

FACTORS LEADING TO THE ACCEPTANCE OF DIGITAL BANKING IN KERALA: AN ANALYSIS OF THE SBI YONO APP

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Abstract:

The banking industry has expanded globally due to the widespread adoption of digital banking, particularly in India. Digital banking has revolutionized financial transactions, offering customers convenience, speed, and accessibility. This research examines the key determinants that shape the adoption of digital banking in Kerala, with a particular focus on the State Bank of India's (SBI) YONO app. Data were gathered from 200 SBI YONO app customers in Ernakulam District using a descriptive research framework. The researcher used descriptive statistics, percentage analysis, factor analysis, and regression to analyze the collected data. The results show that several factors, including social impact, perceived effort, outcome, available facilities, and the effects of COVID-19, helped determine the adoption of the SBI YONO. These elements play a pivotal role in influencing user engagement and acceptance of the digital banking platform. These five factors collectively explained 73.18% of the variance in the adoption of the SBI YONO app. The study concluded that age groups (45 years and below) demonstrate higher adoption rates, likely due to their greater digital literacy and frequent online financial transactions.

Keywords: Adoption, COVID-19, Digital Banking, SBI, UTAUT

Introduction

The initiation of digital banking services in India marks a significant shift in the financial sector, where rapid technological advancements and a growing emphasis on convenience and efficiency are having the most profound effects. Digital banking involves transforming traditional banking services and activities into a digital format, enabling customers to access these services and activities without the need to visit a brick-and-mortar bank branch. Digital banking encompasses a range of financial services and transactions conducted via digital devices. These consist of fund deposits, withdrawals, transfers, applying for financial products, supervising loans, and paying bills, all facilitated through online and mobile banking platforms. There is a large number of digital banking platforms and services available today. Traditional

banks have launched their digital platforms for their banking services, while a new wave of fintech companies has emerged offering innovative solutions and services. In India, the adoption of digital banking has been driven by several factors, including the widespread use of smartphones and internet connectivity, which have enabled customers to access banking services at any time and from anywhere (**KPMG, 2019**). The Indian government initiatives (digital India initiatives) to ensure financial inclusion and digital literacy have successfully ensured that an increased number of people have stepped into the circle of digital banking. The COVID-19 pandemic has also been another important aspect; customers and banks had no choice but to move towards digital channels due to lockdown norms and social distancing measures. (McKinsey & Company, 2020).

The beginning of the digital banking era has brought about drastic changes in the financial services industry, offering customers improved convenience. In India, the State Bank of India (SBI) has been at the forefront of this transformation with its YONO (You Only Need One) app, launched in 2017. YONO integrates a multitude of banking services, lifestyle offers, and investment options, thereby positioning itself as a comprehensive digital banking solution. The proliferation of smartphones and improvements in internet connectivity have further accelerated the acceptance of digital banking solutions in the region (**Raj & Singh, 2022**). The value of digital solutions was further highlighted by the COVID-19 pandemic, which reduced the need for physical interactions and increased digital transactions (**Kumar & Sharma, 2021**).

Information Technology (IT) has had a revolutionary impact on many aspects of our daily lives. Although the shift is gradual, the transition from traditional to digital banking is ongoing, with varying levels of digitalization in different banking operations. Digitization has made paperless banking a reality, significantly influencing the growth of the banking industry (**Bhatt et al., 2023**). SBI's YONO app exemplifies the successful integration of fintech tools into traditional banking. The YONO app offers a diverse range of banking services, including investments, insurance, and shopping, positioning it as a versatile platform that extends beyond traditional banking services. Digital innovation is significantly transforming the provision of payment services. Understanding customer perception is crucial for the successful implementation and continuous improvement of digital banking services. Positive customer perception can lead to increased adoption and customer loyalty, while negative perceptions can hinder growth and acceptance (**Kesharwani & Bisht, 2012**). This investigation aims to understand the factors that influence people's decisions to use digital banking, with a particular emphasis on the SBI YONO app.

Review of literature

All this helps shape the intentions and technological utilization of people. (Dwivedi et al., 2019) Conducted an analytical review of the revealed use of the UTAUT model in various studies and settings. The review highlights the model's versatility and adaptability in explaining technology acceptance across diverse cultures, age groups, and types of technology. The researchers also discuss extensions and modifications to the authentic UTAUT model,

including novel concepts such as intrinsic enjoyment, perceived cost-benefit, and habits, to gain a deeper understanding of user behavior in the digital world. (Alalwan et al. 2021)Based on the UTAUT model, this study examined the influence of mobile banking services in Jordan. In their study, trust and perceived risk were introduced to the original framework. The research reveals that it is mainly the facilitating conditions, people, their influence, ease of use, and anticipated performance that make users consider mobile banking services. User understanding and participation are shaped heavily by these elements. The variable trust has a substantial positive impact.

(Lallmahomed et al., 2021)examined how Mauritius residents use e-government services using an extended UTAUT model. The study integrates trust, perceived risk, and perceived value into the original UTAUT constructs. According to the results, user interest in e-government services grows when they expect the services to be easy, believe they will be helpful, and when the environment supports such services. However, perceived risk can reduce enthusiasm for using these digital services. Interestingly, trust and perceived value were also important factors, accounting for a greater portion of the model. (Oliveira et al., 2020)Using the UTAUT framework, the researcher added another construct, environmental awareness, to the model. According to the research, social influence, market conditions, the perceived value of smart home tech, and the effort required by users all support the intention to adopt such technologies. Everything here influences how users perceive these systems and their readiness to interact with them. Likewise, caring for the environment encourages many to engage with it. (Chang et al., 2022) Applied improved versions of the UTUAT model. All those new constructs were incorporated into the study: perceived risk, trust, and awareness of COVID-19. The findings state that adoption of telemedicine increases with the strength of (PE),(EE),(SI), and (FC). Higher levels of trust and knowledge about COVID-19 encourage adoption; in contrast, a greater feeling of risk decreases use of the app.(Rana et al., 2023)The study integrated anxiety and self-efficacy as important additional variables. The research found that effort and performance expectancy, influence from others, and favourable conditions worked together to help people accept educational technologies. Anxiety seemed to prevent adoption, whereas self-efficacy had a positive influence on trying out these technologies.

(Martins et al., 2021)Using an extended UTAUT model, the study focused on why Portuguese users adopt mobile banking. The researcher added two new constructs to the model: Trust and perceived risk. The analysis found that EE, PE, SI, and FC are the primary determinants influencing users to bank through mobile devices. All of these factors shape how users feel and influence whether they try digital financial services. This study investigated how people started using mobile banking in China by combining the UTAUT model with additional aspects, such as perceived value and trust. Beliefs about trust and personal experience influenced users' decisions to adopt a product. The investigation revealed that providing users with trusted and valuable mobile banking services is important to encourage their use of the service.

Objectives

- To identify the key factors for using the SBI YONO app.
- To determine how such factors affect the use of the SBI YONO app.

Research Methodology

Descriptive research design is employed to observe the factors influencing SBI YONO app adoption, with the aim of gathering customer views on digital banking, focusing on the YONO app. The population consists of SBI customers in Kerala who utilize this app. Both direct and indirect methods were employed for data collection, with direct data obtained from a structured questionnaire used in the study. The research analyzed data from 200 SBI YONO app customers in Ernakulam District. The sample data are selected using a purposive sampling method. The UTAUT framework, which is commonly used to study technology, was applied by the researcher. The model has four subdomains: Effort Expectancy (EE), Performance Expectancy (PE), Social Influence (SI), and Facilitating Conditions (FC). The study also addressed an additional aspect regarding COVID-19. The difference could be a result of changes in technology use behaviors that arose because of the COVID-19 pandemic.

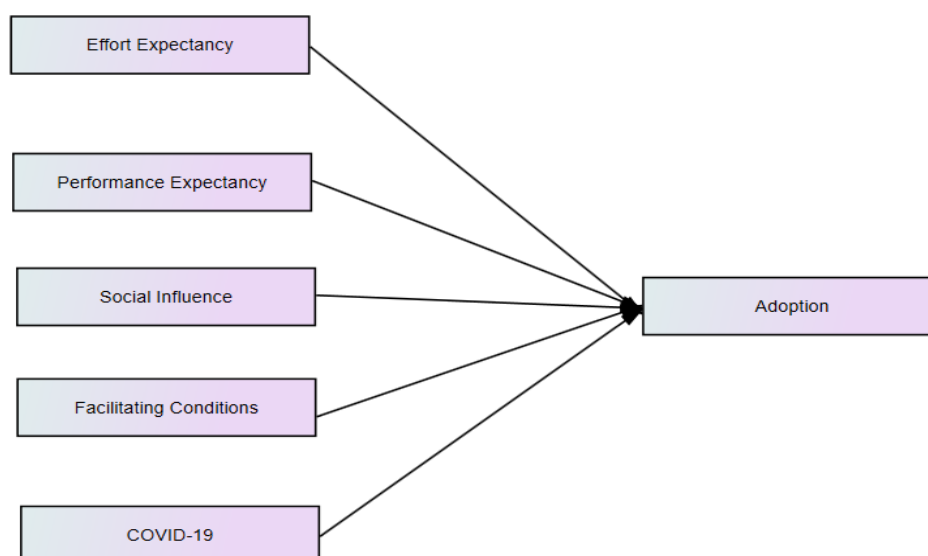


Fig.1 Proposed Research Model

Analysis and Results

Table 1: Demographic profile of the respondents

Variable	Description	Frequency	Percentage
Gender	Female	93	53.5
	Male	107	46.5

Total		200	100
Age in Years	15-25	75	37.5
	26-35	98	49
	36-45	24	12
	46-55	3	1.5
Total		200	100
Marital Status	Married	102	51
	Unmarried	98	49
Total		200	100
Educational qualification	+2 and Below	7	3.5
	UG	35	17.5
	PG	123	61.5
	Professional	28	14
	Others	7	3.5
Total		200	100
Area of Residence	Urban	83	41.5
	Rural	117	58.5
Total		130	100Percentage
Profession	Students	53	26.5
	Employee	81	40.5
	Business man	7	3.5
	Professionals	38	19
	House wife	14	7
	Others	7	3.5
Total		200	100
Income in ₹	Below 20,000	106	53.0
	20,001-40,000	56	28.0
	40,001-60,000	15	7.5
	60,001-80,000	10	5.0

	80,001-1,00,000	8	4.0
	Above 1,00,000	5	2.5
Total		200	100

(Source: calculated from primary data)

Table 1 presents the main characteristics of the individuals surveyed. Based on gender, females (53.5%) and males (46.5%). This suggests that digital banking adoption appeals to both genders almost equally. The 26-35 age range constitutes the largest segment of the sample (49%), followed by the 15-25 age range (37.5%), indicating that younger adults are the primary adopters of digital banking. This trend highlights the importance of targeting digital banking services towards younger demographics who are more tech-savvy and open to adopting new technologies. The marital status of the respondents is that the majority (51%) are married, and the remainder (49%) are unmarried. This balance suggests that digital banking services are equally relevant to both married and unmarried individuals.

The majority of respondents have a postgraduate (PG) education (61.5%), followed by undergraduates (UG) (17.5%). This indicates that higher educational attainment is associated with higher adoption rates of digital banking. Rural residents make up a larger share of the sample (58.5 percent) compared to those from urban areas (41.5 percent). Based on the respondents' professions, employees constitute the largest professional group (40.5%), followed by students (26.5%). This suggests that working professionals and students are key adopters of digital banking. The majority of respondents have an income below \$ 20,000 (53%), with a significant portion earning between \$ 20,001 and \$ 40,000 (28%).

Table 2: Reliability analysis

Variables	Cronbach's Alpha
Effort Expectancy	0.845
Performance Expectancy	0.732
Facilitating Conditions	0.901
Social influence	0.788
COVID-19	0.784
Adoption	0.856

(Source: calculated from Primary data)

Cronbach's Alpha has been indicated in this study. This confirms the robustness and reliability of the measurement scales. The process expectancy has a reliability value of 0.732, the effort expectancy has the value of 0.845, social influence scores at 0.788, facilitating conditions has an good reliability as score of 0.901, the COVID 19 to attribute a score of 0.784 and adoption has a reliability value of 0.856, showing a fair amount of reliability among the variables.

Table 3: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.6
Bartlett's Test of Sphericity	Approx. Chi-Square	1417.413
	Df	105
	Sig.	.000

(Source: Calculated from primary data)

To identify the determinants related to the adoption of the SBI YONO app for banking services, exploratory factor analysis was employed. The findings indicate that the dataset meets the prerequisites for conducting exploratory factor analysis, thereby ensuring the validity of the underlying factor structure. This suitability suggests that meaningful patterns and relationships can be extracted from the data through factor analysis techniques. KMO of 0.6: Indicates a mediocre fit. Bartlett's test is important ($p < 0.05$). The observation shows that the correlations among items are sufficient for factor analysis.

Table 4: Rotated Component Matrix

	Component				
	1	2	3	4	5
"Using the SBI YONO app improves my banking efficiency".	0.876				
"The SBI YONO app enhances my ability to complete banking tasks more quickly".	0.854				
"I find the SBI YONO app useful in managing my banking needs".	0.825				
"Learning to use the SBI YONO app is easy for me".		0.896			
"My engagement with the SBI YONO app is clear and easy to understand".		0.895			
"I consider the SBI YONO app to be user-friendly".		0.777			

“People, significant to me, think I ought to use the SBI YONO app”.			0.876		
“ I am encouraged by my friends and family to use the SBI YONO app”.			0.841		
“People whose views I respect prefer that I use the SBI YONO app”.			0.823		
“I possess the necessary resources to use the SBI YONO app”.				0.886	
“I possess the knowledge required to use the SBI YONO app”.				0.786	
“The SBI YONO app works well with other technologies I use”.				0.751	
“The COVID-19 pandemic has increased my reliance on the SBI YONO app for banking services”.					0.831
“I prefer using the SBI YONO app to avoid visiting bank branches during the COVID-19 pandemic”.					0.727
“The SBI YONO app has been essential for managing my banking needs during the COVID-19 pandemic”.					0.586
Extraction Approach: Principal Component Analysis. (PCA)					
Rotation Approach: Varimax with Kaiser Normalization.					
a. Rotation was converged in 5 iterations.					

The core elements responsible for the observed variable’s relationship are revealed by using the rotated component matrix as a result of exploratory factor analysis. In this analysis, five distinct factors were extracted and rotated using the Varimax method with Kaiser normalization. The rotation process successfully converged after five iterations, leading to the identification and classification of distinct factors. These contains Performance Expectancy (PE), Effort Expectancy (EE), Social Influence (SI), Facilitating Conditions (FC), as well as an additional factor linked explicitly to the impact of COVID-19. This structured factor grouping provides valuable insight into the key elements that determine the acceptance of the SBI YONO App.

The rotated component matrix provides a clear representation of the leading factors that influence users' adoption of the SBI YONO app for banking services. Factor 1, labeled as Performance Expectancy (PE), explained 15.952% of the variance and includes statements such as "Using the SBI YONO app improves my banking efficiency," with high loadings indicating a strong association with perceived benefits in banking efficiency and task management. Factor 2, Effort Expectancy (EE), which explained 15.657% of the variance, encompasses ease of use and clarity, with statements like "Learning to utilize the SBI YONO app is easy for me" showing high loadings. Social Influence (SI), represented by Factor 3 (which explained 15.171% of the variance), captures the impact of others' opinions, as indicated by strong loadings on statements like "People significant to me think I ought to use the SBI YONO app." Factor 4, Facilitating Conditions (FC), which explained 14.868% of the variance, includes statements about the availability of resources and compatibility, such as "I possess the necessary resources to use the SBI YONO app," with high loadings. Factor 5 addresses the COVID-19 Specific Factor (which explained 11.535% of the variance), highlighting the pandemic's influence on app usage with statements like "The COVID-19 pandemic has increased my reliance on the SBI YONO app for banking services." These five factors collectively explain (73.183%) a significant portion of the variance, providing a comprehensive understanding of the various dimensions that affect the adoption of the SBI YONO app.

H₀₁: Social influence, Effort Expectancy, Performance Expectancy, Facilitating Conditions, and COVID-19 find no significant influence on the subscription of the SBI YONO app.

Table 5 -Regression analysis

Model	R	R Square	Adjusted Square	R	Durbin-Watson
1	.981 ^a	.962	.961		1.691
a. Predictors: (Constant), Performance Expectancy, Effort Expectancy, Social Influence, Facilitating Conditions, COVID-19					
b. Dependent Variable: Adoption of SBI YONO App					

(Source: calculated from primary data)

To check the hypothesis, the multiple regression analysis was retained and the results demonstrate that Social Influence, Effort Expectancy, Performance Expectancy, Facilitating Conditions, and the effect of the COVID-19 combine to affect the adoption of the SBI YONO app significantly. These factors describe a significant part of the variability of app adoption with R- squared equal to 0.962. A $r = 0.981$ that was computed as the multiple correlation

coefficient indicates that there is a strong and positive relationship between the predictors and the app adoption. R-squared value of 0.962 implies that the five factors explain 96.2 percent of the variance in the adoption of SBI YONO app, making them influential. The Result indicates an adjusted R-squared value of (0.961) which has been corrected by dividing the value by the number of predictors thereby showing that the given model cannot be discredited. The D-W statistic 1.691 is near 2 implying that residual autocorrelation is not extreme and confirms the model as well.

H₀₂: The respondent's age does not have an important impact on the adoption of the SBI YONO app.

Table 6: Impact of age of the respondent on the adoption of the SBI YONO app.

Age	Mean	Std. Deviation	F	Sig.
15-25	4.3200	.82462	6.085	0.001
26-35	4.5510	.80106		
36-45	4.2500	.89685		
46-55	2.6667	.57735		

(Source: calculated from primary data)

Table 6 presents the findings of the ANOVA Test. The results indicate a statistically significant difference in adoption rates across different age groups ($p = 0.001$), reflecting the varied levels of digital banking engagement influenced by the age group of the respondents. Respondents aged 46–55 have a significantly lower mean adoption score (2.6667), indicating lower app usage in this age group. Respondents aged 15–25, 26–35, and 36–45 have relatively high mean adoption scores (4.3200, 4.5510, and 4.2500, respectively), indicating that age groups 45 and below exhibit higher adoption rates, likely due to greater digital literacy, comfort with technology, and frequent online banking needs.

H₀₃: There is no significant impact of the Area of residence of the respondent on the adoption of the SBI YONO app.

Table 7: Impact of the area of residence of the respondent on the Adoption of the SBI YONO app.

Area of residence	Mean	Std. Deviation	F	Sig.
Urban	4.5542	1.02711	4.751	.030

Rural	4.2906	.68304		
Total	4.4000	.85066		

(Source: Calculated from primary data)

Table 7 examines the impact of respondents' area of residence (urban or rural) on their adoption of the SBI YONO app. The results reveal a statistically significant difference in adoption rates based on area of residence, as indicated by the p-value (Sig.) of 0.030, which is below the standard threshold of 0.05. Respondents from urban areas have a higher mean adoption score (4.5542) and a relatively larger standard deviation (1.02711), suggesting that urban users not only exhibit higher adoption rates but also display a wider variance in their adoption behaviours. Rural respondents have a slightly lower mean adoption score (4.2906) with a smaller standard deviation (0.68304), indicating more consistent but relatively lower app usage.

Findings

- Digital banking adoption is almost evenly split between genders, with females accounting for 53.5% and males for 46.5%. This indicates that digital banking services appeal equally to both genders.
- The majority of users belong to the age group of 26-35 (49%) and 15-25 (37.5%). This highlights the need for digital banking services to focus on younger people, who highly embrace new technologies due to their tech-savviness.
- A majority of respondents hold postgraduate (PG) degrees (61.5%), followed by undergraduates (17.5%).
- Adoption rates are balanced between married (51%) and unmarried (49%) respondents.
- The majority of respondents report an income below ₹20,000 (53%), while 28% earn between ₹20,001 and ₹40,000. This indicates that digital banking is widely adopted across lower and middle-income groups, emphasizing its accessibility to various economic segments.
- Using the Varimax rotation method, five key factors were identified: Social Influence, Effort Expectancy, Performance Expectancy, Facilitating Conditions, and the influence of COVID-19.
- The key factors identified using the Varimax method lead to the acceptance of the SBI YONO app.

Conclusion and suggestions

Amidst the fast-changing financial landscape, digital banking has emerged as a pivotal innovation, transforming the way individuals and businesses manage their financial transactions. Digital banking offers unparalleled convenience, speed, and accessibility, allowing users to perform a broad range of Financial activities conveniently from home or while on the move. The purpose of this investigation is to identify the factors that contribute to the use of the SBI YONO app as a source of banking services. In the context of exploratory factor analysis, the researcher came across five significant variables that impacted the object

of the research and formed the model as follows: Performance Expectancy (PE), Effort Expectancy (EE), Social Influence (SI), Facilitating Conditions (FC) and one more aspect, namely, the factor in the influence of COVID-19. The output suggests a well-organized understanding of the variables that influence user behavior formation. The five variables jointly explained 73.18% of the variance in the use of the SBI YONO app. The researcher also conducted multiple regression analysis to determine the effect of these factors on the adoption of the SBI YONO app. The outcome displayed an R-squared value of 0.962, indicating that these five factors explain 96.2% of the variation in app adoption. The researcher identified a significant difference in the rate of digital banking adoption across different age groups ($p = 0.001$), highlighting the role of age factors in digital banking participation.

To enhance the adoption and effectiveness of the SBI YONO app, the researcher suggested that the bank should regularly update the app and include new features that streamline banking processes and improve user experience, as well as promote these benefits through targeted marketing campaigns. The bank should also ensure that the app is designed to be user-friendly, has helpful tutorials, and provides excellent customer assistance.

Limitations and Scope for future studies

The present study examined the factors that influenced the intended adoption of SBI YONO by Customers in the state of Kerala. There are also other relevant issues, like trust, perceived risk, user satisfaction, and security concerns, that can influence the adoption of digital banking. Future studies can therefore be conducted by incorporating variables such as trust, expected risk, user satisfaction, and security concerns to gain further insight into the service provided in the SBI YONO app. The statistical sample size used in the study, i.e., the number of respondents, is 200 respondents only of the Ernakulum district, which is adequate. Nevertheless, it is not entirely aligned with the multifunctionality of the large base of people utilizing the SBI YONO app. This has the potential to impact the research results due to the demographic characteristics of the sample. A larger and more heterogeneous sample would help better understand how exactly the determinants modify the adoption of the SBI YONO app among various segments of the population.

References

1. Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179-211. [https://doi.org/10.1016/0749-5978\(91\)90020-T](https://doi.org/10.1016/0749-5978(91)90020-T)
2. Alalwan, A. A., Baabdullah, A. M., Rana, N. P., Tamilmani, K., & Dwivedi, Y. K. (2021). Examining the Adoption of Mobile Internet in Saudi Arabia: Extending UTAUT2 with Perceived Value. *Journal of Retailing and Consumer Services*, 57, 102226.
3. Apankajam, C. D. (2022). Factors influencing Behavioural intention to the usage of SBI YONO app. *RES MILITARIS*, 12(6), 1991-2002.
4. Bhatt, M., Shaikh, N., & Patel, M. (2023). A Study of Customer Perception toward Digital Banking Payments. *International Journal of Banking, Risk & Insurance*, 11(2).

5. Cariaga, R. F., Arcadio, R. D., Medio, G. J., Almendras, R. C., Bendanillo, A., & Fabillar, J. R. G. (2023). E-money and the Reasons Why Young Consumers Prefer this Technology. *Journal of Ongoing Educational Research*, 1(1), 23-29.
6. Chang, H. H., Huang, R. H., & Lin, T. (2022). Adoption of telemedicine during the COVID-19 pandemic: An empirical investigation using an extended UTAUT model. *Journal of Medical Internet Research*, 24(3), e29905.
7. Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, 13(3), 319-340. <https://doi.org/10.2307/24900>
8. Dwivedi, Y. K., Rana, N. P., Jeyaraj, A., Clement, M., & Williams, M. D. (2019). Re-examining the unified theory of acceptance and use of technology (UTAUT): Towards a revised theoretical model. *Information Systems Frontiers*, 21(3), 719-734.
9. Kesharwani, A., & Bisht, S. S. (2012). The impact of trust and perceived risk on internet banking adoption in India: An extension of technology acceptance model. *International Journal of Bank Marketing*, 30(4), 303-322.
10. Kumar, A., & Sharma, R. (2021). The impact of COVID-19 on digital banking adoption in India. *Journal of Digital Banking*, 5(1), 45-60.
11. Lallmahomed, M. Z., Lallmahomed, N., & Philip, L. (2021). Investigating factors affecting adoption of e-government services in Mauritius using an extended UTAUT model. *Information Systems Frontiers*, 23(4), 945-961.
12. Martins, C., Oliveira, T., & Popović, A. (2021). Understanding the Internet banking adoption: A unified theory of acceptance and use of technology and perceived risk application. *International Journal of Information Management*, 31(3), 174-183.
13. Nair, A. B., Prabhu, K. S., Aditya, B. R., Durgalashmi, C. V., & Prabhu, A. S. (2021). Study on the usage of mobile banking applications during the COVID-19 pandemic. *Webology*, 18(2), 190-207.
14. Oliveira, T., Kankanhalli, A., & Ma, L. (2020). Smart home technology: Comparative study of innovation adoption models. *Journal of Business Research*, 112, 521-532.
15. Raj, P., & Singh, A. (2022). Factors Influencing Digital Banking Adoption in Kerala. *Indian Journal of E-Banking and Commerce*, 8(3), 202-218.
16. Rana, N. P., Dwivedi, Y. K., Williams, M. D., & Clement, M. (2023). Impact of anxiety and self-efficacy on technology adoption during COVID-19: A study of educational technologies in higher education institutions. *Computers & Education*, 177, 104406.
17. Sumathy, M., & Sujith, T. S. (2018). Effect of Brand on Customer Loyalty among SBI Banking Customers. *International Journal of Scientific Engineering and Research*, 6(9), 2015-2018.
18. Thomas, I.T., Gopi, G. & Sujith, T.S. (2024). Impact of user satisfaction on continuous usage intention: A study among Google Pay Users in Kerala. *Educational Administration: Theory and Practice*, 30(3), 2071-2079. <https://doi.org/10.53555/kuey.v30i3.2031>
19. TS, S., & Sumathy, M. (2022). Application of Technology Acceptance Model (TAM)

- on Adoption of Food Delivering Applications (Apps.) among University students in Tamil Nadu. *RVIM Journal of Management Research*, 23-26.
20. T.S, S., & K, M. N. (2019). How Mobile and Internet Banking Service Experience of Canara Bank Influence the Youngsters of Thrissur District. *International Journal of Research and Analytical Reviews (IJRAR)*, 6(2), 792–799
 21. TS, S., Sumathy, M., & Jisha, T. P. The Impact of Self-Efficacy on the Adoption of Mobile Banking With Technology Acceptance Model (Tam). Implementation of ICT Skills for the Students for Their Employment in Skill Based Jobs, 2, 13.
 22. 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>