

FINANCIAL LITERACY AND INCLUSION IN BIHAR: A CRITICAL EVALUATION OF PMJDY

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Abstract

Financial literacy is associated with knowledge of skills about the management of financial resources in development sectors. The meaning of financial literacy is based on the skills enhancement regarding better management of financial challenges for better development on a grass-root level. The matters of financial literacy are broad way to give policy regarding observing and mapping financial resources in sector of development economics. In these consequences, the present study examines the nexus of inclusion and literacy because both terms are the subject matter of development economics as well as a social science in the context of welfare economics. The methodology of study is based on analysis of both primary and secondary data. The findings of the study show that PMJDY is the major tool for measuring financial literacy in India because it was found that Pradhan Mantri Jan Dhan Yojna improved the socio-economic inclusion in the Patna district in Bihar.

Keywords: Financial Literacy; Financial Inclusion; PMJDY; Patna; Bihar

1. Introduction

India is a country of diversified society in the context of socio-economic development as well as political issues. The economic matters of India can be explained by its financial resource with the capacity of human resources because a human-centric approach may be able to manage the financial challenges regarding emerging issues of globalization. Therefore, it is evident that there is a need to rethink and redefine the meaning of financial literacy on the global level because such kinds of study may be given a platform to manage the challenges of financial literacy in India. Financial literacy is subject of discussion because the foundation of human resources can be built by financial knowledge because there is a need to develop a mechanism to measure the issues of financial literacy in the context of a retrospective to prospective approach. Additionally, studies show that there are regional disparities in financial literacy between developed and developing countries because both have their agenda and issues regarding prospective financial resources and human development. There are cordial linkages between financial resources and human development because both are

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This is an Open Access article distributed under the terms of the Creative Commons Attribution License (https://creativecommons. org/licenses/by/4.0/), which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited. associated with each other (Lusardi & Mitchell, 2011).¹ There is no proper mechanism to measure issues of financial literacy but matters of financial literacy have emerged as global issues in the perspective of measurement of financial literacy regarding managing the emerging challenges about the concern of development (Huston, 2010).² There is a need to restart and rethinking about financial literacy among youth because they can handle the financial challenges of financial literacy. The study also mentioned that the psychological behavior of youth is so important in the context of financial literacy because there is a need to give a proper mechanism to knowledge about financial literacy (Lusardi et. al., 2010).³

Based on the above-prescribed review of the background of the introduction, it may be realized that we should analyze financial literacy on the global level because such kinds of review of literature may be helpful regarding the management of challenges of financial literacy. After all, it is the demand of crisis. Apart from that, the agenda should be focused on the nexus of financial literacy and human development because both terms are associated with each other as well as subjects of discussion in the context of development economics (Demir & Danisman, 2021)⁴. Therefore, in the context of nature and the theme of nexus of inclusion and financial literacy in Bihar in India. The study discusses the socio-economic development of Bihar which finds that Bihar is the most backward state in the Human Development Index (HDI) according to the United Nation Development Programme (UNDP). Therefore, there is a need for a critical analysis of the review of literature about financial literacy and inclusion in Bihar. The meaning of inclusion as the word inclusion is a philosophical word so here these terms can be explained as socio-economic inclusion in the penetration of the social structure of Bihar with the well-developed mechanism of financial literacy regarding the management of the challenges of financial literacy (Siddiqui & Siddiqui, 2020).⁵

2. Review of Literature

This section of the literature review emphasized the nexus of financial literacy and inclusion in Bihar. The section of the review of literature is divided into three parts according to the nature and objectives of the topic:

- i. Understandings of Financial Literacy on a Global Level
- ii. Financial Literacy in Bihar- A Critical Evaluation
- iii. Nexus of Inclusion and Financial Literacy in Bihar

¹ Lusardi, A., & Mitchell, O. S. (2011). Financial literacy around the world: an overview. *Journal of pension economics & finance*, *10*(4), 497-508.

² Huston, S. J. (2010). Measuring financial literacy. Journal of consumer affairs, 44(2), 296-316.

³ Lusardi, A., Mitchell, O. S., & Curto, V. (2010). Financial literacy among the young. *Journal of consumer affairs*, *44*(2), 358-380.

⁴ Demir, E., & Danisman, G. O. (2021). Banking sector reactions to COVID-19: The role of bank-specific factors and government policy responses. *Research in International Business and Finance*, *58*, 101508.

⁵ Siddiqui, T. A., & Siddiqui, K. I. (2020). Telecommunication, Socioeconomic, and Financial Inclusion: An Empirical Evidence from Bihar. *Prabandhan: Indian Journal of Management*, *13*(10-11), 46-61.

The above three prescribed sections of the literature review explored the phenomena of financial literacy and inclusion in Bihar. Additionally, this section gives a broad platform to develop research questions and objectives for understanding the critical evolution of financial literacy in Bihar.

i. Understandings of Financial Literacy on a Global Level

Financial literacy is an important part of education on a basic level. Therefore, it is needed to give basic education to students about the role of financial literacy as we can easily explain the role of financial literacy on the ground level because micro-credit is an important part of the generating source of employment in the rural areas of developing countries. Therefore, it is needed to give more importance to financial literacy as a part of the basic education curriculum in school because financial literacy is an important part of education, basic or higher education (Arthur, 2012).⁶

There is a need to restart and rethink financial literacy in the context of education because they should apply the role of financial literacy on grass root level through aspiration of education among students because there is a need to give importance to financial literacy on the grass-root level. The study discusses the role of financial literacy according to the educational status of students based on their educational characteristics as well as research in the field of financial literacy because such types of research are more suitable to manage the challenges of financial literacy (Marcolin & Abraham,2006).⁷ It is found that role of financial literacy is so important among youth because they are engaged in the modern professional education system. It is the responsibility of the educational system to provide knowledge of financial literacy to youth because youth are pillars of development (Clark et. al., 2021)⁸. Therefore, it is needed to start research in the field of development economics because we can easily consider the role of financial literacy based on retrospective to prospective study design. There is needed to evaluate the role of financial literacy based on research on the agenda of past to present scenarios of development economics based on the human-centric approach (Garg & Singh 2018).⁹

Based on the above-prescribed review of literature, it may be concluded that the role of financial literacy is an important part of the development of economics, but researchers consider that there is needed to cover a broad issue in the field of financial literacy because the debate on the economics matters is core of development economics. Therefore, it is needed to give attention to the role of financial literacy on the ground level because it is the subject matter of microfinance for poor households in developing countries like South Asian countries like India, Pakistan, and Bangladesh on the grass-root level.

⁶ Arthur, C. (2012). Financial literacy education. In *Financial literacy education* (pp. 1-12). Sense Publishers, Rotterdam.

⁷ Marcolin, S., & Abraham, A. (2006). Financial literacy research: Current literature and future opportunities.

⁸ Clark, J., Mauck, N., & Pruitt, S. W. (2021). The financial impact of COVID-19: Evidence from an event study of global hospitality firms. *Research in International Business and Finance*, *58*, 101452.

⁹ Garg, N., & Singh, S. (2018). Financial literacy among youth. International journal of social economics.

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ii. Financial Literacy in Bihar a Critical Evaluation

In the case of Bihar in India, the central government started Pradhan Mantri Jan Dhan Yojna (PMJDY) for improving the financial enhancement in poor households in Bihar. It is observed that Pradhan Mantri Jan Dhan Yojna (PMJDY) increased the tendency of opening Bank accounts, saving, and borrowing in poor households in Bihar. Additionally, the role of financial literacy is enhanced by Pradhan Mantri Jan Dhan Yojna (PMJDY) because this scheme gave a platform to manage the challenges of poverty in poor households of Bihar with the importance of financial literacy in Bihar (Dutta & Mehta, 2021).¹⁰ In the case of the Darbhanga district of Bihar, financial literacy enhanced the financial resources in poor households. It is known that the Darbhanga district of Bihar is a more backward district of Bihar, but it is also found that the financial scheme of the central and state government of Bihar enhanced the role of financial literacy among poor households because financial scheme enhanced the source of livelihood and employment among poor households in Bihar (Singh & Jha 2018).¹¹ A self-help group (SHG) is an important platform for the enhancement of financial literacy among poor households in the rural areas of Bihar. A self-help group (SHG) did not minimize the economic crisis but also gave sustainability to the women of Bihar because it empowered the socioeconomic status of women as well as minimized the mortality violence in Bihar (Santhya & Jejeebhoy, 2017).¹²

Based on the above prescribed mentioned review of literature, it may be realized that financial literacy is working as a major source to enhance employment and empowerment in poor households in Bihar. Based on the issues about the critical evolution of financial literacy in Bihar, it may be concluded that there are large socio-economic disparities and imbalances in the development pattern between rural and urban areas of Bihar. Therefore, both central and state governments started the financial scheme to enhance the financial power of poor households because the program of financial schemes like Pradhan Mantri Jan Dhan Yojna (PMJDY) gave empowerment to women of poor households in rural areas of Bihar. Additionally, this scheme gave financial education to women of poor households about managing opening bank accounts, saving, and borrowing for their livelihoods (Kristóf & Virág, 2022)¹³.

iii. Nexus of Inclusion and Financial Literacy in Bihar

Financial literacy created socio-economic inclusion in poor households in Bihar through Pradhan Mantri Jan Dhan Yojna (PMJDY) because this scheme penetrated the bottom of the poor households in Bihar. These underprivileged households have the right to access a better quality of employment and livelihood under the provisions of constitutional rights. As a result,

¹⁰ Dutta, S., & Mehta, B. S. (2021). Banking the Unbanked: The Performance and Impact of Pradhan Mantri Jan Dhan Yojana (PMJDY) Schemes on Poor Households in Bihar. *IASSI Quarterly*, 40(1).

¹¹ Singh, F. B., & Jha, P. (2018). Financial Literacy among Rural Women in Darbhanga District: An Empirical Evidence. *SMS Journal of Entrepreneurship & Innovation*, *5*(1), 146-154.

¹² Santhya, K. G., & Jejeebhoy, S. J. (2017). Empowering women and addressing marital violence through self-help groups: *Evidence from rural Bihar Policy brief*.

¹³ Kristóf, T., & Virág, M. (2022). EU-27 bank failure prediction with C5. 0 decision trees and deep learning neural networks. *Research in International Business and Finance*, *61*, 101644.

Pradhan Mantri Jan Dhan Yojna (PMJDY) created an environment of socio-economic inclusion because the socio-economic status of poor households was enhanced by Pradhan Mantri Jan Dhan Yojna (PMJDY). After all, this scheme increased the pattern of saving through the channel of the formal mode of Pradhan Mantri Jan Dhan Yojna (PMJDY). There are regional and socio-economic diversities in the context of financial literacy among states of India because India is a country of diversity in geography, economy, social and political aspects. Therefore, financial literacy is associated with socio-economic covariates among households in India (Singh,2020)¹⁴ (Kaleem & Akhtar)¹⁶.

Based on this statement, it is a subject of critical evaluation because Bihar is the most backward state in India with its socio-economic and geographical diversities. The case of implementation of Pradhan Mantri Jan Dhan Yojna (PMJDY) in a rural area of Bihar district shows that Pradhan Mantri Jan Dhan Yojna (PMJDY) enhanced the socio-economic stability of women of Bihar in the rural areas. After all, this scheme psychologically motivated the women to open a bank account in the nearest branch of the bank as well as motivated poor households for saving for a better future because a better future is dependent on the performance of the present (Faizi & Gupta, 2019).¹⁵ The role of telecommunication is so important in socio-economic inclusion in the context of Pradhan Mantri Jan Dhan Yojna (PMJDY) in Bihar. Because the online digitalization process enhanced the financial capability of poor households by making them the beneficiary of the financial support of the government, it can be realized that telecommunication improved the role of women in poor households in the context of the digitalization process of the Public Distribution System (PDS) and Pradhan Mantri Jan Dhan Yojna (PMJDY) in favor of women empowerment in the rural areas of Bihar in India (Siddique & Siddique, 2020).

- Based on the above-prescribed review of literature on the issues of financial literacy in Bihar, it can be emphasized that Pradhan Mantri Jan Dhan Yojna (PMJDY) is the major keyword for financial and socio-economic inclusion in Bihar because Pradhan Mantri Jan Dhan Yojna (PMJDY) gave a platform to poor households to sustain themselves with economic instability.
- Secondly, financial literacy is associated with women's empowerment in the rural areas of Bihar because rural areas are the heart of the economy of India. As a result, Pradhan Mantri Jan Dhan Yojna (PMJDY) gave a financial right to women regarding sustainability in a patriarchal based society in the rural areas of Bihar.

¹⁴ Singh, M. S. (2020). A ranking approach for Indian states on the basis of covariates of financial literacy. *Journal Homepage: http://ijmr. Net. In*, 7(1).

¹⁵ Faizi, A. A. A., & Gupta, S. (2019). Financial inclusion of women through PMJDY the case of Bihar, India. *Global Journal of Enterprise Information System*, *11*(2), 42-45.

¹⁶ Kaleem, Shahid & Akhtar, S.M. Jawed (2022), Determinants of Student Attendance in Elementary Education in India, *Journal of Exclusion Studies*, 12(2), 207-220.

• Thirdly, it can be concluded that the above-prescribed review of literature gave a platform to manage the challenges of financial literacy in the context of socio-economic literacy in the rural areas of Bihar with prescribed recommended policies in the conclusion section.

3. Methodology: Research Questions, Objectives, and Analytical Framework

Based on the prescribed review of literature about financial literacy from the perspective of Bihar, it can be emphasized that there are lots of socio-economic and political challenges emerged in the matters of financial literacy. The research gap shows that there are a few kinds of literature available about financial literacy in the context of Bihar because Bihar is the most backward state in socio-economic development, but the above-prescribed review of literature gives a broader sense of challenges and prospects for financial literacy, but major research statement is the management of existing challenges about financial literacy in Bihar.

3.1 Research Questions

There are following research questions emerged in the context of the research gap in the review of literature:

- i. What is the role of financial literacy on the grass-root level in the Patna district of Bihar?
- ii. What is the mechanism for management of the challenges of financial literacy in Bihar?
- iii. What is the role of women in the management of financial literacy in the Patna district of Bihar?

The above three research questions give a platform to develop a broader way regarding the development of objectives for the study of socio-economic inclusion and financial literacy in Bihar.

3.2 **Objectives**

There are the following objectives according to the nature of the study and research questions:

- i. To identify the role of financial literacy in Bihar.
- ii. To study the nexus of educational status and saving accounts of women in the context of financial literacy.
- iii. To study the perception of women about financial literacy in Bihar
- iv. To give suggestions to make policies for better management of challenges of financial literacy.

The above four objectives cover a broad analysis of the challenges of financial literacy in the context of the Patna district of Bihar. Additionally, these objectives are justified by both primary and secondary data.

3.3 Methodology: Strategy for Collection of Data and Analytical Framework

- i. Strategy for Collection of Data
- a. Collection of Primary Data

Present research work is based on both primary and secondary data, whereby primary data is collected by conducting fieldwork in the Patna district among 225 women, who have saving accounts for Pradhan Mantri Jan Dhan Yojna (PMJDY). The primary was collected by a structured schedule with the help of stratified random sampling based on pre-determined indicators. Additionally, qualitative data was collected by informal interviews and focus group interviews of selected 225 women, who have saving bank accounts under the provision of Pradhan Mantri Jan Dhan Yojna (PMJDY). In these consequences, both qualitative and quantitative data are analyzed by a mixed-method approach for better interpretation of the objectives.

b. Collection of Secondary Data

Research work is also based on the analysis of secondary data about Pradhan Mantri Jan Dhan Yojna (PMJDY) in the context of Bihar accessed from "Department of Financial Services, Ministry of Finance, Government of India" for the base year 2021 to 2022. The secondary data gives a picture of financial literacy in Bihar and the Patna district of Bihar.

ii. Analytical Framework of Both Primary and Secondary Data

Table 1: Analytical Framework

Sr. Number	Content	Nature of Data	Analytical Framework
1.	Role of financial literacy in Bihar	Secondary Data accessed from Department of Financial Services, Ministry of Finance, Government of India	Simple Statistics
2.	Nexus of educational status and saving accounts of women in the context of financial literacy.	Quantitative Data	Pearson Correlation between educational and dependent as saving account
3.	Perception of women about financial literacy in Bihar	Qualitative Data	Case Study and Informal Interviews

4. Result and Discussion

4.1 Role of Financial Literacy in Bihar

Bihar is well known for its socio-economic backwardness, but the table shows that Bihar is the leading state the bank account according to the Department of Financial Services, Ministry of Finance, and Government of India. According to the report of the Government of India, there was a total of 36,115,024 bank branches in the rural and urban areas of Bihar as well a total of 38,172,810 RuPay cards were distributed to beneficiaries of Pradhan Mantri Jan Dhan Yojna in Bihar (Table 2).

Beneficiary at Rural /Semi- Urban Centre Bank Branches	Urban/Metro	Total Beneficiary	BalanceinBeneficiaryAccounts(inCrores)	Number of Rupay Card to Beneficiaries
36,115,024	14,814,799	50,929,823	17260.36	38,172,810

Table 2: Report on Account Opening in Bihar up to 23/03/2022

Source: Department of Financial Services, Ministry of Finance, Government of India.

In Bihar, there were a total of 17281381 households that were covered by Pradhan Mantri Jan Dhan Yojna in Bihar. As well as there was a total of 14640 allotted wards in Bihar, among them, a total of 14640 Wards-SSAs were covered by Pradhan Mantri Jan Dhan Yojna in Bihar (Table 3)

 Table 3: Pradhan Mantri Jan Dhan Yojna (PMJDY): State Wise Account Opening

 Report in Bihar

Allotted Wards- SSAs	Wards-SSAs Surveys	Total Households	Covered Households
14640	14640	17281381	17281381

Source: Department of Financial Services, Ministry of Finance, Government of India.

In Bihar, there was a total of 563 allotted ward-SSAs in the Patna district, among them, the total numbers of covered wards were 563 in the Patna district of Bihar. The table shows that Patna District is the leading district in Pradhan Mantri Jan Dhan Yojna (PMJDY), comprising rural and urban areas of Patna district. As well as Patna district has a record of a cent percent in the context of coverage households in Bihar (Table 4).

Table 4: Financial Literacy in Patna District

Allotted Wards- SSAs	Wards-SSAs Survey Done Coverage	Households
563	563	100.0%

Source: Department of Financial Services, Ministry of Finance, Government of India.

Based on the above-prescribed description of financial literacy in Bihar shows that Bihar is the leading state in financial literacy in India. It shows that Pradhan Mantri Jan Dhan Yojna is major for measuring financial literacy in India, but it is observed that Pradhan Mantri Jan Dhan Yojna allowed survival to millions of women under the scheme of financial literacy to those who live and work under the patriarchal system. Overall, this scheme enhanced women's empowerment in both rural and urban areas of Bihar. Based on this description, it may be realized that Pradhan Mantri Jan Dhan Yojna improved the empowerment of financial resources in the context of opening a bank account, saving, and borrowing with a Rupay card.

Based on the above description there are the following points that emerged in the context of financial literacy in Bihar:

- i. It is observed that role of Pradhan Mantri Jan Dhan Yojna is so crucial in the way of financial literacy in Bihar because it enhances the financial resources in Bihar.
- ii. Secondly, it is also found that Pradhan Mantri Jan Dhan Yojna improved the financial literacy in Bihar because it gave a platform to women so that they could sustain with the approach of saving and borrowing by formal mode in their nearest branches under the scheme of Pradhan Mantri Jan Dhan Yojna.

4.2 Nexus of Educational Status and Saving Accounts of Women in the context of Financial Literacy in the Sample Area of Patna District

This section analyses the correlation between educational status and saving accounts of women who are beneficiaries of Pradhan Mantri Jan Dhan Yojna in the sample areas of the Patna district. Primary data was collected by a total of 225 women who were beneficiaries of Pradhan Mantri Jan Dhan Yojna. It is found that there is variation in the educational status of women because women were not more educated. It is observed that nearly 80 percent (n=180) were literate followed by 11.1 percent (n=25) who were educated up to intermediate and the rest were educated up to high school (Table 5).

Educational Status	Number of Women	Percent
Literate	180	80.0
High School	20	8.9
Intermediate	25	11.1
Total	225	100.0

Table 5: Educational Status of Women in Sample Area of Patna District

Source: Field Survey 2022

Descriptive Statistics show that the total sample size was 225 and all the respondents were female because Pradhan Mantri Jan Dhan Yojna covers females in the context of their financial improvement through opening bank accounts, saving, and borrowing. Table 6 shows that there

were little few similarities between the mean value and standard deviation of educational status of women and their saving accounts in the sample area of Patna district (Table 6).

Descriptive Statistics				
	Mean	Std. Deviation	Ν	
Saving Accounts	23.2667	2.46765	225	
Women Education	23.0044	2.68511	225	

Table 6: Descriptive Statistics

Source: Field Survey 2022

These are the following two hypotheses: -

H₀= There is no correlation between the educational status of women and saving accounts

H₁= There is a correlation between the educational status of women and saving accounts.

The table shows that there is a positive correlation between the educational status of women and the status of their saving accounts in the sample areas of the Patna district. The significant value is .000 which is less than.0.05. Therefore, we reject the null hypothesis and assume that there is statistically significant correlation between the educational status of women and their saving accounts in the sample areas of the Patna district of Bihar (Table 7).

Table 7: Statistical Test

Correlations			
		Saving Account	Women Education
Saving	Pearson Correlation	1	.494**
Accounts	Sig. (2-tailed test)		.000
	Ν	225	225
Women	Pearson Correlation	.494**	1
Education	Sig. (2-tailed test)	.000	
	N	225	225
**. **. **. Correlation is significant at the 0.01 level (2-tailed).			

Source: Field Survey 2022

Based on the analysis of primary data, it can be concluded that the status of saving accounts was positively associated with the educational status of women in the sample area of the Patna district. It was the result of the scheme of Pradhan Mantri Jan Dhan Yojna in the context of financial literacy in Bihar.

4.3 Perception of women about Pradhan Mantri Jan Dhan Yojna

It is observed that Pradhan Mantri Jan Dhan Yojna improved the socio-economic status of women because they opened their bank accounts for saving and borrowing. As well as it is also observed that there was a positive change in the perception of women regarding their socioeconomic status because they found a better economic opportunity for their survival in the globalized world. It is well known that Bihar is a more backward state in the context of socio-economic development, but the implementation of Pradhan Mantri Jan Dhan Yojna gave away women empowerment in the rural areas of Bihar whereby women work and live under a patriarchal based society. It is also found that Pradhan Mantri Jan Dhan Yojna is working as a major for women empowerment in Bihar. It is interviewed by a woman in the rural area of Bihar, who told that she opened her saving bank account under the scheme of Pradhan Mantri Jan Dhan Yojna. As a result, she worked as an MGNREGA laborer, but she saved enough amount in her savings bank account. Additionally, she expressed that she was so happy because she could save and borrow under the scheme of Pradhan Mantri Jan Dhan Yojna.

Another case study was a woman, who also worked as an agricultural laborer in the rural areas of Patna district, she said that she had a bank account under the scheme of Pradhan Mantri Jan Dhan Yojna, and she further told that she saved rupee 1500 per month in her saving account as well as she has RuPay card, but she did not have enough information about the importance of RuPay card. Apart from this, she was satisfied with the scheme of Pradhan Mantri Jan Dhan Yojna.

Based on the above-prescribed case studies about financial literacy, it may be realized that role of Pradhan Mantri Jan Dhan Yojna is so crucial regarding the enhancement of women's participation in the mainstream of development as they find themselves in better socioeconomic conditions compared to men because Pradhan Mantri Jan Dhan Yojna gave such types of platforms whereby women can easily handle and manage their challenges on a grassroot level. It is found that matters of financial literacy improved by Pradhan Mantri Jan Dhan Yojna because it motivated women to participate in the financial scheme of government. In these consequences, it can be concluded that the role of financial literacy may be measured by Pradhan Mantri Jan Dhan Yojna because this scheme created a better financial environment among women in India. After all, it enhances the tendency of saving in Pradhan Mantri Jan Dhan Yojna accounts. As well as it gave motivational power to women regarding improving their financial skills through the Pradhan Mantri Jan Dhan Yojna of the central government. It is also found that Pradhan Mantri Jan Dhan Yojna fills the gap between policymaking and policy implementation regarding better management of financial literacy in India.

5. Conclusion

Based on the above-prescribed result and discussion, it can be concluded that Pradhan Mantri Jan Dhan Yojna is a major key for financial literacy in India as well as a major tool for women empowerment because Pradhan Mantri Jan Dhan Yojna gave a way of financial resources to underprivileged women in India. It is observed that financial literacy may be managed by women empowerment through their opening of bank accounts under the scheme of Pradhan Mantri Jan Dhan Yojna because this scheme enhanced the financial skills of poor households in the rural areas of Bihar. As well as beneficiaries of Pradhan Mantri Jan Dhan Yojna can

easily save their amount in their Jan Dhan Account with the facility for borrowing. It is also observed that the perception of women positively changed due to Jan Dhan Yojna because these women are easily surviving in the male-based society in the rural areas of Bihar. Secondly, it is also observed that Pradhan Mantri Jan Dhan Yojna gave a platform for women's empowerment because it is found that Pradhan Mantri Jan Dhan Yojna enhanced the financial power among underprivileged women in Bihar. In these contexts, Pradhan Mantri Jan Dhan Yojna is a major indicator of the measurements of financial literacy because this scheme works on the grass-root level whereby lots of socio-economic challenges exist in the context of the issue of poverty. Poverty is a major problem for poor households because poor households have no capacity of saving as they expend a major part of their income on the consumption of food and non-food items, but Pradhan Mantri Jan Dhan Yojna gave a dream of financial empowerment to poor households because they can save their saving in the bank account of Pradhan Mantri Jan Dhan Yojna. It can be also mentioned that it created socio-economic inclusion because economic development created social development under the scheme of Pradhan Mantri Jan Dhan Yojna. Here, inclusion can be defined as integration between social and economic development, but Pradhan Mantri Jan Dhan Yojna improved the financial stability for underprivileged poor households with the approach of sustainable development because sustainable development is based on a better future based on the better performance in the present scenario. But people cannot ignore the issue of livelihood of poor households because financial literacy can never be improved without giving the equal opportunity for livelihood to poor households with higher wage rates in employment. Because PMJDY, it is found that there is a lack of proper mechanism of saving in poor households because they expend a large proportion of their income on consumption of food and non-food items, but after being led by Pradhan Mantri Jan Dhan Yojna it motivated poor households for saving of their income for better future. As well as employment should be based on the management of MGNREGA because it has been found that most poor households are based on agriculture with jobs in MGNREGA whereby they are unable to save their surplus amount, but the government should manage these challenges for better implementation of Pradhan Mantri Jan Dhan Yojna.

6. Recommended Policies

Based on the study, following policies are recommended regarding better implementation of financial literacy in India:

- i. There is a need to give basic information about financial literacy on the ground level because such types of information can be helpful regarding the assessment of the role of financial literacy on the grass-root level in India.
- ii. It is needed to fill the gap between policymaking and policy implementation in the context of financial literacy because it is observed that there is a large gap between policymaking and policy implementation in India.
- iii. It should follow the guideline of the Reserve Bank of India (RBI) for better implementation of financial literacy on grass root level because the guideline of the Reserve Bank of India gives an umbrella concept for better implementation of financial literacy in India.

- iv. It is pertinent to give importance to financial literacy in the rural areas of India because more than 60 % of the population of India live in rural India. Therefore, it is very important to give basic information about financial literacy to rural people of India.
- v. It is also important that the government of India should be focused on the agriculture sector because a large proportion of the labour force is engaged in the agriculture sector, therefore, it is needed to give basic information about financial literacy to agricultural laborers in the rural-based economy of India.
- vi. It is also observed that there is not any proper mechanism to monitor the functional ability of financial literacy in India. Therefore, people should start to develop such kinds of platforms whereby people can access basic information about financial literacy.
- vii. It is also important that government should take the help of NGOs and civil society for spreading awareness among people about financial literacy because it is observed that people are not more interested in the role of financial literacy in India.
- viii. There is a need to develop a research-based study about financial literacy because such kind of study may be helpful in the study of the process, determinants, and consequences of financial literacy in India.
- ix. It is also observed that there is not any proper mechanism for financial literacy in India whereby underprivileged people expend a large proportion of their income on the consumption of food and non-food items hence, they are unable to save their surplus amount because they have no bank accounts. Therefore, it is needed to give motivation to people about opening saving accounts under the scheme of Pradhan Mantri Jan Dhan Yojna because Pradhan Mantri Jan Dhan Yojna provide an effective financial platform to the bottom of the bottom people in India.
- x. Women empowerment, through the PMJDY scheme by facilitating savings and learning about financial literacy, should be given boost with further improvements be made to enhance the financial capabilities of women.
- xi. Finally, author concluded that there is a need to give attention to the role of financial literacy under the approach of decentralization policies because India is the world's largest democratic country, and it is needed to adopt the way of top to a bottom level good governance for better performance of financial literacy in India under the approach of sustainable development.

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References

- Arthur, C. (2012). Financial literacy education. In *Financial literacy education* (pp. 1-12). Sense Publishers, Rotterdam.
- Clark, J., Mauck, N., & Pruitt, S. W. (2021). The financial impact of COVID-19: Evidence from an event study of global hospitality firms. *Research in International Business and Finance*, 58, 101452.
- 3. Demir, E., & Danisman, G. O. (2021). Banking sector reactions to COVID-19: The role of bank-specific factors and government policy responses. *Research in International Business and Finance*, *58*, 101508.
- Dutta, S., & Mehta, B. S. (2021). Banking the Unbanked: The Performance and Impact of Pradhan Mantri Jan Dhan Yojana (PMJDY) Schemes on Poor Households in Bihar. *IASSI Quarterly*, 40(1).
- 5. Faizi, A. A. A., & Gupta, S. (2019). Financial inclusion of women through PMJDY the case of Bihar, India. *Global Journal of Enterprise Information System*, *11*(2), 42-45.
- 6. Garg, N., & Singh, S. (2018). Financial literacy among youth. *International journal of social economics*.
- Huston, S. J. (2010). Measuring financial literacy. *Journal of consumer affairs*, 44(2), 296-316.
- 8. Kristóf, T., & Virág, M. (2022). EU-27 bank failure prediction with C5. 0 decision trees and deep learning neural networks. *Research in International Business and Finance*, *61*, 101644.
- 9. Lusardi, A., & Mitchell, O. S. (2011). Financial literacy around the world: an overview. *Journal of pension economics & finance*, 10(4), 497-508.
- 10. Lusardi, A., Mitchell, O. S., & Curto, V. (2010). Financial literacy among the young. *Journal of consumer affairs*, 44(2), 358-380.

- 11. Marcolin, S., & Abraham, A. (2006). Financial literacy research: Current literature and future opportunities.
- 12. Santhya, K. G., & Jejeebhoy, S. J. (2017). Empowering women and addressing marital violence through self-help groups: Evidence from rural Bihar—Policy brief.
- Siddiqui, T. A., & Siddiqui, K. I. (2020). Telecommunication, Socioeconomic, and Financial Inclusion: An Empirical Evidence from Bihar. *Prabandhan: Indian Journal of Management*, 13(10-11), 46-61.
- 14. Singh, F. B., & Jha, P. (2018). Financial Literacy among Rural Women in Darbhanga District: An Empirical Evidence. *SMS Journal of Entrepreneurship & Innovation*, 5(1), 146-154.
- 15. Singh, M. S. (2020). A ranking approach for Indian states on the basis of covariates of financial literacy. *Journal Homepage: http://ijmr. Net. In*, 7(1).
- 16. Kaleem, Shahid & Akhtar, S.M. Jawed (2022), Determinants of Student Attendance in Elementary Education in India, *Journal of Exclusion Studies*, 12(2), 207-220.