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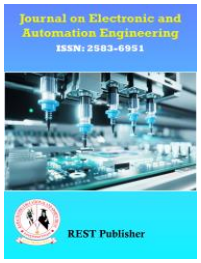

A Study on Key Drivers and Deterrents in Digital Payment in the State of Odisha

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Abstract: *The state of Odisha, situated on the eastern coast of India, has been experiencing a gradual shift towards digital payment systems in recent years. This transition is emblematic of broader trends seen across India, where digital payment methods are increasingly preferred over traditional cash transactions. However, the adoption of digital payments in Odisha is influenced by a multitude of factors, both facilitating and inhibiting. Understanding these key drivers and deterrents is crucial for policymakers, businesses, and financial institutions to effectively promote and support the uptake of digital payment solutions in the state. This study aims to delve into these factors comprehensively, analysing socio-economic, technological, infrastructural, and cultural aspects that shape the digital payment landscape in Odisha. By identifying and understanding these drivers and deterrents, actionable insights can be derived to formulate strategies aimed at fostering a more inclusive and robust digital payment ecosystem in the state. The importance of researching the key drivers and obstacles in digital payment adoption in Odisha extends to its potential to provide valuable insights for policymakers, businesses, and consumers alike. India's shift towards a digital economy, propelled by initiatives like Digital India, underscores the relevance of understanding regional variations in digital payment adoption, influenced by diverse factors. This research holds significance as it enables policymakers to tailor interventions to Odisha's unique circumstances. Such targeted approaches could include awareness campaigns, infrastructure enhancements in underserved areas, or incentives to promote digital payment uptake. For businesses, especially those operating in Odisha, insights gleaned from this study can shape marketing strategies and product offerings to better align with consumer preferences regarding digital payments. Lastly, consumers stand to benefit from understanding the advantages of digital payments, such as convenience, security, and expanded service access. Addressing concerns like security apprehensions or lack of awareness can drive higher adoption rates, contributing to Odisha's digital economy growth. SPSS, or the Statistical Package for the Social Sciences, is a powerful tool for statistical analysis. With its user-friendly interface, it allows users to efficiently manage and manipulate data while performing advanced statistical procedures. SPSS supports a broad range of analyses, from basic descriptive statistics to complex methods like correlation, regression, ANOVA, and factor analysis. Its robust visualization features facilitate data understanding through various graphs and charts. Widely used in fields such as social sciences, market research, healthcare, and education, SPSS is essential for data-driven decision-making, hypothesis testing, and deriving insights from complex datasets. Its versatility and reliability make it an indispensable resource for research and data analysis. Input Parameters taken as Age, Gender, Monthly Income (INR), Education Level, Occupation, Access to Internet (Yes/No), Years of Experience with Digital Payments, Type of Digital Payment Used Most Often. Evaluation Parameters taken as Frequency of Digital Payment Usage (per week), Trust in Digital Payment Security, Convenience, Perceived Security, Ease of Learning, Availability of Acceptance Points, Speed of Transactions, Cost-effectiveness, Awareness of Options, Reliability, Influence of Social Circle.*

Keywords: *Trust in Digital Payment Security, Frequency of Digital Payment Usage, Type of Digital Payment Used Most Often, SPSS.*

1. INTRODUCTION

Digital payment systems have been transforming the financial landscape globally, and India is no exception. The state of Odisha, a region with a diverse socio-economic background, is witnessing a gradual shift towards digital transactions. This shift is driven by a combination of factors including governmental policies, technological

advancements, and changing consumer behaviours. However, the transition is not without its challenges. This essay explores the drivers and deterrents of digital payments in Odisha, providing a comprehensive understanding of the dynamics at play. [1] Digital payments, a revolutionary advancement in financial transactions, have transformed how individuals and businesses exchange value. It involves electronically transferring funds through digital channels rather than using traditional cash or checks. This shift has not only simplified transactions but also promoted financial inclusivity, bolstered security, and spurred global economic development. Central to digital payments are advanced technologies that enable smooth and secure transactions. These encompass various platforms such as mobile wallets, online banking systems, payment gateways, and cryptocurrencies, each offering distinct advantages to meet diverse requirements and preferences. [2] Digital payments have gained widespread acceptance primarily due to their convenience. Unlike cash transactions that require physical presence and often involve tedious procedures, digital payments can be swiftly executed from anywhere with an internet connection. Whether it's settling bills, shopping online, or sending money to loved ones, digital platforms offer unmatched convenience, saving time and hassle for both consumers and businesses. Moreover, they have broken down geographical barriers, facilitating seamless cross-border transactions. This global connectivity has unlocked new opportunities for businesses, allowing them to penetrate international markets and connect with customers worldwide. By overcoming the limitations of physical currency and geographical distance, digital payments have accelerated globalization and empowered businesses to expand their reach globally. [3] In addition to this, digital payments have been instrumental in advancing financial inclusion, especially in underserved areas and developing nations. Traditional banking often leaves out significant portions of the population due to barriers like distance, lack of documentation, or insufficient funds to maintain minimum balances. However, digital payment platforms have levelled the playing field by granting access to financial services for those with basic internet connectivity. This enables participation in the formal economy, secure saving, and access to credit. Moreover, digital payments have improved security and transparency in financial transactions. Utilizing advanced encryption, multi-factor authentication, and robust fraud detection, they protect sensitive financial information, reducing the risk of unauthorized access and fraudulent activities. Additionally, the transparent and tamper-proof nature of blockchain technology, seen in cryptocurrencies like Bitcoin, ensures trust and confidence in digital payment systems by maintaining clear transaction records. [4] The rise of digital payments has spurred innovation in finance, leading to a plethora of new products and services. Both fintech startups and traditional financial institutions are using advanced technologies like AI, machine learning, and big data to create innovative payment solutions that meet changing consumer needs. From contactless payments and peer-to-peer lending to robo-advisors and decentralized finance platforms, the digital payments landscape is always changing, driven by a focus on efficiency, convenience, and security. In the realm of digital payments, while there are numerous advantages, there are also persistent challenges, with cybersecurity being a primary concern. Digital payment systems are susceptible to various cyber threats, such as hacking, malware, and phishing attacks. To address this, it's crucial to implement strong cybersecurity measures and raise awareness among users to minimize risks and uphold the security of digital payment platforms. Furthermore, disparities in digital literacy and access to technology present obstacles to the widespread adoption of digital payments, especially in marginalized communities and developing areas. Overcoming this digital gap requires collaborative efforts from governments, businesses, and civil society organizations. They must work together to implement digital literacy initiatives, enhance internet accessibility, and improve the usability of digital payment infrastructure. [5] The rules governing digital payments are still evolving, as policymakers strive to find the right balance between encouraging innovation and safeguarding consumers and financial stability. Having clear and consistent regulations is crucial for managing risks, building trust, and encouraging responsible advancements in digital payments. These payments have revolutionized how people and businesses handle transactions, offering convenience, security, and innovation that spans across borders, enabling broader participation in the global economy. Yet, to fully capitalize on these benefits and foster inclusive economic growth in the digital era, we must tackle challenges like cybersecurity, bridging the digital divide, and resolving regulatory uncertainties. [6] The Indian government has played a crucial role in advancing digital payments, evident through initiatives such as Digital India, which aims to transition the nation into a digitally proficient society and knowledge economy. In Odisha, these efforts extend to promoting digital payments in various public services, subsidies, and benefit transfers. Programs like the Pradhan Mantri Jan Dhan Yojana (PMJDY) have been instrumental in opening bank accounts for those without access, enabling them to utilize digital financial services. Furthermore, the rollout of the Goods and Services Tax (GST) has incentivized businesses to embrace digital payment methods to meet tax requirements. [7] The widespread use of smartphones and increased internet access in Odisha has played a major role in boosting the popularity of digital payments. Mobile banking applications, UPI, and mobile wallets such as Paytm, PhonePe, and Google Pay have revolutionized how transactions are conducted, offering speed and convenience. Thanks to affordable smartphones and accessible data plans, people across rural areas can now actively engage in the digital economy. Furthermore, the implementation of advanced security measures like two-factor authentication and biometric verification has bolstered user confidence in digital transactions.[8] Digital payments present numerous economic advantages, spurring their uptake. They cut down on cash handling expenses for businesses and alleviate the dangers linked

with physical currency, like theft and counterfeit risks. For individuals, digital payments offer convenience, swiftness, and frequently, improved expense monitoring. Enabling transactions round the clock and across locations has streamlined financial dealings for urban as well as rural residents in Odisha. Moreover, digital payments have fostered financial inclusivity by granting underserved groups access to credit and additional financial amenities.[9] Evolution in consumer habits and tastes, especially among the younger demographic, has spurred the embrace of digital payment methods. In Odisha, the tech-savvy nature of younger generations fosters a readiness to explore new technologies. The rise of e-commerce platforms has played a significant role, reinforcing the importance of digital transactions in online shopping experiences. Moreover, the COVID-19 pandemic has served as a catalyst, with adherence to social distancing guidelines and health precautions prompting a widespread shift towards contactless payment solutions.[10] In Odisha, the digital payment landscape thrives on a collaborative effort involving banks, fintech firms, and regulatory authorities. Banks actively promote digital transactions through incentives and educational initiatives. Fintech companies offer tailored payment solutions catering to diverse demographics. Regulatory bodies like the Reserve Bank of India (RBI) provide guidelines to uphold the security and effectiveness of digital payment platforms. This cooperative framework has fostered a strong infrastructure, nurturing the expansion of digital payments.[11] Despite progress, a considerable segment of Odisha's populace lacks the requisite digital literacy to proficiently utilize digital payment platforms. Particularly in rural regions, many individuals are unfamiliar with the procedures for conducting digital transactions and the advantages they offer. This ignorance poses a hurdle to widespread adoption. It's imperative to undertake initiatives aimed at educating and training people on utilizing digital payment methods to surmount this obstacle.[12] In Odisha, urban regions benefit from decent internet connectivity, but rural areas face challenges with limited network coverage and unreliable internet access. This gap in digital infrastructure obstructs the widespread use of digital payments. Moreover, factors such as frequent power cuts and insufficient banking facilities in remote areas exacerbate the issue. Consequently, people in these regions continue to rely on cash transactions due to inconsistent access to digital services.[13] Many in Odisha are hesitant to embrace digital transactions due to apprehensions about security. Worries about fraud, cyber threats, and data breaches dissuade people from opting for digital payment methods. Moreover, older generations, accustomed to cash transactions, harbor a general distrust towards digital systems. It's imperative to foster trust by implementing robust security measures, ensuring transparency, and educating users to alleviate these concerns.[14] In Odisha, economic disparities contribute to limited disposable income among a significant portion of the population, making smartphone ownership and internet connectivity financially burdensome. The informal economy, heavily reliant on cash transactions, further complicates the adoption of digital payment methods, particularly among low-income groups.[15] Despite government efforts to promote digital payments, persistent regulatory barriers deter small businesses from embracing these systems. Complex regulations and varying policies across regions create confusion and hinder adoption. Streamlining regulatory frameworks and ensuring policy uniformity could facilitate digital payment adoption.[16] Cultural and behavioral factors also impede the transition to digital payments. Cash has long been ingrained in Odisha's transaction culture, valued for its tangibility and perceived financial control. Overcoming this preference requires gradual cultural change, supported by ongoing education and positive experiences with digital transactions. [17] Assessing the uptake of digital payment methods in Odisha heavily hinges on its socio-economic backdrop. Key factors like income, education, job prospects, and urbanization rates are central in influencing how people embrace digital transactions. Moreover, the presence and ease of access to technological infrastructure, encompassing internet connectivity, mobile usage, and banking facilities, are instrumental in driving the adoption of digital payment platforms. Evaluating the extent and effectiveness of these infrastructural components is pivotal for grasping the digital payment scenario in Odisha. [18] Government efforts to encourage digital payments can significantly boost their adoption rates. Assessing initiatives like Digital India, Jan Dhan Yojana, and direct benefit transfer programs in Odisha offers valuable insights into how policy interventions shape the digital payment landscape. Cultural perceptions of money, confidence in financial institutions, and established payment customs all impact consumer attitudes toward digital transactions. Examining cultural norms and consumer preferences in Odisha helps understand the extent to which people embrace or oppose digital payment methods.[19] In Odisha, the shift towards digital payments is mainly driven by government initiatives such as Digital India and advancements in technology, which are fostering greater financial inclusivity and convenience. However, there are notable obstacles to overcome, such as low levels of digital literacy, infrastructural limitations, and a strong preference for cash transactions. It's crucial to establish trust in security measures, improve digital infrastructure, and increase the number of merchants accepting digital payments to address these challenges effectively. By doing so, not only can Odisha move towards a cashless economy, but it can also spur economic growth, enhance financial inclusion, and empower its citizens digitally. Bridging these gaps requires a collaborative effort involving governments, financial institutions, technology providers, and community stakeholders to ensure a smooth transition to digital payment systems in Odisha. [20]

2. MATERIALS & METHODS

Input Parameters: Age, Gender, Monthly Income (INR), Education Level, Occupation, Access to Internet (Yes/No), Years of Experience with Digital Payments, Type of Digital Payment Used Most Often.

1. **Age:** This refers to the person's age, typically measured in years. It's an important demographic factor that often correlates with various aspects of behaviour, preferences, and financial status.

2. **Gender:** This refers to whether the person identifies as male, female, non-binary, or another gender identity. Gender can influence many aspects of life, including income, spending habits, and access to resources.

3. **Monthly Income (INR):** This is the amount of money earned by the individual in Indian Rupees on a monthly basis. It provides insight into their financial status and purchasing power.

4. **Education Level:** This indicates the highest level of education completed by the individual, such as primary school, high school, bachelor's degree, master's degree, etc. Education level can affect employment opportunities, income level, and technological literacy.

5. **Occupation:** This refers to the individual's job or profession. It gives context to their income level, digital literacy, and possibly their access to digital payment methods.

6. **Access to Internet (Yes/No):** This indicates whether the individual has access to the internet. Internet access is crucial for using digital payment methods, as most transactions are conducted online or through mobile applications.

7. **Years of Experience with Digital Payments**: This reflects how long the individual has been using digital payment methods. More experienced users may be more comfortable with digital transactions and may have adopted a variety of payment platforms.

8. **Type of Digital Payment Used Most Often:** This specifies the preferred digital payment method of the individual, such as credit/debit cards, mobile wallets, UPI (Unified Payments Interface), etc. Different payment methods offer varying levels of convenience, security, and acceptance, which can influence user preferences.

Evaluation Parameters: Frequency of Digital Payment Usage (per week), Trust in Digital Payment Security, Convenience, Perceived Security, Ease of Learning, Availability of Acceptance Points, Speed of Transactions, Cost-effectiveness, Awareness of Options, Reliability, Influence of Social Circle.

1. **Frequency of Digital Payment Usage (per week):** This aspect examines how often individuals in Odisha use digital payment methods in their daily transactions. A higher frequency suggests greater acceptance and integration of digital payments into their routines.

2. **Trust in Digital Payment Security:** Trust in the security of digital payment methods is essential for widespread adoption. If individuals perceive digital payments as secure, they are more likely to use them regularly. Trust can be influenced by factors such as encryption measures, fraud prevention mechanisms, and data protection regulations.

3. **Convenience:** Convenience refers to the ease and simplicity of using digital payment methods compared to traditional cash transactions. Factors such as user-friendly interfaces, quick transaction processes, and accessibility of payment platforms contribute to convenience.

4. **Perceived Security:** This factor relates to individuals' subjective perceptions of the security of digital payment methods. Even if security measures are in place, if users don't perceive them as effective, they may be reluctant to use digital payments.

5. **Ease of Learning:** The ease with which individuals can learn to use digital payment methods is crucial, especially in regions like Odisha where digital literacy levels may vary. Intuitive interfaces, clear instructions, and educational initiatives can help reduce barriers to adoption.

6. **Availability of Acceptance Points:** The availability of places where digital payments are accepted influences users' willingness to adopt them. If a wide range of merchants, businesses, and service providers accept digital payments in Odisha, individuals are more likely to use them.

7. **Speed of Transactions:** The speed at which digital transactions are processed is another important factor. Faster transactions offer greater convenience and efficiency, encouraging individuals to choose digital payments over traditional methods.

8. **Cost-effectiveness:** Cost-effectiveness refers to the balance between the benefits and costs associated with using digital payment methods. Factors such as transaction fees, exchange rates, and incentives offered by digital payment providers can impact users' perceptions of cost-effectiveness.

9. **Awareness of Options:** Individuals need to be aware of the different digital payment options available to them to make informed choices. Awareness campaigns, educational programs, and promotional activities can enhance awareness levels among the population in Odisha.

10. **Reliability:** The reliability of digital payment systems, including uptime, technical support, and resolution of issues, is crucial for building trust and confidence among users. Reliability issues can deter individuals from using digital payments regularly.

11. **Influence of Social Circle:** Social influence plays a significant role in shaping individuals' attitudes and behaviours towards digital payments. Positive experiences and recommendations from friends, family, and peers can encourage adoption, while negative experiences or perceptions may act as deterrents.

SPSS Statistics: IBM's SPSS Statistics is a robust software renowned for its extensive capabilities in statistical analysis, data management, and visualization. Although it was originally developed for the social sciences, SPSS has expanded its application to fields including psychology, sociology, business, economics, healthcare, and beyond. This essential tool is widely utilized by researchers, analysts, and students, allowing them to investigate complex datasets, uncover meaningful insights, and make decisions grounded in empirical evidence. [21] IBM's SPSS Statistics is a powerful statistical software that offers an easy-to-use interface and extensive features for quickly extracting valuable insights from data. Equipped with advanced statistical tools, it ensures accurate analysis, aiding in informed decision-making. SPSS efficiently handles every phase of the analytics process, from data organization and manipulation to detailed analysis and presentation. [21] SPSS is a highly adaptable software extensively used for statistical analysis in various fields, such as social sciences, market research, healthcare, surveys, government, education, marketing, and data mining. Originally celebrated as a revolutionary tool that allowed researchers to perform statistical analysis independently, SPSS provides comprehensive features for both statistical analysis and data management, as well as documentation. Users can access its vast array of features either through user-friendly pull-down menus or by programming with a proprietary 4GL command syntax language. Using command syntax programming offers benefits such as reproducible results, streamlined repetitive tasks, and enhanced data manipulation and analysis. Some advanced functions are available only through syntax programming and not through the menu system. The pull-down menu interface also generates command syntax, which can be viewed in the output by adjusting default settings. The software's "paste" button in each menu allows users to insert generated syntax into a syntax file easily. SPSS supports both interactive and automatic execution of programs, utilizing the Production Job Facility included in the software. [23] SPSS is widely recognized for its powerful statistical analysis tools, covering a range from simple descriptive statistics to advanced predictive modeling techniques. At the core of its features are descriptive statistics, which provide users with a detailed summary of their data's essential characteristics. These statistics, including measures like the mean, median, mode, standard deviation, variance, and range, reveal insights into central tendencies, variability, and distribution patterns in datasets. Additionally, SPSS offers various visualization options such as histograms, bar graphs, pie charts, and boxplots, making it easier to understand and interpret data trends and dynamics intuitively. [24] Inferential statistics play a vital role in hypothesis testing and making generalizations from sample data to broader populations. SPSS provides a wide array of inferential statistical tests tailored to address diverse research questions and hypotheses. These include t-tests for comparing means, ANOVA for examining differences among groups, chi-square tests for assessing relationships between categorical variables, and correlation and regression analyses for exploring variable connections. SPSS's user-friendly interface ensures these analyses can be performed effortlessly. Furthermore, SPSS supports non-parametric tests for data that do not meet normality assumptions, ensuring accurate and reliable statistical conclusions across various datasets. [25] Effective data management is essential in statistical work, and SPSS offers an extensive array of tools for data importation, cleaning, and manipulation. It supports multiple data formats, including Excel, CSV, and database files, allowing

for smooth data integration from various sources. SPSS includes features for detecting and handling missing values, managing outliers, and recoding variables to suit analytical requirements during the import process. Users can also merge datasets, aggregate data by variables or cases, and generate new variables through transformations, which streamlines data preparation and enhances analytical efficiency. [26] SPSS goes beyond traditional statistical analysis by offering advanced modeling techniques designed for complex research requirements. It includes factor and cluster analyses to uncover hidden structures and groupings in data, revealing intricate patterns. Its capabilities extend to logistic regression and survival analysis, which cater to categorical and time-related outcomes, thus enabling detailed modeling of real-world scenarios. Moreover, SPSS supports structural equation modeling (SEM), allowing researchers to evaluate complex theoretical frameworks by analyzing relationships among multiple variables. With user-friendly interfaces and guided workflows, SPSS makes these sophisticated techniques accessible, empowering researchers to confidently and accurately address complex research questions. [27] SPSS integrates sophisticated analytical functions with a wide array of data visualization tools, making it easier to explore and communicate research findings effectively. Users can generate various visual displays, including scatter plots, line graphs, area charts, and heatmaps, to detect patterns and trends in their data. The software offers extensive customization options, allowing users to modify colors, labels, and formatting to enhance clarity and understanding. Additionally, SPSS supports interactive visualizations, enabling users to dynamically engage with their data by zooming in on specific sections or examining different elements of the dataset in real time. [28] SPSS Statistics continues to be highly regarded for its robust features and commitment to user-friendliness. It serves a diverse range of users, from novices to seasoned professionals, with its intuitive interface, comprehensive documentation, and ample online support. With interactive tutorials, community interaction, and expert assistance, SPSS helps users feel confident and capable in their data analysis tasks, enhancing their proficiency and confidence in managing complex data analysis processes. [29] SPSS Statistics is celebrated for its flexibility, reliability, and ease of use, establishing itself as an essential tool in modern statistical analysis. Covering everything from basic descriptive statistics to complex modeling techniques, SPSS offers a wide array of functionalities to address diverse research questions and analytical challenges. With its intuitive interface, robust analytical capabilities, and commitment to innovation, SPSS remains a preferred option for researchers, analysts, and students worldwide. By enabling discoveries, informing decisions, and driving the frontier of knowledge across various disciplines and industries, SPSS remains instrumental in furthering research and comprehension. [30]

3. RESULT AND DISCUSSION

TABLE 1. Reliability Statistics

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.888	.979	11

Table 1 shows the Cronbach's Alpha is a measure of internal consistency reliability. It assesses how closely related a set of items are as a group. A score of .888 suggests high reliability, indicating strong correlation among the 11 items measured. A higher alpha value indicates greater reliability.

TABLE 2. Reliability Statistic individual

	Cronbach's Alpha if Item Deleted
Frequency of Digital Payment Usage (per week)	.973
Trust in Digital Payment Security	.865
Convenience	.871
Perceived Security	.865
Ease of Learning	.873
Availability of Acceptance Points	.875
Speed of Transactions	.876
Cost-effectiveness	.883
Awareness of Options	.873
Reliability	.882
Influence of Social Circle	.872

In Table 2, Cronbach's Alpha if Item deleted assesses the impact of removing individual items on the overall reliability of the scale. Higher values indicate that removing the item would decrease reliability. For instance, the item "Frequency of Digital Payment Usage (per week)" has a high alpha (.973), implying its importance for reliability. Conversely, "Trust in Digital Payment Security" has a lower alpha (.865), suggesting it contributes less to overall scale reliability. These insights help researchers identify crucial items for refinement to enhance the scale's reliability and validity in measuring digital payment perceptions.

Descriptive

TABLE 3. Descriptive Statistics

Descriptive Statistics													
	N	Range	Minimum	Maximum	Sum	Mean		Std. Deviation	Variance	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
Frequency of Digital Payment Usage (per week)	69	17	3	20	605	8.77	.506	4.205	17.681	.786	.289	.103	.570
Trust in Digital Payment Security	69	3	6	9	523	7.58	.131	1.090	1.188	-.280	.289	-1.216	.570
Convenience	69	3	6	9	539	7.81	.112	.928	.861	-.406	.289	-.618	.570
Perceived Security	69	3	6	9	499	7.23	.131	1.087	1.181	.298	.289	-1.219	.570
Ease of Learning	69	2	6	8	480	6.96	.096	.794	.630	.079	.289	-1.401	.570
Availability of Acceptance Points	69	2	7	9	540	7.83	.092	.766	.587	.309	.289	-1.222	.570
Speed of Transactions	69	3	6	9	546	7.91	.094	.781	.610	-.036	.289	-.904	.570
Cost-effectiveness	69	1	7	8	523	7.58	.060	.497	.247	-.330	.289	-1.948	.570
Awareness of Options	69	2	7	9	547	7.93	.098	.810	.656	.135	.289	-1.461	.570
Reliability	69	3	6	9	526	7.62	.072	.597	.356	-.924	.289	.473	.570
Influence of Social Circle	69	2	5	7	414	6.00	.095	.786	.618	.000	.289	-1.369	.570
Valid N (listwise)	69												

Table 3 presents descriptive statistics for various factors related to digital payment usage. The "N" column denotes the number of observations or respondents for each factor, with a total of 69 respondents in this case. The range indicates the difference between the highest and lowest values observed for each factor. For instance, "Frequency of Digital Payment Usage (per week)" ranges from 3 to 20 times weekly across respondents. The mean represents the average value for each factor, offering insight into the typical respondent's experience or perception. For example, respondents on average reported a frequency of 8.77 digital payment transactions per week. The standard deviation (Std. Deviation) measures the dispersion or variability of data around the mean. A higher standard deviation suggests greater variability among responses. For instance, "Frequency of Digital Payment Usage" has a standard deviation of 4.205, indicating considerable variability in usage frequency among respondents. Skewness measures the symmetry of the distribution of responses. A skewness value close to zero suggests a symmetric distribution. Positive skewness indicates a right-skewed distribution (tail to the right), while negative skewness suggests a left-skewed distribution (tail to the left). Kurtosis measures the peakedness or flatness of the distribution. A kurtosis value of 3 represents a normal distribution. Values greater than 3 indicate a peaked distribution (leptokurtic), while values less than 3 indicate a flatter distribution (platykurtic). These statistics provide a comprehensive overview of the distribution and characteristics of respondents' perceptions and

behaviors related to digital payment usage, aiding researchers in understanding the data's central tendency, variability, and shape.

Frequencies

TABLE 4. Frequencies Statistics

Statistics												
		Frequency of Digital Payment Usage (per week)	Trust in Digital Payment Security	Convenience	Perceived Security	Ease of Learning	Availability of Acceptance Points	Speed of Transactions	Cost-effectiveness	Awareness of Options	Reliability	Influence of Social Circle
N	Valid	69	69	69	69	69	69	69	69	69	69	69
	Missing	0	0	0	0	0	0	0	0	0	0	0
Median		8.00	8.00	8.00	7.00	7.00	8.00	8.00	8.00	8.00	8.00	6.00
Mode		8	8	8	6	7	7[a]	8	8	7	8	6
Percentiles	25	5.50	6.50	7.00	6.00	6.00	7.00	7.00	7.00	7.00	7.00	5.00
	50	8.00	8.00	8.00	7.00	7.00	8.00	8.00	8.00	8.00	8.00	6.00
	75	12.00	8.00	8.50	8.00	8.00	8.00	8.50	8.00	9.00	8.00	7.00

Table 4 provides frequency statistics for various aspects of digital payment usage. The "N Valid" column shows the number of valid responses for each factor, with no missing data in this case. The median represents the middle value of the dataset, indicating that half of the respondents reported values below it and half reported values above it. For instance, the median frequency of digital payment usage is 8 transactions per week. The mode represents the most frequently occurring value in the dataset. For example, the mode for "Frequency of Digital Payment Usage" is 8 transactions per week, indicating this is the most common frequency reported by respondents. Percentiles divide the data into hundredths, indicating the value below which a given percentage of observations fall. For instance, the 75th percentile for "Frequency of Digital Payment Usage" is 12 transactions per week, meaning 75% of respondents reported using digital payment less than or equal to 12 times per week. These statistics offer insights into the distribution and central tendency of digital payment usage patterns among respondents.

Histogram plot

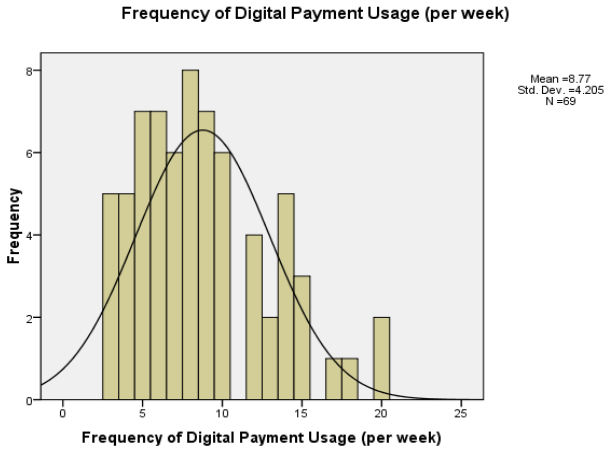

FIGURE 1. Frequency of Digital Payment Usage (per week)

Figure 1 presents a histogram showing the weekly frequency of digital payment usage. The data exhibit a slight left skew, with a higher number of respondents selecting a frequency of 4 payments per week. Despite the anomaly at a frequency of 2, the remaining values align well with the normal distribution, indicating that the overall model closely follows a normal distribution pattern.

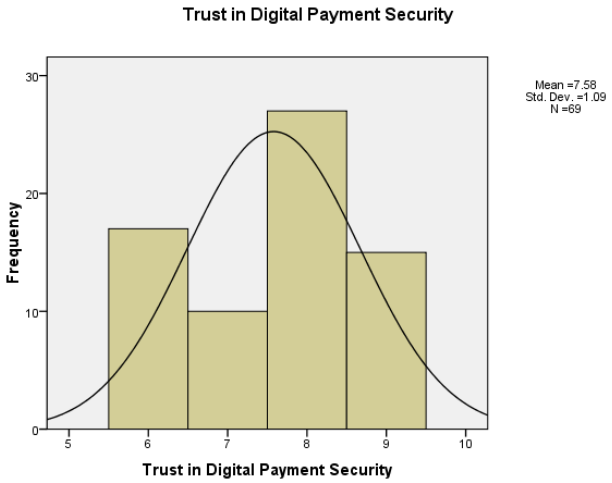

FIGURE 2. Trust in Digital Payment Security

Figure 2 shows a histogram of the Trust in Digital Payment Security. The data appears to be slightly right-skewed, as a majority of respondents selected a 3 for their level of trust. Despite the value of 1 standing out, the other values fall within the normal curve, indicating that the model largely adheres to a normal distribution.

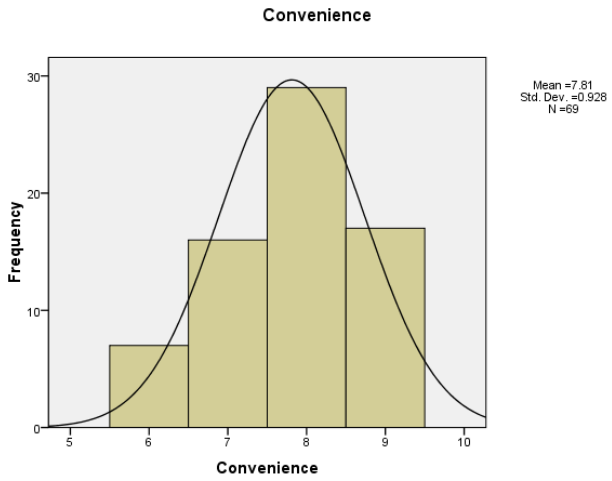

FIGURE 3. Convenience

Figure 3 shows the histogram for Convenience. The data are slightly right-skewed, as indicated by the higher number of respondents choosing 2 for Convenience. Nevertheless, except for the value of 1, all other values fall within the normal curve, indicating that the model closely follows a normal distribution.

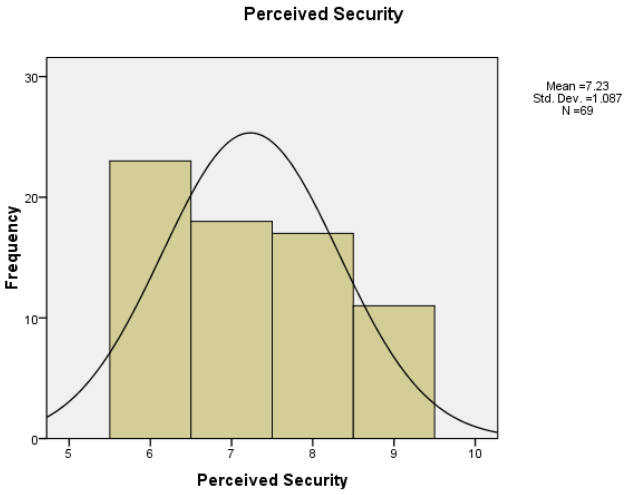

FIGURE 4. Perceived Security

Figure 4 shows the histogram for Perceived Security. The data exhibit a slight left skew, as a larger number of respondents selected 2 for Perceived Security. Despite this, the values other than 2 align well with the normal curve, indicating that the model largely follows a normal distribution.

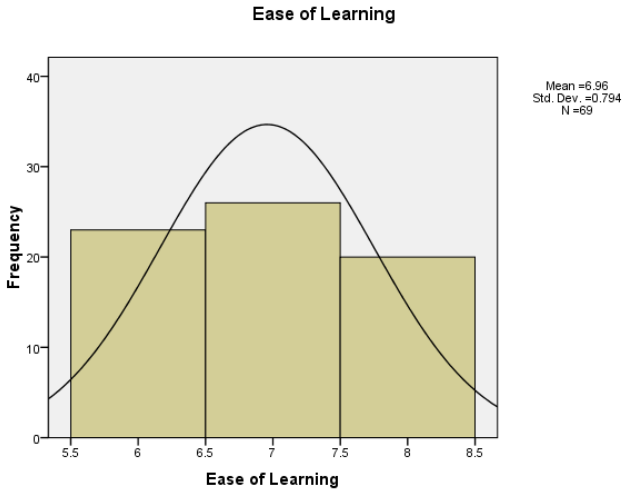

FIGURE 5. Ease of Learning

Figure 5 presents a histogram of the Outpatient data. The plot indicates a slight bell-shaped distribution, as a majority of respondents rated the Ease of Learning as 2. With the exception of the value 1, all other values fall within the normal curve, suggesting that the data closely align with a normal distribution.

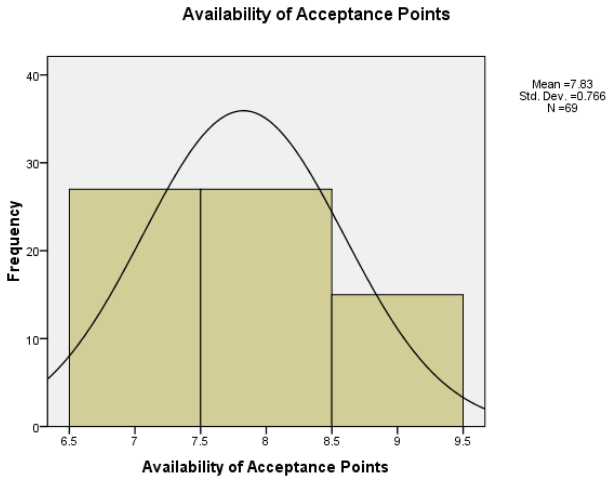

FIGURE 6. Availability of Acceptance Points

Figure 6 presents a histogram illustrating the Availability of Acceptance Points. The data shows a slight left skew, as a majority of respondents selected 2. Despite this, all values except 1 fall under the normal curve, indicating that the model largely adheres to a normal distribution.

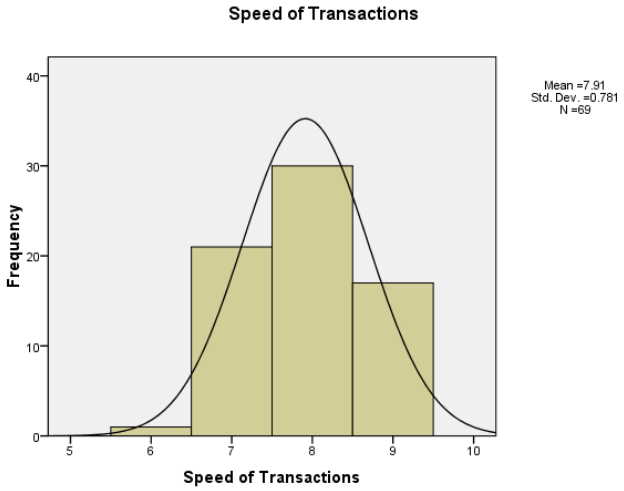

FIGURE 7. Speed of Transactions

Figure 7 shows a histogram of the Speed of Transactions. The data appear slightly right-skewed, as a higher number of respondents rated the Speed of Transactions as 2. Nevertheless, with the exception of the value at 1, the remaining values align closely with a normal distribution curve, indicating that the model largely adheres to a normal distribution.

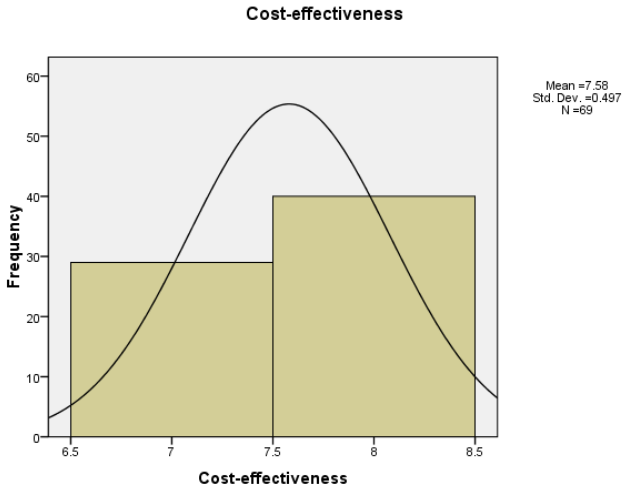

FIGURE 8. Cost-effectiveness

Figure 8 shows the histogram for Cost-effectiveness. The data are slightly right-skewed, as a higher number of respondents selected 1 for Cost-effectiveness. Despite this skew, the other values generally fit under the normal curve, indicating that the model largely adheres to a normal distribution.

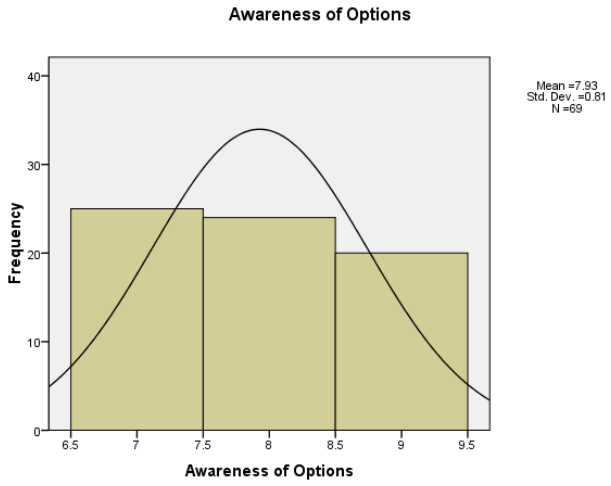

FIGURE 9. Awareness of Options

Figure 9 shows the histogram for Awareness of Options, indicating a slight left skew as most respondents selected a 2. Despite this, with the exception of the value at 1, the other values fall under the normal curve, suggesting the model largely adheres to a normal distribution.

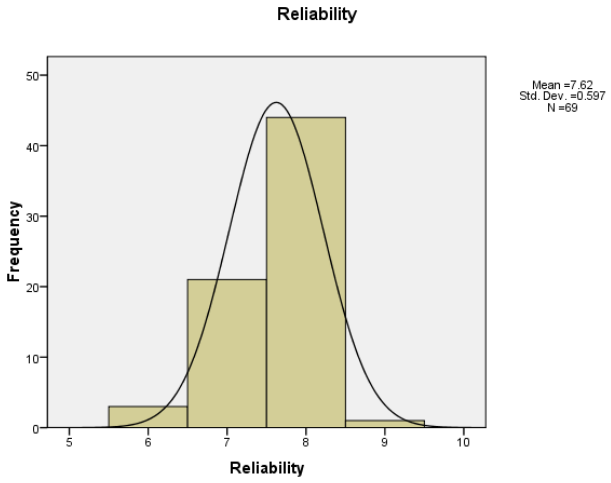

FIGURE 10. Reliability

Figure 10 shows a histogram of the Reliability data, revealing a slight right skew due to a higher number of respondents selecting a rating of 3. Despite this, except for the value of 1, the data points mostly fall within the normal curve, indicating that the model largely adheres to a normal distribution.

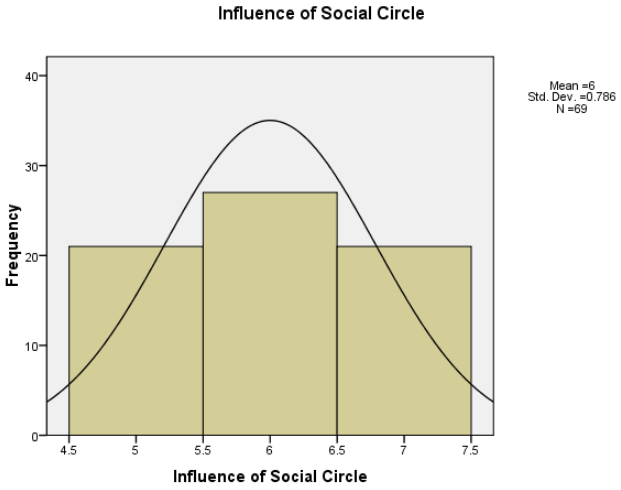

FIGURE 11. Influence of Social Circle

Figure 11 illustrates the histogram plot representing the Influence of Social Circle. The distribution appears somewhat bell-shaped, with a notable concentration of respondents selecting 2. Nonetheless, except for the value of 1, all other data points align reasonably well with a normal curve, suggesting that the model largely conforms to a normal distribution.

Correlations

TABLE 5. Correlations

Correlations											
	Frequency of Digital Payment Usage (per week)	Trust in Digital Payment Security	Convenience	Perceived Security	Ease of Learning	Availability of Acceptance Points	Speed of Transactions	Cost-effectiveness	Awareness of Options	Reliability	Influence of Social Circle
Frequency of Digital Payment Usage (per week)	1	.848**	.776**	.891**	.896**	.718**	.777**	.642**	.759**	.662**	.863**
Trust in Digital Payment Security	.848**	1	.822**	.903**	.845**	.862**	.734**	.863**	.897**	.816**	.910**
Convenience	.776**	.822**	1	.788**	.847**	.863**	.768**	.782**	.862**	.800**	.907**
Perceived Security	.891**	.903**	.788**	1	.830**	.826**	.821**	.782**	.871**	.727**	.913**
Ease of Learning	.896**	.845**	.847**	.830**	1	.713**	.753**	.698**	.795**	.741**	.896**
Availability of Acceptance Points	.718**	.862**	.863**	.826**	.713**	1	.761**	.848**	.927**	.723**	.879**
Speed of Transactions	.777**	.734**	.768**	.821**	.753**	.761**	1	.775**	.780**	.591**	.815**
Cost-effectiveness	.642**	.863**	.782**	.782**	.698**	.848**	.775**	1	.836**	.747**	.790**
Awareness of Options	.759**	.897**	.862**	.871**	.795**	.927**	.780**	.836**	1	.703**	.947**
Reliability	.662**	.816**	.800**	.727**	.741**	.723**	.591**	.747**	.703**	1	.753**
Influence of Social Circle	.863**	.910**	.907**	.913**	.896**	.879**	.815**	.790**	.947**	.753**	1

The table 5 displays correlations between various factors related to digital payment usage. Each cell represents the correlation coefficient between two factors, ranging from -1 to 1, where 1 indicates a perfect positive correlation, 0 indicates no correlation, and -1 indicates a perfect negative correlation. For instance, there's a strong positive correlation (0.848) between frequency of digital payment usage and trust in digital payment security, implying that those who use digital payments more frequently tend to trust their security more. Similarly, high positive correlations exist between other factors like convenience, perceived security, ease of learning, and availability of acceptance points.

Regression

TABLE 6. Model Summary

Model Summary										
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change	Durbin-Watson
Frequency of Digital Payment Usage (per week)	.964a	.930	.918	1.205	.930	76.939	10	58	.000	1.879
Trust in Digital Payment Security	.977[a]	.954	.946	.252	.954	121.154	10	58	.000	1.833
Convenience	.957[a]	.915	.900	.293	.915	62.527	10	58	.000	1.887
Perceived Security	.960[a]	.921	.908	.330	.921	67.845	10	58	.000	2.261
Ease of Learning	.952[a]	.906	.890	.263	.906	56.205	10	58	.000	2.125
Availability of Acceptance Points	.955[a]	.912	.897	.246	.912	60.181	10	58	.000	1.970
Speed of Transactions	.912[a]	.831	.802	.347	.831	28.604	10	58	.000	1.975
Cost-effectiveness	.945[a]	.894	.876	.175	.894	48.884	10	58	.000	2.009
Awareness of Options	.977[a]	.955	.947	.186	.955	123.184	10	58	.000	1.832
Reliability	.895[a]	.801	.766	.288	.801	23.289	10	58	.000	1.905
Influence of Social Circle	.984[a]	.969	.964	.150	.969	181.587	10	58	.000	2.081

Table 6 presents model summaries for different factors influencing digital payment usage. Each model showcases the strength of the relationship (R) between the predictor variable and digital payment usage. The R Square value indicates the proportion of variance in digital payment usage explained by the predictor. Adjusted R Square adjusts for the number of predictors in the model. The F Change statistic and its significance (Sig. F Change) test the overall significance of the model. The Durbin-Watson statistic assesses autocorrelation in the residuals. Overall, the models demonstrate high explanatory power, with factors like trust in security and influence of social circle having particularly strong relationships with digital payment usage.

TABLE 7. ANOVA

	ANOVA[b]				
Model	Sum of Squares	df	Mean Square	F	Sig.
Frequency of Digital Payment Usage (per week)	1118.009	10	111.801	76.939	.000[a]
Trust in Digital Payment Security	77.120	10	7.712	121.154	.000[a]
Convenience	53.581	10	5.358	62.527	.000[a]
Perceived Security	73.967	10	7.397	67.845	.000[a]
Ease of Learning	38.859	10	3.886	56.205	.000[a]
Availability of Acceptance Points	36.405	10	3.640	60.181	.000[a]
Speed of Transactions	34.486	10	3.449	28.604	.000[a]
Cost-effectiveness	15.028	10	1.503	48.884	.000[a]
Awareness of Options	42.630	10	4.263	123.184	.000[a]
Reliability	19.377	10	1.938	23.289	.000[a]
Influence of Social Circle	40.700	10	4.070	181.587	.000[a]

Table 7 presents the results of ANOVA (Analysis of Variance) tests for each predictor variable's impact on digital payment usage. The table includes the sum of squares, degrees of freedom (df), mean square, F-statistic, and significance level (Sig.) for each predictor. The F-statistic assesses whether there are significant differences in digital payment usage across different levels of each predictor. The low p-values (all < .001) indicate that each predictor variable significantly influences digital payment usage. This suggests that factors such as trust in security, convenience, and awareness of options play crucial roles in determining the frequency of digital payment usage.

4. CONCLUSION

The study on the factors influencing digital payment adoption in Odisha provides valuable insights into the current state of affairs in the region. By thoroughly examining various aspects, it offers guidance to stakeholders, policymakers, businesses, and financial institutions on how to encourage wider adoption of digital payments while overcoming existing barriers. Primarily, the study emphasizes the importance of trust and perceived security in shaping individuals' willingness to adopt digital payment methods. Establishing trust in the reliability and security of digital transactions is crucial, requiring robust security measures and transparent communication. The convenience and user-friendliness of digital payment platforms are key drivers of adoption. Simplifying the user experience and enhancing accessibility can broaden adoption among different segments of the population, including those with limited digital literacy. Awareness and education initiatives are also highlighted as essential in familiarizing individuals with digital payment options and addressing any concerns they may have about transitioning from traditional methods. The availability of acceptance points and transaction speed are significant factors in enhancing the appeal of digital payments. Expanding the network of merchants accepting digital payments and optimizing transaction processes can boost user satisfaction. Cost-effectiveness is another important consideration, emphasizing the need to minimize fees and charges associated with digital transactions to ensure affordability compared to cash payments. The study recognizes the influence of social circles on individuals' attitudes towards digital payments. Leveraging social networks and community engagement can help promote positive experiences and foster a culture of digital payment adoption. Addressing the drivers and deterrents of digital payment adoption in Odisha requires a collaborative effort among various stakeholders. By prioritizing security, convenience, awareness, accessibility, affordability, and social influence, stakeholders can work together to create a thriving digital payment ecosystem that benefits all members of the community.

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