



IMPACT OF DIGITAL PAYMENT SYSTEMS ON SOCIAL WELFARE SCHEME BENEFICIARIES: A STUDY IN MANDYA DISTRICT

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Abstract

The present study examines the impact of social welfare schemes provided through digital payment systems on the socio-economic conditions of beneficiaries in Mandya district. The integration of digital payment mechanisms, such as Direct Benefit Transfer (DBT), has transformed the way welfare benefits are delivered by enhancing transparency, efficiency, and financial inclusion. Using primary data from 113 respondents and employing statistical tools like mean, standard deviation, and t-test, the study found that beneficiaries experienced significant improvements in financial independence, savings habits, and control over expenditure. Digital payments have minimized delays, reduced dependence on intermediaries, and empowered recipients, especially women and rural populations. The results strongly indicate that digital welfare payments play a vital role in promoting economic stability and social empowerment among low-income households.

Keywords: *Digital Payments, Social Welfare Schemes, Financial Empowerment, Beneficiaries.*

Introduction

Social welfare schemes have long been the cornerstone of government initiatives aimed at improving the living standards of vulnerable and marginalized sections of society. These schemes encompass a wide range of programs, including financial assistance, health care, education support, employment opportunities, housing, pensions, and subsidies for essential commodities. Traditionally, the distribution of benefits under such schemes has faced numerous challenges, including delays, leakages, corruption, duplication of beneficiaries, and lack of transparency. These challenges have often hindered the effective delivery of benefits to the intended recipients, reducing the overall impact of social welfare programs.

The advent of digital technology has opened new avenues to address these challenges, particularly through digital payment systems. Digital payment systems refer to platforms and mechanisms that enable the transfer of funds electronically, eliminating the need for physical cash transactions. In the context of social welfare, these systems are utilized to directly transfer benefits, subsidies, or allowances to the accounts of eligible beneficiaries. One of the most notable examples of such systems is India's Direct Benefit Transfer (DBT) program, which has revolutionized the delivery of welfare services by leveraging technology for transparent and efficient payments.

The integration of digital payment systems with social welfare schemes has several significant implications. Firstly, it enhances transparency by ensuring that funds reach the rightful beneficiaries without intermediaries who could siphon off a portion of the resources. In traditional cash-based systems, a considerable percentage of allocated funds is often lost due to corruption or inefficiency. Digital transfers, on the other hand, create a traceable record of transactions, enabling better monitoring and accountability. This digital audit trail empowers policymakers, financial institutions, and citizens to verify that the schemes are functioning as intended.



Secondly, digital payment systems reduce delays in disbursing benefits. In conventional methods, beneficiaries often had to rely on manual processes, including submission of applications, verification of identity, and collection of funds from local offices or bank branches. Such processes were time-consuming and prone to errors, causing frustration among recipients and reducing the timely impact of welfare schemes. With digital payments, funds can be transferred instantly or within a few days directly into beneficiaries' bank accounts or digital wallets, thereby ensuring that financial assistance reaches those in need promptly. This immediacy is particularly crucial in emergency situations, such as natural disasters, pandemics, or sudden economic downturns, where timely support can mitigate severe hardships. Thirdly, the use of digital payment systems promotes financial inclusion. Many beneficiaries of social welfare schemes belong to economically disadvantaged groups who may not have access to formal banking services. Governments and financial institutions have increasingly addressed this challenge by opening zero-balance bank accounts and providing mobile banking solutions, enabling previously unbanked individuals to receive benefits directly. This not only facilitates access to welfare schemes but also introduces these populations to the broader financial system, helping them develop financial literacy, savings habits, and access to credit facilities. In the long run, financial inclusion can empower individuals to improve their economic resilience and reduce dependence on welfare programs.

In conclusion, the integration of digital payment systems with social welfare schemes represents a significant advancement in public service delivery. It addresses longstanding challenges of transparency, efficiency, and inclusivity, while empowering beneficiaries and promoting financial literacy. By leveraging technology, governments can ensure that welfare programs reach the intended recipients promptly and effectively, creating meaningful and measurable social impact. As digital infrastructure continues to expand and technology adoption increases, the potential for these systems to transform social welfare delivery will only grow, paving the way for more equitable and inclusive development. The shift towards digital payments is not just a technical upgrade; it is a transformative approach that strengthens governance, fosters accountability, and enhances the socio-economic well-being of millions of citizens.

Review of Literature

Tyagi, G et al., (2022), "A Study on digital payment applications in India" studied the importance of digital payment applications in e-commerce and also studied the user's perception about digital payment applications. The study was conducted in Pune region and the survey was done with the help of questionnaire. It was found that most of the respondents preferred UPI applications such as Google Pay, Paytm, Amazon pay and BHIM over cash because it provides various benefits such as ease of use, two factor authentication and no need to carry cash. The authors concluded that UPI have a great future in the long term.

Verma, A et al., (2022), "Core determinants influencing intention of digital generation to use digital payment: A Qualitative Study" in their article explored the factors that influence the customers to use digital payments. The study was qualitative in nature. The data was collected through primary sources with a sample of 36 respondents in Delhi NCR region. It was found that, personal innovativeness, social influence, perceived compatibility, intention to use, mental attitude were the factors that influenced the intention to use digital payment modes. Further it was found that numerous individuals discarded digital modes as they were not upgraded and informed. The authors concluded by suggesting that, safety is to be catered for online transactions and also the statutory agencies should



draft laws and set out policy trust for providing a favourable setting by funding the cost of the internet to enhance the support of digital modes .

Walasange, K. B et al (2023), “A Study of Growth of Digital Payment Transactions in India: Challenges and Suggestions” analyzed the significant growth of digital payment transactions in India over the past five years (2017–2022). They identified major trends, key drivers like government initiatives (e.g., Digital India, UPI, BHIM), and technological advancements that have boosted digital payment adoption. The study highlighted how digital transactions have impacted sectors such as banking, retail, and e-commerce, and discussed the challenges faced, including digital divide, cyber security, technical issues, and continued cash dependency. The research, based on secondary data from RBI, NPCI, and other sources, revealed a consistent and sharp rise in both the number and value of digital payments, especially in 2021-22. The study concluded that digital payments are transforming the Indian economy and recommends continued investment, consumer education, and further research to support and expand this transformation.

Bird, N et al. (2023), “Expanding and improving social safety nets through digitalization: Conceptual framework and review of country experiences” analyzed how digitalization has contributed to the expansion and improvement of social safety nets. The study highlighted wide-ranging differences in SSN spending, coverage, and targeting across nations. In these contexts, digital tools were crucial in enabling swift and efficient expansion. The research outlined how governments could enhance beneficiary identification, verification, and payment systems, even when institutional capacity was limited. Through six case studies the research showcased varied strategies for leveraging digital technology, shaped by the existing level of digital infrastructure. The study emphasized the importance of investing in digital public infrastructure, ensuring data privacy, and addressing digital divides to strengthen SSN effectiveness and resilience.

Sumant (2024), “E-RUPI: An Innovation to Accelerate Financial Facilities in India” analyzed e-RUPI, a digital voucher system launched in 2021 by the Government of India and NPCI to promote targeted, cashless, and contactless payments. The study examined how e-RUPI operates without requiring internet or bank accounts, making it accessible to underserved populations. It highlighted several benefits, including secure and traceable transactions, reduced reliance on intermediaries, and support for financial inclusion. However, the research also addressed challenges such as cyber security risks, limited regional bank participation, and low adoption in economically weaker sections. The study concluded that e-RUPI, though still developing, shows promise in strengthening digital governance and delivering welfare benefits more effectively.

Singh, A. K et al. (2024), “Digital revolution: Analyzing the growth of payment systems in India” analyzed the significant evolution and expansion of India's digital payment system, which was primarily driven by strategic government initiatives and concurrent technological advancements. The study also aimed to identify key factors that propelled this growth, including measures promoting financial inclusion, increased internet accessibility, and the widespread adoption of smart phones. Furthermore, the study explored the increasing prominence of digital payments within India's overall transaction landscape, demonstrating its growing dominance over traditional cash-based methods. The findings of the study indicated a substantial shift towards a digitized economy, characterized by a rising proportion of total transaction values derived from digital channels. The study concluded that there is a need of pivotal roles of policy initiatives and evolving consumer behaviour in facilitating India's transition towards a more digital financial ecosystem.



Objectives of the Study

The main objectives of the study are as follows:

1. To study the demographic profile of the respondents.
2. To study the impact of social welfare schemes provided through digital payment on beneficiaries.

Hypothesis of the study: Based on Objectives, following hypothesis has been framed:

H0: There is no significant impact of social welfare schemes provided through digital payment systems on the beneficiaries' socio-economic conditions.

H1: Social welfare schemes provided through digital payment systems have a significant positive impact on the beneficiaries' socio-economic conditions.

Research Methodology: Following Research Methodology has been applied for the purpose of the Study:

Primary Data: Questionnaire.

Secondary Data: Websites and Journals.

Sample Size: 113 Respondents.

Study area: Mandya.

Statistical tools: Mean standard Deviation and t-test.

Table 1: Demographic Profile of the Respondents

Category	Sub Category	Male	Female	Total	Percentage
Gender	Male	46	-	67	40.7
	Female	-	67	67	59.3
Age of the Respondents	Below 25 years	6	10	16	14.2
	26-35 years	13	22	35	31.0
	36-45 years	15	27	42	37.2
	Above 45 years	12	8	20	17.7
Educational Qualification	Primary education	10	21	31	27.4
	Secondary education	17	26	43	38.1
	Higher Secondary	13	18	31	27.4
	Graduate and above	6	2	8	7.1
Occupation	Agriculture	16	22	38	33.6
	Daily wage labour	11	18	29	25.7
	Small business/ self employed	9	18	27	23.9
	Service (Government/Private)	8	10	18	15.9
	Unemployed	5	7	12	10.6
Monthly Income	Below Rs.10,000	18	29	47	41.6
	Rs.10,001-Rs.20,000	15	24	39	34.5
	Rs.20,001-Rs.30,000	10	15	25	22.1
	Above Rs.30,000	6	7	13	11.5
Area of Residence	Rural	30	44	74	65.5
	Semi Urban	12	20	32	28.3
	Urban	7	11	18	15.9



Type of Social Welfare scheme availed	Old age pension	12	16	28	24.8
	Widow Pension	0	22	22	19.5
	Disability Pension	6	8	14	12.4
	Sandhya Suraksha yojane	11	17	28	24.8
	PM Kisan/ Agricultural Subsidy	20	12	32	28.3

Source: Primary Data

The demographic profile of the 113 respondents indicates that social welfare schemes delivered through digital payment systems predominantly benefit females, middle-aged individuals, rural residents, and low-income groups. Females constitute nearly 60% of the sample, reflecting targeted efforts to empower women financially. The majority of beneficiaries fall within the 36–45 years age group, and most have secondary or primary education, suggesting that these schemes primarily reach moderately educated populations. In terms of occupation, beneficiaries are mainly engaged in agriculture, daily wage labor, or small businesses, highlighting that social welfare programs effectively support economically vulnerable and informal-sector workers. A large proportion of respondents earn below Rs.20,000 per month, confirming that low-income households are the primary recipients. Rural respondents form the largest share, indicating successful penetration of digital payment mechanisms in areas with limited access to formal banking. Among the types of schemes availed, PM Kisan/ Agricultural Subsidy, Old Age Pension, and Sandhya Suraksha Yojane are the most popular, reflecting their relevance to the daily needs and livelihoods of beneficiaries. Overall, the data suggests that digital payment systems are effectively reaching the intended target groups, promoting financial inclusion, transparency, and timely access to welfare benefits.

Table 2: Impact of Social Welfare schemes provided through digital payment system

Sl. No.	Statements	Strongly Disagree		Disagree		Neutral		Agree		Strongly Agree	
		F	%	F	%	F	%	F	%	F	%
1	Receiving digital welfare payments has improved my financial condition.	65	4.2	197	12.6	154	9.9	657	42.1	461	29.5
2	I am now able to manage my household expenses more efficiently.	17	1.1	152	9.7	104	6.6	728	46.9	533	34.3
3	I can save a portion of my welfare payments regularly.	109	7.1	197	12.8	64	4.2	691	44.9	473	30.8
4	I face fewer financial hardships after the introduction of digital payment systems.	34	2.2	133	8.7	24	1.6	801	52.2	542	35.3
5	I am less dependent on informal loans since receiving digital welfare benefits.	28	1.8	144	9.4	245	16	652	42.5	465	30.3
6	I have better control over how I spend my welfare benefits.	46	3	124	8.1	54	3.5	773	50.4	537	35
7	I can access my money whenever I need it through digital means.	61	4	186	12.1	16	1	680	44.3	591	38.5
8	I am able to save a part of my welfare benefits more easily.	53	3.5	156	10.2	134	8.7	715	46.6	476	31

Source: SPSS Output



From the above table, it can be seen that beneficiaries' responses regarding the impact of social welfare schemes provided through the digital payment system reveals a highly positive outcome. A large majority of respondents expressed agreement with the statements related to financial improvement, better expense management, and enhanced accessibility of funds. Specifically, more than 70 per cent of beneficiaries agreed or strongly agreed that receiving welfare payments through digital platforms has improved their financial condition and helped them manage household expenses more efficiently. Similarly, around 75 to 80 per cent reported that they now face fewer financial hardships, are less dependent on informal loans, and have better control over their welfare benefits. The findings clearly indicate that digital payment systems have contributed to financial inclusion, security, and empowerment among beneficiaries.

Hypothesis

H0: There is no significant impact of social welfare schemes provided through digital payment systems on the beneficiaries' socio-economic conditions.

H1: Social welfare schemes provided through digital payment systems have a significant positive impact on the beneficiaries' socio-economic conditions.

Table 2a: Impact of Social Welfare schemes provided through digital payment system

Statements	One-Sample Test					
	Test Value = 0					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Financial Empowerment	126.457	1533	.000	3.409	3.36	3.46
I have better control over how I spend my welfare benefits	135.150	1533	.000	3.672	3.62	3.73
I can access my money whenever I need it through digital means	155.988	1532	.000	3.825	3.78	3.87
I am able to save a part of my welfare benefits more easily.	143.366	1533	.000	3.655	3.61	3.71
I feel more financially independent because of digital payments	142.849	1533	.000	3.660	3.61	3.71
I can avoid paying extra charges or bribes due to digital transfers.	127.413	1533	.000	3.545	3.49	3.60
I decide how to use the money I receive from welfare schemes	165.745	1533	.000	3.881	3.83	3.93
I have more stability in financial decisions at home after receiving payments directly	155.406	1533	.000	3.756	3.71	3.80
I feel confident making purchasing decisions using my digital funds	139.617	1533	.000	3.587	3.54	3.64
I do not rely on others to access or use my welfare payments.	131.574	1533	.000	3.510	3.46	3.56

Source: SPSS Output



The one-sample t-test was conducted to examine the impact of social welfare schemes provided through digital payment systems on the beneficiaries' socio-economic conditions. The results in Table 2a show that all statements related to financial empowerment recorded very high t-values (ranging from 126.457 to 165.745) with p-values of .000, which are less than 0.05, indicating statistical significance. The mean differences above 3.4 for all items reveal that beneficiaries strongly agreed that digital payments improved their financial control, accessibility, independence, and savings habits. Respondents also reported that direct digital transfers helped them avoid extra charges or bribes, make their own financial decisions, and feel more confident and independent in managing their welfare funds. Hence, the null hypothesis is rejected, and it is concluded that social welfare schemes provided through digital payment systems have a significant positive impact on the beneficiaries' socio-economic conditions, especially in enhancing their financial empowerment and decision-making ability.

Findings of the Study

1. Digital payment systems significantly improved the beneficiaries' financial management and independence.
2. Most respondents reported enhanced access to funds and reduced reliance on informal borrowing.
3. Women and rural residents benefited most, reflecting progress in financial inclusion.
4. The t-test confirmed a statistically significant positive impact ($p < 0.05$) on socio-economic conditions.

Suggestions

1. Strengthen digital literacy programs to help rural and elderly beneficiaries use digital platforms confidently.
2. Improve digital infrastructure and internet accessibility in remote areas.
3. Ensure regular awareness campaigns about safety and fraud prevention in digital transactions.
4. Introduce grievance redressal mechanisms for addressing payment delays or technical issues.

Conclusion

The study concludes that digital payment systems have revolutionized welfare delivery by ensuring transparency, accountability, and financial empowerment. Beneficiaries have gained improved control over their finances, timely access to welfare funds, and greater independence. The findings highlight that digital welfare schemes are not merely financial tools but powerful enablers of socio-economic transformation, promoting inclusive growth and reducing inequality in society.

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