Exploring the Allure: What Drives Customers to Embrace Mobile Banking Apps?

Dipak Singh Rawat, MPhil

Assistant Professor, Graduate School of Management
Mid-West University, Surkhet
E-mail: dipurawat2042@gmail.com

Keywords:	ABSTRACT
Ease of Use, Hedonic Motivation, Mobile Banking, Structural Equation Modelling *DOI: https://doi.org/10.3126/jnmr.v5i1.61379*	*This empirical investigation precisely explores the allure that drives customers to embrace mobile banking apps. This paper aims to examine the combined roles that perceived usefulness, perceived ease of use, perceived security and trust, and perceived hedonic motivation play in the adoption of mobile banking apps. It also aims to determine the effect of perceived hedonic motivation as a mediating variable in the relationship between these factors and the allure to embrace mobile banking apps. The research employed a positivist research philosophy and a descriptive research design, utilizing a survey method. Data were collected from 409 users of mobile banking apps from Karnali Province, employing a purposive sampling technique. The study exclusively conducted inferential analysis, employing the Partial Least Squares Structural Equation Modeling (PLS-SEM) technique to achieve its objectives. The study found a statistically significant positive impact of perceived usefulness, perceived ease of use, perceived security and trust, and perceived hedonic motivation on the adoption of mobile banking apps. Additionally, it identified the complementary partial mediating role of hedonic motivation. It accentuated its supportive influence on the relationships between PEoU, PSaT, and PU, and the allure to embrace mobile banking apps. These findings offer actionable insights for practitioners seeking to enhance mobile banking apps' appeal and user experience, acknowledging the intricate interplay of factors that collectively shape consumer willingness in the dynamic digital finance landscape.*

1. INTRODUCTION

In the rapidly evolving financial sector landscape, the digitization of processes, mainly through the advent of mobile banking apps, has become a hallmark of transformative change (Llewellyn, 2018; Osei et al., 2023). As these apps increasingly integrate into the fabric of modern banking experiences, comprehending

the factors driving customers to embrace this digital financial revolution becomes paramount (Dapp et al., 2015). Banking apps, accessible via smartphones and other portable devices, have become integral components of the modern banking landscape. As smartphones become ubiquitous, banking apps offer customers unprecedented convenience, accessibility, and a spectrum of financial services at their fingertips (Sabharwal & Swarup, 2012). Understanding the factors that drive customers to embrace these mobile banking apps is pivotal for financial institutions and researchers seeking to unravel the intricacies of technology adoption in the financial sector (Al-Smadi, 2012).

Technology adoption is a complex process influenced by various psychological and practical considerations. To comprehensively explore the allure of banking apps, this study delves into key determinants that shape customers' decisions to embrace these digital financial tools elucidated through the lens of established theories such as the Technology Acceptance Model (TAM) (Davis, 1985) and the Unified Theory of Acceptance and Use of Technology (UTAUT) (Venkatesh et al., 2003). These theories posit that PU and PEoU play fundamental roles in shaping an individual's intention to use technology, emphasizing the functional aspects of the application. In the realm of mobile banking apps, PU denotes how much customers are confident that the app will improve their finances. Simultaneously, PEoU relates to the perceived simplicity and user-friendly characteristics of the apps, as defined by Davis et al. (1989).

Beyond the foundational elements of TAM and UTAUT, the current research seeks to delve deeper into the multifaceted nature of customer acceptance by incorporating additional dimensions. In this respect, perceived security and trust (PSaT) emerge as critical variables in the digital realm, shaping users' confidence in the safety of their financial transactions (Jahangir & Begum, 2008) and perceived hedonic motivation (PHM), a nuanced dimension capturing the emotional and experiential elements that may contribute to the allure of banking apps beyond utilitarian considerations to the study (Salimon et al., 2017). While prior research has touched upon various aspects of mobile banking adoption, a comprehensive investigation into the collective influence of PEoU, PU, PSaT, and PHM is warranted.

As technology advances and user expectations evolve, a holistic comprehension of these factors becomes imperative to contribute to the allure of mobile banking apps. Consequently, there is a need to delve deeper into the interplay between perceived ease of use, perceived usefulness, perceived trust and security, and hedonic aspects to elucidate the holistic drivers that propel individuals to embrace mobile banking applications (Salimon et al., 2017). Furthermore, the specific mediating role of PHM in influencing the relationship between PEoU, PU, PSaT, and allure to embrace mobile banking apps is still needs to be explored. In doing so, this study aims to provide a comprehensive understanding of the intricate interplay between PEoU, PU, PSaT, PHM, and the allure to embrace mobile banking apps, with a particular focus on examining the mediating effect of PHM.

2. LITERATURE REVIEW

This study draws on TAM and UTAUT theories in the context of exploring customers' adoption of banking apps. These theories are invaluable tools to highlight and understand the key factors impelling user acceptance. TAM primarily focuses on PEoU and PU; researcher have extended and adapted TAM to include additional factors such as PSaT to better capture the complexities of technology acceptance to capture the complexities of technology acceptance. Likely, While the UTAUT model primarily focuses on utilitarian motivations (e.g., performance expectancy, effort expectancy), researchers have recognized the importance of including PHM to better understand user behavior in the context of technology adoption. So,

considering these theories, the study explores the allure; that drives customers to embrace mobile banking apps.

Perceived Ease of Use (PEOU) on the Allure of Mobile Banking Apps

As per Davis (1989), PEoU defined as the degree to which an individual perceives the use of a particular technology to be uncomplicated. In the context of mobile banking apps, PEoU involves the user's judgment of the application's simplicity, user-friendliness, and ease in performing various banking tasks. Factors such as interface design, navigation, and overall usability contribute to this perception. The convenience of mobile banking enhances customer satisfaction, as noted by Abu et al. (2020), reducing the need to wait in line at physical bank counters. Numerous studies, including those by Salimon et al. (2017) and Prastiawan et al. (2021), affirm a positive correlation between PEoU and e-banking adoption. However, conflicting results exist in (Hernandez & Mazzon, 2007) studies. The relationship between PEoU and PHM is supported by some studies (Deng & Yu, 2023; Salimon et al., 2017), though (Liao et al., 2008) found a weaker impact. The inconclusive nature of these studies underscores the need for further research, especially in developing countries. However, the present study is curious to assess the influence of PEoU on the allure of mobile banking apps and PHM. For this, the alternative hypotheses were designed as:

H_1: Perceived ease of use positively influences allure to embrace mobile banking apps.

H_2: Perceived ease of use positively influences perceived hedonic motivation.

Perceived Usefulness (PU) on the Allure to Embrace Mobile Banking Apps

As reported by Davis (1989), PU as consumers' credence in the benefits of mobile banking apps hinges over traditional branches. It pertains to the subjective likelihood that the utilization of a system would expedite the accomplishment of an individual's task (Jahangir & Begum, 2008). PU includes cost and time-saving, efficiency, accessibility, real-time information, and personalized features, providing an opportunity for banking anytime and anywhere. Empirical studies on PU and e-banking adoption show mixed results, with some demonstrating a significant positive relationship (Alalwan et al., 2016; AL-Majali & Mat, 2011), while others report weak or no correlations (Akhlaq & Ahmed, 2013). Additionally, PU is instrumental to PHM. A system that is perceived as valuable may concurrently be perceived as enjoyable, thereby fostering user adoption of the platform (Saber Chtourou & Souiden, 2010). These studies' lack of definitive findings emphasizes the necessity for additional research, particularly in developing nations. Nonetheless, the current investigation seeks to examine the influence of PU on the allure to embrace mobile banking apps and PHM. To achieve this, alternative hypotheses have been formulated as follows:

H_3: Perceived usefulness positively influence the allure to embrace mobile banking apps.

H_4: Perceived usefulness positively influence perceived hedonic motivation.

Perceived Security and Trust (PSaT) on the Allure to Embrace Mobile Banking Apps

Perceived security and trust (PSaT) are crucial for digital transactions and tech adoption (Gupta & Hakhu, 2022). Perceived security assesses the safety of financial data in electronic transactions, influencing the adoption of online services (Vejačka & Štofa, 2017). Trust, a subjective belief in positive outcomes, is established when a system demonstrates sufficient ability, benevolence, and integrity (Gefen et al., 2003). PSaT in mobile banking hinge on a range of technical, communicative, and user-centric factors, encompassing Authentication Mechanisms, Encryption Protocols, Secure Data Storage, Transaction

Security, Privacy Controls, Anti-Fraud Measures, Educational Resources, Regulatory Compliance, and User Feedback (Chang & Chen, 2009). Moreover, these factors collectively contribute to users' sense of security and trust in financial transactions. Literature suggests that the presence or absence of perceived safety can either stimulate or obstruct adoption (Pikkarainen et al., 2004). Likewise, perceived security and trust positively influence perceived hedonic motivation. The perception of inadequate security and trust may impede the enjoyment while a sense can enhance (Ernst, 2015). However, the present study aims to investigate the influence of PSaT on the appeal of mobile banking apps and enjoyment. To accomplish this, alternative hypotheses have been articulated as follows:

H_5: Perceived security and trust positively influence the allure to embrace mobile banking apps.

H_6: Perceived security and trust positively influence perceived hedonic motivation

Perceived Hedonic Motivation on the Allure to Embrace Mobile Banking Apps

Perceived Hedonic Motivation (PHM) encompasses the perceived pleasure, enjoyment, and emotional gratification derived from an activity. The role of perceived hedonic motivation is crucial for attracting users and enhancing the overall appeal of mobile banking apps. Hedonic motivation is defined as the enjoyment or pleasure derived from using technology, without any specific additional benefit (Venkatesh et al., 2012; Davis et al., 1992). It serves as a fundamental determinant of technology acceptance and usage (Brown & Venkatesh, 2005). Amin et al. (2012) substantiated a positive relationship between PHM, and the adoption of online banking. Nevertheless, some studies suggest that the incorporation of enjoyable attributes may lead to user confusion (Oly Ndubisi & Sinti, 2006). Therefore, the current study tried to scrutinize the influence of hedonic motivation on the allure to embrace mobile banking apps. To achieve this goal, the following alternative hypotheses have been formulated:

H_7: Perceived hedonic motivation positively influences the allure to embrace mobile banking apps.

Likewise, it is theorized that perceived hedonic motivation serves as a mediating variable, facilitating the transmission of effects from the predictors to the adoption process (Salimon et al., 2017; Ernst, 2015; Saber Chtourou & Souiden, 2010), thereby fostering elevated rates of adoption. Acting as an intermediary, hedonic motivation channels the influence of user perceptions, security considerations, and trust dynamics toward the overarching objective of augmenting adoption rates (Sharif & Raza, 2017). Users motivated by the pursuit of pleasure, enjoyment, and emotional satisfaction, identify hedonic motivation as the driving force behind their inclination to embrace and incorporate technological innovations into their daily lives (O'Brien, 2010). The recent study has explored the mediating role of PHM in the associations between each exogenous variable and endogenous variables. In pursuit of this objective, the subsequent operational hypotheses have been formulated:

H_8: Perceived hedonic motivation mediates the relationship between perceived ease of use and allure to embrace mobile banking apps.

H_9: Perceived hedonic motivation mediates the relationship between perceived security and trust, and allure to embrace mobile banking apps.

H_{10}: Perceived hedonic motivation mediates the relationship between perceived usefulness and the allure to embrace mobile banking apps.

3. CONCEPTUAL FRAMEWORK

Drawing from previous research, this investigation identifies PU, PEoU, PSaT and PHM as critical factors swaying the allure to embrace mobile banking apps. Additionally, PHM is acknowledged as a mediating factor in the connections between PU, PEoU, PSaT, and the allure to embrace mobile banking apps. The conceptual framework delineated for this study is as follows:

Figure 1
Conceptual Framework of the Study
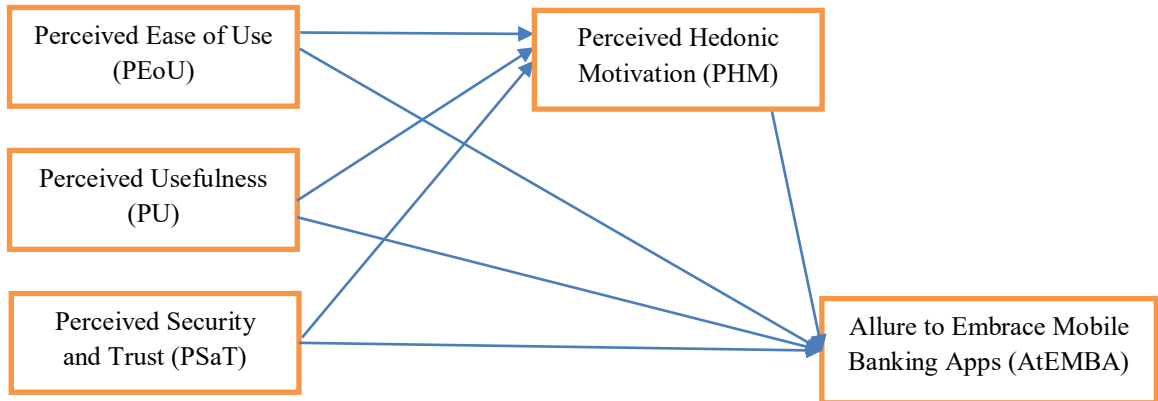
In the broader context, the conceptual framework posits an inquiry into the factors of PEoU, PU, PSaT and PHM to comprehensively elucidate the holistic drivers that propel individuals to embrace mobile banking apps. This investigation places particular emphasis on scrutinizing the mediating influence of PHM.

4. RESEARCH METHODOLOGY

In this investigation, the researcher employed a quantitative approach grounded in the positivist philosophy to conduct a thorough and unbiased examination of factors such as PEoU, PU, PSaT and PHM impelling the embracing of mobile banking apps, while also considering the mediating effect of PHM. Quantitative research seeks to establish causal relationships between variables using mathematical, computational, and statistical methods (Sekaran & Bougie, 2016). The researcher used a survey questionnaire to collect and analyze data through quantitative metrics. The attention of this research was to dig into the factors that allure customers to embrace mobile banking apps. The study targeted all users of mobile banking apps in Karnali Province.

The present investigation is situated within the theoretical framework of the TAM proposed by Davis (1985), and it is further supported by the UTAUT as delineated by Venkatesh et al. (2003). A comprehensive examination of the extant literature, notably the work of Ha et al. (2012), underscores the pervasive influence of TAM in shaping the theoretical foundations of research on technology adoption. Consequently, the research instrument employed in this study consists of two sections: the first segment encompasses three inquiries pertaining to demographic characteristics, while the second section comprises a five-point Likert scale questionnaire grounded in the adapted TAM model. This model incorporates dimensions such as PEoU, PU, PSaT and PHM, which collectively serve to entice consumers towards the adoption of mobile banking applications. The questionnaire design draws upon established measures from seminal studies related to the pertinent themes of this investigation, ensuring reliability and validity across

diverse contexts. Notably, the selected measurement items exhibit a synthesis derived from multiple scholarly sources, a methodological choice consistent with established practices in the literature. The ensuing table provides an overview of the primary sources of the variables under consideration.

Table 1

Variable measurement

Variable Name	Source
Perceived Ease of Use (PEoU)	(Deb & Lomo-David, 2014; Pikkarainen et al., 2004)
Perceived Usefulness (PU)	(Deb & Lomo-David, 2014; Pikkarainen et al., 2004)
Perceived Security and Trust (PSaT)	(Sahni & Mann, 2019; Deb & Lomo-David, 2014; Devi et al., 2013)
Perceived Hedonic Motivation (PHM)	(Moon & Kim, 2001; Pikkarainen et al., 2004; Venkatesh et al., 2012)
Allure to Embrace Mobile Banking Apps (AtEMBA)	(Devi et al., 2013; Ho & Ko, 2008; Zhou, 2013)

The study employed a purposive sampling technique, and the determination of the sample size adhered to the model or formula delineated by Taherdoost (2016), specifying a requisite sample size of 384. However, the present investigation opted for a sample size of 409 individuals who utilize mobile banking applications. The data collection period spanned from October 10, 2023, to November 20, 2023, and was executed through the administration of a survey questionnaire. Demographically, 52.2 percent of the respondents identified as male, while 48.8 percent were female. A predominant proportion of the participants fell within the age range of 25 to 40 years, and 45 percent reported possessing more than three years of experience in the realm of banking.

As acknowledged by Spector (2006), potential concerns regarding common method bias (CMB) were addressed. CMB has the potential to artificially inflate the relationships among measured variables (Organ & Ryan, 1995). To mitigate possible issues related to CMB and response bias, the researcher proactively integrated diverse response types in the questionnaire design phase, drawing insights from previous studies by Chin (1998). For this, respondents were assured that their responses would be treated confidentially, and efforts were made to avoid vague concepts. Furthermore, the examination of CMB through Harman's single-factor method, employing SPSS factor analysis, revealed that a mere 36.42 percent of the variance could be ascribed to a single factor (Podsakoff et al., 2003). This suggests that CMB was unlikely to significantly impact the study's outcomes, falling below the recommended benchmark of 60 percent.

In the conduct of inferential analysis, Structural Equation Modeling (SEM) was employed through the utilization of the Partial Least Squares (PLS) technique, facilitated by Smart PLS 4 Software. The adoption of the PLS-SEM methodology was motivated by its efficacy in evaluating the stipulated relationships and their corresponding impacts, including mediation analysis within the study framework (Gustafsson & Johnson, 2004). This technique was deemed particularly appropriate for data analysis in the present study owing to its independence from stringent large sample size requirements and the assumption of normal data distribution. Such independence enables the retention of a more significant number of variables per factor. Furthermore, PLS-SEM is advantageous in its capacity to simultaneously facilitate prediction and explanation of observed phenomena (Hair et al., 2019).

Within the model, the connections delineated between latent and observed variables were characterized as reflective, acknowledging the reciprocal influence wherein alterations in latent variables impart changes to the measurement of observed variables.

5. RESULTS

The proposed theoretical model was rigorously assessed using a two-step methodology (Chin, 1998). This procedure includes an initial examination of the measurement model's outer model reliability and validity, followed by an evaluation of the structural model using path coefficients and model fit with the help of bootstrap and jackknife techniques (Efron, 1992).

Outer Model Assessment

The measurement model, specifically the outer model, delineates the interrelations among the indicators corresponding to the constructs. Evaluation of the measurement model necessitates the confirmation of reliability, convergent validity, and discriminant validity, as advocated by Alshurideh et al. (2019). In the present study, reliability was gauged through the application of statistical indices, specifically internal consistency reliability (Cronbach's alpha) and composite reliability (CR), to assess the integrity of the measurement model. These indices collectively serve as evaluative metrics, ensuring the robustness and appropriateness of the measurement instruments in effectively capturing the intended constructs embedded within the research model, as underscored by the insights of Shrestha and Rawat (2023).

Table 2
Reliability Statistics

	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	Average variance extracted (AVE)
AtEMBA	0.807	0.808	0.866	0.564
PEoU	0.769	0.779	0.853	0.593
PHM	0.814	0.816	0.87	0.574
PSaT	0.721	0.729	0.827	0.545
PU	0.817	0.821	0.879	0.646

The assessment of scale reliability was conducted through the computation of Cronbach's alpha and composite reliability. Cronbach's alpha, reported for each construct, signifies the degree of correlation among items within a given construct. As depicted in Table 3, the Cronbach's alpha values for the various constructs range from 0.721 to 0.817, respectively, denoting a commendable level of internal consistency. Composite reliability, gauged through both rho_a and rho_c, evaluates the reliability of a construct by considering both the variance and covariance of its constituent indicators. The consistently elevated values recorded for both rho_a and rho_c, ranging from 0.808 to 0.879 across all constructs, affirm a robust reliability of the measurement model. Notably, the reliability of the constructs is substantiated by the observation that both Cronbach's Alpha and Composite Reliability values surpass the established threshold of 0.7, as recommended by Hair et al. (2019).

In evaluating convergent validity, the examination of Average Variance Extracted (AVE) is recommended. AVE quantifies the proportion of variance captured by a construct in relation to measurement error. As

delineated in Table 3, the computed AVE values for all constructs range from 0.5454 to 0.646. These values surpass the established threshold of 0.50, indicative of a substantial proportion of the variance within the constructs being attributed to the underlying constructs rather than measurement error, in accordance with the guidelines proposed by Hair et al. (2019).

Discriminant validity of the constructs was assessed through methodologies such as "Cross-Loading," the "Fornell-Larcker Criterion," and the "Heterotrait-Monotrait" ratio (HTMT), recognized as pertinent measures for scrutinizing discriminant validity (Henseler et al., 2009). Discriminant validity ensures the distinctiveness of each construct from others in the model.

Table 3
Cross Loading

	AtEMBA	PEoU	PHM	PSaT	PU
AtEMBA1	**0.75**	0.431	0.542	0.404	0.558
AtEMBA2	**0.752**	0.493	0.537	0.464	0.513
AtEMBA4	**0.736**	0.46	0.515	0.459	0.455
AtEMBA6	**0.74**	0.467	0.449	0.432	0.38
AtEMBA8	**0.777**	0.428	0.508	0.501	0.468
PEoU2	0.389	**0.725**	0.497	0.48	0.297
PEoU3	0.448	**0.763**	0.565	0.471	0.382
PEoU6	0.473	**0.732**	0.468	0.451	0.25
PEoU8	0.547	**0.852**	0.588	0.515	0.378
PHM1	0.51	0.482	**0.749**	0.517	0.478
PHM3	0.522	0.508	**0.763**	0.476	0.338
PHM5	0.572	0.566	**0.815**	0.502	0.429
PHM7	0.523	0.565	**0.745**	0.501	0.409
PHM8	0.447	0.488	**0.711**	0.497	0.346
PSaT2	0.321	0.463	0.416	**0.689**	0.258
PSaT3	0.42	0.451	0.525	**0.712**	0.316
PSaT7	0.521	0.456	0.501	**0.817**	0.326
PSaT8	0.487	0.474	0.491	**0.728**	0.307
PU2	0.558	0.331	0.42	0.342	**0.835**
PU4	0.524	0.358	0.471	0.383	**0.829**
PU5	0.46	0.348	0.404	0.267	**0.748**
PU6	0.503	0.341	0.408	0.323	**0.80**

Table 3 confirms the discriminant validity of latent variables in the study, as supported by Hair et al. (2019). Comparing outer loadings to cross-loadings demonstrates that each measurement primarily reflects its associated latent variable rather than being strongly tied to others. For instance, in the AtEMBA construct, outer loadings consistently exceed cross-loadings with other constructs (PEoU, PHM, PSaT, PU). This consistent pattern across all latent variables (PEoU, PHM, PSaT, PU) underscores the

distinctiveness of each construct, validating the measurement model. These results boost confidence in the ability of the selected measures to capture the unique attributes of the latent variables studied accurately.

Table 4

Fornell-Larcker Test Measures and HTMT Ratio

Fornell-Larcker test						**HTMT Ratio**				
	AtEMBA	**PEoU**	**PHM**	**PSaT**	**PU**		**AtEMBA**	**PEoU**	**PHM**	**PSaT**	**PU**
AtEMBA	0.75					AtEMBA					
PEoU	0.61	0.77				PEoU	0.77				
PHM	0.68	0.69	0.76			PHM	0.84	0.87			
PSaT	0.60	0.62	0.66	0.74		PSaT	0.78	0.84	0.86		
PU	0.64	0.43	0.53	0.41	0.80	PU	0.78	0.54	0.65	0.53	

Table 4 delineates the assessment of construct-level discriminant validity through the application of HTMT ratios and the Fornell-Larcker test. The HTMT values observed, adhering to the recommended threshold of below 0.90 as proposed by Ringle et al. (2023), consistently manifest lower values within the specific parameters of this study.

The Fornell-Larcker test, which scrutinizes the square root of the Average Variance Extracted (AVE) for each construct, is integral to this analysis. The coefficients derived from the Fornell-Larcker test, maintaining values below 0.80 with diagonal elements exceeding their non-diagonal counterparts, signify a robust discrimination among the constructs (Becker et al., 2012). In light of these findings, the efficacy of the measurement model is duly affirmed.

Structural Model and Hypothesis Testing

In this investigation, the assessment of the structural model relationship was conducted through the application of the PLS-SEM bootstrapping method to ascertain the significance of the relationships. Specifically, bootstrapping was iteratively performed across 5000 resampling instances to meticulously analyze the robustness of the results and ascertain the precision of the path coefficients, as recommended by Becker et al. (2023).

Table 5

Coefficient of Determination, F Square, and Standardized Root Mean Residual (SRMR)

Constructs	**R Square**	**Adj. R Square**	**F Square**	**P values**
AtEMBA	0.612	0.608		0.000
PHM	0.604	0.601		
PEoU			0.226	
PSaT			0.149	
PU			0.105	
SRMR	0.071			

Table 5 delineates the statistical outcomes pertaining to R Square, Adjusted R Square, F Square, and SRMR. R² denotes the proportion of variance within each construct elucidated by the latent variables integrated into the model, serving as a metric for the model's explanatory efficacy (Hu & Bentler, 1999). The results disclose that a cumulative 61.2% of the variance characterizing the inclination to adopt mobile banking applications is explicated by the exogenous variables. Furthermore, 60.4% of the variance associated with PHM is clarified by the exogenous constructs, employing the classification criteria

proposed by Henseler et al. (2009), where 0.75 signifies substantial, 0.5 indicates moderate, and 0.25 represents weak explanatory power.

In addition, the F Square parameter offers insight into the effect size within PLS-SEM, delineating the extent to which the variance in the dependent construct is explicated relative to that in the independent constructs. In the context of this study, an F Square value surpassing 0.02 is indicative of a significant effect, as established by Cohen (1988).

The SRMR is employed to evaluate model fit, gauging the disparity between observed and model-implied correlations. The observed SRMR value of 0.071 aligns with the prescribed threshold stipulated by Hu and Bentler (1999).

The investigation systematically examined both the direct and mediating relationships intrinsic to the variables under scrutiny. A set of seven direct hypotheses, along with three mediating hypotheses, were postulated and rigorously tested. The intricate facets of the structural and measurement models, including the associated path coefficients, have been meticulously delineated in Figure 2, as well as explicated in the comprehensive tabular representations provided in Table 6 and Table 7.

Figure 2
Graphical Representation of PLS-SEM Model
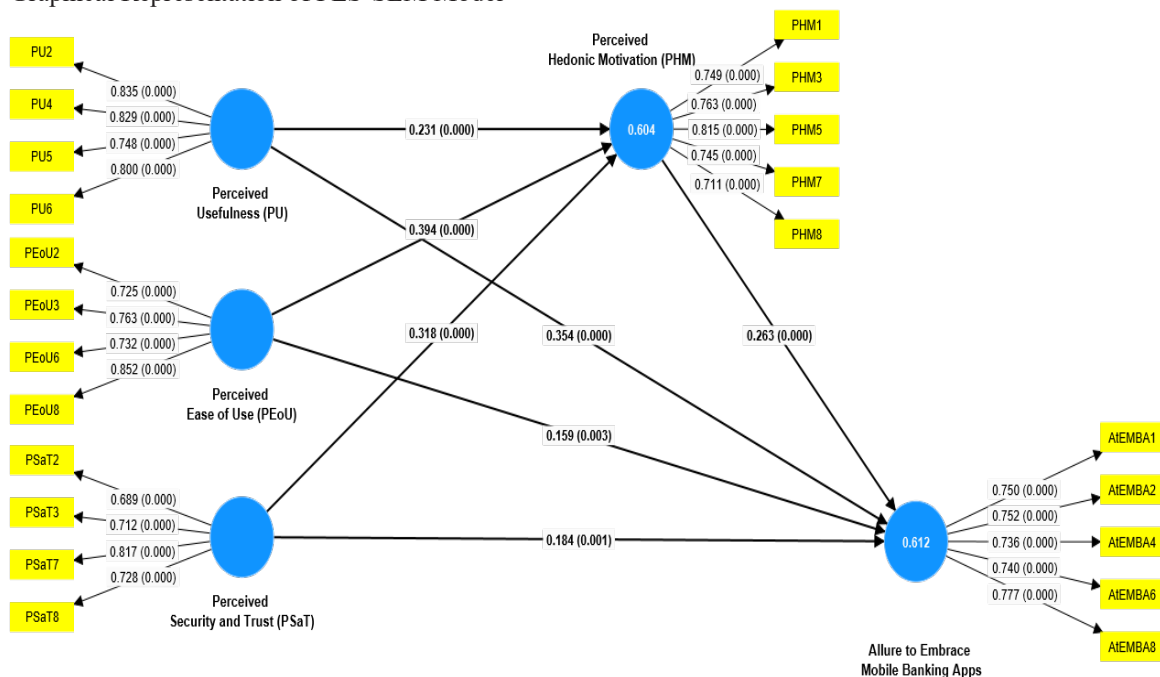
In the present study, the PLS-SEM model examine and validate the relationships among latent constructs systematically. As illustrated in Figure 2, the model delineated latent variables alongside their corresponding indicators within the study. Specifically, the diagram elucidated the foundational interconnections between PEoU, PU, PSaT, PHM, and AtEMBA.

Table 6
Path Coefficient and Hypothesis Testing

Hypothesis	Path	ß	T statistics (|O/STDEV|)	P values	Results
H1: Perceived ease of use has positive influence on allure to embrace mobile banking apps.	PEoU -> AtEMBA	0.159	3.005	0.003	Supported
H2: Perceived ease of use has positive influence on perceived hedonic motivation.	PEoU -> PHM	0.394	7.809	0.000	Supported
H3: Perceived usefulness positively influences on allure to embrace mobile banking apps.	PU -> AtEMBA	0.354	6.116	0.000	Supported
H4: Perceived usefulness positively influences perceived hedonic motivation.	PU -> PHM	0.231	5.267	0.000	Supported
H5: Perceived security and trust positively influences on allure to embrace mobile banking apps.	PSaT -> AtEMBA	0.184	3.19	0.001	Supported
H6: Perceived security and trust positively influences perceived hedonic motivation	PSaT -> PHM	0.318	6.676	0.000	Supported
H7: Perceived hedonic motivation positively influences on allure to embrace mobile banking apps.	PHM -> AtEMBA	0.263	4.639	0.000	Supported

Table 6 elucidated the statistical outcomes, unveiling several hypotheses concerning the impacts of pivotal factors on the adoption of mobile banking applications. Primarily, PEoU manifests a positive influence on the inclination to embrace mobile banking apps (AtEMBA), as evidenced by a path coefficient ($\beta = 0.159$, $p < 0.003$). Furthermore, PEoU emerges as a significant determinant of PHM ($\beta = 0.394$, $p < 0.000$).

Likewise, PU is demonstrated to exert a positive impact on both the propensity to adopt mobile banking apps (AtEMBA) ($\beta = 0.354$, $p < 0.000$) and PHM ($\beta = 0.231$, $p < 0.000$). Additionally, the PSaT associated with mobile banking applications significantly contribute to the inclination towards their adoption ($\beta = 0.184$, $p = 0.001$) and PHM ($\beta = 0.318$, $p = 0.000$). Lastly, PHM itself is substantiated to exert a positive influence on the inclination to embrace mobile banking apps ($\beta = 0.263$, $p < 0.000$). These collective findings underscore the pivotal roles played by ease of use, usefulness, security and trust, and hedonic motivation in shaping consumers' decisions in the realm of mobile banking app adoption.

Similarly, mediation analysis was performed to articulate the mediation effect of PHM in the relationship between PEoU, PU, PSaT on the allure to embrace mobile banking apps

Table 7

Mediation results

Total Effect			Direct Effect				Indirect Effect					
									Percentile Bootstrap 95% Confidence Interval			
Coeff.	T Value	p-Value	Coeff.	T Value	p-Value	Hypothesis	Coeff.	SE	T Value	p-Value	Lower	Upper
0.263	5.132	0.000	0.159	3.005	0.003	PEoU -> PHM-> AtEMBA	0.104	0.022	4.633	0.000	0.06	0.149
0.268	5.094	0.000	0.184	3.19	0.001	PSaT -> PHM -> AtEMBA	0.084	0.024	3.466	0.001	0.041	0.135
0.414	7.165	0.000	0.354	6.116	0.000	PU -> PHM -> AtEMBA	0.061	0.019	3.136	0.002	0.027	0.103

Table 7 unveiled a noteworthy indirect impact of PEoU on the allure of embracing mobile banking apps (AtEMBA) ($\beta = 0.104$, t = 4.633, p < .000). The overall influence of PEoU on the allure of embracing mobile banking apps was also substantial; similarly, when considering the mediator, the influence of PEoU on AtEMBA remained significant. In a parallel fashion, the indirect impact of PSaT on AtEMBA was deemed significant ($\beta = 0.084$, t = 3.466, p < .001). The overall effect of PSaT on AtEMBA also held significance; correspondingly, with the inclusion of the mediator, the effect of PSaT on AtEMBA remained substantial. Additionally, the table illustrates the indirect impact of PU on AtEMBA ($\beta = 0.061$, t = 3.136, p < .002). The comprehensive effect of PU on AtEMBA was also noteworthy; similarly, when incorporating the mediator, the effect of PU on AtEMBA remained significant. Likewise, the significant indirect effect of all exogenous variables on the endogenous variable surpassed the direct effect (No 0 in the lower and Upper Bound). This collectively indicates a complementary partial mediating role of PHM in the relationship between PEoU, PSaT, and PU on AtEMBA. Hence, hypothesis H_8, H_9 and H_{10} supported.

6. DISCUSSION

The research article, "Exploring the Allure: What Drives Customers to Embrace Mobile Banking Apps?" delves into the factors influencing consumers' adoption of Mobile Banking Apps. The study utilizes a comprehensive analysis to uncover the key drivers shaping individuals' decisions to embrace mobile banking apps. The research specifically centers on predicting factors conducive to mobile banking apps encompassing ease of use, usefulness, perceived security and trust, and hedonic motivation as exogenous variables, with the allure to embrace mobile banking apps. Besides, this study also examined the complex mediating effect of how hedonic motivation impacts the relationship between ease of use, security and trust, usefulness, and allure to embrace mobile banking apps. The dataset, sourced from respondents across Karnali province, underwent thorough statistical analysis to assess hypotheses and attain the research objectives. The application of rigorous statistical procedures ensures the model's predictive efficacy, and subsequent sections explicate the outcomes in consonance with the stipulated hypotheses and research objectives.

This study's first sets of hypotheses tested the direct relationship between the independent variables PEoU, PSaT, PHM, and PU; and the endogenous variable AtEMBA in the banking sector of Karnali Province, Nepal. In this regard, the results of PLS-SEM reveal positive and significant relationships between PEoU and AtEMBA. This finding is in line with the findings of (Prastiawan et al., 2021; Salimon et al., 2017), implying that the ease of use in mobile banking apps positively influences users' attraction and adoption, highlighting the importance of a user-friendly and intuitively designed interface in enhancing the overall allure and desirability of these applications for banking needs. Likewise, in line with the findings of

(Pikkarainen et al., 2004), this study also found a significant positive influence of PSaT on AtEMBA. This highlights that factors such as secure transactions, protection of personal information, and a trustworthy platform contribute positively to the allure of adopting mobile banking technology. Similarly, hedonic motivation positively influences the allure to embrace mobile banking apps. This argument is also in line with that of (Brown & Venkatesh, 2005), who viewed pleasurable and enjoyable aspects related to using mobile banking apps as having a meaningful impact on shaping users' decisions to embrace and incorporate these technologies into their financial activities. In addition, usefulness was also found to impact on allure to embrace mobile banking apps. Many researchers (Alalwan et al., 2016; AL-Majali & Mat, 2011) suggest practical benefits like the opportunity for anytime, anywhere banking, leading to a higher likelihood of embracing and using mobile banking apps for their financial needs. However, some researchers found no significant effect of PU on AtEMBA (Akhlaq & Ahmed, 2013).

Similarly, another objective, such as the effect of PEoU, PSaT and PU on the PHM, was also examined. In this respect, the results demonstrate that PEoU significantly positively influences PHM. This result is aligned with prior studies, like (Deng & Yu, 2023; Salimon et al., 2017), which found users perceive technology as easy to use; they are expected to derive more fun, pleasure, or hedonic satisfaction from their interactions with it. In addition, the result demonstrates the positive significant effect of PSaT on PHM, as argued by (Ernst, 2015). This implies that the perception of a secure and trustworthy environment in mobile banking apps is associated with an enhanced feeling of enjoyment, pleasure, or positive affective experiences. At the same time, like many researchers (Saber Chtourou & Souiden, 2010), this study found a significant positive effect of PU on PHM. This asserts that when individuals perceive a product or service as useful, it contributes positively to their overall enjoyment, pleasure, or satisfaction derived from using that product or service.

In the end, the study examined the mediation effect of PHM in the relationship between PEoU, PSaT, and PU on AtEMBA. In this regard, PHM play a significant role in mediating the influence of ease of use on the allure of embracing mobile banking apps. For instance, (Salimon et al., 2017) suggests that ease of use directly influences the allure; the pleasurable and enjoyable aspects of the user experience, as represented by hedonic motivation, enhance and complement this relationship. In addition, there is also a significant mediation effect of PHM on the relationship between PU and AtEMBA. Similar to this (Saber Chtourou & Souiden, 2010) highlights that the hedonic aspect adds a nuanced layer to users' attraction to mobile banking beyond just functional utility, highlighting the importance of positive and enjoyable experiences in the overall appeal of these apps. Likewise, like many researchers (Sharif & Raza, 2017), this study found that hedonic motivation has significantly mediated the relationship between PSaT and AtEMBA. For instance, hedonic motivation works together with security and trust to influence the allure of embracing mobile banking apps; hedonic motivation adds an extra layer of influence, enhancing the overall appeal.

7. CONCLUSION

In conclusion, this study illuminates the key drivers of consumer adoption of mobile banking apps. Notably, ease of use emerges as a direct influencer and a significant driver of hedonic motivation, highlighting its multifaceted impact. Similarly, usefulness plays a pivotal role, positively influencing the allure of adoption and hedonic motivation, enhancing overall appeal. Additionally, security and trust are crucial contributors to adoption allure and hedonic motivation, underscoring the importance of user trust. The confirmed positive influence of hedonic motivation on adoption allure emphasizes the role of pleasure in the mobile banking experience. Furthermore, the research reveals a complementary partial mediating role of hedonic motivation, accentuating its supportive influence on the relationships between PEoU, PSaT, and PU and the allure to embrace mobile banking apps. In summary, these findings offer actionable insights for practitioners seeking to enhance mobile banking apps appeal and user experience, acknowledging the intricate interplay of factors that collectively shape consumer willingness in the dynamic digital finance landscape.

References:

Abu, R., Najdah, B., Abd Aziz, N., Muhammud, A., & Muda, M. (2020). Perceived ease of use, security and privacy of mobile banking. *International Journal of Business Economic and Law, 13*(2),56-62

Akhlaq, A., & Ahmed, E. (2013). The effect of motivation on trust in the acceptance of internet banking in a low income country. *International Journal of Bank Marketing*, *31*(2), 115–125. https://doi.org/10.1108/02652321311298690

Alalwan, A. A., Dwivedi, Y. K., Rana, N. P. P., & Williams, M. D. (2016). Consumer adoption of mobile banking in Jordan: Examining the role of usefulness, ease of use, perceived risk and self-efficacy. *Journal of Enterprise Information Management*, *29*(1), 118–139. https://doi.org/10.1108/JEIM-04-2015-0035

AL-Majali, M., & Mat, N. K. N. (2011). *Modeling the antecedents of internet banking service adoption (IBSA) in Jordan: A Structural Equation Modeling (SEM) approach*. 16.

Alshurideh, M., Salloum, S. A., Al Kurdi, B., & Al-Emran, M. (2019). Factors affecting the Social Networks Acceptance: An Empirical Study using PLS-SEM Approach. *Proceedings of the 2019 8th International Conference on Software and Computer Applications*, 414–418. https://doi.org/10.1145/3316615.3316720

Amin, H., Sabah, M., Aris, M. M., Ums, J., & Kinabalu, K. (2012). Receptiveness of Mobile Banking by Malaysian Local Customers in Sabah: An Empirical Investigation. *Journal of Internet Banking and Commerce,17*(1),1-12.

Becker, J.-M., Cheah, J.-H., Gholamzade, R., Ringle, C. M., & Sarstedt, M. (2023). PLS-SEM's most wanted guidance. *International Journal of Contemporary Hospitality Management*, *35*(1), 321–346. https://doi.org/10.1108/IJCHM-04-2022-0474

Becker, J.-M., Klein, K., & Wetzels, M. (2012). Hierarchical Latent Variable Models in PLS-SEM: Guidelines for Using Reflective-Formative Type Models. *Long Range Planning*, *45*(5–6), 359–394. https://doi.org/10.1016/j.lrp.2012.10.001

Brown, S. A., & Venkatesh, V. (2005). Model of adoption of technology in households: A baseline model test and extension incorporating household life cycle. *MIS Quarterly*, *29*(3), 399–426. https://doi.org/10.2307/25148690

Chang, H.H., & Chen, S. (2009). Consumer perception of interface quality, security, and loyalty in electronic commerce. *Information & Management*, *46*(7),411–417. https://doi.org/10.1016/j.im.2009.08.002

Chin, W. W. (1998). The partial least squares approach for structural equation modeling. In *Modern methods for business research 295*(2), 295-336.

Cohen, J. (1988). *Statistical Power Analysis for the Behavioral Sciences* (2nd ed.). Routledge. https://doi.org/10.4324/9780203771587

Dapp, T., Slomka, L., AG, D. B., & Hoffmann, R. (2015). Fintech reloaded–Traditional banks as digital ecosystems. *Publication of the German Original*, 261–274.

Davis, F. D. (1985). *A technology acceptance model for empirically testing new end-user information systems: Theory and results* [PhD Thesis, Massachusetts Institute of Technology]. https://dspace.mit.edu/bitstream/handle/1721.1/15192/14927137-MIT.pdf

Davis, F. D., Bagozzi, R. P., & Warshaw, P. R. (1989). User Acceptance of Computer Technology: A Comparison of Two Theoretical Models. *Management Science*, *35*(8), 982–1003. https://doi.org/10.1287/mnsc.35.8.982

Davis, F. D., Bagozzi, R. P., & Warshaw, P. R. (1992). Extrinsic and Intrinsic Motivation to Use Computers in the Workplace. *Journal of Applied Social Psychology*, *22*(14), 1111–1132. https://doi.org/10.1111/j.1559-1816.1992.tb00945.x

Deb, M., & Lomo-David, E. (2014). An empirical examination of customers' adoption of m-banking in India. *Marketing Intelligence & Planning*, *32*(4), 475–494. https://doi.org/10.1108/MIP-07-2013-0119

Deng, X., & Yu, Z. (2023). An extended hedonic motivation adoption model of TikTok in higher education. *Education and Information Technologies*, *28*(10), 13595–13617. https://doi.org/10.1007/s10639-023-11749-x

Devi, J., Pudaruth, S., & Ramdin, P. (2013). Factors influencing the adoption of internet banking: A case study of commercial banks in Mauritius. *World Journal of Science, Technology and Sustainable Development*, *9*(3), 204–234. https://doi.org/10.1108/20425941211250552

Efron, B. (1992). Jackknife-After-Bootstrap Standard Errors and Influence Functions. *Journal of the Royal Statistical Society. Series B (Methodological)*, *54*(1), 83–127.

Ernst, C. P. H. (2015). Risk Hurts Fun: The Influence of Perceived Privacy Risk on Social Network Site Usage. In C.-P. H. Ernst (Ed.), *Factors Driving Social Network Site Usage* (pp. 45–56). Springer Fachmedien. https://doi.org/10.1007/978-3-658-09918-3_4

Gefen, D., Karahanna, E., & Straub, D. W. (2003). Trust and TAM in Online Shopping: An Integrated Model. *MIS Quarterly*, *27*(1), 51–90. https://doi.org/10.2307/30036519

Gupta, P., & Hakhu, D. (2022). Impact of Perceived Security and Perceived Trust on Intention to Use Digital Payments -A Study on Indian Customers. *Webology*, *volume 18*(6),169-181.

Gustafsson, A., & Johnson, M. D. (2004). Determining Attribute Importance in a Service Satisfaction Model. *Journal of Service Research*, *7*(2), 124–141. https://doi.org/10.1177/1094670504268453

Ha, K.H., Canedoli, A., Baur, A. W., & Bick, M. (2012). Mobile banking—Insights on its increasing relevance and most common drivers of adoption. *Electronic Markets*, *22*(4), 217–227. https://doi.org/10.1007/s12525-012-0107-1

Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to use and how to report the results of PLS-SEM. *European Business Review*, *31*(1), 2–24. https://doi.org/10.1108/EBR-11-2018-0203

Henseler, J., Ringle, C. M., & Sinkovics, R. R. (2009). The use of partial least squares path modeling in international marketing. In R. R. Sinkovics & P. N. Ghauri (Eds.), *Advances in International Marketing* (Vol. 20, pp. 277–319). Emerald Group Publishing Limited. https://doi.org/10.1108/S1474-7979(2009)0000020014

Hernandez, J. M., & Mazzon, J. (2007). Adoption of Internet banking: Proposition and implementation of an integrated methodology approach. *International Journal of Bank Marketing*, *25*(2), 72–88. https://doi.org/10.1108/02652320710728410

Ho, S., & Ko, Y. (2008). Effects of self-service technology on customer value and customer readiness: The case of Internet banking. *Internet Research*, *18*(4), 427–446. https://doi.org/10.1108/10662240810897826

Hu, L., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling: A Multidisciplinary Journal*, *6*(1), 1–55. https://doi.org/10.1080/10705519909540118

Jahangir, N., & Begum, N. (2008). The role of perceived usefulness, perceived ease of use, security and privacy, and customer attitude to engender customer adaptation in the context of electronic banking. *African journal of business management*, *2*(2), 032–040.

Liao, C.-H., Tsou, C.-W., & Shu, Y.-C. (2008). The Roles of Perceived Enjoyment and Price Perception in Determining Acceptance of Multimedia on Demand. *International Journal of Business and Information*, *3*(1), 27–52. https://doi.org/10.6702/ijbi.2008.3.1.2

Llewellyn, D. T. (2018). Financial technology, regulation, and the transformation of banking. *The European Money and Finance Forum (SUERF) Conference: Financial Disintermediation and the Future of Banking Sector*. https://www.bde.es/f/webbde/INF/MenuHorizontal/SobreElBanco/Conferencias/2018/DavidLlewellyn.pdf

Moon, J.-W., & Kim, Y.-G. (2001). Extending the TAM for a World-Wide-Web context. *Information & Management*, *38*(4), 217–230. https://doi.org/10.1016/S0378-7206(00)00061-6

O'Brien, H. (2010). The influence of hedonic and utilitarian motivations on user engagement: The case of online shopping experiences. *Interacting with Computers*, *22*(5), 344–352. https://doi.org/10.1016/j.intcom.2010.04.001

Oly Ndubisi, N., & Sinti, Q. (2006). Consumer attitudes, system's characteristics and internet banking adoption in Malaysia. *Management Research News*, *29*(1/2), 16–27. https://doi.org/10.1108/01409170610645411

Organ, D. W., & Ryan, K. (1995). A META-ANALYTIC REVIEW OF ATTITUDINAL AND DISPOSITIONAL PREDICTORS OF ORGANIZATIONAL CITIZENSHIP BEHAVIOR. *Personnel Psychology*, *48*(4), 775–802. https://doi.org/10.1111/j.1744-6570.1995.tb01781.x

Osei, L. K., Cherkasova, Y., & Oware, K. M. (2023). Unlocking the full potential of digital transformation in banking: A bibliometric review and emerging trend. *Future Business Journal*, *9*(1), 30. https://doi.org/10.1186/s43093-023-00207-2

Pikkarainen, T., Pikkarainen, K., Karjaluoto, H., & Pahnila, S. (2004). Consumer acceptance of online banking: An extension of the technology acceptance model. *Internet Research*, *14*(3), 224–235. https://doi.org/10.1108/10662240410542652

Podsakoff, P. M., MacKenzie, S. B., Lee, J.-Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology*, *88*(5), 879–903. https://doi.org/10.1037/0021-9010.88.5.879

Prastiawan, D., Aisjah, S., & Rofiaty, R. (2021). The Effect of Perceived Usefulness, Perceived Ease of Use, and Social Influence on the Use of Mobile Banking through the Mediation of Attitude Toward Use. *Asia Pacific Management and Business Application*, *9*(3), 243–260. https://doi.org/10.21776/ub.apmba.2021.009.03.4

Ringle, C. M., Sarstedt, M., Sinkovics, N., & Sinkovics, R. R. (2023). A perspective on using partial least squares structural equation modelling in data articles. *Data in Brief*, *48*,1-21. https://doi.org/10.1016/j.dib.2023.109074

Saber Chtourou, M., & Souiden, N. (2010). Rethinking the TAM model: Time to consider fun. *Journal of Consumer Marketing*, *27*(4), 336–344. https://doi.org/10.1108/07363761011052378

Sabharwal, M., & Swarup, A. (2012). Banking by the use of handheld devices & gadgets like Smart-phones, Tablets (Using Banking Applications & Widgets that are Based on Mobile Operating Systems like Android etc). *International Journal on Emerging Technologies*, *3*(1), 61–66.

Sahni, S., & Mann, B. (2019). Profiling Adopter categories of Internet Banking in India: An Empirical Study.*Vision- The Journal of Business Perspective,16*(4), 283-295, SAGE Publications.

Salimon, M. G., Yusoff, R. Z. B., & Mohd Mokhtar, S. S. (2017). The mediating role of hedonic motivation on the relationship between adoption of e-banking and its determinants. *International Journal of Bank Marketing*, *35*(4), 558–582. https://doi.org/10.1108/IJBM-05-2016-0060

Sekaran, U., & Bougie, R. (2016). *Research methods for business: A skill building approach*. John Wiley & Sons.

Sharif, A., & Raza, S. A. (2017). The Influence of Hedonic Motivation, Self-efficacy, Trust and Habit on Adoption of Internet Banking: A Case of Developing Country. *International Journal of Electronic Customer Relationship Management*, *11*(1),1-22. https://doi.org/10.1504/IJECRM.2017.10007736

Shrestha, P. M., & Rawat, D. S. (2023). Financial Literacy, Saving Behaviour and Entrepreneurial Intention: The Moderating Effect of Family Financial Socialization. Researcher CAB: *A Journal for Research and Development, 2*(1), 17-49. https://doi.org/10.3126/rcab.v2i1.57642

Spector, P. E. (2006). Method Variance in Organizational Research: Truth or Urban Legend? *Organizational Research Methods*, *9*(2), 221–232. https://doi.org/10.1177/1094428105284955

Taherdoost, H. (2016). Sampling Methods in Research Methodology; How to Choose a Sampling Technique for Research. *International Journal of Academic Research in Management (IJARM)*, *5*(2),18-27 https://hal.science/hal-02546796

Vejačka, M., & Štofa, T. (2017). Influence of security and trust on electronic banking adoption in Slovakia. *Economics and Management, 20*,(4), 135–150. https://doi.org/10.15240/tul/001/2017-4-010

Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). User Acceptance of Information Technology: Toward a Unified View. *MIS Quarterly*, *27*(3), 425–478. https://doi.org/10.2307/30036540

Venkatesh, V., Thong, J. Y. L., & Xu, X. (2012). Consumer Acceptance and Use of Information Technology: Extending the Unified Theory of Acceptance and Use of Technology. *MIS Quarterly*, *36*(1), 157–178. https://doi.org/10.2307/41410412

Zhou, T. (2013). Understanding continuance usage of mobile sites. *Industrial Management & Data Systems*, *113*(9), 1286-1299. https://doi.org/10.1108/IMDS-01-2013-0001