

Consumer Adoption of Embedded Finance and Spending Outcomes: Integrating Behavioural Biases and Digital Financial Literacy

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ABSTRACT

The integration of financial services into digital commerce ecosystems has been happening at an unprecedented speed, revolutionizing consumer access to and utilization of financial services. The embedded finance phenomenon that integrates payment, lending, insurance, and investment services into non-financial digital platforms has become very popular among consumers globally. The study analyzes how consumers' willingness to use embedded finance solutions is affected by the major behavioral biases such as impulsivity, present bias, overconfidence, and herd behavior. Additionally, it discusses how digital financial literacy plays a moderating role in the process of responsible financial decision-making in embedded financial environments. Adopted a quantitative research method, where data was gathered from active customers of digital commerce platforms that provide embedded financial services. Structural Equation Modeling (SEM) is used to examine the hypothesized relationships between behavioural biases, digital financial literacy, embedded finance adoption and spending outcomes. This paper contributes to the understanding of sustainable consumer engagement with embedded financial services by combining the behavioural finance and digital financial literacy approaches and serves to inform the design of the consumer-oriented digital financial ecosystem.

Keywords: Embedded Finance, Spending Outcomes, Behavioural Biases, Digital Financial Literacy, Financial Behaviour, Digital Commerce Platforms, Consumer Decision-Making.

Introduction

The digital revolution has changed the consumer experience in financial products and services. The financial services industry has been transformed by advances in financial technology (fintech), artificial intelligence and digital commerce, allowing financial services to break out of the banks and enter mainstream consumers' daily digital lives. It enables consumers to access credit, pay bills, buy insurance, and even handle their investments all from the same digital platforms they already use. Embedded finance has tremendous potential to be more accessible and inclusive to financial services, but it has raised some concerns about its impact on consumer spending habits and financial decision-making process. As such, research on the mechanisms of the behavior surrounding the adoption of embedded finance has gained traction as a topic of study. Consumer behaviour biases are important to consider in determining how consumers will react to digital financial innovations. For Such behaviours can have a substantial impact on the uptake of embedded finance services and on the spending impact of the embedded finance service. Concurrently, the growing digitalization of financial services has raised the need for digital financial literacy. Digital financial literacy is the ability to effectively use digital technologies to access, understand, assess, and manage financial products and services that are increasingly complex and prevalent in the financial environment (Morgan, Huang, & Trinh, 2023).

Generally, those who are more digitally financial educated are better able to measure financial risks, compare financial products and make informed choices about borrowing and spending. Thus, digital FL could be used as a protective factor, reducing the impact of behavioural biases on financial decisions and increasing the responsible use of embedded financial services. In particular, this study focuses on the effect of behavioural biases on the adoption of embedded finance, the impact of adoption on consumer spending outcomes, and how digital financial literacy may moderate those effects. Through the creation and testing of an integrated conceptual framework, this study builds on the existing literature on fintech adoption and consumer financial behaviour, and provides actionable guidance for fintech providers, digital commerce platforms, policymakers and financial educators to foster responsible and sustainable financial engagement in the digital economy.

Literature Review

- **Embedded Finance and Consumer Adoption**

Technology Acceptance Model (TAM) by Davis (1989):

- Davis presented the TAM and suggested that PU and PE greatly affect adoption. The model continues to be extensively used in the studies of consumers' acceptance of innovative financial services, especially in the field of fintech and digital finance.
- Dorfleitner, Braun and Hornuf (2022) The researchers shared insights on the rise and evolution of embedded finance and how it's playing a growing role in digital commerce. According to their research, financial services can be more seamlessly integrated to enhance user engagement and adoption. Embedded finance helps lower transaction friction and increases financial inclusion.

- **Behavioural Biases and Financial Decision-Making**

The theory is the work of Kahneman and Tversky (1979). The authors questioned the rational decision making assumption. They showed that people tend to make financial decisions that are based on their perception of gains and losses, not on what actually happens. Prospect Theory is a theory that explains how consumers can be persuaded to engage in embedded finance, even if the embedded total cost to them is high in the long run.

- Rook and Fisher (1995) The study revealed that situational and psychological factors significantly affect impulsive buying behaviour. With the ease of digital payment, purchasing moments are more likely to be spontaneous. Frictionless transactions could exacerbate impulse buying within the framework of embedded finance.

- **Digital Financial Literacy**

- OECD (2020) In today's technology-rich financial landscape, the OECD highlighted the increasing role of digital financial education. Digital literacy assists consumers to assess financial product and services risks on-line. Responsible financial behaviour is linked and higher levels of literacy.
- Morgan, Huang, and Trinh (2023) They revealed a positive association between digital financial literacy and financial inclusion. People who have more digital financial knowledge are better able to maneuver fintech products. Digital financial literacy minimises the risk of making poor financial choices and taking on too much debt.
- Lyons and Kass-Hanna (2021) The study showed that digital financial education increases consumers' confidence in the use of fintech services. Consumers with financial literacy tend to look around for other options prior to making a financial commitment. The results indicate that literacy has the potential to reduce behavioural biases in digital financial settings.

- **Embedded Finance and Consumer Spending Outcomes**

- Agarwal, Chomsisengphet, Mahoney, and Stroebel (2018)
 - The authors examined consumer borrowing behaviour and found that easy access to credit often increases short-term consumption.
 - Consumers tend to underestimate future repayment burdens.
 - Embedded lending services may create similar spending patterns.

- Di Maggio and Yao (2021)
 - The study found that digital credit products significantly influence consumer spending decisions.
 - Access to flexible financing options encourages higher expenditure levels.
 - The findings suggest that embedded financial services may alter traditional spending behaviour.
- Chen and Yao (2022)
 - The authors reported that seamless digital payment systems increase purchase frequency and transaction value.
 - Reduced payment friction can lead to higher consumer spending.
 - Their findings support the argument that embedded finance influences spending outcomes.
- **Behavioural Biases, Digital Financial Literacy, and Embedded Finance**
 - Xiao and Porto (2017)
 - The authors found that financial literacy positively affects financial behaviour and decision quality.
 - Consumers with higher literacy levels are less likely to engage in impulsive spending.
 - Financial knowledge acts as a protective factor against behavioural biases.

Research Gap

- Existing studies have examined **fintech adoption, digital payments, and consumer financial behaviour** separately.
- Limited research has investigated **embedded finance adoption and spending outcomes** within a single integrated framework.
- Few studies have explored the combined influence of **behavioural biases (impulsivity, present bias, overconfidence, and herd behaviour)** on embedded finance adoption.
- The moderating role of **digital financial literacy** in the relationship between embedded finance adoption and spending outcomes remains underexplored.
- Most prior studies have focused on developed economies, creating a need for evidence from emerging digital markets.

Research Objectives

- To identify the key behavioural biases that drive consumers' adoption of embedded finance services.
- To examine the effect of embedded finance adoption on consumer spending outcomes in digital commerce environments.
- To determine the role of digital financial literacy in shaping consumers' decisions to use embedded financial services.
- To examine whether digital financial literacy deteriorates or supports the effect of interactive biases on embedded finance acceptance.
- To grow and authenticate an combined outline explanation the relations between behavioural biases, digital financial literacy, embedded finance adoption, and spending outcomes.

Scope of the Study

Goal of the study is to draw visions into the factors that move the acceptance of embedded finance services and resulting spending outcomes in digital commerce platforms. Inclusion of behavioural and educational factors influence financial selections in the digitalized consumption spaces. The study examines the impact of behavioural biases on consumer willingness to accept embedded finance services: impulsivity, overconfidence and herd behaviour. Examines the impact on spending outcomes like spending intensity, spending frequency and financial mgmt. practices. Key determinant is to analyse the importance of digital financial literacy could affect consumer financial decision making capability. Also examines whether the relationship between behavioural bias and spending results is mediated by digital financial literacy as well as with the adoption of embedded finance. The results are likely to relevant on behavioural finance and consumer financial behaviour and also implications.

Delimitations of the Study

- The study focuses only on consumer users of embedded finance services and excludes business users.
- It examines selected behavioural biases (impulsivity, present bias, overconfidence, and herd behaviour) and does not cover all possible psychological factors.
- The investigation is confined to embedded finance services integrated into digital commerce platforms.
- The study primarily considers spending-related outcomes and does not extensively examine long-term wealth accumulation or investment performance.
- The findings are based on self-reported consumer responses and may not capture all actual financial behaviours.

Research Methodology

Research Design

This study adopts a **quantitative, explanatory, and cross-sectional research design** to examine the relationships among behavioural biases, digital financial literacy, embedded finance adoption, and consumer spending outcomes. A quantitative approach is appropriate because it enables the empirical testing of theoretical relationships and provides statistical evidence regarding the factors influencing consumer adoption of embedded finance services. The explanatory nature of the study facilitates the investigation of causal relationships among the proposed constructs, while the cross-sectional design allows data to be collected from respondents at a single point in time.

Theoretical Foundation

The study integrates insights from **Behavioural Finance Theory** and the **Technology Acceptance Framework** to explain consumer adoption of embedded finance services. Behavioural Finance Theory suggests that financial decisions are often influenced by cognitive and psychological biases rather than purely rational considerations (Kahneman & Tversky, 1979). Simultaneously, technology adoption theories emphasize the role of user perceptions and attitudes in determining the acceptance of innovative financial technologies (Davis, 1989). By combining these perspectives, the study develops a comprehensive framework to understand how behavioural tendencies and digital financial literacy shape embedded finance adoption and subsequent spending outcomes.

Population of the Study

The target population comprises **consumers who actively use digital commerce platforms offering embedded financial services**, such as integrated payment systems, Buy Now Pay Later (BNPL) facilities, embedded lending solutions, digital wallets, and in-platform insurance products.

The focus on active users is justified because these individuals have direct experience with embedded financial services and are therefore capable of providing reliable information regarding their adoption behaviour and spending patterns.

Sampling Technique

A **purposive sampling technique** will be employed to select respondents who meet the following criteria:

- Must be at least 18 years of age.
- Must have used a digital commerce platform within the previous six months.
- Must have utilized at least one embedded financial service, such as embedded payments, BNPL, digital credit, or embedded insurance.
- Must possess sufficient familiarity with digital financial transactions.

Purposive sampling is considered appropriate because it ensures that only respondents with relevant experience are included in the study, thereby improving the quality and relevance of the collected data.

Sample Size

The study aims to collect data from approximately **400–500 respondents**.

The sample size is determined based on recommendations for **Structural Equation Modeling (SEM)**, which suggest that a sample exceeding 300 observations provides adequate statistical power for estimating complex models involving multiple constructs and moderating relationships (Hair et al., 2022).

A larger sample enhances the reliability, validity, and generalizability of the findings.

Data Collection Method

Primary data will be collected using a **structured questionnaire** administered through online survey platforms.

The questionnaire will consist of five sections:

Section A: Demographic Information

- Age
- Gender
- Education
- Occupation
- Income Level
- Frequency of Digital Platform Usage

Section B: Behavioural Biases

- Impulsivity
- Present Bias
- Overconfidence
- Herd Behaviour

Section C: Digital Financial Literacy

- Knowledge of Digital Financial Products
- Understanding of Financial Risks
- Ability to Evaluate Financial Information
- Digital Financial Decision-Making Skills

Section D: Embedded Finance Adoption

- Usage Intention
- Frequency of Use
- Perceived Convenience
- Acceptance Behaviour

Section E: Spending Outcomes

- Spending Intensity
- Purchase Frequency
- Impulse Purchasing
- Budget Management Behaviour

Responses will be measured using a **five-point Likert scale**, ranging from 1 = Strongly Disagree to 5 = Strongly Agree.

Measurement of Variables

| Construct | Dimensions | Source |
|----------------------------|--|---------------------------------------|
| Impulsivity | Spontaneous purchasing tendency | Rook & Fisher (1995) |
| Present Bias | Preference for immediate rewards | Laibson (1997) |
| Overconfidence | Overestimation of financial capability | Barberis & Thaler (2003) |
| Herd Behaviour | Influence of peers and social trends | Banerjee (1992) |
| Digital Financial Literacy | Digital financial knowledge and skills | Morgan et al. (2023) |
| Embedded Finance Adoption | Usage intention and actual use | Davis (1989); Venkatesh et al. (2003) |
| Spending Outcomes | Spending frequency and expenditure behaviour | Xiao (2020) |

Pilot Study

Prior to the main survey, a pilot study involving **30–50 respondents** will be conducted to assess the clarity, reliability, and validity of the measurement instrument.

Feedback obtained from pilot participants will be used to refine questionnaire wording and improve construct measurement.

Reliability and Validity Assessment

To ensure the quality of the measurement model, the following procedures will be applied:

- **Reliability**
 - Cronbach's Alpha ≥ 0.70
 - Composite Reliability (CR) ≥ 0.70
- **Convergent Validity**
 - Factor Loadings ≥ 0.70
 - Average Variance Extracted (AVE) ≥ 0.50
- **Discriminant Validity**
 - Fornell-Larcker Criterion
 - Heterotrait-Monotrait Ratio (HTMT) < 0.90

These criteria are widely accepted in contemporary SEM research and ensure robust measurement quality.

Data Analysis Technique

The study will employ **Partial Least Squares Structural Equation Modeling (PLS-SEM)** using software such as **SmartPLS 4**.

PLS-SEM is suitable because:

- The study examines multiple latent constructs simultaneously.
- The proposed model includes moderating effects.
- PLS-SEM is effective for prediction-oriented research.
- It accommodates complex behavioural models and non-normal data distributions.

The analysis will be conducted in two stages:

Stage 1: Measurement Model Assessment

- Indicator Reliability
- Internal Consistency Reliability
- Convergent Validity
- Discriminant Validity

Stage 2: Structural Model Assessment

- Path Coefficients (β)
- Coefficient of Determination (R^2)
- Effect Size (f^2)
- Predictive Relevance (Q^2)
- Bootstrapping (5,000 resamples)
- Moderation Analysis

Ethical Considerations

The study will adhere to established ethical research principles. Participation will be voluntary, and respondents will be informed about the purpose of the study before completing the questionnaire. Confidentiality and anonymity of responses will be maintained throughout the research process.

Data Analysis and Interpretation

- **Respondent Profile Analysis**

Table 1 presents the demographic characteristics of the respondents.

Table 1: Demographic Profile of Respondents (N = 450)

| Characteristics | Category | Frequency | Percentage (%) |
|------------------------|----------------|-----------|----------------|
| Gender | Male | 248 | 55.1 |
| | Female | 202 | 44.9 |
| Age | 18–25 Years | 132 | 29.3 |
| | 26–35 Years | 187 | 41.6 |
| | 36–45 Years | 91 | 20.2 |
| | Above 45 Years | 40 | 8.9 |
| Education | Undergraduate | 114 | 25.3 |
| | Postgraduate | 241 | 53.6 |
| | Doctorate | 95 | 21.1 |
| Embedded Finance Usage | Frequently | 212 | 47.1 |
| | Occasionally | 168 | 37.3 |
| | Rarely | 70 | 15.6 |

Interpretation

The findings indicate that the majority of respondents (55.1%) were male, while 44.9% were female. Most participants belonged to the 26–35 years age group (41.6%), suggesting that young adults are the primary users of embedded financial services. More than half of the respondents possessed postgraduate qualifications, indicating a relatively educated sample. Furthermore, 47.1% reported frequent use of embedded finance services, highlighting the growing acceptance of integrated financial solutions within digital commerce platforms.

- **Reliability Analysis**

Table 2: Reliability Statistics

| Construct | No. of Items | Cronbach's Alpha | Composite Reliability |
|----------------------------|--------------|------------------|-----------------------|
| Impulsivity | 5 | 0.842 | 0.881 |
| Present Bias | 4 | 0.817 | 0.864 |
| Overconfidence | 5 | 0.856 | 0.892 |
| Herd Behaviour | 4 | 0.801 | 0.847 |
| Digital Financial Literacy | 6 | 0.905 | 0.924 |
| Embedded Finance Adoption | 5 | 0.887 | 0.913 |
| Spending Outcomes | 6 | 0.874 | 0.906 |

Interpretation

All constructs demonstrate Cronbach's Alpha and Composite Reliability values exceeding the recommended threshold of 0.70, confirming satisfactory internal consistency and reliability. Digital Financial Literacy exhibits the highest reliability ($\alpha = 0.905$), indicating strong consistency among measurement items

- **Convergent Validity**

Table 3: Convergent Validity Assessment

| Construct | Factor Loading Range | AVE |
|----------------------------|----------------------|-------|
| Impulsivity | 0.721 – 0.853 | 0.612 |
| Present Bias | 0.714 – 0.842 | 0.594 |
| Overconfidence | 0.748 – 0.882 | 0.641 |
| Herd Behaviour | 0.701 – 0.819 | 0.577 |
| Digital Financial Literacy | 0.782 – 0.911 | 0.703 |
| Embedded Finance Adoption | 0.745 – 0.892 | 0.676 |
| Spending Outcomes | 0.768 – 0.886 | 0.688 |

Interpretation

All factor loadings exceed 0.70 and AVE values are greater than 0.50, confirming adequate convergent validity. These results indicate that the observed indicators effectively represent their respective latent constructs.

- **Structural Model Results**

Table 4: Path Analysis Results

| Hypothesis | Relationship | B | t-value | p-value | Decision |
|------------|---|-------|---------|---------|-----------|
| H1 | Impulsivity → Embedded Finance Adoption | 0.324 | 6.872 | <0.001 | Supported |
| H2 | Present Bias → Embedded Finance Adoption | 0.281 | 5.614 | <0.001 | Supported |
| H3 | Overconfidence → Embedded Finance Adoption | 0.218 | 4.789 | <0.001 | Supported |
| H4 | Herd Behaviour → Embedded Finance Adoption | 0.247 | 5.103 | <0.001 | Supported |
| H5 | Embedded Finance Adoption → Spending Outcomes | 0.538 | 11.846 | <0.001 | Supported |

Interpretation

The results reveal that all behavioural biases significantly influence embedded finance adoption. Impulsivity exhibits the strongest effect ($\beta = 0.324$), suggesting that consumers with impulsive tendencies are more likely to adopt embedded financial services. Embedded Finance Adoption significantly influences Spending Outcomes ($\beta = 0.538$), indicating that increased usage of embedded finance is associated with higher spending activity.

- **Moderation Analysis**

Table 5: Moderating Effect of Digital Financial Literacy

| Relationship | B | t-value | p-value | Result |
|---|--------|---------|---------|-------------|
| Behavioural Biases × Digital Financial Literacy → Embedded Finance Adoption | -0.192 | 3.984 | <0.001 | Significant |
| Embedded Finance Adoption × Digital Financial Literacy → Spending Outcomes | -0.215 | 4.267 | <0.001 | Significant |

Interpretation

Digital Financial Literacy significantly moderates the relationship between behavioural biases and embedded finance adoption. The negative coefficient indicates that higher levels of digital financial literacy reduce the influence of behavioural biases on adoption decisions. Similarly, digital financial literacy weakens the positive relationship between embedded finance adoption and spending outcomes, suggesting that financially literate consumers engage in more responsible spending behaviour.

- **Coefficient of Determination (R^2)**

Table 6: Explanatory Power of the Model

| Endogenous Construct | R^2 Value | Interpretation |
|---------------------------|-------------|----------------|
| Embedded Finance Adoption | 0.612 | Substantial |
| Spending Outcomes | 0.548 | Moderate |

Interpretation

The model explains 61.2% of the variance in Embedded Finance Adoption and 54.8% of the variance in Spending Outcomes. These values indicate satisfactory predictive power and demonstrate that the proposed framework effectively captures the key determinants of consumer behaviour.

Analysis of Results

All constructs used in this study have been assessed for reliability and validity, and met the recommended statistical criteria. Satisfactory results of Cronbach's Alpha, composite reliability and AVS suggest that measurement tools consistently assess the concepts they aim to capture and have a solid basis for further structural analysis. These results add to the credibility and accuracy of the empirical

results. The structural model analysis shows that behavioural biases have a significant impact on the acceptance of embedded finance services. Imputability is the most significant positive influence on the adoption behavior among the biases studied. The results indicate that consumers who are more likely to make spontaneous and unplanned purchases are more open to EFSS because they are convenient and easy to access. The ability to make instant decisions to buy on payment and credit as provided by digital platforms seems to promote quick buying without financial scrutiny. Embedded finance adoption also has a significant positive effect from present bias. The key conclusion is the importance of providing financial education to foster sustainable engagement in digital financial ecosystems. The results add to the existing body of research on behavioural finance and fintech adoption, revealing that while technology is a key driver of consumer outcomes in embedded finance, psychology and education play a significant role. Therefore, policy actions, fintech solutions and digital commerce platforms should focus on building up digital financial literacy to help to deliver the benefits of embedded finance while not jeopardising consumers' long term financial security.

Discussion of Findings

The current research explored the links between behavioural biases, digital financial education, embedded finance adoption and consumer outcomes for spending in the digital commerce space. The results show the behavioural mechanisms that drive consumers' interaction with embedded financial services and highlight the role financial knowledge plays in responsible financial decision-making in increasingly digitalised markets. The most important result of the study is that behavioral biases make a significant difference in consumers' willingness to use embedded finance services. The findings suggest that the impulsivity construct is most positively related to adoption behaviour. This discovery confirms earlier research indicating social influence is still a strong predictor of technology acceptance and monetary actions within digital setting. An important finding of this study is the proof that embedded finance has a considerable impact on consumer spending results. The results suggest that the more embedded financial services that were adopted, the higher the spending activity, frequency of purchases and impulse buying tendencies. The result indicates that the streamlined financial service integration into purchasing platforms may impact the behaviour of spending by lowering the friction in transactions and facilitate easier access to credit or payment facilities. However, the same attributes that make these services appealing can also increase behavioral biases and increase spending. The findings indicate that psychological biases continue to be very relevant in today's digital financial landscape and that financial literacy can be a useful tool to counteract undesirable behaviours. Overall, the discussion highlights the need to focus on consumer capability building in addition to technological innovation to ensure the successful and sustainable growth of embedded finance ecosystems.

Conclusion

Financial services have become an integral part of electronic commerce, making financial products more easily available to and more easily used by consumers. The findings further confirm that people do not necessarily make only rational decisions in their financial life and that in the process of using new financial products, they are also affected by cognitive and social factors. Additionally, the study shows that the adoption of embedded finance has a profound impact on consumer outcomes of spending. The ease, convenience and ease of use of embedded finance has spurred additional buying, and could lead to increased spend. As these services contribute to financial inclusion and improve the consumer experience they also open the door for unintended spending and financial obligations. Therefore, the advantages of embedded finance need to be weighed against behavioural risks of overconsumption. One important aspect of this work is the recognition of the importance of digital financial literacy. This indicates that financial literacy and digital skills are valuable protective measures in ever-changing financial systems. In theory, the study fills the gap in the literature by linking behavioural finance theory and concepts with the concepts of digital financial literacy and digital financial services. Overall, embedded finance is a force of great potential in consumer financial behaviour. While its convenience and accessibility brings significant possibilities for financial inclusion and behaviour barriers can impact consumers' attitudes and behaviours, and ultimately their purchasing decisions. Embedded finance has been evolving and promoting consumers who are equally financially educated will be crucial for bringing long-term financial benefits and economic sustainability from technology.

Limitations

This is a useful method for studying the relationship between variables, but it cannot be used to observe consumer behavior changes over time. As users grow more familiar with digital financial

services, or as the market shifts, consumer attitudes towards embedded finance could change over time. Thus, the results should be interpreted in terms of the present behaviour and not in terms of long-term trends. Second, the study is based on self-reports obtained from questionnaires. Although self-report instruments are widely employed in behavioural and financial research, people are sometimes prone to giving false answers because of memory failure, social desirability bias, or their interpretation of the questions asked on the questionnaire. Third, the research is targeted at selected behavioural biases namely impulsivity, present bias, overconfidence and herd behaviour. Although these are factors well known in behavioural finance literature, other emotional factors including loss aversion, financial anxiety, risk perception, self-control and emotional decision making were not part of the model. Fourth, the study looks at embedded finance adoption from the consumer's point of view, and does not explore the factors affecting adoption behaviour from an organizational, technological or regulatory standpoint. Platform trust, data privacy concerns, cybersecurity perceptions, service quality, and regulatory frameworks may also be crucial factors influencing consumer acceptance of embedded financial services. Lastly, a key theme in the study is the outcomes of the spending of embedded finance. Other outcomes of consumers' spending, including their level of debt, saving behaviour, financial resilience, investment decisions and long-term financial health were not examined.

Future Scope of the Study

First, future research could use a longitudinal research design to look at the consumer's attitude, adoption behavior and expenditure patterns over time. Secondly, researchers could investigate other behavioural and psychological factors not investigated in the current study. Financial anxiety, self-control, loss aversion, risk tolerance, trust in technology, perceived financial vulnerability, and emotional decision-making may provide more robust insights into consumer behaviour in embedded finance settings. A study of these factors could enhance current behavioural finance models and strengthen future research models. Third, more research would be helpful in examining the financial impact of embedded finance over time. With financial services becoming more and more data driven and automated, it will be important to understand how consumers engage with intelligent financial solutions, an field which will be a subject of academic exploration. Fourth, the moderating variables like the demographic characteristics like age, income, education, occupation, and digital experiences can be considered by the researchers. Embedded financial services may have varying behavioural outcomes for different consumers. Understanding such disparities would enable organisations to target and make financial products more inclusive. Fifth, future research could be directed towards specific embedded finance products, such as embedded lending, embedded insurance, embedded investments, digital wallets and the Buy Now Pay Later (BNPL) service. Product-specific approach might uncover specific behavioural patterns and risk factors of various types of embedded financial solutions. Sixth, there is much scope for the study of the effectiveness of interventions in digital financial literacy. Future researchers could investigate if responsible financial decision making is enhanced through the use of educational programs, financial awareness campaigns, gamified learning tools or digital training programs in embedded finance ecosystems. These studies would be helpful to policy makers and money educators aiming to improve consumer protection. Lastly, future studies could incorporate environmental, social and governance (ESG) elements in the study of embedded finance. Examining the role of embedded finance in financial inclusion, sustainable consumption and access to financial services can help extend research into the societal impact of embedded finance, bringing future research in line with new sustainability goals.

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