36. Has using BNPL made you more loyal to retailers that offer it as a payment option?

- [ ] Yes

- [ ] No

37. Are you more likely to buy from a retailer that offers BNPL versus one that does not?

- [ ] Yes

- [ ] No

38. Has your average order value increased when using BNPL versus other payment methods?

- [ ] Yes, significantly increased

- [ ] Yes, slightly increased

- [ ] Stayed about the same

- [ ] Decreased

39. Have you ever missed a BNPL payment or paid late fees?

- [ ] Yes

Appendix 2: The output of the three consumer habits

Independent Variables	Spending Habits Model	Saving Habits Model	Borrowing Habits Model
(Intercept)	3.567 (0.345)**	2.143 (0.245)**	1.769 (0.225)**
Convenience	0.758 (0.112)***	-0.462 (0.111)***	0.326 (0.108)**
Affordability	-0.234 (0.078)*	0.078 (0.072)	- 0.072 (0.065)
Ease of Reg.	0.451 (0.095)***	-0.283 (0.098)**	0.188 (0.091)*
Promotional Off.	0.286 (0.067)***	-0.187 (0.065)**	0.042 (0.057)
Perceived F.S.	0.115 (0.065)	-0.035 (0.055)	0.065 (0.032)
F Value	12.34 ***	6.84***	4.36**
R2 -adj	0.982	0.832	0.767
N	200	200	200

Note: Standard errors in parentheses: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$