

Factors influencing the decision to use BSI Mobile Banking among Gen Z and Millennials in Yogyakarta, Indonesia

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ABSTRAK

Introduction

Mobile banking has become an essential aspect of modern financial services, particularly among digitally literate populations such as Gen Z and Millennials. Despite the widespread adoption of mobile banking, understanding the factors influencing its use in specific cultural and demographic contexts remains underexplored. This study investigates the adoption of Bank Syariah Indonesia's (BSI) mobile banking services among Gen Z and Millennials in Yogyakarta using the Unified Theory of Acceptance and Use of Technology 2 (UTAUT2) framework.

Objectives

The research aims to identify and analyze the key factors driving the decision to adopt mobile banking services, focusing on intrinsic motivators such as performance expectancy, effort expectancy, hedonic motivation, price value, and habit, as well as external factors like social influence and facilitating conditions.

Method

This study employed a quantitative approach, collecting data from 124 respondents through structured questionnaires. Using Partial Least Squares Structural Equation Modeling (PLS-SEM), the relationships between the UTAUT2 factors and mobile banking adoption were evaluated.

Results

The findings indicate that intrinsic factors, particularly habit, performance expectancy, and effort expectancy, significantly influence mobile banking adoption. Hedonic motivation and price value also play essential roles, whereas external factors such as social influence and facilitating conditions were found to have no significant impact.

Implications

The study underscores the importance of user-centered strategies that enhance functionality, ease of use, and emotional satisfaction. It

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suggests that financial institutions should focus on fostering habitual engagement and cost-effective services to drive adoption.

Originality/Novelty

This research contributes to the literature on digital financial services by offering insights into mobile banking adoption among Gen Z and Millennials in Indonesia, emphasizing the relevance of intrinsic motivators in a technologically advanced context.

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INTRODUCTION

The digital transformation of the financial sector has been a cornerstone of technological advancement in recent years. This transformation, characterized by the convergence of information technology and mobile connectivity, has facilitated significant innovations in the banking industry. Digital banking, in particular, has evolved into an indispensable component of modern financial systems. Digital banking services optimize customer data to deliver faster, easier, and more customized experiences (Bolton et al., 2018; Mbama et al., 2018; Parise et al., 2016). These services are pivotal in shaping consumer interactions, enabling them to perform various financial transactions without the need for physical visits to banks. Mobile banking applications have further streamlined these processes, allowing users to conduct payments, transfers, and other transactions conveniently (Donner & Tellez, 2008; Kim et al., 2009; Shaikh & Karjaluo, 2015; Upadhyay & Jahanyan, 2016; Weber & Darbellay, 2010). Consequently, such technological innovations are not only transforming banking operations but also influencing consumer behavior and expectations.

In Indonesia, the integration of digital banking services aligns with broader economic shifts toward cashless transactions. According to data from Bank Indonesia, the total value of digital banking transactions reached Rp5.570,49 trillion as of June 2024 (Simanjuntak, 2024). This reflects the growing preference for digital payment systems among Indonesians, particularly among Generation Z (Hinduan et al., 2020; Lestari, 2019; Retno et al., 2023; Windasari et al., 2022) and Millennials (Beik et al., 2023; Rachbini et al., 2024; Zuhriyah, 2022). These demographics are characterized by their familiarity with technology and their inclination to adopt convenient and innovative financial solutions. The city of Yogyakarta, known for its vibrant student population and tech-savvy culture, serves as a prime example of this trend. Its Electronic Transaction Performance Index (ETP) of 99.2% underscores its leadership in promoting cashless transactions, supported by initiatives from local governments and financial institutions (Evan et al., 2021; Pemerintah Kota Yogyakarta, 2022; Prawira & Ridanasti, 2024).

Despite the widespread adoption of mobile banking, understanding the key factors influencing this behavior remains a critical area of inquiry. While previous studies have extensively explored the technological and behavioral drivers of digital banking adoption (Abdurrahman et al., 2024; Nugraha et al., 2022; Sebayang et al., 2024a, 2024b), questions about the specific motivations of Generation Z and Millennials persist. This research aims to address this gap by analyzing the determinants of mobile banking usage among this demographic group, with a focus on Bank Syariah Indonesia (BSI). As the largest Islamic bank in Indonesia, BSI's mobile banking service provides an excellent case study for understanding user behavior in a rapidly digitizing financial landscape.

The Unified Theory of Acceptance and Use of Technology 2 (UTAUT2) offers a robust framework for analyzing the adoption of technological solutions. This model identifies seven key factors that influence user acceptance: performance expectancy, effort expectancy, social influence, facilitating conditions, hedonic motivation, price value, and habit. The framework has been widely applied to evaluate consumer behavior across various contexts (Alalwan et al., 2017, 2018; El-Masri & Tarhini, 2017; Morosan & DeFranco, 2016; Susilowati et al., 2021), making it an appropriate choice for this study. However, while UTAUT2 comprehensively captures the general factors affecting technology adoption, its application to Islamic banking and specific user demographics requires further investigation.

In addressing the research question, this study draws on a wealth of prior research that has applied the UTAUT2 model to understand mobile banking adoption. For instance, Oktaviana & Siregar (2021) demonstrated that performance expectancy, effort expectancy, and facilitating conditions positively influence Millennials' intentions to use mobile banking. Similarly, Baabullah et al. (2019) showed that hedonic motivation and habit significantly impact mobile banking adoption in Saudi Arabia. However, studies such as Pohan et al. (2024) suggest that social influence may play a lesser role in influencing decisions, emphasizing the need for contextualized analyses.

Despite these insights, there is a notable research gap in understanding how these factors interact within the specific cultural and economic contexts of Generation Z and Millennials in Indonesia. Few studies have thoroughly examined the role of Islamic banking services in promoting digital adoption (Aziz & Afaq, 2018; Banna et al., 2021; Mahdzan et al., 2017), particularly in a region like Yogyakarta (Berakon et al., 2021; Mufarih et al., 2020; Nugroho et al., 2023), where cultural and demographic factors may significantly shape consumer behavior. Addressing this gap can provide valuable insights for policymakers and financial institutions aiming to enhance service delivery and user engagement.

The primary objective of this study is to analyze the factors that influence the adoption of BSI's mobile banking services among Generation Z and Millennials in Yogyakarta. By applying the UTAUT2 model, the research seeks to identify which factors are most significant in driving user decisions. The findings contribute to a deeper understanding of consumer behavior in Islamic banking, offering actionable recommendations for enhancing service delivery. Moreover, the study highlights the



novel application of the UTAUT2 framework to a demographic and geographical context that has not been extensively explored, thereby advancing academic discourse in the field of digital banking adoption.

In conclusion, this research not only addresses a critical gap in the literature but also aligns with broader industry trends toward digitization and user-centric service models. By focusing on Generation Z and Millennials, the study captures the perspectives of a demographic group that is shaping the future of financial services. The findings hold implications for practitioners and policymakers seeking to optimize mobile banking services and foster greater financial inclusion in Indonesia's rapidly evolving digital economy.

LITERATURE REVIEW

Introduction to Digital Banking and Mobile Banking

The evolution of digital banking has marked a significant shift in the financial industry, integrating technology with traditional banking services to enhance customer experiences. Digital banking services are defined as technology-driven platforms that allow users to access financial services conveniently (Bhatnagr et al., 2024; Gąsiorkiewicz et al., 2020; Mogaji, 2023). Mobile banking, a subset of digital banking, enables customers to perform various financial activities, including fund transfers, bill payments, and account management, through smartphone applications (Fenu & Pau, 2015; Shaikh & Karjaluoto, 2015; Tam & Oliveira, 2017; Vishnuvardhan et al., 2020). This convenience has positioned mobile banking as a pivotal tool for fostering financial inclusion and improving accessibility for diverse user groups.

Bank Syariah Indonesia (BSI), the largest Islamic bank in Indonesia, has embraced mobile banking to support its customer base. With a focus on providing Sharia-compliant financial services, BSI has developed its mobile banking platform to cater to users seeking both religious adherence and technological convenience. In regions like Yogyakarta, where cashless transactions are increasingly prevalent, understanding the factors influencing mobile banking adoption is essential to enhance service delivery and user satisfaction.

Theoretical Framework: UTAUT2

The Unified Theory of Acceptance and Use of Technology 2 (UTAUT2) framework is central to understanding technology adoption. Developed by Venkatesh et al. (2012), this model builds upon the original UTAUT framework by incorporating additional constructs to address consumer contexts. UTAUT2 identifies seven key factors influencing behavioral intention and usage: performance expectancy, effort expectancy, social influence, facilitating conditions, hedonic motivation, price value, and habit.

Performance expectancy refers to the belief that using a technology will enhance task performance. Effort expectancy measures the ease of use of the technology, while social influence examines the impact of social networks on adoption decisions. Facilitating conditions highlight the importance of infrastructural support, such as

internet access and compatible devices. Hedonic motivation emphasizes the role of enjoyment in technology usage, price value balances perceived benefits against costs, and habit assesses the impact of routine behavior on adoption.

Empirical Studies on Mobile Banking Adoption

Performance Expectancy and Effort Expectancy

Multiple studies highlight the significance of performance expectancy in driving mobile banking adoption. Chaidir et al. (2021) demonstrated that users are more likely to adopt mobile banking if they perceive significant benefits, such as convenience and efficiency. Similarly, research by Oktaviana & Siregar (2021) confirmed the positive impact of performance expectancy on Millennials' intentions to use mobile banking.

Effort expectancy, which relates to the ease of using mobile banking platforms, is another critical determinant. Anjani & Mukhlis (2022) found that users are more inclined to adopt mobile banking when the platforms are intuitive and user-friendly. This finding aligns with Pohan et al. (2024), who reported a strong correlation between perceived ease of use and mobile banking adoption.

Social Influence and Facilitating Conditions

The role of social influence in mobile banking adoption is context-dependent. Studies conducted by Baabullah et al. (2019) in Saudi Arabia and Susilowati et al. (2021) in Indonesia suggest that peer recommendations and societal trends significantly impact adoption rates. However, other research, such as that by Pohan et al. (2024), indicates that social influence may have a limited effect in some settings, suggesting that this factor's relevance varies across cultures and demographics.

Facilitating conditions, such as internet connectivity and device availability, are universally recognized as essential for technology adoption. Chaidir et al. (2021) found that the availability of supportive infrastructure strongly influences users' willingness to adopt mobile banking. This observation is supported by Susilowati et al. (2021), who identified infrastructural readiness as a significant driver of mobile banking use among young adults.

Hedonic Motivation and Price Value

Hedonic motivation, which captures the enjoyment derived from using a technology, has been increasingly recognized as a critical factor in mobile banking adoption. Studies by Susilowati et al. (2021) and Baabullah et al. (2019) found that users are more likely to adopt mobile banking if they associate the technology with positive emotional experiences.

Price value, or the perceived financial benefits relative to costs, is another influential factor. Research by Oktaviana & Siregar (2021) highlights the importance of affordability in shaping adoption decisions. Users are more likely to adopt mobile banking when they perceive the financial costs to be reasonable compared to the benefits offered.



Habit

Habit plays a pivotal role in technology adoption, especially among younger demographics. According to Susilowati et al. (2021), users who have previously engaged with similar technologies are more likely to adopt new platforms due to familiarity and established routines. This insight underscores the importance of leveraging existing user habits to promote mobile banking adoption.

Integration of UTAUT2 and Islamic Banking Context

The application of UTAUT2 in Islamic banking contexts introduces unique considerations. Islamic banks, such as BSI, operate under Sharia principles, which emphasize ethical and interest-free financial practices. These principles resonate strongly with users seeking religious compliance, adding an additional layer to the adoption framework.

Baabullah et al. (2019) explored the integration of UTAUT2 with the DeLone and McLean Information Systems (D&M IS) Success Model to study mobile banking adoption in Islamic banking. Their findings highlight the importance of aligning technological solutions with users' cultural and religious values. Similarly, Pohan et al. (2024) emphasized that trust and perceived risk are particularly relevant in Islamic banking contexts, influencing users' decisions to adopt digital platforms.

Research Gaps

While extensive research has applied UTAUT2 to study mobile banking adoption, several gaps remain. First, there is limited empirical evidence focusing specifically on Generation Z and Millennials in Indonesia, particularly in culturally distinct regions like Yogyakarta. Second, the intersection of Islamic banking principles with technological adoption warrants deeper exploration, as existing studies often overlook the unique motivations of Sharia-compliant financial service users. Addressing these gaps can provide valuable insights into the factors driving mobile banking adoption in this demographic and cultural context.

The literature underscores the complexity of mobile banking adoption, influenced by technological, social, and cultural factors. By applying the UTAUT2 framework, this study aims to contribute to the growing body of research on digital banking while addressing specific gaps in the context of Generation Z and Millennials in Indonesia. The findings have the potential to inform both academic discourse and practical strategies for enhancing mobile banking services in Islamic banking.

METHOD

Research Design

This study adopts an explanatory research design, utilizing quantitative methods to investigate the factors influencing the adoption of BSI Mobile Banking among Generation Z and Millennials in Yogyakarta. Explanatory research is chosen for its capacity to analyze relationships between variables and understand the underlying mechanisms that drive user decisions. The study is guided by the Unified Theory of

Acceptance and Use of Technology 2 (UTAUT2) model, which serves as the theoretical framework for exploring how seven factors—performance expectancy, effort expectancy, social influence, facilitating conditions, hedonic motivation, price value, and habit—affect users' decisions to adopt mobile banking.

Population and Sampling

The target population consists of Generation Z and Millennials in Yogyakarta who have used or are currently using BSI Mobile Banking. These two generational cohorts are selected due to their high digital literacy and significant engagement with technology. The age range for Generation Z is defined as 12–27 years, while Millennials are categorized as individuals aged 25–43 years, based on classifications provided by Indonesia's Central Bureau of Statistics (BPS).

A purposive sampling technique was employed to ensure the sample was representative of the target population. This method involves selecting participants based on specific criteria relevant to the research objectives. For this study, inclusion criteria required respondents to be active users of BSI Mobile Banking and to fall within the defined generational age ranges. A total of 124 respondents were recruited, which exceeds the minimum sample size recommended for Structural Equation Modeling (SEM) analysis, ensuring sufficient statistical power.

Data Collection

Primary data was collected through a structured questionnaire, distributed digitally to maximize accessibility and reach. The questionnaire was designed to capture respondents' perceptions and experiences with BSI Mobile Banking, focusing on the seven factors outlined in the UTAUT2 model. Questions were structured using a Likert scale, ranging from 1 ("strongly disagree") to 5 ("strongly agree"), to quantify respondents' attitudes and behaviors.

To ensure reliability and validity, the questionnaire underwent a pilot test with a smaller subset of respondents prior to full deployment. Feedback from the pilot test was used to refine question wording and ensure clarity. The final questionnaire was disseminated via online platforms, leveraging the high internet penetration among the target demographic in Yogyakarta.

Variables and Operational Definitions

The study includes one dependent variable and seven independent variables, as defined by the UTAUT2 model:

1. Dependent Variable:
 - Decision to Use BSI Mobile Banking: Measured by respondents' likelihood of continuing or recommending the use of BSI Mobile Banking based on their experiences.
2. Independent Variables:



- Performance Expectancy: The extent to which users believe that BSI Mobile Banking will enhance their financial management efficiency.
- Effort Expectancy: Users' perceptions of the ease of use of the mobile banking application.
- Social Influence: The impact of recommendations or opinions from peers and family on users' decisions.
- Facilitating Conditions: The availability of resources such as internet connectivity, smartphones, and financial literacy to support mobile banking usage.
- Hedonic Motivation: The level of enjoyment or satisfaction derived from using the mobile banking application.
- Price Value: Users' perceptions of the cost-benefit balance of adopting BSI Mobile Banking.
- Habit: The degree to which prior usage patterns influence current adoption behavior.

Each variable was operationalized based on established metrics from prior research, ensuring consistency and comparability with existing literature.

Data Analysis

The collected data was analyzed using Structural Equation Modeling (SEM) via SmartPLS 3.0, a robust tool for evaluating complex relationships among latent variables. SEM is particularly suited for this study as it allows simultaneous testing of multiple hypotheses and assessment of both direct and indirect effects.

The data analysis process included several stages:

1. Preliminary Screening: Data was screened for missing values and outliers to ensure accuracy and completeness. Responses with significant missing data were excluded from the analysis.
2. Measurement Model Assessment:
 - Convergent Validity: Evaluated through factor loadings, Composite Reliability (CR), and Average Variance Extracted (AVE). Factor loadings above 0.70, CR values above 0.70, and AVE values above 0.50 were considered acceptable.
 - Discriminant Validity: Assessed using the Fornell-Larcker criterion and cross-loadings to ensure that each construct was distinct from the others.
3. Structural Model Evaluation: The structural model was tested to examine the relationships between the independent and dependent variables. Path coefficients, t-values, and p-values were calculated to determine the significance of each relationship. The model's explanatory power was assessed using the R-squared (R^2) value for the dependent variable.
4. Hypothesis Testing: Each hypothesis was evaluated based on the significance levels of the path coefficients. Relationships with p-values below 0.05 were deemed statistically significant.



Ethical Considerations

The study adhered to ethical research practices, ensuring the confidentiality and anonymity of respondents. Participation was voluntary, and informed consent was obtained from all participants before data collection. Respondents were provided with clear information about the study's purpose, procedures, and potential benefits, and they had the option to withdraw at any time without penalty.

RESULTS

Demographics of Respondents

The study surveyed 124 respondents using a purposive sampling method, targeting individuals aged 15 to 45 years, consistent with the characteristics of Gen Z and Millennials. Data were collected through structured questionnaires, with the majority of respondents being active users of BSI's mobile banking services. Demographic insights in Table 1 revealed a balanced gender representation, diverse educational backgrounds, and varying income levels.

Here is the rewritten table in American English format, combining Tables 4.1 to 4.4 into one, followed by four explanatory paragraphs:

Table 1

Characteristics of Respondents

Characteristics	Categories	Frequency (f)	Percentage (%)
Gender	Male	26	20.97
	Female	98	79.03
Age	15 – 25 years	94	75.81
	26 – 35 years	20	16.13
	36 – 45 years	10	8.06
Education	High School or Equivalent	71	57.26
	Diploma	4	3.23
	Bachelor's Degree	47	37.90
	Postgraduate	2	1.61
Income	≤ 2 Million Rupiah	97	78.23
	3 – 5 Million Rupiah	18	14.52
	6 – 10 Million Rupiah	7	5.65
	11 – 15 Million Rupiah	1	0.81
	> 16 Million Rupiah	1	0.81

Source: Primary data. Authors' estimation.

Among the participants, female respondents constituted a significant majority at 79.03%, while males accounted for only 20.97%. This gender imbalance suggests that the survey was more accessible or appealing to female participants. In terms of age distribution, the majority of respondents (75.81%) were aged between 15 and 25 years, indicating that the study predominantly engaged younger individuals, likely classified as Generation Z. Meanwhile, 16.13% of respondents fell into the 26–35 age group, commonly identified as millennials, and a smaller portion (8.06%) belonged to the 36–45 age group.

The educational background of the respondents varied, with the majority (57.26%) having completed high school or an equivalent level of education. A considerable proportion, 37.90%, held a bachelor's degree, while only a small fraction had a diploma (3.23%) or a postgraduate degree (1.61%). This distribution reflects the demographic focus of the study, suggesting that most participants were either students or early-career professionals with limited higher education experience.

Income levels among respondents showed a heavy concentration in the lower economic brackets. The largest group (78.23%) reported an income of \leq 2 million Rupiah per month, indicating that most respondents were either students, entry-level workers, or individuals with limited financial resources. Those earning between 3 and 5 million Rupiah represented 14.52% of the sample, while higher-income brackets (6 million Rupiah and above) accounted for less than 7.27% of respondents. This distribution highlights the financial constraints faced by a majority of the participants.

The combined demographic data indicate that the study largely targeted young, female, and low-income individuals with a high school or undergraduate educational background. These factors may have influenced the study's findings, particularly in contexts related to consumer behavior, financial decision-making, or technology adoption. Understanding these respondent characteristics provides valuable insights into the broader implications of the study's results.

Validity and Reliability Analysis

To ensure the robustness of the data, the study employed validity and reliability tests. Convergent validity was assessed using indicator significance, which confirmed that all constructs significantly contributed to the model. Discriminant validity was validated through cross-loading analysis, ensuring that each construct was distinct from others. Reliability was measured through Cronbach's alpha and composite reliability scores, which consistently exceeded the threshold of 0.70, indicating strong internal consistency.

Table 2

Validity Test Results

Variable	Indicator	Corrected Item-Total Correlation	r-table	Status
Performance Expectancy	PE1	0.790	0.201	Valid
	PE2	0.871	0.201	Valid
	PE3	0.836	0.201	Valid
	PE4	0.807	0.201	Valid
Effort Expectancy	EE1	0.893	0.201	Valid
	EE2	0.836	0.201	Valid
	EE3	0.887	0.201	Valid
	EE4	0.780	0.201	Valid
Social Influence	SI1	0.847	0.201	Valid
	SI2	0.853	0.201	Valid
	SI3	0.861	0.201	Valid
Facilitating Conditions	FC1	0.817	0.201	Valid
	FC2	0.821	0.201	Valid

Variable	Indicator	Corrected Item-Total Correlation	r-table	Status
Hedonic Motivation	FC3	0.804	0.201	Valid
	FC4	0.684	0.201	Valid
	HM1	0.759	0.201	Valid
	HM2	0.860	0.201	Valid
	HM3	0.675	0.201	Valid
Price Value	PV1	0.856	0.201	Valid
	PV2	0.879	0.201	Valid
	PV3	0.813	0.201	Valid
Habit	HB1	0.809	0.201	Valid
	HB2	0.925	0.201	Valid
	HB3	0.857	0.201	Valid
	HB4	0.810	0.201	Valid
Usage Behavior	USE1	0.685	0.201	Valid
	USE2	0.468	0.201	Valid
	USE3	0.712	0.201	Valid
	USE4	0.877	0.201	Valid

Source: Primary data. Authors' estimation.

The validity test results in Table 2 indicate that all measurement indicators for the studied variables meet the validity criteria, with corrected item-total correlation values exceeding the r-table threshold of 0.201. This confirms that the indicators used in the research accurately measure the intended constructs. The highest validity score is observed in the Habit variable (HB2 = 0.925), demonstrating a strong relationship between habitual behavior and the studied outcomes. Similarly, high validity is noted in Performance Expectancy (PE2 = 0.871) and Effort Expectancy (EE1 = 0.893), suggesting that users strongly associate perceived ease of use and performance benefits with their behavioral intentions.

Furthermore, the Social Influence (SI) and Facilitating Conditions (FC) variables exhibit robust validity, with correlations exceeding 0.8, indicating their substantial impact on decision-making. Hedonic Motivation (HM) and Price Value (PV) also maintain validity, though HM3 has the lowest correlation at 0.675, which, while still valid, suggests a relatively weaker association with the overall construct. The Usage Behavior (USE) indicators range between 0.468 and 0.877, confirming their appropriateness in measuring actual system use.

Table 3

Reliability Test Results

Variable	Cronbach's Alpha	Number of Indicators	Reliability Level
Performance Expectancy	0.924	4	Good Reliability
Effort Expectancy	0.935	4	Good Reliability
Social Influence	0.928	3	Good Reliability
Facilitating Conditions	0.901	4	Good Reliability
Hedonic Motivation	0.877	3	Good Reliability
Price Value	0.926	3	Good Reliability
Habit	0.936	4	Good Reliability
Usage Behavior	0.907	4	Good Reliability

Source: Primary data. Authors' estimation.

The reliability test results in Table 3 indicate that all research variables exhibit strong internal consistency, as evidenced by Cronbach's Alpha values exceeding 0.8, which is considered a high level of reliability (Ghozali, 2019). Among these, the Habit variable has the highest reliability score (0.936), followed closely by Effort Expectancy (0.935) and Price Value (0.926), indicating that these constructs are consistently measured across different indicators. The lowest reliability score is found in Hedonic Motivation (0.877), although it still falls within the acceptable range of high reliability.

Since all Cronbach's Alpha values are well above the 0.7 threshold, the questionnaire used in this study can be deemed reliable for future research applications. This strong reliability suggests that the measurement items used in the study are internally consistent, ensuring that responses are stable and trustworthy across repeated assessments.

Structural Model Evaluation

Outer Model Analysis (Measurement Model)

1. Convergent Validity

The outer loadings presented in Table 4 indicate that all indicators have a loading factor greater than 0.50, which satisfies the threshold for convergent validity. According to Fornell & Larcker's (1981) criteria, a measurement model is considered to have good convergent validity if its loading factors exceed 0.50, as this suggests that the indicators effectively represent their respective latent variables. The table demonstrates that performance expectancy (PE), effort expectancy (EE), habit (HB), facilitating conditions (FC), hedonic motivation (HM), price value (PV), social influence (SI), and usage decision (USE) all exhibit high loadings on their corresponding constructs. This implies that the model successfully measures the intended constructs and that the indicators used in this study provide a strong representation of the underlying theoretical framework.

Table 4

Outer Loadings (Measurement Model)

Indicator	Performance Expectancy	Effort Expectancy	Habit	Usage Decision	Facilitating Conditions	Hedonic Motivation	Price Value	Social Influence
EE1	0.945							
EE2	0.906							
EE3	0.940							
EE4	0.873							
FC1					0.897			
FC2					0.890			
FC3					0.880			
FC4					0.821			
HB1			0.906					
HB2			0.961					
HB3			0.922					

Indicator	Performance Expectancy	Effort Expectancy	Habit	Usage Decision	Facilitating Conditions	Hedonic Motivation	Price Value	Social Influence
HB4			0.900					
HM1						0.918		
HM2						0.948		
HM3						0.779		
PE1	0.869							
PE2	0.919							
PE3	0.909							
PE4	0.895							
PV1							0.935	
PV2							0.948	
PV3							0.887	
SI1								0.926
SI2								0.920
SI3								0.937
USE1				0.829				
USE2				0.932				
USE3				0.907				
USE4				0.877				

Source: Primary data. Authors' estimation.

2. Discriminant Validity

The discriminant validity test evaluates whether the indicators are uniquely associated with their respective latent variables rather than correlating significantly with other constructs. In this study, cross-loadings were analyzed, and the results in Table 5 indicate that each construct's indicators have the highest factor loadings within their respective variables, confirming adequate discriminant validity. However, some variables, such as Habit (HB) and Social Influence (SI), exhibit moderate cross-loadings with other constructs, which may suggest partial overlap in measurement. Despite these minor overlaps, the results generally confirm that the indicators differentiate well between constructs, supporting the measurement model's validity.

Table 5

Discriminant Validity (Cross Loadings)

Indicator	Performance Expectancy	Effort Expectancy	Habit	Usage Behavior	Facilitating Conditions	Hedonic Motivation	Price Value	Social Influence
EE1	0.646	0.945	0.603	0.556	0.693	0.721	0.817	0.507
EE2	0.551	0.906	0.486	0.509	0.712	0.687	0.737	0.424
EE3	0.640	0.940	0.575	0.611	0.663	0.701	0.748	0.490
EE4	0.509	0.873	0.554	0.547	0.655	0.597	0.645	0.432
FC1	0.574	0.665	0.589	0.521	0.897	0.654	0.588	0.603
FC2	0.457	0.677	0.518	0.474	0.890	0.560	0.597	0.589
FC3	0.528	0.622	0.534	0.454	0.880	0.557	0.596	0.532
FC4	0.694	0.618	0.642	0.573	0.821	0.689	0.588	0.550
HB1	0.769	0.626	0.906	0.726	0.648	0.796	0.592	0.653
HB2	0.772	0.532	0.961	0.738	0.663	0.721	0.523	0.711
HB3	0.717	0.511	0.922	0.709	0.575	0.678	0.493	0.650

Indicator	Performance Expectancy	Effort Expectancy	Habit	Usage Behavior	Facilitating Conditions	Hedonic Motivation	Price Value	Social Influence
HB4	0.657	0.568	0.900	0.712	0.549	0.640	0.504	0.559
HM1	0.702	0.664	0.755	0.686	0.626	0.918	0.605	0.615
HM2	0.717	0.696	0.736	0.604	0.677	0.948	0.759	0.556
HM3	0.524	0.602	0.518	0.467	0.596	0.779	0.684	0.463
PE1	0.869	0.692	0.724	0.597	0.641	0.761	0.710	0.563
PE2	0.919	0.494	0.677	0.530	0.508	0.586	0.592	0.583
PE3	0.909	0.528	0.718	0.604	0.627	0.608	0.590	0.639
PE4	0.895	0.583	0.715	0.645	0.570	0.693	0.603	0.627
PV1	0.688	0.744	0.540	0.407	0.614	0.734	0.935	0.410
PV2	0.626	0.814	0.542	0.408	0.658	0.712	0.948	0.439
PV3	0.611	0.650	0.501	0.287	0.615	0.657	0.887	0.468
SI1	0.672	0.585	0.691	0.515	0.649	0.738	0.580	0.926
SI2	0.557	0.400	0.569	0.445	0.586	0.493	0.348	0.920
SI3	0.637	0.421	0.674	0.542	0.584	0.495	0.373	0.937
USE1	0.521	0.634	0.587	0.829	0.520	0.542	0.422	0.380
USE2	0.555	0.561	0.726	0.932	0.518	0.625	0.322	0.503
USE3	0.597	0.510	0.741	0.907	0.539	0.577	0.348	0.493
USE4	0.685	0.468	0.712	0.877	0.505	0.638	0.360	0.541

Source: Primary data. Authors' estimation.

3. Composite Reliability and AVE Analysis

The Composite Reliability (CR) and Average Variance Extracted (AVE) values in Table 6 demonstrate strong internal consistency and validity for the research constructs. All Cronbach's Alpha values exceed the recommended threshold of 0.70, indicating that the measurement scales are reliable. Additionally, the Composite Reliability scores range between 0.915 and 0.958, surpassing the acceptable minimum of 0.70, ensuring that the measurement model maintains high reliability.

Table 6

Composite Reliability and Average Variance Extracted (AVE)

Variable	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
Performance Expectancy	0.920	0.923	0.944	0.807
Effort Expectancy	0.936	0.941	0.954	0.840
Habit	0.941	0.942	0.958	0.851
Usage Decision	0.909	0.914	0.936	0.787
Facilitating Conditions	0.896	0.900	0.927	0.761
Hedonic Motivation	0.860	0.895	0.915	0.783
Price Value	0.915	0.943	0.946	0.853
Social Influence	0.920	0.928	0.949	0.861

Source: Primary data. Authors' estimation.

Regarding convergent validity, the Average Variance Extracted (AVE) values for all variables exceed 0.50, confirming that each latent construct explains more than 50% of the variance in its respective indicators. The highest AVE is observed for Social

Influence (0.861) and Habit (0.851), suggesting strong construct validity. Meanwhile, Usage Decision (BSI M-banking) has the lowest AVE (0.787), which, although lower than other constructs, still surpasses the required threshold. These results indicate that the research model effectively captures the intended theoretical constructs, ensuring both high reliability and strong convergent validity.

Inner Model Analysis (Structural Model)

1. R-Squared Value

The R-squared (R^2) value of 0.731 indicates that 73.1% of the variance in the Usage Decision (BSI M-Banking) variable can be explained by the independent variables: Performance Expectancy, Effort Expectancy, Social Influence, Facilitating Conditions, Hedonic Motivation, Price Value, and Habit. The Adjusted R-Squared value of 0.715 corrects for the number of predictors in the model, ensuring that the explanatory power remains robust even when accounting for model complexity. Since the R^2 value exceeds 0.70, this suggests a strong predictive capability of the independent variables in explaining users' decisions to adopt BSI M-Banking. These results validate the structural model's effectiveness in analyzing technology adoption factors.

Table 7

R-Squared Value

Dependent Variable	R-Squared (R^2)	Adjusted R-Squared
Usage Decision	0.731	0.715

Source: Primary data. Authors' estimation.

2. Path Coefficient and Hypothesis Testing Analysis

Each hypothesized relationship within the UTAUT2 framework was tested, with the results presented in Table 8. The first hypothesis (H1: Performance Expectancy → Usage Decision) is supported with a path coefficient of 0.238 and a p-value of 0.017, indicating a significant positive effect. This suggests that users' expectations of mobile banking's performance—such as efficiency, convenience, and speed—directly influence their decision to adopt BSI M-Banking. The positive path coefficient implies that users are more likely to use mobile banking when they perceive it as beneficial in accomplishing their financial tasks.

Table 8

Path Coefficients and Hypothesis Testing Results

Path	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P-Value	Result
Performance Expectancy → Usage Decision	0.238	0.241	0.100	2.388	0.017	Supported
Effort Expectancy → Usage Decision	0.454	0.432	0.106	4.274	0.000	Supported



Social Influence → Usage Decision	-0.119	-0.119	0.067	1.790	0.074	Not Supported
Facilitating Conditions → Usage Decision	0.057	0.073	0.087	0.653	0.514	Not Supported
Hedonic Motivation → Usage Decision	0.254	0.254	0.113	2.251	0.025	Supported
Price Value → Usage Decision	0.592	0.582	0.140	4.214	0.000	Supported
Habit → Usage Decision	0.507	0.503	0.095	5.335	0.000	Supported

Source: Primary data. Authors' estimation.

The second hypothesis (H2: Effort Expectancy → Usage Decision) is also supported, with a strong path coefficient of 0.454 and a p-value of 0.000. This means that ease of use plays a crucial role in adoption; users tend to choose mobile banking services when they perceive them as simple and user-friendly. The high t-statistic (4.274) further confirms the robustness of this relationship.

The third hypothesis (H3: Social Influence → Usage Decision) is not supported, as evidenced by a negative path coefficient of -0.119 and a p-value of 0.074 (greater than 0.05). This suggests that recommendations from peers, family, or social groups do not significantly affect users' decisions to use mobile banking. Users may prioritize personal convenience and usability over external social pressures when adopting financial technology.

Similarly, the fourth hypothesis (H4: Facilitating Conditions → Usage Decision) is not supported, with a path coefficient of 0.057 and a p-value of 0.514. This result implies that factors such as technical infrastructure, customer support, and access to assistance do not play a significant role in determining whether users adopt BSI M-Banking. This finding suggests that users may already be familiar with mobile applications and do not rely heavily on external resources.

The fifth hypothesis (H5: Hedonic Motivation → Usage Decision) is supported, with a path coefficient of 0.254 and a p-value of 0.025. This indicates that users' enjoyment and satisfaction derived from using mobile banking positively influence their adoption decision. The role of hedonic motivation suggests that users prefer applications that provide a pleasant and engaging experience, reinforcing the importance of user interface design and interactive features.

The sixth hypothesis (H6: Price Value → Usage Decision) has the strongest effect, with a path coefficient of 0.592 and a p-value of 0.000. This finding highlights that users highly consider the cost-benefit aspect of mobile banking, such as transaction fees, discounts, and financial incentives. The higher the perceived value of mobile banking services relative to their cost, the more likely users are to adopt them.

Finally, the seventh hypothesis (H7: Habit → Usage Decision) is also strongly supported, with a path coefficient of 0.507 and a p-value of 0.000. This result suggests that habitual behavior significantly influences mobile banking adoption. Users who are accustomed to using digital financial services are more likely to continue using them, reinforcing the idea that past experience with technology adoption plays a

critical role in determining future usage behavior. These results provide valuable insights into the key factors driving mobile banking adoption, emphasizing the importance of perceived usefulness, ease of use, enjoyment, cost benefits, and habitual engagement, while highlighting the lesser impact of social influence and external support systems.

DISCUSSION

Intrinsic Factors Driving Mobile Banking Adoption

The study identifies performance expectancy, effort expectancy, hedonic motivation, price value, and habit as significant factors influencing the adoption of BSI mobile banking services. These intrinsic factors reflect users' perceived benefits, ease of use, emotional satisfaction, financial considerations, and ingrained behaviors.

1. **Performance Expectancy.** Performance expectancy emerges as a significant driver, consistent with the theoretical foundations of UTAUT2 (Venkatesh et al., 2012). Users perceive BSI mobile banking as an effective tool for managing financial transactions efficiently, reinforcing the notion that perceived utility is critical in technology adoption. This finding aligns with studies by Chaidir et al. (2021) and Oktaviana & Siregar (2021), which also emphasize the importance of performance expectancy in influencing user decisions. However, the implications extend beyond utility; the seamless integration of advanced features, such as real-time notifications and QR code payments, highlights the role of technological innovation in enhancing perceived performance.
2. **Effort Expectancy.** The significant influence of effort expectancy underscores the importance of user-centric design in mobile applications. The intuitive interface and accessibility of BSI's mobile banking services reduce cognitive and physical effort, facilitating higher adoption rates. This finding resonates with previous research (Anjani & Mukhlis, 2022), which underscores the relationship between ease of use and technology acceptance. While the results affirm the broader applicability of effort expectancy, they also suggest a need for continuous usability improvements to maintain competitive advantages in an evolving digital landscape.
3. **Hedonic Motivation.** Hedonic motivation significantly influences mobile banking adoption, emphasizing the psychological and emotional dimensions of technology use. Users derive satisfaction and enjoyment from the convenience and functionality offered by mobile banking, aligning with the findings of Venkatesh et al. (2012). This factor is particularly relevant for Gen Z and Millennials, who prioritize experiential value in their interactions with digital platforms. However, unlike the utilitarian aspects, hedonic motivation also introduces opportunities for differentiation, such as gamification, personalized content, and visually appealing designs, which could enhance user engagement further.



4. **Price Value.** The cost-effectiveness of BSI mobile banking services plays a pivotal role in adoption. The absence of administrative fees and the overall affordability resonate strongly with users, highlighting price value as a critical factor. This aligns with the findings of Baabullah et al. (2019), which emphasize the importance of cost considerations in financial service adoption. The study suggests that emphasizing transparent pricing structures and competitive cost advantages can be a decisive factor for financial institutions targeting budget-conscious demographics.
5. **Habit.** Habit emerges as the most influential factor, reinforcing the significance of behavioral routines in shaping user decisions. The finding corroborates prior research (Bilgah & Frimayasa, 2024) that underscores the role of habit in driving automatic adoption behaviors. For Gen Z and Millennials, who are already accustomed to cashless transactions and digital platforms, habitual usage serves as a bridge to sustained engagement. This insight suggests that fostering habitual behaviors through consistent user experiences, rewards programs, and educational campaigns could amplify adoption rates.

External Factors: Limited Influence

Contrary to expectations, social influence and facilitating conditions did not significantly impact mobile banking adoption in this study. This deviation from established literature prompts a nuanced interpretation of external factors in the Yogyakarta context. While social influence has been emphasized in collective cultures (Hofstede, 1984), its non-significance in this study suggests a shift toward individualistic decision-making among Gen Z and Millennials in Indonesia. Financial decisions, being inherently personal, may not be swayed by societal norms or peer opinions in this demographic. This finding aligns with Susilowati et al. (2021), which reported similar results for users prioritizing personal convenience over external recommendations. The study proposes that targeted marketing strategies emphasizing individual empowerment, rather than social validation, could better resonate with this audience.

Facilitating conditions, including smartphone availability and internet connectivity, were not significant predictors of adoption. This result likely reflects the saturation of technological infrastructure in urban areas like Yogyakarta, where these prerequisites are already met. Unlike developing regions where infrastructural challenges persist, facilitating conditions may be less relevant in contexts where baseline access is no longer a barrier. The findings align with Anjani & Mukhlis (2022), who observed similar trends in digitally mature markets. Future strategies should focus on enhancing service quality rather than addressing infrastructural gaps.

Comparative Analysis with Previous Studies

The study's findings both align with and deviate from existing literature, offering unique insights into mobile banking adoption in Indonesia. The significance of performance expectancy, effort expectancy, hedonic motivation, price value, and habit is consistent with prior studies employing the UTAUT2 framework (Venkatesh et



al., 2012; Baabullah et al., 2019). These results affirm the universality of intrinsic motivators in technology adoption, particularly for digital natives like Gen Z and Millennials.

The limited role of social influence and facilitating conditions contrasts with findings in collectivist cultures (Venkatesh et al., 2012; Susilowati et al., 2021). This deviation highlights the importance of contextual factors, such as urbanization and digital maturity, in shaping adoption dynamics. Furthermore, the dominant influence of habit suggests a behavioral shift driven by prolonged exposure to digital environments, a factor less emphasized in earlier studies.

Implications of Findings

The results have significant implications for practitioners, policymakers, and researchers. For financial institutions like BSI, the findings emphasize the importance of intrinsic motivators in shaping user behavior. Strategies to enhance performance expectancy, simplify user experiences, and foster habitual usage should be prioritized. Additionally, incorporating hedonic elements, such as personalized content and gamification, could differentiate services in a competitive market.

Policymakers aiming to promote digital financial inclusion should focus on fostering digital literacy and habitual engagement rather than addressing infrastructural challenges in urban areas. Initiatives such as financial education programs and incentivized usage campaigns could accelerate adoption. The study contributes to the broader literature on UTAUT2 by highlighting its adaptability to specific cultural and demographic contexts. The findings underscore the need for localized studies that account for evolving behavioral patterns, particularly in emerging markets.

CONCLUSION

This study explores the factors influencing the adoption of BSI mobile banking among Gen Z and Millennials in Yogyakarta using the UTAUT2 framework. The findings reveal that performance expectancy, effort expectancy, hedonic motivation, price value, and habit significantly affect users' decisions, while social influence and facilitating conditions do not. These results highlight the primacy of intrinsic motivators such as perceived utility, ease of use, and behavioral habits over external factors in shaping adoption behaviors.

The study underscores the importance of user-centered design, emphasizing intuitive interfaces, functional features, and emotional engagement to enhance user experiences. Moreover, the influence of habit suggests the need for strategies fostering regular usage patterns, particularly in digitally mature contexts like Yogyakarta. These insights contribute to the existing body of knowledge by offering a nuanced understanding of mobile banking adoption in an Indonesian context, bridging gaps in research on technology acceptance in emerging markets.

This study's findings have practical implications for financial institutions, encouraging them to prioritize user convenience, cost-effectiveness, and satisfaction

to remain competitive. For policymakers, the results suggest focusing on digital literacy and behavioral engagement to promote financial inclusion. Future research should explore longitudinal trends and examine demographic variations, further advancing the understanding of technology adoption.

Limitations of the Study

Despite its contributions, this study has several limitations. First, the reliance on self-reported data through surveys may introduce biases such as social desirability or inaccurate self-assessments. These biases could affect the reliability of responses regarding behavioral patterns and perceptions. A mixed-method approach combining qualitative interviews or observational studies could provide more nuanced insights.

Second, the cross-sectional design limits the ability to capture behavioral changes over time. As mobile banking adoption evolves, longitudinal studies are necessary to assess how factors like performance expectancy or hedonic motivation influence decisions in different stages of technological adoption.

Third, the study focuses solely on Gen Z and Millennials in Yogyakarta, which restricts the generalizability of findings. Expanding the scope to include diverse geographic regions and demographic groups, such as older generations or rural populations, could provide a broader perspective on mobile banking adoption.

Lastly, while the UTAUT2 framework offers a robust analytical lens, other theoretical models could complement the understanding of user behavior. Future studies may integrate models like the Technology Acceptance Model (TAM) or theories incorporating cultural dimensions to explore variations across different contexts.

Recommendations for Future Research

Building on this study, future research should address several key areas to enrich the understanding of mobile banking adoption. Longitudinal studies are crucial for capturing the dynamics of user behavior over time, especially as technological innovations and user expectations evolve. Such studies could illuminate how factors like habit or hedonic motivation develop and interact with emerging features in mobile banking platforms.

Second, future research should expand beyond urban, tech-savvy populations like those in Yogyakarta. Exploring adoption patterns in rural areas or among older generations could uncover barriers and drivers unique to these groups, contributing to more inclusive financial service strategies.

Third, integrating qualitative methods, such as in-depth interviews or focus groups, could provide richer contextual insights into user preferences and pain points. These methods can uncover underlying motivations and constraints that quantitative surveys might not fully capture.

Finally, cross-cultural studies comparing mobile banking adoption across regions or countries could reveal how cultural and infrastructural differences shape user behavior. By incorporating models that account for cultural dimensions, future research can offer a more comprehensive understanding of global technology

adoption patterns. These directions will further advance the discourse on digital financial services and their role in achieving financial inclusion.

Author Contributions

Conceptualization	Y.N.F. & A.G.	Resources	Y.N.F. & A.G.
Data curation	Y.N.F. & A.G.	Software	Y.N.F. & A.G.
Formal analysis	Y.N.F. & A.G.	Supervision	Y.N.F. & A.G.
Funding acquisition	Y.N.F. & A.G.	Validation	Y.N.F. & A.G.
Investigation	Y.N.F. & A.G.	Visualization	Y.N.F. & A.G.
Methodology	Y.N.F. & A.G.	Writing – original draft	Y.N.F. & A.G.
Project administration	Y.N.F. & A.G.	Writing – review & editing	Y.N.F. & A.G.

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Informed Consent Statement

Informed consent was obtained before the respondents filled out the questionnaire.

Data Availability Statement

The data presented in this study are available from the corresponding author upon reasonable request.

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Conflicts of Interest

The authors declare no conflicts of interest.

Declaration of Generative AI and AI-Assisted Technologies in the Writing Process

During the preparation of this work, the authors used ChatGPT, DeepL, Grammarly, and PaperPal in order to translate from Bahasa Indonesia into American English, and to improve clarity of the language and readability of the article. After using these tools, the authors reviewed and edited the content as needed and take full responsibility for the content of the published article.

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