

Digital Payment in Madhya Pradesh: An Analysis of Online Shopping Trends

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Abstract

This study aimed to explore the dynamics of digital payment utilization in Madhya Pradesh, focusing on the impact of occupational differences on online shopping frequency and transaction amounts. The research was driven by the hypothesis that distinct occupational groups in the region exhibit significant variations in their online shopping behaviors and the amounts spent in digital transactions. To test this hypothesis, data were collected from a diverse set of participants across various occupations, including students, salaried employees, and business owners. The study employed statistical analyses to investigate patterns and correlations between occupation, online shopping frequency, and transaction amounts. The results offer insightful implications for understanding consumer behavior in digital commerce and can guide businesses and policymakers in tailoring digital payment services to meet the needs of different occupational groups.

Keywords: Digital payments, Digital Payment Utilization, Madhya Pradesh, Shopping Behaviors, Occupational Differences, Online Shopping Frequency

1. Introduction:

Digital payments refer to the process where monetary transactions are conducted through digital or online platforms, eliminating the need for physical currency exchange. In this scenario, both the party making the payment and the one receiving it transfer funds electronically. The Indian government has been actively working to foster the growth of digital payments as a key component of its "Digital India" initiative. The aim is to create an economy that thrives on being 'Faceless, Paperless, and Cashless', thereby enhancing digital empowerment.

As it has been seen, that both the government and private firms are working hard and efficient to bring more of Indians online through initiatives like "DIGITAL INDIA". The efforts are carried for tapping in to India's young, internet freaky population. Recent trends indicate that e-commerce companies such as Amazon and Flipkart are increasingly offering cashless payment options to move away from cash-on-delivery methods. This shift is facilitated by the use of various digital payment methods like Unified Payments Interface (UPI), payment links, digital wallets, and pay-later services. There has been a noticeable reduction in cash-on-delivery transactions, including both card and cash payments, which have dropped from 40% in the pre-COVID era. This change is partly organic, driven by the preference for low-contact deliveries and a decreased inclination towards cash transactions among customers. Additionally, e-commerce platforms are actively promoting prepaid options for the safety of their delivery teams and are introducing fees for non-prepaid transactions. This information was shared by Mrigank Gutgutia, Director of e-commerce at RedSee.

The landscape of modern transactions is increasingly pivoting from traditional cash-based methods to electronic forms. This change is largely fueled by the widespread integration of Information and Communication Technology (ICT), profoundly altering the dynamics of the financial market and its operations [3]. As digitalization advances and internet usage becomes more prevalent, significant shifts are occurring in the global economic framework. The rise of various Financial Technology (FinTech) solutions is enabling consumers to transition away from traditional cash-based payment systems. Digital payments are progressively becoming an integral part of daily transactions. This evolution in the financial domain has led to the creation of numerous digital payment technologies, facilitating both payers and payees in transferring funds through digital applications. Consequently, the payment system is undergoing a swift transformation from traditional coin and paper money to digital payment methods that offer convenience, speed, and cost-efficiency.

Digital payment technologies offer more than mere convenience; they enable merchants to access a wider customer base, reduce the expenses related to handling cash, and help integrate informal economies into the formal sector, thereby increasing government tax revenues [4]. These benefits collectively reduce economic inefficiencies, leading to an increase in overall

spending and consumption, which in turn fosters job creation, higher wages, and economic growth. However, these technologies are not without challenges. They bring increased risks of privacy breaches, cybersecurity threats, and fraud [5][6][7]. A significant concern is the lack of user knowledge about these technologies, posing risks to both individuals and organizations [8]. Moreover, there is an urgent need for infrastructure modernization and for banks to develop strategies to navigate new risks and unpredictable situations, like the COVID-19 pandemic [9][10]. Digital payment systems, offering the flexibility to conduct transactions anytime and anywhere, are pivotal for facilitating business activities. However, their full potential is contingent on widespread user adoption. Success in digital payment implementation hinges on encouraging individuals to prefer these methods over traditional ones like cash [11]. Consequently, it's crucial for key stakeholders, including governments, banks, and service providers, to recognize and comprehend the factors that significantly influence individuals' or customers' use of digital payments [12].

Our research focuses on the objectives which are as follows:

- Understand Digital Payment Utilization Based on Occupation
- Analyze Online Shopping Frequency and Transaction Amount Ranges

2. Literature Review:

This section synthesizes information from secondary sources, exploring topics such as the evolution of digital payment systems, influencing factors, and socio-economic implications, with a specific focus on Madhya Pradesh.

The 21st century has seen remarkable progress in various fields, notably in information and communication technology (ICT), as highlighted by **Asha Pahwa in 2020 [13]**. This advancement has transformed computers and connected the world, creating a 'global village' where individuals from diverse backgrounds can interact seamlessly. Digital payments, a part of this technological evolution, refer to financial transactions conducted without paper-based instruments like cheques. These include methods like debit cards, credit cards, smart cards, e-wallets, e-cash, and electronic cheques. The adoption of digital payment systems varies globally, with some methods being more popular than others. This paper specifically explores the range of digital payment options available in India, the process of using these solutions, and how India's growth in digital payments compares to other countries.

Mahesh A. and Ganesh Bhat (2021) [14] observed that post-demonetization and with the momentum of the Digital India campaign, the Indian banking sector has been vigorously promoting digital payment methods. A notable advancement in this area is the introduction of the Unified Payment Interface (UPI) by the National Payment Corporation of India (NPCI), a revolutionary and cost-efficient leap in digital payments. The growth of smartphone usage, technological advancements, and improved internet services have significantly boosted mobile payment options for consumers, financial entities, and especially banks. UPI, offering a unique way to transfer funds via virtual payment addresses, plays a crucial role in India's shift towards a paperless and cashless economy. This study delves into the expansion and evolution of UPI in the retail digital payment sector, employing secondary data and a SWOT analysis to assess its development. The results reveal a substantial increase in digital payments, driven by a preference for contactless methods, especially on the UPI platform. The study aims to highlight UPI's position and impact in the digital payments field, exploring its strengths, potential for growth, and avenues for further research in the broader context of India's electronic payment systems. The paper is a detailed case study on India's Digital Payment Service, with a focus on the Unified Payment Interface.

Sahayaselvi S. (2017) [15] highlights how Information Technology (IT) has transformed various facets of life, particularly easing the transition to digital payments. During India's demonetization period, the government significantly encouraged the shift from traditional to digital transactions. This move towards digital payment systems, deemed safer and more convenient, was bolstered by advancements in smartphone technology and widespread internet access, leading to increased adoption in the Indian market. The study aims to explore the different digital payment methods commonly used in daily life, primarily relying on secondary data. Findings show a dramatic increase in digital transactions, exemplified by the rise from 60 billion in mobile banking transactions in 2012-13 to 4018 billion in 2015-16. The expanding reach of mobile networks, the internet, and electricity is also extending digital payments to more remote areas, suggesting a future predominantly reliant on cashless transactions.

Abdullah et al. (2021) [16] notes the growing academic interest in mobile payments (m-payment) over the last decade, driven by changes in consumer spending habits. Despite this, there remains a scarcity of comprehensive review studies in this area. Addressing this gap, their research thoroughly examines existing literature on m-payment to enhance understanding of

the current state of knowledge in the field. The study focuses on peer-reviewed literature from the Scopus database, covering the period from 2005 to 2020. A systematic search in Scopus yielded 56 studies published across 44 international peer-reviewed journals. The paper analyzes publication trends, key articles, and leading authors in the m-payment domain. It also employs bibliometric analysis using VOS Viewer to identify thematic clusters, constructing a network map through bibliographic coupling and co-citation analysis. This approach unveils significant patterns and themes in m-payment research. The study aims to deepen the understanding of the m-payment field and suggests future research directions based on its findings.

Dhal, Sarat, Shree et al. (2021) [17] observed that India's digital payment system, boosted by recent policy measures and technological advancements, is evolving into a remarkable success story. However, there's also a noticeable increase in cash usage. While aggregate national data reflects the general preferences of citizens, the authors utilize a unique online survey-based dataset to delve into how perceptions and trust in digital payments, along with experiences of online fraud, influence consumer payment behavior. The study finds that demographic factors like age, gender, and income play a role in payment choices. More importantly, it reveals that an individual's use of digital payment methods is significantly shaped by their perceptions of these tools and their trust in the payment and banking systems. The impact of past experiences with online fraud on the use of digital payments also varies depending on the transaction's purpose.

Mohammed Arshad Khan (2021) [18] evaluates the status of digital payment systems in India, particularly in the Delhi NCR area. Recognized as an emerging success, the research explores various factors affecting these systems, including demographic elements and key variables like service quality, reliability, satisfaction, and security. Data was collected using a Google Forms questionnaire from 165 respondents selected through purposive sampling. The analysis involved Confirmatory Factor Analysis (CFA) and other tests using SPSS (version 25), with reliability and validity assessed via SPSS-AMOS (version 24). The study presents in-depth findings and conclusions derived from this comprehensive analysis.

Rashi Singhal (2021) [19] focuses on digital banking, highlighting its benefits for banks in terms of efficiency and profitability, and for customers through easy, 24/7 access to banking services. This shift, powered by advanced technology, marks the end of long bank queues for basic transactions, allowing customers to bank conveniently anytime. Initially, there was reluctance to adopt digital payments, but demonetization forced a change in transaction habits. The increase in internet and mobile use, coupled with initiatives like Digital India, has led to a rapid growth in digital payment adoption. The positive public perception of digital payments has played a crucial role in this shift. The paper also notes that for Indian banks to perform better, both private and public sectors need to focus on providing high-quality service. The research underscores the importance and increasing use of digital payment services in India.

Mahesh A. and Ganesh S. (2020) [20] analyzed the evolving landscape of India's payment sector, which has seen a significant shift from cash to digital payments. The Reserve Bank of India, along with its agencies, is instrumental in driving this change towards a digital economy. The proliferation of nearly a billion cards and over two billion Prepaid Payment Instruments (PPIs) like online wallets and mobile apps has positioned India as a leading digital payment ecosystem. The introduction of the Unified Payment Interface (UPI) marked a major milestone in retail digital payments. The study's goal is to trace the innovations in India's digital payment space and examine the industry using the PESTEL model to evaluate political, economic, social, technological, environmental, and legal influences. Data was gathered from secondary sources, including RBI reports and circulars. Findings indicate that the implementation of UPI by the NPCI in 2016 significantly propelled India's digital payment success. The government's Direct Benefit Transfer (DBT) program has been crucial in achieving financial inclusion. Factors such as government policy, social behavior, smartphone usage, and affordable internet have been pivotal in enhancing the digital payment industry, leading to secure, fast, and cost-effective solutions.

3. Methodology:

The methodology of our study on the dynamics of digital payment utilization was systematically structured into several key stages:

A. Questionnaire Formulation:

Our initial step involved defining clear study goals, particularly focusing on understanding the various facets of digital payment use. We developed a comprehensive questionnaire, integrating both qualitative and quantitative elements. This included questions on user demographics, frequency of digital payment usage, and user preferences. To ensure the effectiveness and clarity of the questionnaire, we conducted a preliminary test with a small group.

B. Gathering Data:

In this phase, we selected participants using a sampling technique that accurately represented the digital payment user population in Madhya Pradesh. We employed snowball sampling as our primary method for disseminating and retrieving responses, facilitated through the use of Google Forms, to achieve a high response rate.

C. Data Organization:

After collecting the data, we efficiently inputted and categorized it for analysis using SPSS (Statistical Package for the Social Sciences). This step also included thorough data verification to identify and correct any irregularities, such as missing values or outliers.

D. Analytical Procedures in SPSS:

We began with a basic statistical overview to discern general patterns and trends within the data. Following this, more in-depth statistical testing was performed, utilizing techniques appropriate to our research questions, such as regression analysis or ANOVA. Where necessary, we conducted comparative analyses by segmenting the data to study variations among different user categories.

E. Analysis Interpretation:

The next step was to extract meaningful insights aligned with our study objectives. This involved preparing graphical illustrations, like charts and graphs, to provide a clearer visual understanding of the data. Finally, we compiled these findings into a comprehensive report, summarizing our methodology, analytical process, key discoveries, and providing actionable recommendations.

Adherence to Ethical Standards:

Throughout the study, we maintained the highest ethical standards, ensuring the confidentiality and anonymity of all participants. This commitment to ethical research practices was a cornerstone of our methodology, ensuring the integrity and reliability of our findings.

The hypothesis:

H1: Different occupational groups in Madhya Pradesh exhibit significant variations in online shopping frequency and digital transaction amounts.

Our study's methodology centered around the Chi-Square Test, a versatile statistical tool encompassing three approaches: Pearson Chi-Square, Likelihood Ratio, and Linear-by-Linear Association. Each approach calculates the Chi-Square statistic, but they differ in application. The Pearson Chi-Square, a common choice, tests the independence of categorical variables. The Likelihood Ratio, suited for smaller samples, offers an alternative approach. The Linear-by-Linear Association is designed specifically to identify linear trends among ordinal variables. In this framework, the 'Value' signifies the Chi-Square statistic, while 'df' (degrees of freedom) depends on the variable categories. A critical element, the 'Asymptotic Significance (2-sided)' or p-value, reflects the likelihood of observing the Chi-Square value under the null hypothesis of no variable association. This multifaceted methodology provides a thorough examination of the data, shedding light on the interplay between categorical variables.

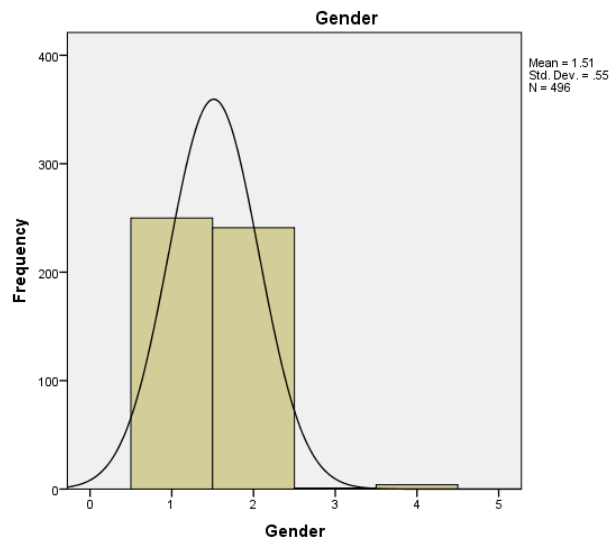
4. Analysis:

Descriptive Statistics

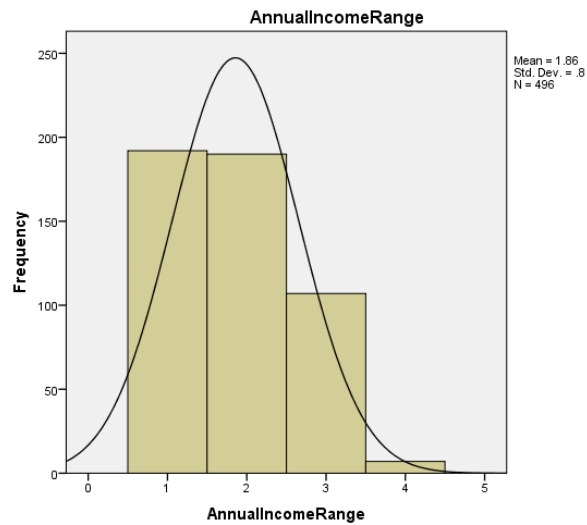
Age Group					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	18-34	256	51.6	51.6	51.6
	35-54	240	48.4	48.4	100.0
	Total	496	100.0	100.0	



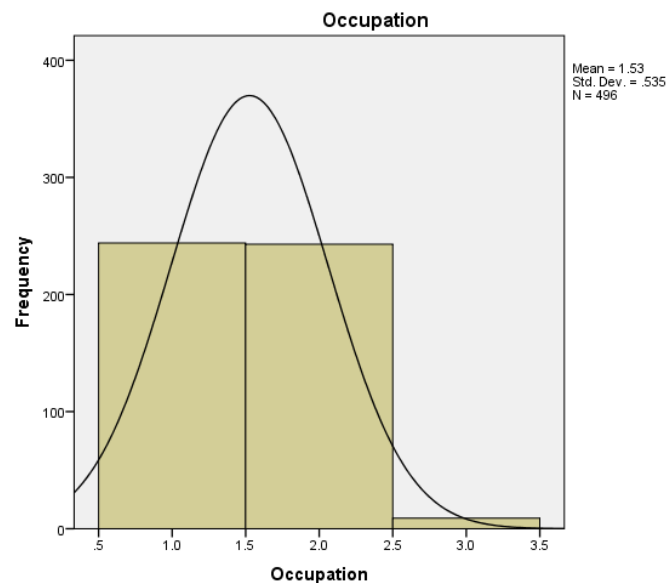
Gender					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	250	50.4	50.4	50.4
	Female	241	48.6	48.6	99.0
	Prefer not to say	1	.2	.2	99.2
	4	4	.8	.8	100.0
	Total	496	100.0	100.0	



Annual Income Range					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No or < 2 lakh	192	38.7	38.7	38.7
	2-5 lakh	190	38.3	38.3	77.0
	5-8 lakh	107	21.6	21.6	98.6
	More than 8 lakh	7	1.4	1.4	100.0
	Total	496	100.0	100.0	



Occupation					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Student	244	49.2	49.2	49.2
	Salaried	243	49.0	49.0	98.2
	Business	9	1.8	1.8	100.0
	Total	496	100.0	100.0	



The descriptive statistics of our study, which included a total of 496 participants, reveal insightful demographic distributions. In terms of age, the cohort was nearly evenly split, with 256 individuals (51.6%) aged between 18-34 years and 240 individuals (48.4%) in the 35-54 age bracket. Gender distribution was also balanced, with 250 males (50.4%) and 241 females (48.6%), along with a small fraction (0.4%) preferring not to disclose or falling into other categories. The annual income range varied among participants: 38.7% had an income of less than 2 lakhs, 38.3% earned between 2-5 lakhs, 21.6%

were in the 5-8 lakh bracket, and a minority of 1.4% earned more than 8 lakhs. Occupation-wise, the study encompassed a diverse group, with 244 students (49.2%), 243 salaried employees (49.0%), and 9 individuals from business backgrounds (1.8%), offering a comprehensive overview of digital payment usage across different socio-economic sections.

Crosstab							
Count							
Online Shopping Frequency			Typical Digital Transaction Amount Range				Total
			Less than Rs. 100	Rs.100 to 500	Rs. 500 to 2000	More than Rs. 2000	
Daily	Occupation	Student	9	16	19	1	45
		Salaried	18	9	6	0	33
		Business	1	1	0	0	2
	Total		28	26	25	1	80
Weekly	Occupation	Student	16	38	34	3	91
		Salaried	18	45	44	2	109
		Business	1	2	1	0	4
	Total		35	85	79	5	204
Monthly	Occupation	Student	12	45	46		103
		Salaried	14	45	38		97
		Business	3	0	0		3
	Total		29	90	84		203
Rarely/never	Occupation	Student	2		1	2	5
		Salaried	2		0	2	4
	Total		4		1	4	9
Total	Occupation	Student	39	99	100	6	244
		Salaried	52	99	88	4	243
		Business	5	3	1	0	9
	Total		96	201	189	10	496

The table provided is a crosstab (or cross-tabulation) that shows the relationship between three categorical variables: Online Shopping Frequency, Typical Digital Transaction Amount Range, and Occupation. It breaks down the counts of individuals based on these categories. Here's a detailed explanation of the table:

Variables:

1. Online Shopping Frequency: Categories include Daily, Weekly, Monthly, Rarely/Never.
2. Typical Digital Transaction Amount Range: Categories are Less than Rs. 100, Rs. 100 to 500, Rs. 500 to 2000, More than Rs. 2000.
3. Occupation: Categories include Student, Salaried, Business.

In the presented data, each row corresponds to a unique combination of Online Shopping Frequency and Occupation, effectively categorizing individuals based on how often they shop online and their professional background. The columns, on the other hand, delineate the Typical Digital Transaction Amount Range, classifying transactions into distinct monetary brackets. Within this framework, the cell counts indicate the number of individuals who align with each specific intersection

of shopping frequency, occupation, and transaction amount range, providing a detailed overview of the distribution of digital transaction behaviors across various demographic segments.

Analysis of the Data:

1. Daily Online Shoppers:

- Students: Most daily online shoppers who are students typically transact between Rs. 500 to 2000.
- Salaried: Most daily online shoppers who are salaried individuals transact less than Rs. 100.
- Business: Very few business people shop online daily, and their transactions are typically low in amount.

2. Weekly Online Shoppers:

- Students and Salaried: The majority of both students and salaried individuals who shop online weekly transact in the Rs. 100 to 500 range.
- Business: Very few business people shop online weekly.

3. Monthly Online Shoppers:

- Both students and salaried individuals show a similar pattern, with most transactions in the Rs. 100 to 500 and Rs. 500 to 2000 ranges.

4. Rarely/Never Online Shoppers:

- Very few individuals fall into this category. Those who do have a varied transaction range.

5. Totals

- Students and Salaried: Both categories have a similar total count, with a slightly higher frequency in the Rs. 100 to 500 transaction range.
- Business: Very few business individuals are represented in this survey, with the majority transacting less than Rs. 100.

Observations:

- The most common transaction range for all frequencies and occupations is between Rs. 100 to 500.
- The frequency of online shopping seems to be higher among students and salaried individuals compared to business individuals.
- Higher transaction amounts (More than Rs. 2000) are less common across all categories.

This crosstab provides a clear overview of how different occupations engage in online shopping at varying frequencies and transaction amounts.

Table 2: Chi-square test

Chi-Square Tests				
Online Shopping Frequency		Value	df	Asymptotic Significance (2-sided)
Daily	Pearson Chi-Square	12.158 ^b	6	.059
	Likelihood Ratio	13.280	6	.039
	Linear-by-Linear Association	10.635	1	.001
	N of Valid Cases	80		
Weekly	Pearson Chi-Square	1.096 ^c	6	.982
	Likelihood Ratio	1.191	6	.977
	Linear-by-Linear Association	.028	1	.868
	N of Valid Cases	204		
Monthly	Pearson Chi-Square	18.986 ^d	4	.001
	Likelihood Ratio	12.690	4	.013
	Linear-by-Linear Association	3.562	1	.059
	N of Valid Cases	203		
Rarely/never	Pearson Chi-Square	.900 ^e	2	.638
	Likelihood Ratio	1.275	2	.529
	Linear-by-Linear Association	.010	1	.921
	N of Valid Cases	9		
Total	Pearson Chi-Square	11.233 ^a	6	.081

	Likelihood Ratio	10.089	6	.121
	Linear-by-Linear Association	6.427	1	.011
	N of Valid Cases	496		
a. 6 cells (50.0%) have expected count less than 5. The minimum expected count is .18.				
b. 6 cells (50.0%) have expected count less than 5. The minimum expected count is .03.				
c. 6 cells (50.0%) have expected count less than 5. The minimum expected count is .10.				
d. 3 cells (33.3%) have expected count less than 5. The minimum expected count is .43.				
e. 6 cells (100.0%) have expected count less than 5. The minimum expected count is .44.				

The above table provides the results of Chi-Square tests conducted to examine the association between Online Shopping Frequency (categorized as Daily, Weekly, Monthly, Rarely/Never) and another categorical variable (possibly the Typical Digital Transaction Amount Range, as per your previous query). Each frequency category has been tested separately, as well as an overall test across all categories.

Analysis of Each Shopping Frequency:

Daily: Pearson Chi-Square ($p = .059$) and Likelihood Ratio ($p = .039$) are borderline significant. Linear-by-Linear Association is highly significant ($p = .001$), suggesting a significant linear relationship.

Weekly: All tests indicate no significant association (p -values are very high).

Monthly: Pearson Chi-Square and Likelihood Ratio show significant results ($p < .05$), indicating a significant association. Linear-by-Linear Association is borderline significant ($p = .059$).

Conclusion:

This study revealed that in Madhya Pradesh, occupational status significantly influences online shopping behavior and digital transaction amounts. Salaried employees and students showed higher online shopping frequencies and distinct spending patterns compared to business owners, confirming our hypothesis of a correlation between occupation and digital payment practices. These findings are crucial for digital payment platforms and e-commerce businesses, providing insights for tailored strategies that cater to diverse occupational groups. Additionally, the results are valuable for policymakers focused on promoting digital inclusivity and economic growth, highlighting the need for a digital infrastructure that accommodates the varied financial behaviors of different professional segments. This research offers a roadmap for enhancing digital financial participation across occupational groups in the region.

References:

1. Jhariya, Pankaj & Choithrani, Shalini. (2023). A Study of Perception Towards Digital Payment Adoption in Sagar City of Madhya Pradesh. 08. 2454-9150. 10.35291/2454-9150.2023.0018.
2. Ms. Aishwarya Sarathe, Dr. Deepak Tiwari, A Study on E-commerce Payment trends during Corona Virus pandemic in Bhopal City, 2021 IJCRT | Volume 9, Issue 1 January 2021 | ISSN: 2320-2882
3. Slozko, O., & Pelo, A. (2015). Problems and risks of digital technologies introduction into e-payments. Transformations in Business & Economics, 14(1).
4. Khando, Khando & Islam, M Sirajul & Gao, Shang. (2022). Factors Shaping the Cashless Payment Ecosystem: Understanding the Role of Participating Actors. 161-186. 10.18690/um.fov.4.2022.10.
5. Atul B Kathole, Dr.Dinesh N.Chaudhari, " Fuel Analysis and Distance Prediction using Machine learning," 2019,International Journal on Future Revolution in Computer Science & Communication Engineering, Volume: 5 Issue: 6.
6. Goodell, G.; Al-Nakib, H.D.; Tasca, P. A digital currency architecture for privacy and owner-custodianship. Future Internet2021,13, 130
7. Akanfe, O.; Valecha, R.; Rao, H.R. Assessing country-level privacy risk for digital payment systems. Comput. Secur.2020,99, 102065
8. Singh, T.V., Supriya, N., & Joshna, M.S. (2016). Issues and Challenges of Electronic Payment Systems. International journal of innovative research and development, 5.

9. K. N. Vhatkar and G. P. Bhole, "Particle swarm optimisation with grey wolf optimisation for optimal container resource allocation in cloud," IET Networks, vol. 9, no. 4, pp. 189–199, 2020, doi: 10.1049/iet-net.2019.0157.
10. Ghosh, Gourab. (2021). Adoption of Digital Payment System by Consumer: A review of Literature.
11. Capgemini. 2020 World Payments Report: Transforming into Digital Masters in the Next Normal; World Payments Report: 2020. Available online: <https://www.sogeti.com/explore/reports/world-payments-report-2020/> (accessed on 8 November 2022).
12. Khando, Khando & Islam, M Sirajul & Gao, Shang. (2022). The Emerging Technologies of Digital Payments and Associated Challenges: A Systematic Literature Review. Future Internet. 15. 21. 10.3390/fi15010021.
13. Jadir, Y., Rana, N. P., & Dwivedi, Y. K. (2021). A meta-analysis of the UTAUT model in the mobile banking literature: The moderating role of sample size and culture. Journal of Business Research, 132, 354-372.
14. Giovanis, A., Athanasopoulou, P., Assimakopoulos, C., & Sarmaniotis, C. (2019). Adoption of mobile banking services: A comparative analysis of four competing theoretical models. International Journal of Bank Marketing, 37(5), 1165-1189.

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15. Pahwa, Asha. (2020). Digital Payments In India: A Conceptual Study. 40. 2394-3114.
16. Mahesh, A. & Ganesh Bhat, (2021). Digital Payment Service in India - A Case Study of Unified Payment Interface. International Journal of Case Studies in Business, IT, and Education (IJCSBE), 5(1), 256-265. DOI: <http://doi.org/10.5281/zenodo.5091207>.
17. Atul B Kathole, Dr. Prasad S Halgaonkar, Ashvini Nikhade, "Machine Learning & its Classification Techniques," International Journal of Innovative Technology and Exploring Engineering (IJITEE) ISSN: 2278-3075, Volume-8 Issue-9S3, July 2019.
18. Sahayaselvi, S. (2017). An Overview On Digital Payments. International Journal of Research. 04. 2101-2111.
19. Abdullah & Mohammed Naved Khan | Elena Kostadinova (Reviewing editor) (2021) Determining mobile payment adoption: A systematic literature search and bibliometric analysis, Cogent Business & Management, 8:1, DOI: 10.1080/23311975.2021.1893245
20. Dhal, Sarat & Shree, Sudiksha & Pratap, Bhanu & Saroy, Rajas. (2021). Digital Payments and Consumer Experience in India. Journal of Banking and Financial Technology. <https://doi.org/10.1007/s42786-020-00024-z>
21. Mohammed Arshad Khan, "Netizens' Perspective towards Electronic Money and Its Essence in the Virtual Economy: An Empirical Analysis with Special Reference to Delhi-NCR, India", Complexity, vol. 2021, Article ID 7772929, 18 pages, 2021. <https://doi.org/10.1155/2021/7772929>
22. K. N. Vhatkar and G. P. Bhole, "Optimal container resource allocation in cloud architecture: A new hybrid model," Journal of King Saud University - Computer and Information Sciences, vol. 34, no. 5, pp. 1906–1918, 2022, doi: 10.1016/j.jksuci.2019.10.009
23. Singhal, Rashi. (2021). IMPACT AND IMPORTANCE OF DIGITAL PAYMENT IN INDIA. SSRN Electronic Journal. 10.2139/ssrn.3947792.
24. A., Mahesh & S., Ganesh. (2022). India's Digital Payment Landscape – An Analysis. International Journal of Case Studies in Business, IT, and Education. 223-236. 10.47992/IJCSBE.2581.6942.0161.