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Financial Literacy and Digital Inclusion: A Study of Payment Bank Customers

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Abstract: ***This study's main goal is to look at the connection between digital inclusion and financial literacy among payment bank clients. Its goal is to comprehend the ways in which financial literacy and expertise impact the uptake and efficient application of digital financial services, especially those provided by payment banks. The study looks at the elements that help or impede digital inclusion and investigates the possible effects of financial literacy on payment bank clients' financial security. A sample size of 200 customers were selected through simple random sampling method from the geographical location of urban Bangalore. SPSS V.23 was used to analyse and validate the hypothesis through Pearson's correlation analysis and regression analysis. The findings of this study on financial literacy and digital inclusion among payment bank customers in Bangalore provide valuable insights into the factors that influence the adoption and effective use of these services. The study found that there is statistically significant relationship between digital literacy and financial literacy. There is higher impact of financial literacy on digital literacy by 31% in predicting contributed by financial knowledge. These findings highlight the importance of both financial literacy and digital literacy in promoting the effective use of payment bank services.***

Keywords: Financial literacy, Digital literacy, payment banks, customers & services

I. INTRODUCTION

Financial management for both individuals and organizations has changed dramatically as a result of the digital financial services industry's explosive growth. Due to its ability to offer underprivileged communities (Lusardi & Mitchell, 2023) easily accessible and reasonably priced banking services, payment banks, a relatively new idea in the Indian financial context have been instrumental in advancing financial inclusion. Unfortunately, a certain level of financial awareness is frequently necessary to utilize these services effectively (Lyons & Kass-Hanna, 2021). People must possess financial literacy in order to successfully negotiate the complexity of today's financial environment. Financial literacy is the capacity to comprehend and apply financial information to make decisions (Karakurum-Ozdemir et.al., 2019). Budgeting, saving, investing, borrowing, and risk management are just a few of the parts it covers. However, having access to and using digital technologies including financial services is what is meant by "digital inclusion."

Given the rising digitalization of financial services, the connection between digital inclusion and financial literacy has gained more significance. Despite being a relatively new idea in India, payment banks have made a big contribution (Ouachani et.al., 2021) to the advancement of financial inclusion by giving underprivileged people easy access to reasonably priced banking services. But making good use of these services frequently necessitates a certain degree of financial literacy (Lusardi, 2019). Numerous studies have been conducted on the topic of financial literacy, emphasizing its significance in making financial decisions, maintaining one's financial stability, and improving one's general quality of life. Higher financial literacy has been linked to a greater likelihood of engaging in sound financial practices, such as debt avoidance, investing, (Dewi et.al., 2020) and saving.

Research question 1: What is the correlation between financial literacy levels and the adoption and usage of digital financial services among the payment bank customers? The purpose of this inquiry is to look at the relationship between people's propensity to use digital payment platforms and their knowledge and proficiency in finance.

The ability of people to access and use digital technology, particularly financial services, is referred to as "digital inclusion." Research on digital inclusion (Klapper & Lusardi, 2020) have looked at the variables that affect people's adoption and usage of digital technology, as well as the advantages and disadvantages that could come with it. Studies have indicated that digital inclusion can exert a noteworthy influence on people's (Swiecka et.al., 2020) access to economic possibilities, engagement in social activities, and general well-being. Research on the relationship between digital inclusion and financial literacy is still in its infancy.

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Research has investigated the connection between these two ideas and how they affect people's financial decisions and actions (Kadoya & Khan, 2020). Empirical studies have demonstrated the pivotal significance that financial literacy can play in equipping people to proficiently utilize digital financial services, like mobile payments and online banking (Tinmaz et.al., 2022).

Research question 2: Which are key factors influencing the effectiveness of payment bank customers in financial inclusions?

In the case of payment banks, the relationship between digital inclusion and financial literacy is especially pertinent. Although these banks provide a simple and easy way for people to handle their money online, using these services effectively calls for a certain amount of financial literacy (Reddy et.al., 2020). The purpose of this study is to ascertain how digital inclusion and financial literacy relate to payment bank clients in Bangalore, India. Through comprehending the elements that impact the uptake and efficient utilization of payment bank services (Pangrazio et.al., 2020), this study can aid in the formulation of tactics to improve financial literacy and encourage digital inclusion for marginalized communities. Better financial well-being and economic empowerment may follow from this.

II. LITERATURE REVIEW

Establishing a theoretical framework and identifying important research questions involved a thorough examination of the body of literature on financial literacy, digital inclusion, payment banks, and related subjects. Although there isn't much data especially on financial literacy among Indian payment bank users, what is known from previous research indicates that financial literacy plays a crucial role in the uptake and efficient application of these services (Bejaković & Mrnjavac, 2022). Research indicates that those with greater financial literacy are more likely to be aware of the advantages and disadvantages of using payment bank services and to make efficient use of them. The potential disparity between digital inclusion and financial literacy among payment bank users is the issue this study attempts to solve. Even while digital financial services are becoming more and more important, many people might not have the financial literacy or expertise to take full use of these services (Leaning, 2019). Financial exclusion may result from this, limiting access to necessary financial services and goods. The purpose of the study is to determine the scope of the issue and investigate possible fixes (Park et.al., 2021).

The study makes use of digital inclusion and financial literacy approaches. According to Lusardi and Mitchell (2014), financial literacy is the capacity to make defensible choices regarding one's own financial affairs. Conversely, digital inclusion describes fair access to and use of digital technologies. In recent years, the idea of digital financial literacy, a blend of both has become more and more popular (Kateryna et.al., 2020). Research has continually demonstrated that using digital financial services (DFS) effectively requires financial literacy. Digital payments and mobile banking are two examples of DFS that people with greater financial literacy are more likely to accept and utilize. Even in cases where people have access to digital technologies, financial exclusion might result from a lack of financial literacy (Ozili, 2021).

H_0: There is no relationship between digital literacy and financial literacy.

Many customers, particularly those living in rural areas, lack the digital literacy and infrastructure needed to use bank payment systems. Customers may be discouraged from utilizing digital financial services due to worries about privacy and security (Ozili, 2020). Customers of payment banks might not know much about financial services and products, which makes it challenging for them to make wise choices. With the ability to offer underprivileged groups (Milana & Ashta, 2020) accessible and reasonably priced financial services, payment banks can greatly increase financial inclusion. Payment banks may access a larger client base including those residing in remote areas by utilizing digital technology. Regulators, digital infrastructure, and financial literacy levels are some of the variables that affect payment banks' ability to effectively advance financial inclusion (Khan et.al., 2022).

H_0: There is no impact of financial literacy on digital literacy among the customers of payment banks.

III. MATERIALS & METHODS

The study was scheduled in Bangalore, Karnataka, India. Bangalore is a cosmopolitan city that is expanding quickly, home to a varied population and a large number of payment banks. The research can shed light on the opportunities and problems surrounding digital inclusion and financial literacy in a developing urban setting by concentrating on this particular area. A more focused sample of payment bank customers participated in in-depth interviews to provide more specific insights into their experiences, viewpoints, and difficulties with digital inclusion and financial literacy. A sample of Bangalore-based payment bank customers were the respondents in the organized survey from the population of 14,008,000.

A probability sampling technique, as simple random sampling, was used to ensure that the sample size of 200 is representative of the population of payment bank customers in Bangalore. The respondents' financial literacy levels and demographic traits will be summed up using descriptive statistics. The study process was considered with rigorous adherence to ethical considerations. Every participant will be asked for their informed consent, and their privacy and confidentiality will be safeguarded.

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The study will abide by all applicable laws and ethical standards. Pearson's Correlation Analysis and Multiple Linear Regression Analysis were the tests performed to analyze and validate the hypothesis framed using SPSS V.23.

IV. RESULTS

A reliability analysis was conducted on the variables, which consisted of twenty items. The reliability of the questionnaire was deemed good by Cronbach's alpha ($\alpha = 0.89 > 0.70$, $N = 200$). Regression analysis is concerned with the derivation of an appropriate mathematical expression is derived for finding values of a dependent variable on the basis of independent variable. The dependent variable considered for the study is digital literacy and independent variable is financial literacy. The variable financial literacy is comprising of financial knowledge, financial attitude, family influence, peer-group influence.

Table 1: Regression Model Summary

Goodness-of-fit Indices	Values	Result
R	0.602	H_2 Accepted
R^2	0.362	
F Statistic	71.82	
Sig.	0.000**	
**denotes significance at 1 % level.		

The coefficient value of 0.602 indicates that the relationship between financial knowledge, financial attitude, family influence, peer-group influence, explaining the 60.2 percent variance in digital literacy.

The Coefficient of Determination R^2 measures the goodness-of-fit of the estimated Sample Regression Plane (SRP) in terms of the proportion of the variation in the dependent variables explained by the fitted sample regression equation. Thus, the value of R^2 is 0.362 simply means that about 36.2 percent of the variation in innovation is explained by the estimated SRP that financial knowledge (X_1), financial attitude (X_2), family influence (X_3), and peer-group influence (X_4) as the independent variables and R^2 value is significant at 1 % level. Hence, the null hypothesis is rejected, and the alternative is accepted which confirms that there is an impact of financial knowledge, financial attitude, family influence, peer-group influence on digital literacy among the customers of the payment banks.

Table 2: Multiple Regression Analysis

Variables	B	SE of B	β	t value	P value
Constant	6.141	.58	-	10.49	.000***
Financial knowledge	0.268	.042	.317	6.374	.000***
Financial attitude	0.128	.036	.170	3.608	.000***
Family influence	0.192	.036	.260	5.375	.000***
Peer-group influence	0.105	.046	.182	4.923	.000***
Source: Computed from Primary data. ** denotes significant at 1 %.					

The above table shows the multiple correlation coefficient is 0.602 and measures the degree of relationship between the actual values and the predicted values because the predicted values are obtained as a linear combination of independent variables. The unstandardized regression coefficients reflect the values above 1 due to oblique rotations instead of correlation where the beta coefficients are less than 1, which confirms that there is no multicollinearity between the predictor variables. The multiple regression equation derived is as below:

Digital literacy = 6.141 + 0.268 (financial knowledge) + 0.128 (financial attitude) + 0.192 (family influence) + 0.105 (peer group influence).

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The above regression equation is mathematically expressed as below.

$$Y = 6.141 + 0.268\ X_1 + 0.128\ X_2 + 0.192\ (X_3) + 0.105\ (X_4)$$

The coefficient of financial knowledge is 0.268, representing the partial effect on digital literacy holding the other variables as constant. The estimated positive sign implies that such an effect is positive on digital literacy would increase by 0.268 for every unit increase in financial knowledge and is statistically significant at 1 percent. The coefficient of financial attitude is 0.128, representing the partial effect on digital literacy holding the other variables as constant. The estimated positive sign implies that such an effect is positive on digital literacy would increase by 0.128 for every unit increase in financial attitude and is statistically significant at 1 percent. The coefficient of family influence is 0.192, representing the partial effect on digital literacy holding the other variables as constant. The estimated positive sign implies that such an effect is positive on digital literacy would increase by 0.128 for every unit increase in family influence and is statistically significant at 1 percent. The coefficient of peer group influence is 0.105, representing the partial effect on digital literacy holding the other variables as constant. The estimated positive sign implies that such an effect is positive on digital literacy would increase by 0.128 for every unit increase in f peer group influence and is statistically significant at 1 percent.

Pearson Correlation enables in determining the level of relationship between the variable's financial literacy dimensions and digital literacy among the customers of the payment banks.

Table 3: Correlation Results

Variables	Financial knowledge	Financial attitude	Family influence	Peer-group influence	Digital Literacy
Financial knowledge	1	0.575	0.761	0.887	0.975.
Financial attitude		1	0.685	0.543	0.345
Family influence			1	0.486	0.492
Peer-group influence				1	0.886
Digital Literacy					1
Source: Authors' Compilation					

A statistically significant correlation was obtained between financial knowledge and financial attitude (0.575), family influence (0.761), peer group influence (0.887), and digital literacy (0.975). There is a strong relationship between financial attitude and family influence (0.685), peer group (0.543), and digital literacy (0.345). There is a strong relationship between family influence and peer group influence (0.486), and digital literacy (0.492). There is a strong relationship between peer group influence and digital literacy (0.886) at 1% level.

V. DISCUSSION

An overview of the body of research on digital inclusion, financial literacy, and how these topics intersect with bank customers' payments has been given by this survey of the literature. According to the research, financial literacy can have a big impact on people's financial well-being and is essential for the uptake and efficient use of payment bank services. In order to fully understand the opportunities and unique constraints that payment bank customers experience in terms of digital inclusion and financial literacy, more research is required. The findings of this study on financial literacy and digital inclusion among payment bank customers in Bangalore provide valuable insights into the factors that influence the adoption and effective use of these services. The study found that there is statistically significant relationship between digital literacy and financial literacy. There is higher impact of financial literacy on digital literacy by 31% in predicting contributed by financial knowledge. These findings highlight the importance of both financial literacy and digital literacy in promoting the effective use of payment bank services.

A. Implications of study

This study has important ramifications for financial institutions, advocacy groups, and legislators who support financial inclusion. The results imply that better financial outcomes and more economic empowerment may result from initiatives to raise financial literacy among payment bank clients. The report also emphasizes the necessity of ongoing initiatives to advance digital inclusion and guarantee that people have access to the digital skills they need to effectively use payment bank services.

Programs for targeted financial education can assist clients in gaining the information and abilities necessary to successfully use digital financial services. Customers can access and use payment bank services and close the digital divide by receiving training in digital literacy. Government programs and regulations, such subsidizing digital devices and increasing internet connectivity, can be extremely effective in advancing financial literacy and digital inclusion.

B. Limitations

It is important to take into account the many limitations of this study when evaluating the results. First, a small sample size could have an impact on how broadly the findings can be applied. Secondly, the study's scope is restricted to Bangalore, and its conclusions might not apply to the whole Indian populace. Third, as the study uses self-reported data, biases may exist.

C. Future scope of research

Future research could explore the following areas:

1) Comparative Analysis: Comparing the findings of this study with similar studies in other regions or countries.
2) Longitudinal Studies: Tracking the changes in financial literacy and digital inclusion among payment bank customers over time.
3) Impact Assessment: Assessing the impact of financial literacy and digital inclusion on the economic well-being of payment bank customers.
4) Policy Implications: Developing policy recommendations based on the findings of the study to promote financial literacy and digital inclusion.

VI. CONCLUSION

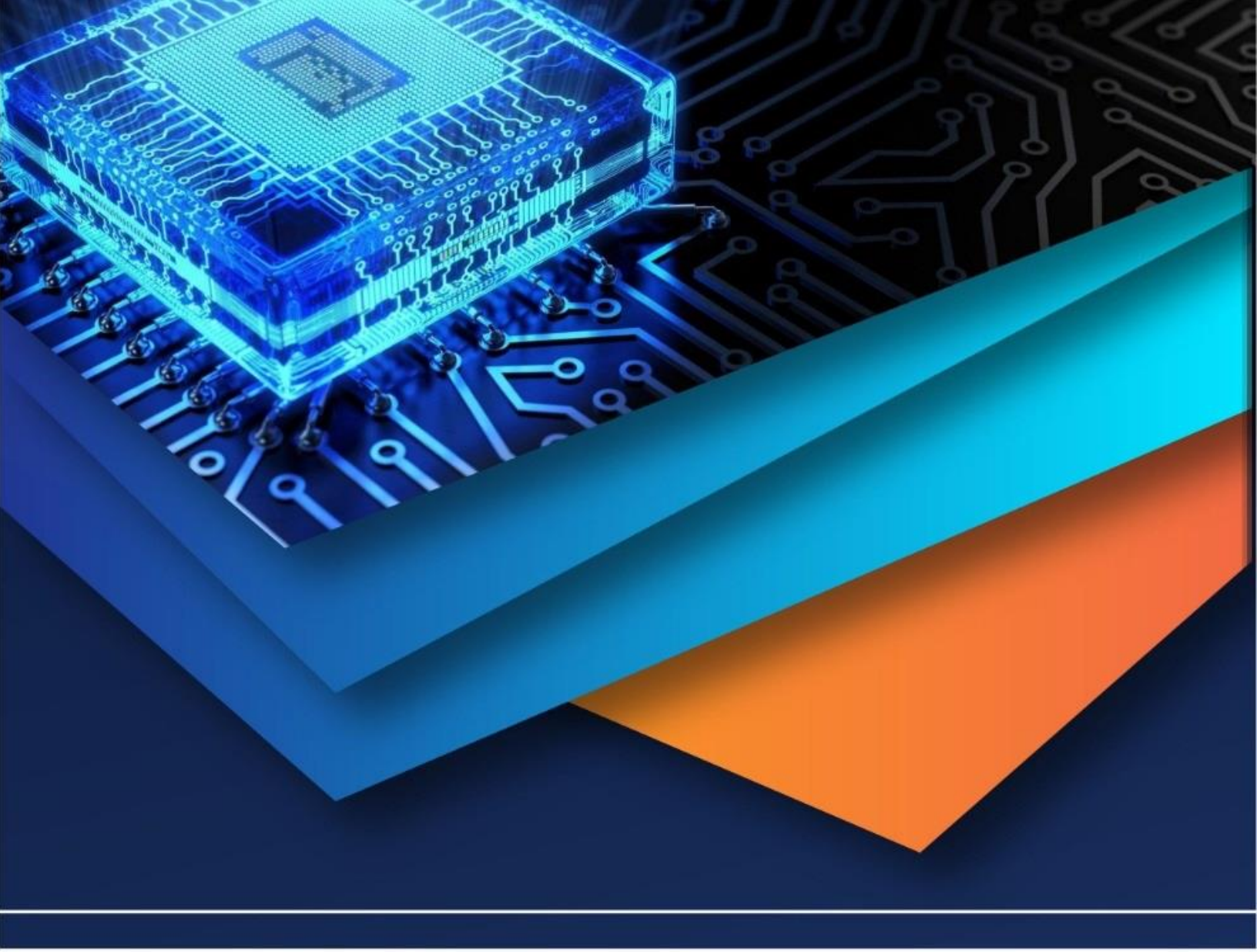
The study's data are compiled to provide conclusions regarding the connection between digital inclusion and financial literacy among Bangalore's payment bank clients. In the context of bank service payments, the research will offer suggestions for enhancing digital inclusion and financial literacy. It sheds important light on the connection between digital inclusion and financial literacy among Bangalore's payment bank clients. According to the findings, using these services effectively requires both digital and financial literacy, which can have a big impact on people's financial well-being. Subsequent investigations are required to examine the consequences of these discoveries and devise tactics for advancing digital inclusion and financial literacy in marginalized communities.

REFERENCES

[1] Lusardi, A., & Mitchell, O. S. (2023). The importance of financial literacy: Opening a new field. Journal of Economic Perspectives, 37(4), 137-154.
[2] Lyons, A. C., & Kass-Hanna, J. (2021). A methodological overview to defining and measuring “digital” financial literacy. Financial Planning Review, 4(2), e1113.
[3] Karakurum-Ozdemir, K., Kokkizil, M., & Uysal, G. (2019). Financial literacy in developing countries. Social Indicators Research, 143, 325-353.
[4] Ouachani, S., Belhassine, O., & Kammoun, A. (2021). Measuring financial literacy: A literature review. Managerial Finance, 47(2), 266-281.
[5] Lusardi, A. (2019). Financial literacy and the need for financial education: evidence and implications. Swiss journal of economics and statistics, 155(1), 1-8.
[6] Dewi, V. I., Febrian, E., Effendi, N., Anwar, M., & Nidar, S. R. (2020). Financial literacy and its variables: The evidence from Indonesia. Economics & Sociology, 13(3), 133-154.
[7] Klapper, L., & Lusardi, A. (2020). Financial literacy and financial resilience: Evidence from around the world. Financial Management, 49(3), 589-614.
[8] Swiecka, B., Yeşildağ, E., Özen, E., & Grima, S. (2020). Financial literacy: The case of Poland. Sustainability, 12(2), 700.
[9] Kadoya, Y., & Khan, M. S. R. (2020). What determines financial literacy in Japan?. Journal of Pension Economics & Finance, 19(3), 353-371.
[10] Tinmaz, H., Lee, Y. T., Fanea-Ivanovici, M., & Baber, H. (2022). A systematic review on digital literacy. Smart Learning Environments, 9(1), 21.
[11] Reddy, P., Sharma, B., & Chaudhary, K. (2020). Digital literacy: A review of literature. International Journal of Technoethics (IJT), 11(2), 65-94.
[12] Pangrazio, L., Godhe, A. L., & Ledesma, A. G. L. (2020). What is digital literacy? A comparative review of publications across three language contexts. E-learning and Digital Media, 17(6), 442-459.
[13] Bejaković, P., & Mrnjavac, Ž. (2020). The importance of digital literacy on the labour market. Employee Relations: The International Journal, 42(4), 921-932.
[14] Leaning, M. (2019). An approach to digital literacy through the integration of media and information literacy. Media and communication, 7(2), 4-13.
[15] Park, H., Kim, H. S., & Park, H. W. (2021). A scientometric study of digital literacy, ICT literacy, information literacy, and media literacy. Journal of Data and Information Science, 6(2), 116-138.
[16] Kateryna, A., Oleksandr, R., Mariia, T., Iryna, S., Evgen, K., & Anastasiia, L. (2020). Digital literacy development trends in the professional environment. International Journal of Learning, Teaching and Educational Research, 19(7), 55-79.
[17] Ozili, P. K. (2021, October). Financial inclusion research around the world: A review. In Forum for social economics (Vol. 50, No. 4, pp. 457-479). Routledge.
[18] Ozili, P. K. (2020). Theories of financial inclusion. In Uncertainty and challenges in contemporary economic behaviour (pp. 89-115). Emerald Publishing Limited.
[19] Milana, C., & Ashta, A. (2020). Microfinance and financial inclusion: Challenges and opportunities. Strategic Change, 29(3), 257-266.

[20] Khan, F., Siddiqui, M. A., & Imtiaz, S. (2022). Role of financial literacy in achieving financial inclusion: A review, synthesis and research agenda. Cogent Business & Management, 9(1), 2034236.
[21] Le, T. H., Chuc, A. T., & Taghizadeh-Hesary, F. (2019). Financial inclusion and its impact on financial efficiency and sustainability: Empirical evidence from Asia. Borsa Istanbul Review, 19(4), 310-322.
[22] Aziz, A., & Naima, U. (2021). Rethinking digital financial inclusion: Evidence from Bangladesh. Technology in Society, 64, 101509.
[23] Liu, Y., Luan, L., Wu, W., Zhang, Z., & Hsu, Y. (2021). Can digital financial inclusion promote China's economic growth?. International Review of Financial Analysis, 78, 101889.

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