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### IMPACT ASSESSMENT OF JEEVAN JYOTI BIMA YOJNA AND SURAKSHA BIMA YOJNA MICROINSURANCE POLICIES AMONG LOWER INCOME POPULATIONS IN INDIA

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#### **ABSTRACT**

Microinsurance refers to a variety of insurance products available for low-income individuals or households with low savings, offering protection for smaller assets as well as coverage against risks like illness, accidents, or death. The study is based on the impact assessment and claim effectiveness of Pradhan Mantri Jeevan Jyoti Bima Yojana (PMJJBY) and Pradhan Mantri Suraksha Bima Yojana (PMSBY) among Lower Income populations. Multi linear regression and one sample T test research techniques have been used in order to make inferences and draw conclusion. The regression results highlight that both PMJJBY and PMSBY play a positive role in improving the savings potential of lower income groups. The moderate correlation (R = 0.591)suggests that while these schemes do contribute to building savings, they are not the only factors. Other economic and social factors—such as employment stability, household income, access to financial services, and expenditure patterns—are also likely to influence savings behavior. The results show that both PMJJBY and PMSBY have effective claim processes. Respondents perceive that claims under these schemes are generally processed well, which reflects positively on the government's effort to build trust in low-cost insurance programs. The fact that both schemes were found to be effective suggests that the claim settlement mechanism is functioning as intended and that beneficiaries recognize its usefulness. In conclusion, PMJJBY and PMSBY have the potential to provide meaningful financial protection to lower-income households. However, their full effectiveness depends on addressing gaps in impact and claim efficiency. Focused improvements, combined with policy support and regular monitoring, can strengthen these schemes and enhance their impact on social security. The study highlights that targeted efforts toward education, financial literacy, and customised interventions for vulnerable populations can transform these insurance programs into sustainable tools for financial inclusion and poverty reduction.

**Keywords:** Microinsurance, lower income groups, policies, financial protection



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#### 1. Introduction

Microinsurance refers to a variety of insurance products available for low-income individuals or households with low savings, offering protection for smaller assets as well as coverage against risks like illness, accidents, or death. It is a distinct branch of the insurance sector that aims to provide financial security to economically weaker sections. Expanding access to microinsurance is also considered an important step toward financial inclusion. In India, IRDA introduced regulations for micro insurance products on 30th November 2005.

According to the **Micro-Insurance Regulations**, **2005**, microinsurance is defined and facilitated as follows:

• It refers to a general or life insurance policy where the sum assured does not exceed ₹ 50,000.

A general micro-insurance product may include:

- Contracts covering assets i.e. Huts, Livestock, Tools or Instruments
- Personal accident insurance policies

These policies can be issued either to individuals or to groups.

#### 1.1 Structure and Environment of Micro Insurance -

The development of microinsurance goes beyond merely designing new products and establishing institutions to deliver them. It involves the participation of a wide range of organizations operating at different levels. This structure is generally illustrated through three tiers—micro, meso, and macro—each representing a distinct level of activity within the microinsurance system.

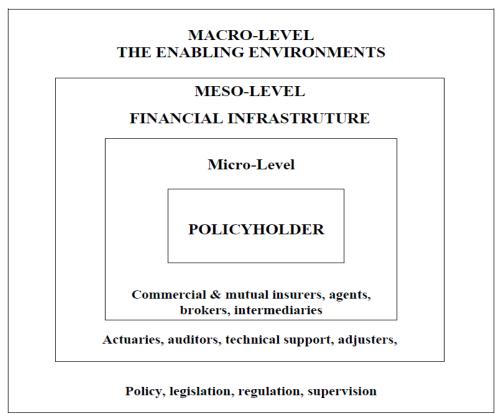
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**Source:** Structure and environment of Micro Insurance, Michael J. McCord adapted from

http://hannahsiedek.com/microinsurance-101-what-it-is-and-how-many-low-incomeclients-have-it/

Figure: 1.1

#### 1.2 Statement of the Problem -

India, as a young and rapidly growing economy, has committed itself to ensuring economic justice as enshrined in the Preamble of the Constitution, while functioning as a welfare state. Despite this, a significant section of the population still lacks access to banking, insurance and other financial services. A major proportion of Indians remain uninsured in key areas such as health, accident, and life coverage. Consequently, advancing inclusive growth through financial inclusion continues to be one of the country's greatest challenges.

Recognizing this, the Hon'ble Prime Minister of India, Mr. Narendra Modi, after analyzing the strengths and weaknesses of earlier schemes, prioritized financial inclusion as a key agenda of the government. Since 2014, several welfare-oriented insurance initiatives have been launched to widen access to financial protection. Among these, the **Pradhan Mantri Suraksha Bima Yojana** 



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(**PMSBY**), introduced on 9<sup>th</sup> of May 2015, stands out as a landmark step in India's social security framework. The scheme aims to establish a universal social insurance system, with a particular focus on the poor and vulnerable sections of society.

By providing affordable accident insurance coverage, PMSBY seeks to extend financial security to families who are otherwise pushed into distress due to unforeseen mishaps. It especially benefits individuals in moderate-risk occupations—such as a mechanics, daily-wage laborers & truck drivers—who face greater exposure to accidents because of the nature of their work. Given its importance, examining the details and progress of PMSBY becomes essential for understanding its character in promoting financial inclusion in India.

#### 1.3 Area of Research -

#### • Pradhan Mantri Jeevan Jyoti Jyoti Bima Yojana -

The **Pradhan Mantri Jeevan Jyoti Bima Yojana** (**PMJJBY**) is open to individuals between 18 and 60 years of age who hold a bank account and provide their consent for enrollment through an auto-debit facility. For verification, Aadhaar serves as the primary KYC document linked to the account. The features of scheme offer a life insurance cover of ₹2 lakh for a period of 1 year, from 1st June to 31st May, with the option of annual renewal. In case of the policyholder's death, regardless of the cause, the nominee is entitled to the sum assured of ₹2 lakh. The annual premium for this coverage is ₹436, that is deducted from the subscriber's bank account in a single installment, provided the authorization is given on or before 31st May of the relevant policy year. The scheme is implemented by the LIC of India along with other approved life insurers that agree to provide the policy on similar terms in collaboration with banks.

#### • Pradhan Mantri Suraksha Bima Yojana -

The **Pradhan Mantri Suraksha Bima Yojana** (**PMSBY**) is an accident insurance schemes that provides coverage for accidental death and disability arising from unforeseen mishaps. It offers protection for a period of one year, with the option of renewal on an annual basis. The scheme is implemented through Public Sector General Insurance Companies (PSGICs) as well as other approved general insurers that agree to operate under similar terms, subject to regulatory approvals. For effective delivery, these insurance providers collaborate with banks and post offices, which act as channels for enrollment and premium collection. Participating banks or post

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offices have the flexibility to partner with any eligible insurance company to extend the scheme to their customers.

#### 2. Review of Literature

Elabed & Carter (2015) and Bryan (2013) In his opinion, it is suggested that ambiguity aversion can act as a barrier to the uptake of insurance. When individuals choose not to buy insurance, the outcomes are relatively predictable. However, purchasing insurance introduces uncertainty—such as doubts about the insurer's reliability or the precise extent of coverage in the contract. An ambiguity-averse person may assess the policy under the assumption of the lowest possible trustworthiness and minimal coverage, leading them to perceive the insurance as offering limited value.

**Bhagabat Barik**, (2014) A broad analysis of the life insurance sector in India highlights its significance as more than just an investment avenue; it primarily serves as a protective mechanism. The core principle of life insurance lies in safeguarding individuals against unforeseen events and providing financial compensation to families in the event of death. In recent years, the insurance sector has emerged as the fastest-growing industries in the country.

**Deb & Sarma** (2016) It has been suggested that, since both PMSBY and PMJJBY are available only to individuals with savings bank accounts, these schemes act as indirect drivers of financial inclusion. By requiring bank account ownership, they motivate the unbanked population to enter the formal banking network. This not only expands the customer base for banks by increasing the number of accounts but also contributes positively to their profitability.

Azad et al. (2020) It was observed that Pradhan Mantri Suraksha Bima Yojana and Pradhan Mantri Jeevan Jyoti Bima Yojana have performed remarkably well in integrating the marginalized and underprivileged sections into the formal financial system. However, a significant portion of the people still lacks adequate awareness about these schemes. Many policyholders are unfamiliar with the claim settlement process, and a large number are unaware of the extent of coverage provided by the policies. Previous studies on term insurance were reviewed to develop the conceptual framework, which subsequently guided the formulation of related research hypotheses.

Swiss Re (2021) It was reported that, during the period under study, the pandemic did not produce any significant trend in the insurance market for either the life or non-life sectors. Meanwhile, the

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questions designed to assess respondents' insurance literacy focused on general aspects of insurance contracts that a well-informed consumer would be expected to know. These questions serve to capture a latent variable, namely, the level of insurance literacy among individuals.

Chhatwani and Mishra (2022) It has been suggested that, although the relationship between financial literacy and financial decision making is well established—demonstrating that higher FL generally leads to better financial choices—there is surprisingly limited research examining how individuals' insurance literacy (IL) influences their insurance-related decisions.

#### 3. Research Methodology

#### 3.1 Research Objectives:

The study has been undertaken with these objectives:

- (i) To analyse the current status of Jeevan Jyoti Bima Yojana (PMJJBY) and Suraksha Bima Yojana (PMSBY).
- (ii) To determine the impact of Jeevan Jyoti Bima Yojana (PMJJBY) and Suraksha Bima Yojana (PMSBY) on savings potential of Lower income groups.
- (iii) To evaluate the claim effectiveness of Jeevan Jyoti Bima Yojana (PMJJBY) and Suraksha Bima Yojana (PMSBY) of Lower income groups.

### Objective 1 – To analyse the current status of Jeevan Jyoti Bima Yojana and Suraksha Bima Yojana.

The two Janta Suraksha Schemes—Pradhan Mantri Jeevan Jyoti Bima Yojana (PMJJBY) and Pradhan Mantri Suraksha Bima Yojana (PMSBY)—were launched by Hon'ble PM Shri Narendra Modi on 9th May 2015 as part of a nationwide effort to provide affordable insurance and pension benefits to underserved populations. These schemes were designed to offer protection against life's uncertainties, including accidents, death, and old age, thereby ensuring financial security for individuals. Over the past decade, the programs have made notable progress in terms of enrollment, claim settlements, and promoting financial inclusion, positively impacting the lives of millions across India.

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#### Achievements of Jeevan Jyoti Bima Yojna -

- As of 23rd April 2025, the scheme has achieved 23.63 crore enrollments, with a total of ₹18,397.92 crore for 9,19,896 claims of the policy.
- Among the enrollees, 10.66 crore were women, and 7.08 crore enrollments were from Pradhan Mantri Jan Dhan Yojana (PMJDY) account holders.

#### Achievements of Suraksha Bima Yojna –

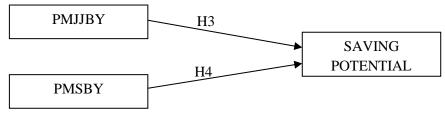
- As of 23rd April 2025, the scheme has enrolled 51.06 crore individuals, with a total payout of ₹3,121.02 crore for 1,57,155 claims of the policy.
- Of the total enrolees, 23.87 crore are women, and 17.12 crore are Pradhan Mantri Jan Dhan Yojana (PMJDY) account holders.

## Objective 2 – To determine the impact of Jeevan Jyoti Bima Yojana and Suraksha Bima Yojana on savings potential of Lower income groups.

Prime Minister Jeevan Jyoti Bima Yojana and Prime Minister Jeevan Suraksha Bima Yojana schemes are not saving schemes with no maturity amount; they may indirectly impact savings behavior—especially among rural-lower income consumers. It may encourage bank account usage, promotes habitual small-value payments, reduces emergency burden on savings and builds risk awareness. So indirectly, these schemes may have saved potential. Hence this study tries to explore the impact of PMJJBY and PMSBY on savings potential of lower income groups. The impact of these schemes on savings potential is determined through Multiple Linear regression since there is one dependent variable — savings potential, and two independent variables PMJJBY and PMSBY.

#### 3.2 Multiple Linear Regression – Impact of PMJJBY and PMSBY on Saving Potential

The impact of PMJJBY and PMSBY on savings potential of lower income groups is shown through the below proposed model:

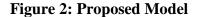




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The proposed model is assessed through multiple linear regression and as per the proposed model the following hypothesis were formulated:

• H3: PMJJBY has significant and positive effect on Savings Potential of lower income group.

• H4: PMBBY has significant and positive effect on Savings Potential of lower income group.

The regression model is represented through the following regression equations:

Savings Potential (SP) =  $a + b_1$ . PMJJBY +  $b_2$ . PMJJBY +  $E_1$ .

The regression coefficients in the models are represented through capital letters a,  $b_1$  and  $b_2$ , and  $\mathcal{E}$ , where 'a' is the constant while 'b<sub>1</sub>' and 'b<sub>2</sub>' are the regression coefficients, & ' $\mathcal{E}$ ' is the error term associated with first model. The MLR was run through SPSS and the results of MLR are assessed through three outputs – model summary, model significance and model coefficients.

#### 3.3 Model Summary

The first part of the MLR output is the Model Summary, which tells us two important things:

1. **'R'** (0.591) – This represents the **multiple correlation coefficient**, showing how strongly dependent variable is related to all independent variables combined.

2. 'R2' (0.350 or 35%) – This tells us the **proportion of variances** in the dependent variable (organizational performance) that's defined by the two schemes.

Simply, the model shows a **moderate correlation** ( $\mathbf{R} = \mathbf{0.591}$ ), and the predictors only account for **35% of the variation** in savings potential – meaning other factors not in the model likely play a bigger role.

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SE of the



Square Estimate		R Square	R	Model
.347 .64661		.350	.591a	1
	•	, PMSBY	onstant), PMJJBY	a. Predictors: (C
		, PMSBY	onstant), PMJJBY	a. Predictors: (C

Adjusted R

The model summary also includes Adjusted  $R^2$  (13.8%), which estimates how well the predictors would explain the dependent variable if applied to the broader population. Unlike the standard  $R^2$  (34.7%), Adjusted  $R^2$  accounts for sample size and the number of predictors – penalizing the model slightly to avoid overfitting. The fact that Adjusted R<sup>2</sup> is only slightly lower than  $R^2$  suggests that the two schemes still hold reasonable explanatory power, even after adjusting for statistical nuances. Ultimately, the model confirms that these two schemes explain 35% of the variance in savings potential, leaving the rest to other unmeasured influences."

#### 3.4 Model Significance

The next output depicts ANOVA statistics which assesses whether the percentage of variance defined in dependent variable by independent variables is significant or not which in turns determines whether the proposed regression model is significant or not. As in regular ANOVA overall significance of the model is determined by F statistics which is ratio of the variance explained to the variance unexplained (variance remaining after the estimation and prediction through the present model). Basically, the F statistics is assessed by its significance level. The obtained value of F statistic was 109.486 (dof – 409) which is found to be significant at p-value 0.000. This indicated that the overall amount of variance explained in savings potential by two schemes is significant. Therefore, it was considered that the overall model was significant and the respective relationship coefficients obtained can now be interpreted meaningfully.

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Model		Sum of Squares	df	Mean Square	F	Sig.
	Regression	91.555	2	45.777	109.486	.000b
1	Residual	170.171	407	.418		
-	Total	261.726	409			
a. c	lependent Variab	ole: SP				
b. p	oredictors: (Cons	stant), SBSP,	JJSP			

#### 3.5 Model Coefficients

The overall regression model was seen to be statistically significant, indicating that the two schemes collectively exert a significant influence on savings potential (SP). Having established the model's validity, we now turn to examining the individual regression coefficients to assess the unique contribution of each scheme.

The output presents the following key statistics for each predictor:

- Unstandardized coefficients (B): Represent the raw change in SP per unit change in the scheme.
- Standardized coefficients ( $\beta$ ): Allow comparison of relative effect sizes across variables.
- **t-values and associated p-values**: Test whether each coefficient significantly differs from zero.

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Model		Unstanda Coefficie		Standardized Coefficients	_ t	
		В	Std.	Beta		Sig.
			Error			
	(Constant)	1.498	.139		10.784	.000
1	PMJJBY	.414	.048	.447	8.647	.000
	PMSBY	.188	.049	.197	3.817	.000

#### 3.6 Analysis of Individual Scheme's Impact on Savings Potential

The regression analysis yielded noteworthy findings regarding the differential effects of the two schemes. Both of the considered schemes demonstrated statistically significant relationships with SP:

- 1. **PMJJBY** ( $\beta = 0.447, *p* = 0.000$ )
- 2. **PMSBY** ( $\beta = 0.197, *p* = 0.000$ )

The standardized coefficients ( $\beta$ ) indicate that:

- PMJJBY emerged as the strongest predictor of Savings Potential
- PMSBY showed slightly weaker impact on Savings Potential

The regression analysis shows that hypothesis H3 and H4 are fully supported and it may be concluded that:

- PMJJBY has significant and positive effect on Savings Potential of lower income group.
- PMBBY has significant and positive effect on Savings Potential of lower income group.



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### Objective 3 – To evaluate the claim effectiveness of Jeevan Jyoti Bima Yojana (PMJJBY) and Suraksha Bima Yojana (PMSBY) of Lower income groups.

This objective determines the effectiveness of PMJJBY and PMSBY of lower income groups through obtaining the responses' based on ease of process, documentation, timeliness and support by staff. The claim effectiveness of PMJJBY and PMSBY was observed separately through Likert Scale each consisting of four items rated on five-point scale. This section analyses the claim effectiveness with two respects – first the claim effectiveness each of the two schemes and secondly the relative claim effectiveness comparing the effectiveness of two schemes. The claim effectiveness of each of the scheme is determined through One-Sample t-test whereas the comparative analysis is performed through paired t-test.

#### 3.7 Claim Effectiveness of PMJJBY

The one-sample t-test null and alternate hypothesis for the claim effectiveness of PMJJBY is:

- $H_05$ : the PMJJBY claim process is not effective i.e. mean JJBYCE is zero ( $\mu = 0$ ).
- H<sub>A</sub>5: the PMJJBY claim process is effective i.e. mean JJBYCE is zero ( $\mu \neq 0$ ).

Initially the related descriptive statistics are analysed followed by the diagrammatic representations, hypothesis testing, results and drawing conclusions

**Table 4: JJBYCE Descriptive Statistics** 

	N	Mean	Std. Deviation	Std. Error Mean
JJBYCE	410	3.568	0.789	0.039
Total	410			

It is found that the mean of JJBYCE is 3.568 with standard deviation 0.789. It indicates that the observed JJBYCE mean value of 3.568 is more than 0 indicating that the JJBYCE claim process



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may be effective. However, to confirm this notion and assess whether this mean is significantly more than 0 an inferential analysis is performed employing one sample t-test, the following sections present the findings and conclusions.

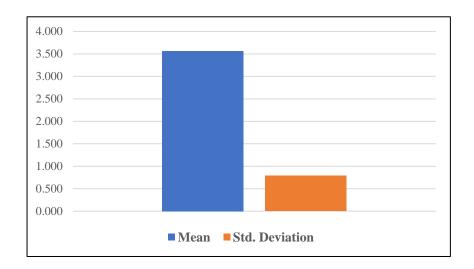


Figure 3: JJBYCE Descriptive Statistics

One sample t-test inferential statistics and hypothesis testing results are presented in the below section:

**Table 5: One Sample t-Test Statistics: JJBYCE Claim Effectiveness** 

	Test Value = 0								
	t	df	Sig. (2-tailed)	Mean Difference	95% Interva Differen				
					Lower	Upper			
JJBYCE	91.523	409	.000	3.56768	3.4911	3.6443			

It may be observed from that the one-sample t-test is significant with p-value 0.000 (< 0.05). Hence the null hypothesis H<sub>0</sub>5 may be rejected in favour of alternate and it may be concluded that the PMJJBY claim process is effective i.e. mean JJBYCE is zero ( $\mu \neq 0$ ). Since the mean value of JJBYCE is quite robust it may be concluded that the claim process of JJBYCE is quite effective.

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Therefore, it may be inferred that the consumers have a perception that PMJJBY has effective claim process.

#### 3.8 Claim Effectiveness of PMJJBY

The one-sample t-test null and alternate hypothesis for the claim effectiveness of PMJJBY is:

- H<sub>0</sub>6: the PMJJBY claim process is not effective i.e. mean JJBYCE is zero ( $\mu = 0$ ).
- H<sub>A</sub>6: the PMJJBY claim process is effective i.e. mean JJBYCE is zero ( $\mu \neq 0$ ).

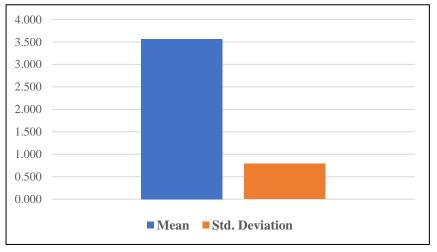
Initially the related descriptive statistics are analysed followed by the diagrammatic representations, hypothesis testing, results and drawing conclusions

**Table 6: JJBYCE Descriptive Statistics** 

	N	Mean	Std. Deviation	Std. Error Mean
JJBYCE	410	3.568	0.789	0.039
Total	410			

It is found that the mean of JJBYCE is 3.568 with standard deviation 0.789. It indicates that the observed JJBYCE mean value of 3.568 is more than 0 indicating that the PMJJBY claim process may be effective. However, to confirm this notion and assess whether this mean is significantly more than 0 an inferential analysis is performed employing one sample t-test, the following

sections findings and



present the conclusions.



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One sample t-test inferential statistics and hypothesis testing results are presented in the below section:

Table 7: One Sample t-Test Statistics: JJBYCE Claim Effectiveness

	Test Value = 0								
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference				
					Lower	Upper			
JJBYCE	91.523	409	.000	3.56768	3.4911	3.6443			

It may be observed from that the one-sample t-test is significant with p-value 0.000 (< 0.05). Hence the null hypothesis H<sub>0</sub>6 may be rejected in favour of alternate and it may be concluded that the PMJJBY claim process is effective i.e. mean JJBYCE is zero ( $\mu \neq 0$ ). Since the mean value of JJBYCE is quite robust it may be concluded that the claim process of JJBYCE is quite effective.

Therefore, it may be inferred that the consumers have a perception that PMJJBY has effective claim process.

#### 3.9 Claim Effectiveness of PMSBY

The one-sample t-test null and alternate hypothesis for the claim effectiveness of PMSBY is:

- $H_07$ : the PMSBY claim process is not effective i.e. mean SBYCE is zero ( $\mu = 0$ ).
- H<sub>A</sub>7: the PMSBY claim process is effective i.e. mean SBYCE is zero ( $\mu \neq 0$ ).

Initially the related descriptive statistics are analysed followed by the diagrammatic representations, hypothesis testing, results and drawing conclusions

N

410

410

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**SBCE** 

Total





Std.

Error

Mean

0.038

Std.

0.769

**Deviation** 



It is found that the mean of SBYCE is 3.357 with standard deviation 0.769. It indicates that the observed SBYCE mean value of 3.357 is more than 0 indicating that the PMSBY claim process may be effective. However, to confirm this notion and assess whether this mean is significantly more than 0 an inferential analysis is performed employing one sample t-test, the following sections present the findings and conclusions.

Mean

3.357

4.000 3.500 3.000 2.500 2.000 1.500 1.000 0.500 0.000 ■ Mean ■ Std. Deviation

Figure 5: SBYCE Descriptive Statistics

One sample t-test inferential statistics and hypothesis testing results are presented in the below section:

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Table 9: One Sample t-Test Statistics: SBYCE Claim Effectiveness

	Test Va	Test Value = 0								
	t	df	Sig. (2-tailed)	Mean Difference	95% Interva Differen					
					Lower	Upper				
SBCE	88.395	409	.000	3.35732	3.2827	3.4320				

It may be observed from that the one-sample t-test is significant with p-value 0.000 (< 0.05). Hence the null hypothesis  $H_07$  may be rejected in favour of alternate and it may be concluded that the PMSBY claim process is effective i.e. mean SBYCE is zero ( $\mu \neq 0$ ). Since the mean value of SBYCE is quite robust it may be concluded that the claim process of SBYCE is quite effective. Therefore, it may be inferred that the consumers have a perception that PMSBY has effective claim process.

#### 3.10 Comparative Analysis of PMJJBY and PMSBY Claim Effectiveness

The paired t-test null and alternate hypothesis for comparison of PMJJBY and PMSBY claim effectiveness is:

- H<sub>0</sub>8: there is no significant difference in claim effectiveness mean of PMJJBY and PMSBY i.e. there is no significant difference in PMJJBY and PMSBY claim effectiveness.
- H<sub>A</sub>8: there is a significant difference in claim effectiveness mean of PMJJBY and PMSBY i.e. there is a significant difference in PMJJBY and PMSBY claim effectiveness.

Initially the related descriptive statistics are analysed followed by the diagrammatic representations, hypothesis testing, results and drawing conclusions

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Table 10: PMJJBY and PMSBY Claim Effectiveness

		Mean	N	Std. Deviation	Std. Error Mean
Pair	JJCE	3.568	410	0.789	0.039
1 411	SBCE	3.357	410	0.769	0.038
Total	ı	410		1	1

It is found that the mean of PMJJBY claim effectiveness is more than the mean of PMSBY claim effectiveness. It may indicate that PMJJBY claim effectiveness is more PMSBY claim effectiveness in the sample. However, to confirm whether this effect is also present in the population an inferential analysis is performed employing paired samples t-test, the following sections present the findings and conclusions.

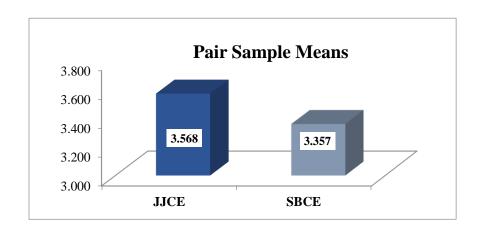


Figure 6: PMJJBY and PMSBY Claim Effectiveness

Paired sample t-test inferential statistics and hypothesis testing results are presented in the below section:



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Table 11: Paired Sample t-Test Inferential Statistics - PMJJBY and PMSBY Claim **Effectiveness** 

		Paired Differences							
		Mean	Std. Deviation	Error	95% Confidence Interval of the Difference		t	df	Sig. (2- tailed)
					Lower	Upper			
Pair	JJCE - SBCE	.21037	.61768	.03050	.15040	.27033	6.896	409	.000

It may be observed from that the paired sample t-test is significant with p-value 0.000 (< 0.05). Hence the null hypothesis H<sub>0</sub>8 may be rejected in favour of alternate and it may be concluded there that is a significant difference in claim effectiveness mean of PMJJBY and PMSBY i.e. there is a significant difference in PMJJBY and PMSBY claim effectiveness. As the observed the mean of JJBYCE is more than the mean of SBYCE and difference is also significant, it is drawn that PMJJBY claim effectiveness is more the PMSBY claim effectiveness.

#### 3. Findings of the study –

The findings from Multiple Linear regression consist of R, R<sup>2</sup>, model significance and, model coefficients regarding impact of PMJJBY and PMSBY on savings potential tested through H3 and H4. The are presented in the below sections.

- 3.1.1 The regression model shows a moderate correlation (R = 0.591) between PMJJBY and PMSBY (independent variables) and savings potential (dependent variables).
- 3.1.2 PMJJBY and PMSBY (predictors in the model) explains 35% of the variation in savings potential – meaning other factors not included in the model likely play a bigger role.
- 3.1.3 The regression model with two predictors (PMJJBY and PMSBY) was found to be significant indicating that amount of variance explained in the dependent variable by the two considered independent variables is significant.

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3.1.4 Both H3 and H4 were supported, PMJJBY and PMSBY were found to have a significant and positive effect on Savings Potential of lower income group. However, PMJJBY emerged as the stronger predictor of Savings Potential and PMSBY showed slightly weaker impact on Savings Potential.

#### **Discussions in Relation to the Findings**

The regression results highlight that both PMJJBY and PMSBY play a positive role in improving the savings potential of lower income groups. The moderate correlation (R = 0.591) suggests that while these schemes do contribute to building savings, they are not the only factors responsible. Other economic and social factors—such as employment stability, household income, access to financial services, and expenditure patterns—are also likely to influence savings behavior.

The model explains about 35% of the variation in savings potential. However, it also shows that savings habits are shaped by multiple factors other than just insurance coverage. This underlines the fact that while government insurance schemes create financial security, a more holistic approach is required to significantly strengthen the financial position of low-income households.

Both schemes were found to have a positive impact on savings potential. This can be explained by the way insurance acts as a financial safety net. For low-income families, unexpected expenses due to accidents, illness, or death often erode whatever small savings they might have. With PMJJBY and PMSBY providing coverage against such risks at a very affordable premium, households feel more secure and may be able to set aside a portion of their income as savings instead of keeping money for emergencies.

Interestingly, PMJJBY emerged as the stronger predictor of savings potential compared to PMSBY. This may be because PMJJBY is a life insurance scheme, and life insurance is traditionally seen as a tool not only for protection but also for long-term financial planning. Families may feel more motivated to save when they perceive that their future financial risks are better covered. PMSBY, though useful as accident insurance, is often seen as a supplementary scheme and hence has a relatively smaller influence on savings behavior.

Overall, the findings suggest that social security schemes like PMJJBY and PMSBY create a sense of financial stability among lower income groups, which in turn supports their ability to save. However, the limited explanatory power of the model indicates that improving savings potential

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requires a wider set of interventions such as financial literacy, income generation programs, and access to formal banking services.

### 4.2 Objective: To evaluate the claim effectiveness of Jeevan Jyoti Bima Yojana (PMJJBY) and Suraksha Bima Yojana (PMSBY) of Lower income groups.

This objective analyses the claim effectiveness with two respects – first the claim effectiveness of each of the two schemes and secondly the relative claim effectiveness comparing the effectiveness of two schemes. The findings and discussions are presented in two sections, claim effectiveness of PMJJBY, PMSBY and comparative claim effectiveness of two schemes, and discussion in relation to these findings.

#### 4.2.1 Findings from Analysis of PMJJBY & PMSBY Claim Effectiveness

The analysis of PMJJBY & PMSBY Claim Effectiveness, and comparative claim effectiveness of the two schemes consist of hypothesis H<sub>0</sub>5, H<sub>0</sub>6 and H<sub>0</sub>7 testing. The findings are presented in the below sections.

- **4.2.1.1** The null hypothesis  $H_05$  may be rejected in favour of alternate and it may be concluded that the PMJJBY claim process is effective i.e. mean JJBYCE is not zero ( $\mu \neq 0$ ). Since the mean value of JJBYCE is quite robust it may be concluded that the claim process of JJBYCE is quite effective. Therefore, it may be inferred that the consumers have a perception that PMJJBY has effective claim process.
- **4.2.1.2** The null hypothesis H<sub>0</sub>6 may be rejected in favour of alternate and it may be concluded that the PMSBY claim process is effective i.e. mean SBYCE is not zero ( $\mu \neq 0$ ). Since the mean value of SBYCE is quite robust it may be concluded that the claim process of SBYCE is quite effective. Therefore, it may be inferred that the consumers have a perception that PMSBY has effective claim process.
- **4.2.1.3** The null hypothesis H<sub>0</sub>7 may be rejected in favour of alternate and it can be concluded there that is a significant difference in claim effectiveness mean of PMJJBY and PMSBY i.e. there is a significant difference in PMJJBY and PMSBY claim effectiveness. As the observed the mean of JJBYCE is more than the mean of SBYCE and the difference is also significant, it is concluded that PMJJBY claim effectiveness is more the PMSBY claim effectiveness.

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#### **Discussions in Relation to Findings**



The results show that both PMJJBY and PMSBY have effective claim processes. Respondents perceive that claims under these schemes are generally processed well, which reflects positively on the government's effort to build trust in low-cost insurance programs. The fact that both schemes were found to be effective suggests that the claim settlement mechanism is functioning as intended and that beneficiaries recognize its usefulness.

However, when comparing the two schemes, the analysis revealed that PMJJBY is perceived to have stronger claim effectiveness than PMSBY. This difference could be due to the nature of the schemes. PMJJBY deals with life insurance, where the claim process is often more structured and straightforward, with fewer disputes about eligibility. In contrast, PMSBY covers accidental deaths and disabilities, where verifying conditions and documentation can sometimes make the process more complicated. This may explain why respondents feel PMSBY claim effectiveness is slightly weaker than PMJJBY.

The positive perception of claim effectiveness in both schemes is important because it directly influences trust and participation. Lower income groups are often hesitant to invest in insurance if they doubt the reliability of claims. The findings show that these schemes are helping to overcome that barrier by demonstrating credibility in payouts. At the same time, the gap in effectiveness between the two schemes suggests that further streamlining of PMSBY claim processes could enhance its acceptance and bring it closer to the performance level of PMJJBY.

Overall, the findings highlight that claim settlement plays a central role in the success of social security schemes. Effective claims not only provide financial relief but also build confidence among participants, which is vital for long-term sustainability and wider adoption.

#### 4. Conclusion -

While PMJJBY and PMSBY both positively influence savings potential, PMJJBY emerged as a slightly stronger predictor. The study also found that both schemes have effective claim processes, though PMJJBY's claim effectiveness is perceived as higher than PMSBY's. In conclusion, PMJJBY and PMSBY have the potential to provide meaningful financial protection to lower-income households. However, their full effectiveness depends on addressing gaps in impact and claim efficiency. Focused improvements, combined with policy support and regular monitoring,



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can strengthen these schemes and enhance their impact on social security. The study highlights that targeted efforts toward education, financial literacy, and customised interventions for vulnerable populations can transform these insurance programs into sustainable tools for financial inclusion and poverty reduction.

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