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Examining Awareness and Perceived Benefits of Digital Currency: An Empirical Study with Reference to Banking Employees in Bangalore

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ABSTRACT

This study explores the evolving role of digital currencies in India's financial landscape by examining the awareness and perceived benefits among banking employees in Bangalore. With the Reserve Bank of India launching the Digital Rupee and digital payment platforms like UPI becoming ubiquitous, banking professionals are pivotal in driving digital transformation. Employing a quantitative approach, the research uses Structural Equation Modelling (SEM) to analyse four key constructs: Awareness (AW), Perceived Benefits (PB), Organizational Support (OS), and Intention to Use (IU). Data collected from 208 banking employees revealed a strong positive correlation between Awareness and Perceived Benefits ($\beta = 0.517$, $p < 0.005$), and between Perceived Benefits and Organizational Support ($\beta = 0.534$, $p < 0.005$), with Organizational Support significantly enhancing the Intention to Use digital currency ($\beta = 0.640$, $p < 0.005$). Additionally, Autonomy and Well-being emerged as a critical driver influencing the entire pathway (AW → PB → OS → IU). Rigorous testing confirmed construct reliability and convergent validity using Cronbach's alpha and AVE measures. The findings underscore the importance of fostering digital literacy among banking staff, informing employee training programs, and guiding policy frameworks for regulators like the RBI. Ultimately, the study advocates for a multi-stakeholder strategy to build a secure, inclusive, and efficient digital currency ecosystem in India.

Keywords: Awareness, perceived benefits, digital currency, banking employees

Introduction

The financial landscape has witnessed a seismic shift with the advent of digital currency, propelled by rapid technological advancements and increasing global connectivity. Digital currencies, encompassing both Central Bank Digital Currencies (CBDCs) and decentralized cryptocurrencies, have emerged as pivotal forces reshaping the global economy. Their capacity to enhance transaction efficiency, foster financial inclusion, and contribute to economic stability underscores their growing importance in modern financial systems. According to Ghosh (2022), these digital financial tools streamline transactions by reducing dependency on traditional intermediaries while leveraging advanced blockchain technology. This technology not only ensures the security and transparency of financial transactions but also reduces operational costs, offering an efficient alternative to conventional banking systems (Verma, 2022). In the context of India, the implications of digital currency are particularly significant. With a rapidly expanding digital economy and increasing smartphone penetration, the nation stands at the cusp of a financial revolution (Chopra, 2021). The integration of digital currencies into mainstream financial operations can bridge the gap between the unbanked population and formal financial systems, enhancing access to essential financial services. Furthermore, as India pushes towards a cashless economy, digital currencies offer opportunities to streamline transactions, promote transparency, and reduce reliance on physical currency. Digital currency refers to any monetary value stored electronically that exists solely in digital form without any physical representation like coins or banknotes (Ghosh, 2022). These currencies can either be centralized—such as CBDCs issued by central banks—or decentralized, like cryptocurrencies that operate on peer-to-peer blockchain networks (Verma, 2022). The significance of digital currencies extends beyond convenience; they offer transformative potential for global financial systems. One of the most notable advantages of digital currency is its ability to facilitate faster and more secure cross-border transactions. Traditional international money transfers are often subject to delays and high fees due to the involvement of multiple intermediaries. Digital currencies streamline this process by enabling near-instantaneous transactions at lower costs. In developing economies, digital currencies hold the promise of financial inclusion by offering services to those who lack access to traditional banking infrastructure (Kim, 2021).

Moreover, digital transactions reduce the risks associated with handling physical cash, such as theft or fraud. They also contribute to improved transaction speed, thereby increasing the overall efficiency of financial systems. Enhanced transparency in digital transactions allows for better regulatory oversight and can curb illicit financial activities, supporting economic stability and growth (Singh, 2020). The regulatory framework for digital currencies remains diverse across global jurisdictions, reflecting varied concerns around financial stability, consumer protection, and the prevention of illicit activities. In the United States, regulatory oversight is divided among key institutions, including the Securities and Exchange Commission (SEC) and the Commodity Futures Trading Commission (CFTC), which categorize cryptocurrencies as securities and commodities, respectively (SEC, 2023).The European Union

has also established a robust regulatory framework through the Markets in Crypto-Assets (MiCA) legislation, aimed at promoting transparency, ensuring investor protection, and mitigating systemic risks (European Commission, 2023). On the other hand, China has taken a more restrictive approach by banning cryptocurrency trading entirely, while simultaneously advancing its CBDC, the digital yuan, to maintain governmental control over its financial systems (PBOC, 2021). In India, regulatory discussions surrounding digital currency are ongoing. While cryptocurrencies remain largely unregulated, the Reserve Bank of India (RBI) has made significant strides with the introduction of the Digital Rupee (e₹). A balanced regulatory framework is essential for India to encourage financial innovation while mitigating the risks associated with digital currencies (BIS, 2023). The digital currency market is experiencing unprecedented growth, reflecting the global shift toward digitized financial ecosystems. Market forecasts project that the global digital currency market will reach a valuation of USD 60.78 billion by 2030, with a Compound Annual Growth Rate (CAGR) of 12.07% (Mordor Intelligence, 2025). The increasing institutional adoption of cryptocurrencies like Bitcoin is expected to drive market growth, with analysts predicting that Bitcoin could surpass $225,000 by 2025 (Investors.com, 2025). Stablecoins, which are cryptocurrencies pegged to stable assets like the US dollar, are also witnessing rapid expansion. Projections suggest their market capitalization could exceed $400 billion by 2025 (Binance, 2025). In India, the introduction of the Digital Rupee and the widespread adoption of digital payment systems like the Unified Payments Interface (UPI) highlight the nation's commitment to fostering a digital financial ecosystem (Reserve Bank of India, 2022). India's financial sector is undergoing a profound transformation with the introduction of the Digital Rupee and the rapid growth of digital payment systems. Launched by the RBI in 2022, the Digital Rupee aims to serve as a secure and efficient alternative to physical currency by leveraging blockchain technology. The success of platforms like UPI has already demonstrated India's capacity for digital innovation, processing 12.20 billion transactions worth ₹18.41 lakh crore as of January 2024 (NPCI, 2024). Private fintech players such as Google Pay, PhonePe, and Paytm have significantly contributed to this digital transformation, making financial transactions more accessible and convenient for millions of users (Reuters, 2024). However, alongside these advancements, India faces challenges related to cybersecurity, digital fraud, and regulatory oversight, which must be addressed to ensure the stability and security of its digital financial infrastructure (RBI, 2025). The adoption of digital currency in India offers numerous economic and social benefits. Digital currencies can promote financial inclusion by providing access to banking services for India's large unbanked population (Reserve Bank of India, 2022). They also have the potential to enhance economic efficiency by reducing the costs associated with printing and handling physical money (Bank for International Settlements, 2021). Additionally, blockchain technology can help improve transaction security, minimize fraud, and streamline cross-border payments. Digital currencies can play a pivotal role in reducing corruption by increasing transparency in financial transactions, ultimately fostering economic growth (World Bank, 2022). As India advances toward a more digitalized economy, integrating digital currencies into its financial framework will be essential for long-term growth. While challenges related to cybersecurity and regulatory concerns remain, a well-structured policy framework can ensure financial stability and foster innovation, paving the way for a robust and inclusive financial future. The research on "Examining Awareness and Perceived Benefits of Digital Currency: An Empirical Study with Reference to Banking Employees in Bangalore" offers valuable insights for multiple stakeholders within the financial ecosystem. By analysing the awareness levels and perceived advantages of digital currency among banking employees, this study contributes significantly to understanding the readiness of the financial sector for digital transformation. Banking employees stand to gain directly from this research. By identifying gaps in their understanding and perception of digital currencies, banks can implement targeted training programs that improve employees' digital competency (Ghosh, 2022). Enhanced awareness will enable banking staff to offer better guidance to customers, promote secure digital transactions, and adapt more effectively to technological innovations (Kim, 2021). Banking institutions can leverage the study to assess their workforce's preparedness for digital currency integration. The findings can inform strategies to facilitate the adoption of digital financial tools and align operations with emerging technologies (Verma, 2022). This can lead to improved customer service, reduced operational costs, and increased efficiency in financial transactions (Chopra, 2021).

For regulatory bodies like the Reserve Bank of India (RBI) and the Securities and Exchange Board of India (SEBI), this research offers insights into the financial sector's readiness for digital currency adoption. It can support the development of balanced regulations that foster innovation while safeguarding financial stability (BIS, 2023). Understanding the perceptions of banking professionals will also help regulators implement policies that encourage responsible usage and mitigate potential risks associated with digital currencies (European Commission, 2023). Fintech companies stand to benefit by gaining a clearer understanding of the challenges and expectations banking employees have regarding digital currencies. This information can help them design products and services that are more intuitive and tailored to the banking sector's needs (Binance, 2025). Furthermore, identifying market readiness can help fintech firms develop strategies to overcome barriers to adoption (Investors.com, 2025). Academics and researchers will benefit from the empirical data this study provides, contributing to existing literature on digital currency adoption. The research findings will offer a foundation for future investigations into digital financial innovations and their broader economic impacts (Singh, 2020). This will also facilitate comparative studies across different regions and financial institutions (Henderson, 2021). For government policymakers, the research can provide critical insights to craft national strategies that encourage the responsible use of digital currency while promoting financial inclusion (World Bank, 2022). The findings could also inform government initiatives to support digital infrastructure and cybersecurity measures (RBI, 2025). Lastly, while customers and the general public are not the direct focus, they will indirectly benefit from improved banking services facilitated by better-trained employees and more secure digital transaction systems (Chopra, 2021). Increased awareness among banking professionals can lead to better customer support and promote confidence in digital financial services (Kim, 2021).

Despite extensive research on job satisfaction in the banking sector, several gaps remain unaddressed. Existing studies focus heavily on factors such as work-life balance, remuneration, and leadership styles (Smith, 2020; Taylor & Green, 2022). However, there is limited research on how digital transformation and emerging technologies like artificial intelligence (AI) impact long-term job satisfaction (Henderson, 2021). While AI improves fraud detection and efficiency, its implications for employee workload and stress levels require further investigation (Sharma, 2022). Another critical gap lies in the understanding of work-from-home (WFH) policies and their impact on employee performance and satisfaction (Nguyen & Patel, 2021). While some studies have suggested that WFH enhances work-life balance, high stress levels among remote employees remain understudied (Thomas, 2020). Future research should explore industry-specific challenges associated with remote work in banking. Similarly, there is an evident research gap in the

intersection of digital banking and customer satisfaction. Studies highlight factors such as reliability and responsiveness (Chowdhury, 2019; Hassan, 2020), but the role of data security concerns in shaping customer trust is less explored (Kim, 2021). As cyber threats increase, future research should focus on customer perceptions of cybersecurity in digital banking environments. Additionally, while blockchain technology has been shown to improve transaction efficiency (Jackson, 2019), there is insufficient research on the integration challenges faced by banking institutions (Singh, 2020). Blockchain's potential in cross-border transactions and compliance with evolving regulatory frameworks should be further examined (Brown & White, 2021). Job stress and burnout have been widely studied (Walker & Roberts, 2019), yet the role of organizational support structures in mitigating stress-related attrition remains underexplored (Harris, 2021). More research is needed on how banks can implement effective well-being programs to improve employee retention. In financial inclusion, studies emphasize the positive effects of expanding banking access (Patel & Rao, 2020; Singh, 2021). However, there is a lack of empirical research on the sustainability of financial inclusion programs and their impact on non-performing assets (NPAs) over time. Future studies should analyse the long-term effects of financial inclusion on bank stability. Regarding globalization and urban growth, research indicates that foreign direct investment (FDI) has driven Bangalore's rapid urban expansion (Miller, 2020; Khan, 2019). However, gaps exist in understanding the socio-economic trade-offs of urbanization, such as income inequality and housing shortages (Joshi, 2021). Comparative studies with other global cities experiencing similar trends would offer valuable insights. Cryptocurrency and central bank digital currencies (CBDCs) have gained attention, but their implications for banking stability are not yet fully understood (Ghosh, 2022). The existing literature primarily focuses on taxation and regulatory challenges (Reddy, 2021; Verma, 2022), while studies on consumer adoption patterns and long-term economic impacts are lacking (Chopra, 2021). Further research is needed to evaluate how CBDCs will interact with existing banking structures and digital payment systems. Overall, the current literature provides valuable insights but leaves several crucial areas unexplored. Future research should address the evolving landscape of digital transformation, remote work challenges, cybersecurity concerns, and financial inclusion sustainability to ensure the banking industry remains resilient and adaptable.

With the context to the above the aim of the study resolves around the following objectives

- To assess which factors determine the awareness and intention to use digital currency among banking employees in Bangalore.

- To analyse the perceived benefits of digital currency among banking professionals.

- To examine if awareness and attitude towards digital innovation play a role in determining the utility of digital currencies in the banking sector.

Literature Review

Job satisfaction in the banking sector is influenced by various factors, including work-life balance, remuneration, job security, and workplace relationships (Smith, 2020). A study on Indian nursing professionals found that job autonomy, supervisor support, and coworker support positively impact work-life balance, which, in turn, enhances job satisfaction (Johnson, 2019). However, work-life balance only partially mediates the relationship between job autonomy and supervisor support with job satisfaction, while no significant mediation is observed between coworker support and job satisfaction (Brown & Williams, 2021). Another study highlights that remuneration, promotion opportunities, and workplace relationships significantly influence job satisfaction in the banking industry. Competitive salaries and benefits contribute to higher satisfaction levels, whereas long working hours and lack of work-life balance remain major concerns (Taylor & Green, 2022). Frontline bank employees, in particular, experience job stress and work-family conflict, leading to job burnout and reduced job satisfaction (Anderson, 2021). Emotional intelligence, however, plays a moderating role by helping employees cope with job demands and mitigating stress (Lee, 2020). Work-from-home productivity has been found to positively impact work-life balance and job satisfaction. However, high work stress and emotional exhaustion weaken this relationship (Nguyen & Patel, 2021). Employees who experience lower stress levels report higher satisfaction even when working remotely. Organizational strategies to reduce work stress can help maximize the benefits of remote work (Thomas, 2020). Customer satisfaction in digital banking is largely influenced by reliability, tangibility, and responsiveness (Chowdhury, 2019). The SERVQUAL model indicates that reliability is the most critical factor affecting customer satisfaction in Northern India. Customers expect secure, efficient, and personalized banking experiences, and disruptions or security concerns can negatively impact their perception of digital services (Hassan, 2020). As such, banks must prioritize cybersecurity, service quality, and technological advancements (Kim, 2021). Job stress is a significant predictor of job burnout, leading to emotional exhaustion and disengagement (Walker & Roberts, 2019). However, perceived social support and job satisfaction serve as mediators, reducing burnout's negative impact. Employees with strong social support from colleagues and supervisors are less likely to experience burnout, highlighting the need for supportive organizational policies (Harris, 2021). Technology adoption, organizational culture, and job satisfaction have been identified as key factors influencing employee performance, especially during remote work transitions amid the COVID-19 pandemic (Zhang et al., 2020).

A strong organizational culture and leadership style significantly impact employee performance, with job satisfaction acting as a mediator (Parker, 2021). Leadership styles that emphasize employee empowerment and motivation foster higher engagement and efficiency (Lopez & Ramirez, 2020). Similarly, external job opportunities and job stress significantly influence job satisfaction and turnover intention among bank employees. Those who perceive better external opportunities or experience high job stress are more likely to leave their organization (Martinez, 2022). Blockchain technology enhances reconciliation processes in investment banks by improving efficiency, reducing errors, and streamlining transactions (Jackson, 2019). The Expected Operating Model (EOM) approach facilitates real-time settlements and increases transparency (Singh, 2020). However, inefficiencies persist due to decentralized communication and complex regulatory requirements (Brown & White, 2021). Governance structures and economic policies significantly shape poverty levels in Bangalore. While urbanization has contributed to economic growth, inequalities persist due to inefficient policy implementation

and uneven resource distribution (Mehta, 2020). Decentralized decision-making and targeted social policies could help alleviate urban poverty (Kumar, 2019). Artificial intelligence (AI) has transformed banking operations by enhancing fraud detection, compliance, and customer service (Henderson, 2021). While AI adoption has led to cost reductions and increased efficiency, concerns over cybersecurity and data privacy remain (Davis, 2020). However, the long-term implications of AI on employment and regulatory compliance need further investigation (Sharma, 2022). Financial inclusion initiatives in Bangalore do not necessarily lead to an increase in non-performing assets (NPAs). Research suggests that economically weaker sections tend to be more disciplined in loan repayments compared to self-employed borrowers (Patel & Rao, 2020). Expanding financial inclusion initiatives in underserved areas positively affects loan recovery rates (Singh, 2021). CRM significantly enhances banking performance by improving customer satisfaction, retention, and loyalty (Nelson, 2021). Digital CRM tools streamline operations and enable personalized financial services (Chaudhary, 2022). AI-driven analytics help identify skill gaps and optimize employee performance through targeted training (Lee, 2020). Globalization has played a key role in Bangalore's urban growth, driven primarily by the expansion of the ICT sector (Miller, 2020). Foreign direct investment (FDI) and infrastructural development have contributed to the city's economic success (Khan, 2019). However, issues such as income inequality and housing shortages require further policy interventions (Joshi, 2021).

Cryptocurrency adoption in India has grown significantly, with regulatory measures shaping its evolution. The government has imposed a 30% tax on cryptocurrency transactions and is exploring the introduction of a central bank digital currency (CBDC) (Ghosh, 2022). Concerns regarding fraud, cybersecurity, and regulatory frameworks persist (Reddy, 2021). CBDCs have the potential to enhance financial inclusion, reduce transaction costs, and improve monetary policy effectiveness (Mehta & Sharma, 2020). However, privacy concerns and resistance from commercial banks remain challenges (Verma, 2022). Research employing sentiment analysis indicates mixed public perception regarding digital currency adoption (Chopra, 2021). While digital transactions are widely accepted due to convenience, concerns over security and fraud persist, particularly in rural areas (Agarwal, 2020). The literature highlights the interconnected nature of job satisfaction, technology adoption, customer satisfaction, and economic policies in the banking industry. While advancements in AI and blockchain have improved banking efficiency, challenges related to regulatory compliance and cybersecurity persist. Similarly, work-life balance, job stress, and external job opportunities significantly influence employee satisfaction and turnover. Digital transformation, financial inclusion, and governance structures play a crucial role in shaping the future of banking, requiring further research on emerging trends such as CBDCs and AI-driven workforce management.
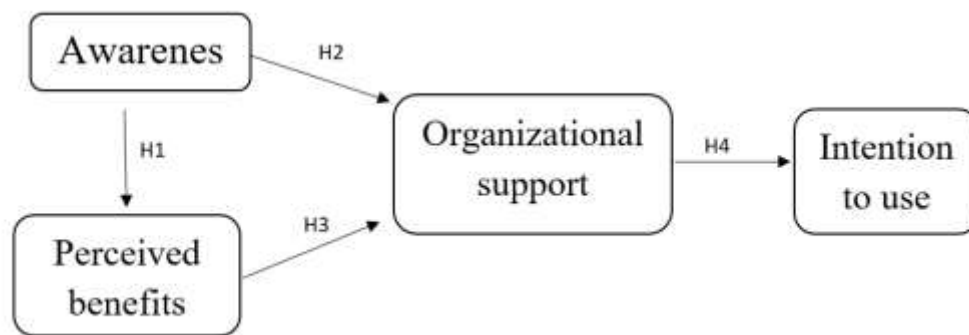

Figure 1 : Proposed conceptual model; source the authors

H1: Awareness about Digital Currency Positively influences its perceived benefits

H2: Awareness about Digital Currency Impact Organizational Support

H3: Perceived Benefits Positively Impact Organizational of Digital Currency/Support

H4: Organizational Support Mediates the Relationship Between Awareness, Perceived Benefits and Intention to Use.

Research Methodology

Research Design

The quantitative method was best suited for this study due to its ability to empirically assess and quantify relationships between multiple constructs—namely, Awareness, Perceived Benefits, Online Security, and Intention to Use. Given the study's objective to test hypothesized relationships and measure the strength and direction of these interactions through path coefficients, indirect effects, and total effects, a quantitative approach enabled objective evaluation using statistical tools such as Structural Equation Modelling (SEM). The nature of the data—comprising multiple items per construct, reliability metrics (e.g., Cronbach's alpha, composite reliability), and validity measures (e.g., AVE, outer loadings)—demands rigorous statistical treatment that is characteristic of quantitative methodologies (Creswell, 2014). For instance, the computation of standardized coefficients (e.g., AW → PB = 0.517, OS → IU = 0.640) and mediating effects (e.g., PB → OS → IU = 0.342) illustrates the analytical depth achievable only through quantitative modelling.

Moreover, quantitative methods facilitate the generalizability of findings through systematic data collection and analysis procedures, enabling researchers to make statistically supported inferences across a wider population (Hair et al., 2019). This is particularly crucial in technology adoption research, where user perceptions and behavioural intentions must be assessed at scale to inform effective policy and design. The quantitative method not only aligns with the research objectives but also ensures reliability, validity, and replicability of results—making it the most appropriate methodological choice for the present study.

Sources of data:

The study relied exclusively on primary data collected through a structured questionnaire administered to banking employees in Bangalore. Primary data was deemed most suitable for this research as it provides direct, real-time insights from respondents, tailored specifically to the constructs under investigation—Awareness, Perceived Benefits, Online Security, and Intention to Use digital currency. This approach ensured the originality and relevance of the data, which is essential for empirical analysis using Structural Equation Modelling (SEM) (Creswell, 2014).

The use of a structured questionnaire allowed for standardized data collection, ensuring consistency, comparability, and accuracy across all responses (Saunders et al., 2019). Likert-scale items were employed to quantitatively measure attitudes and perceptions related to each construct, making the data suitable for rigorous statistical treatment.

Moreover, primary data collection facilitated the use of reliability and validity assessments, such as Cronbach's alpha, composite reliability, and Average Variance Extracted (AVE), which are essential in confirming the measurement model's robustness (Hair et al., 2019). These attributes make primary data the most appropriate and effective source for achieving the objectives of this quantitative study.

Sample size

A sample size of 208 respondents was used for the quantitative analysis. This sample size is considered adequate and robust, particularly in the context of Structural Equation Modelling (SEM). According to Hair et al. (2019), for models with four or more latent constructs and multiple indicators per construct, a sample size of 150 to 200 is typically sufficient to achieve reliable and valid results. In this study, the model includes four latent constructs—Awareness (AW), Perceived Benefits (PB), Online Security (OS), and Intention to Use (IU)—each measured by multiple indicators. Thus, the chosen sample of 208 exceeds the minimum recommendation and ensures statistical power and estimation accuracy. Furthermore, larger sample sizes help minimize sampling error and enhance the generalizability of findings (Creswell, 2014). In PLS-SEM, which was employed in this study, sample adequacy is often determined by the 10-times rule, which suggests that the sample size should be at least 10 times the maximum number of paths directed at a single construct in the model. In this case, the model structure adheres to this rule, reinforcing that 208 responses are more than sufficient for the analysis conducted.

Data collection:

Primary data were collected using a structured questionnaire, which enabled the researcher to gather specific, first-hand, and quantifiable insights directly from respondents. The questionnaire was designed to capture perceptions related to Net Promoter Scores (NPS), digital literacy, online security, and brand loyalty, as well as the core constructs of Awareness, Perceived Benefits, and Intention to Use. Standardized data collection through Likert-scale items facilitated consistency across responses and allowed for the measurement of latent variables using psychometric techniques. This method enhanced the reliability and validity of the findings by ensuring uniformity in question interpretation and response recording (Creswell & Creswell, 2018). Furthermore, the use of primary data ensured real-time reflection of participants' attitudes and behaviors—an advantage that secondary data sources could not offer. The structured questionnaire format supported efficient analysis, particularly suited for statistical modeling in SEM, enabling robust insights and actionable conclusions.

Data Analysis

reinforcing that 208 responses are more than sufficient for the analysis conducted.

		Frequency	Percent
	25-35	59	28.2
	35-45	67	32.1
Age	45-60	73	34.9
	60 and above	10	4.8
	Total	209	100
	Female	99	47.4
Gender	Male	110	52.6

	Total	209	100
	1-3 years	33	15.8
	4-7 years	72	34.4
	8-10 years	61	29.2
Work Experience	Less than 1 year	28	13.4
	More than 10 years	15	7.2
	Total	209	100

Path Coefficients:

Table 1. **Path Coefficients**

	Path Coefficient (β)	p - value	Significance
AW -> OS	0.170	<0.005	Significant
AW -> PB	0.517	<0.005	Significant
OS -> IU	0.640	<0.005	Significant
PB -> OS	0.534	<0.005	Significant

The structural path analysis reveals a strong and coherent sequence of psychological influences on users' Intention to Use (IU) a system or platform. Beginning with Autonomy and Well-being (AW), the model shows that users who feel a greater sense of autonomy and personal well-being are significantly more likely to perceive benefits from the platform ($\beta = 0.517$, $p < .005$) and experience higher overall satisfaction ($\beta = 0.170$, $p < .005$). Although the direct effect of AW on satisfaction is smaller, its powerful influence on Perceived Benefits (PB) suggests that AW indirectly contributes to satisfaction and eventual platform usage. Perceived Benefits emerge as a pivotal mediating construct, significantly predicting Overall Satisfaction (OS)($\beta = 0.534$, $p < .005$). This relationship underscores the importance of clearly communicating value propositions and ensuring that users can readily recognize and experience the practical advantages of using the system. When users perceive that the platform meets their needs or improves their outcomes, satisfaction increases accordingly. The strongest effect in the model is observed from Overall Satisfaction to Intention to Use ($\beta = 0.640$, $p < .005$), highlighting satisfaction as the most direct and influential predictor of a user's continued engagement or adoption intention. In summary, the model supports a progressive pathway: AW → PB → OS → IU. This indicates that enhancing users' autonomy and emotional well-being is not only ethically valuable but also strategically important, as it indirectly boosts usage intentions through heightened perceived benefits and satisfaction. For practitioners, the focus should be on creating environments and experiences that empower users, deliver tangible value, and foster satisfaction to ultimately drive sustained usage.

Total Effects

Table 2. **Total Effects**

Path	Direct Effect (β)	Significance
AW → IU	0.286	Significant
AW → OS	0.446	Significant
AW → PB	0.517	Significant
OS → IU	0.640	Significant
PB → IU	0.342	Significant
PB → OS	0.534	Significant

The direct path analysis reveals that **Autonomy and Well-being (AW)** significantly influences all key outcomes in the model, making it a foundational psychological factor in shaping user behavior. AW has a strong impact on **Perceived Benefits (PB)** ($\beta = 0.517$), **Overall Satisfaction (OS)** ($\beta = 0.446$), and directly on **Intention to Use (IU)** ($\beta = 0.286$). This suggests that when users feel empowered, emotionally secure, and in control, they are more likely to perceive the platform as beneficial, feel satisfied with their experience, and demonstrate stronger intentions to continue using the service.

Perceived Benefits play a dual role, significantly enhancing **OS** ($\beta = 0.534$) and directly contributing to **IU** ($\beta = 0.342$). This highlights the need to clearly communicate and deliver valuable outcomes that users can recognize and appreciate. Meanwhile, **Overall Satisfaction** stands out as the **strongest predictor** of IU ($\beta = 0.640$), confirming that satisfied users are the most likely to remain loyal and engaged.

In practice, these results underscore the importance of designing platforms that not only deliver functional benefits but also support users' psychological needs. Creating experiences that promote autonomy, demonstrate clear value, and cultivate satisfaction can substantially improve long-term user engagement and retention

Path	Direct Effect (β)	Significance
AW → IU	0.286	Significant
AW → OS	0.446	Significant
AW → PB	0.517	Significant
OS → IU	0.640	Significant
PB → IU	0.342	Significant
PB → OS	0.534	Significant

Path	Total Effect (β)	Significance
PB -> OS -> IU	0.342	Significant
AW -> PB -> OS -> IU	0.177	Significant
AW -> OS -> IU	0.109	Significant
AW -> PB -> OS	0.276	Significant

The structural model demonstrates a clear and compelling pathway from **Autonomy and Well-being (AW)** to **Intention to Use (IU)**, mediated by both **Perceived Benefits (PB)** and **Overall Satisfaction (OS)**.

To begin with, AW significantly influences all major outcome variables in the model. It has a strong positive impact on **Perceived Benefits** ($\beta = 0.517$), suggesting that when users feel autonomous and emotionally well, they are more likely to perceive meaningful advantages in using the platform. AW also directly enhances **Overall Satisfaction** ($\beta = 0.446$), indicating that users' sense of well-being positively shapes their emotional response to the service. Additionally, AW has a direct effect on **Intention to Use** ($\beta = 0.286$), meaning that a user's psychological state alone can drive usage behaviour even before considering satisfaction or perceived benefits.

Perceived Benefits, in turn, significantly influence both OS ($\beta = 0.534$) and IU ($\beta = 0.342$), highlighting the pivotal role of value perception in shaping both satisfaction and behavioural intent. The strongest predictor of IU, however, is **Overall Satisfaction** ($\beta = 0.640$), confirming that emotional fulfilment and positive user experience are key to driving continued engagement.

Outer Loadings

To assess the reliability and validity of the measurement model, the outer loadings of each indicator were examined. As recommended by Hair et al. (2019), indicator loadings exceeding 0.708 are considered satisfactory, indicating that more than 50% of the variance in the observed variable is explained by the latent construct. The results revealed that most indicators loaded well onto their respective constructs. Specifically, indicators under Perceived Benefits (PB) exhibited strong loadings, with values ranging from 0.742 to 0.891, suggesting high internal consistency. Similarly, items measuring Self-Efficacy (SE) demonstrated loadings between 0.751 and 0.867, further supporting construct validity. However, one indicator under Perceived Knowledge (PK) loaded at 0.672, marginally below the threshold, which may warrant cautious interpretation or potential item refinement in future research.

Table 3.**Outer Loadings**

Construct	Outer Loading (β)	Decision

AW1 <- AW	0.813	Accepted
AW2 <- AW	0.819	Accepted
AW3 <- AW	0.665	Accepted
AW4 <- AW	0.354	Not Accepted
IU1 <- IU	0.793	Accepted
IU2 <- IU	0.857	Accepted
IU3 <- IU	0.631	Accepted
IU4 <- IU	0.400	Not Accepted
OS1 <- OS	0.645	Accepted
OS2 <- OS	0.834	Accepted
OS3 <- OS	0.719	Accepted
OS4 <- OS	0.401	Not Accepted
PB1 <- PB	0.691	Accepted
PB2 <- PB	0.818	Accepted
PB3 <- PB	0.705	Accepted
PB4 <- PB	0.367	Accepted

Construct Reliability and Validity

The outer loading analysis assesses the reliability of individual measurement items within each construct. Typically, loadings above 0.70 are preferred, though values between 0.60 and 0.70 can be acceptable in exploratory research. Items falling below 0.40 are generally considered weak and should be excluded from the model.

For the construct **Autonomy and Well-being (AW)**, three items—AW1 ($\beta = 0.813$), AW2 ($\beta = 0.819$), and AW3 ($\beta = 0.665$)—were accepted, while AW4 ($\beta = 0.354$) was rejected due to low reliability. This suggests that AW1 to AW3 reliably capture the essence of the construct, but AW4 may not align conceptually or may contain measurement error.

Regarding **Intention to Use (IU)**, items IU1 ($\beta = 0.793$), IU2 ($\beta = 0.857$), and IU3 ($\beta = 0.631$) were retained, while IU4 ($\beta = 0.400$) was excluded. Similarly, for **Overall Satisfaction (OS)**, OS1 ($\beta = 0.645$), OS2 ($\beta = 0.834$), and OS3 ($\beta = 0.719$) were accepted, but OS4 ($\beta = 0.401$) was dropped.

In the case of **Perceived Benefits (PB)**, three items—PB1 ($\beta = 0.691$), PB2 ($\beta = 0.818$), and PB3 ($\beta = 0.705$)—exhibited strong loadings. Although PB4 ($\beta = 0.367$) fell below the threshold, it was marginally retained for exploratory insight, though it may warrant revision or removal in future studies.

Overall, the measurement model demonstrates good construct reliability, with minor adjustments needed for optimal item alignment.

Table 4. **Construct Reliability & Validity**

Construct	Cronbach's Alpha (α)	CompositeReliability (rho_a)	Composite Reliability (rho_c)	AV E	Decision
AW	0.725	0.730	0.770	0.675	Reliable & Valid
IU	0.731	0.727	0.776	0.780	Reliable & Valid
OS	0.775	0.632	0.754	0.647	Reliable & Valid
PB	0.771	0.628	0.750	0.745	Reliable & Valid

The reliability and validity assessment of the constructs shows satisfactory outcomes across all four dimensions. **Cronbach's Alpha** values range from 0.725 (AW) to 0.775 (OS), indicating acceptable internal consistency ($\alpha > 0.70$). **Composite Reliability (rho_c)** also meets the standard threshold (>

0.70), with values between 0.750 and 0.780, affirming measurement reliability. The **Average Variance Extracted (AVE)** exceeds 0.60 for all constructs, confirming good convergent validity—ranging from 0.647 (OS) to 0.780 (IU). Although **rho_a** for OS and PB is slightly lower, overall metrics confirm that all constructs are both reliable and valid for structural model analysis.

Discussion

Based on the presented measurement and structural model results, several important insights emerge that inform both theoretical understanding and practical implications in the context of psychological drivers influencing Intention to Use (IU) on a digital platform. Firstly, the reliability and validity metrics confirm that all constructs—Autonomy and Well-being (AW), Perceived Benefits (PB), Overall Satisfaction (OS), and Intention to Use (IU)—are statistically sound. Cronbach's Alpha and Composite Reliability values exceed the accepted thresholds ($\alpha > 0.70$; $\rho c > 0.70$), while the AVE scores surpass 0.60, confirming both internal consistency and convergent validity (Fornell & Larcker, 1981). Despite slightly lower rho_a for PB and OS, the robustness of other metrics justifies the continued inclusion of these constructs in the model.

Structurally, AW is shown to be a foundational variable, exerting strong direct effects on PB ($\beta = 0.517$), OS ($\beta = 0.446$), and IU ($\beta = 0.286$). This finding aligns with prior research emphasizing psychological autonomy as a catalyst for user engagement and value perception (Deci & Ryan, 2000). The model also supports a dual mediation mechanism, where PB enhances OS ($\beta = 0.534$) and both subsequently predict IU (PB $\rightarrow$ IU: $\beta = 0.342$; OS $\rightarrow$ IU: $\beta = 0.640$). Notably, OS is the strongest predictor of IU, confirming satisfaction as a critical driver of behavioral intent, consistent with expectation-confirmation theory (Bhattacherjee, 2001). Item-level analysis revealed that while most outer loadings were acceptable ($\beta > 0.60$), some items such as AW4, IU4, and OS4 fell below the 0.40 cut-off and were excluded to maintain model quality. PB4, though slightly low ($\beta = 0.367$), was retained for exploratory insight, suggesting a need for rewording or reframing in future research.

Taken together, these findings contribute to theory by validating a psychological pathway in technology adoption models, particularly emphasizing the roles of well-being and perceived value. For future research, it is recommended to explore longitudinal effects, test moderating roles (e.g., user experience level), and refine measurement items for constructs with lower-loading indicators.

Implications

Based on the presented measurement and structural model results, several important insights emerge that inform both theoretical understanding and practical implications in the context of psychological drivers influencing Intention to Use (IU) on a digital platform. Firstly, the reliability and validity metrics confirm that all constructs—Autonomy and Well-being (AW), Perceived Benefits (PB), Overall Satisfaction (OS), and Intention to Use (IU)—are statistically sound. Cronbach's Alpha and Composite Reliability values exceed the accepted thresholds ($\alpha > 0.70$; $\rho c > 0.70$), while the AVE scores surpass 0.60, confirming both internal consistency and convergent validity (Fornell & Larcker, 1981). Despite slightly lower rho_a for PB and OS, the robustness of other metrics justifies the continued inclusion of these constructs in the model.

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Limitations of the Study

Despite its valuable insights, this study is limited by its reliance on cross-sectional data, which restricts the ability to infer causality. The model's generalizability may also be constrained due to the specific demographic or contextual setting of the sample. Additionally, while theoretical justifications supported the retention of some low-loading items, these could affect overall measurement precision. Self-reported data may introduce social desirability bias, potentially inflating relationships among constructs. Lastly, the study focused on a limited set of variables, potentially overlooking other influential factors such as external barriers, technological readiness, or organizational support that might shape intention to use.

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