

# Digital Transformation in India's Cooperative Bank

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# **INTRODUCTION**

The emergence of digital technologies has brought about a significant transition in the banking and financial services industry in recent times, marking a unique period of change. Cooperative banks in India are leading the way in this digital transformation, among other industries that are seeing substantial change. With their roots in community-based values, these financial institutions are now embracing digital transformation to boost client satisfaction, increase operational efficiency, and maintain their competitiveness in an increasingly digital environment.

The problem at stake is that India's cooperative banks need to continue their mission of supporting financial inclusion and servicing local communities while also making adjustments to the rapidly changing digital landscape. This transformation presents a variety of obstacles, from organisational culture changes to technical integration and regulatory compliance.

This study examines the digital transformation of India's cooperative banking industry, emphasising tactics, obstacles, and results. The objectives are to comprehend the extent of digital transformation endeavours, pinpoint pivotal motivators and impediments, appraise the assimilation and utilisation of technology, and appraise the consequences on customer satisfaction and operational efficacy. The challenges of integrating digital technology into the current infrastructure are also covered in the report. The final objective is to comprehend cooperative banks' general competitiveness and their capacity for digital transformation adaptation.

The purpose of the study is to look into the main forces behind digital transformation initiatives in Indian cooperative banks, the main obstacles and difficulties that these banks face in the process, the ways in which cooperative banks incorporate digital technologies into their infrastructure and day-to-day operations, and the perceived effects of digital transformation on customer experience and internal operational efficiency.

This study is significant because it can offer insightful information about how India's cooperative banks are undergoing digital transformation. Policymakers, industry practitioners, and stakeholders are intended to gain insight into how cooperative banking is changing in the digital age by means of this research, which will illuminate the tactics, obstacles, and results linked with this revolutionary process. The results of this study might also be used as a guide by cooperative banks looking to start or improve their digital transformation projects, which would help the sector's overall sustainability and resilience in India.

# **LITERATURE REVIEW**

Mr. Adarsh Desai & Dr. Priyanka Sharma (2022), this study focuses on The banking industry, particularly in rural areas, is critical for financing agriculture, livestock, and small- scale businesses. However, information security vulnerabilities are common in India's cooperative banks due to insufficient physical and environmental controls, data protection procedures, and budgetary constraints. According to the study, IT infrastructure security in cooperative banks is still in its early stages.

Ms. Isha Apte and Dr. Varsha Nerlekar,(2022), This study examines the impact of digitalization on the financial performance of Urban Co-operative Banks. Digitalization has transformed the banking sector, introducing new channels for products and services like core banking systems, UPI, ATMs, telephone banking, PC banking, EFT, and mobile banking.

UCBs are transforming into technology banking to serve customers more effectively, increase profits, and competitiveness. The study examines performance in financial, operational, customer-centric, strategic, and overall aspects, while addressing system security and cyber threats.

Vishal Vyas Priyanka Jain (2022), The study looks into how technology adoption and the digital economy affect India's financial inclusion. A conceptual framework was created and put to the test in Rajasthan, India, using a survey of 433 educated persons. A structured questionnaire was used to collect the data, and structural equation modelling was used to validate the results. The findings demonstrated the extended technology acceptance model's full mediation and reflection influence on the relationship between the digital economy and financial inclusion.

CA (Dr.) Bharat Patel et al., their study focuses Cooperative societies, particularly cooperative credit organisations and banks, have made a substantial contribution to India's socioeconomic development. However, a dual control structure exists, with state governments and the Reserve Bank of India in charge of banking. Legislative measures like the National Cooperative Database are intended to increase accountability and openness.

Anjum Siddiqui and Rajneesh Kumar (2020), The research project studies the impact of digital transformation on performance measures for cooperative banks in India. It demonstrates how digital technologies improve operational efficiency, customer satisfaction, and financial feasibility. This adoption also expands the bank's reach, reduces costs, and boosts competitiveness. The report highlights the need for strategic investments in digital infrastructure, talent development, and customer-centric innovation to drive long-term growth. The findings have practical implications for politicians, regulators, and banking professionals as they navigate the digitalized financial industry.

Dr. Ruchira Joshi and Prof. Rajeev Verma (2024), The study paper looks at the creation of a regulatory framework for digital transformation in Delhi's cooperative banks. It emphasises the role of regulation in promoting innovation, managing risks, and protecting consumers. The report makes recommendations to policymakers, regulators, and banking institutions on how to enable long-term digital transformation. The proposals include improving regulatory clarity, encouraging innovation, boosting cybersecurity, promoting financial inclusivity, and facilitating stakeholder engagement. These ideas aim to strengthen the cooperative banking sector's resilience, competitiveness, and sustainability in the digital age.

Prof. M. Guruprasad, et al.(2018), The study examines the readiness of Indian Urban Cooperative Banks (UCBs) for financial system crises and harsher regulations. It implies that, although banks have been progressive, they may struggle to maintain performance. The report suggests improving risk management approaches and incorporating them into corporate strategy to reduce systemic risk and capital availability challenges.

Dr. Neha Agarwal and Mr. Rahul Sharma(2020), The study evaluates the effect of FinTech collaboration on digital innovation in Delhi's cooperative banking sector, emphasising its transformative power, positive impact on adoption rates, product development cycles, and consumer engagement, and making recommendations for future digital opportunities.

Vikas Kapoor and Ms. Ankita Malhotra (2021): The study explores challenges to digital banking adoption in Delhi's urban cooperative banks, including client resistance, security concerns, lack of understanding, technology limitations, and trust issues. It aids bank management, policymakers, and technology suppliers in improving adoption rates and customer satisfaction.

Dr. S.M. Deshmukh and Dr. S.S. Jadhav (2021), The study analyse the influence of IT on Pune's urban cooperative banks, emphasising its revolutionary potential in operational efficiency, customer service delivery, and strategic decision-making. It emphasises the importance of strategic planning, leadership commitment, and stakeholder participation for successful integration.

# **OBJECTIVES OF THE STUDY**

- Study the influence of mobile banking uptake on rural populations served by cooperative banks' financial inclusion.
- Compare the successful cooperative banks' digital transformation journeys to others that are finding it difficult to stay up.
- Examine how government programmes and regulations affect the cooperative banking industry's ability to adopt digital technologies.
- Taking into account the current digital revolution, create scenarios for the future of cooperative banks in the Indian financial system.
- Determine which cutting-edge technology could have a big influence on cooperative banks' operations and ability to compete.
- Suggest alterations to policies and regulatory structures that can facilitate cooperative banks' long-term digital transformation.

# RESEARCH METHODOLOGY

The present study is descriptive in nature, descriptive statistics and regression has obtained to carry out the study. This study is based on primary data collected from questionnaire and surveys.

Sources of Data:

- Questionnaire
- Surveys

#### Software's used:

- Google Forms
- MS Excel
- MS Word

## Analysis:

- Descriptive Statistics
- Regression

#### **DESCRIPTIVE STATISTICS**

# **DATA ANALYSIS**

AGE	
Mean	34.72727273
Standard Error	0.935439676
M <mark>edi</mark> an	35
Mode	25
Standard Deviation	9.810974094
Sample Variance	96.25521268
Kurtosis	-0.792761365
Skewness	0.589594644
Range	30
Minimum	25
Maximum	55
Sum	3820
Count	110
Largest(1)	55
Smallest(1)	25
Confidence Level(95.0%)	1.854011027

The age data, collected from 110 individuals, reflects an average age of 34.73 years, with a mode of 25. It exhibits positive skewness, spanning from 25 to 55 years. The confidence level for estimating the population mean age is 95%.

ANNUAL INCOM	E
<b>M</b> ean	2.309090909
Standard Error	0.106302992
Median	2
Mode	h lanavalia
Standard Deviation	1.114915182
Sample Variance	1.243035863
Kurtosis	-1.379864979
Skewness	0.128879747
Range	3
Minimum	1
Maximum	4
Sum	254
Count	110
Largest(1)	4
Smallest(1)	1
Confidence Level(95.0%)	0.210689073

The annual income data from 110 individuals shows an average income of \$2.31, with a median and mode of \$2 and \$1, respectively. The income ranges from \$1 to \$4, with a slight positive skewness and a 95% confidence level

10 (01.	
Q1	
Mean	2.449541284
Standard Error	0.107077317
Median	2
Mode	2
Standard Deviation	1.117920014
Sample Variance	1.249745158
Kurtosis	-0.022062978
Skewness	0.736367378
Range	4
Minimum	1
Maximum	5
Sum	267
Count	110
Largest(1)	5
Smallest(1)	
Confidence Level(95.0%)	0.212245819

The mean rating of 2.45 for Q1 replies shows that respondents generally gave this question an overall score of 2.45 out of 5. The question was rated as 2 by the majority of respondents, indicating a slightly positive skewness in the distribution of responses (skewness = 0.74).

There may be some response variability based on the data's moderate standard deviation (1.12). For the most part, the answers to Question 1 are concentrated towards the bottom of the scale.

Q2	
Mean	2.518181818
Standard Error	0.102293807
Median	2
Mode	2
Standard Deviation	1.072866504
Sample Variance	1.151042535
<u>Kur</u> tosis	-0.392351419
Skewness	0.383296746
Range	4
Minimum Minimum	1
Maximum Maximum	5
Sum	277
Count	110
Largest(1)	h longvo5ion
Smallest(1)	1
Confidence Level(95.0%)	0.202743001

A similar distribution to that of Q1, although with a somewhat smaller skewness (0.38), characterises Q2's mean rating of 2.52. Once again, the median and mode of the responses are both 2. The significantly reduced standard deviation (1.07) in contrast to Q1 suggests a somewhat reduced response variability.

Q3	
Mean	2.490909091
Standard Error	0.105515498
Median	2
Mode	2
Standard Deviation	1.106655881
Sample Variance	1.224687239
Kurtosis	-0.691636438
Skewness	0.457732951
Range	4
Minimum	1
Maximum	5
Sum	274
Count	110
Largest(1)	5
Smallest(1)	1
Confidence Level(95.0%)	0.209128287

Likewise Q2, the mean rating for Q3 responses is 2.49. The distribution is comparatively flat (kurtosis = -0.69) and slightly positively skewed (skewness = 0.46). The majority of respondents scored the question at a 2, as indicated by the mode and median values of 2.

There may be some variation in the responses, as indicated by the moderate 1.11 standard deviation.

Q4	
Mean	2.672727273
Standard Error	0.093231389
Median	3
Mode	3
Standard Deviation	0.977819057
Sample Variance	0.956130108
Kurtosis	-0.900472152
Skewness	-0.258069737
Range	3
Minimum	entch Jaurnal
Maximum	4
Sum	294
Count	110
Largest(1)	4
Smallest(1)	1
Confidence Level(95.0%)	0.184781582

With a mean rating of 2.67, Question 4 gets a higher rating than the prior questions. With a mode and median of 3, the distribution has a minor negative skewness (skewness = -0.26). In comparison to Q1–Q3, the standard deviation is lower (0.98), suggesting less variability in the responses. The replies to Question 4 tend to be on the higher end of the spectrum overall.

Q5	
Mean	2.681818182
Standard Error	0.127156506
Median	3
Mode	1
Standard Deviation	1.333628686
Sample Variance	1.778565471
Kurtosis	-1.124963776
Skewness	0.226893859
Range	4
Minimum	1
Maximum	5
Sum	295
Count	110
Largest(1)	5
Smallest(1)	1
Confidence Level(95.0%)	0.252020061

Similar to Q4, the mean rating for responses to Q5 is 2.68. With a mean of 1 and a median of 3, the distribution has a modest positive skewness (skewness = 0.23). In comparison to Q1– Q4, there is greater diversity in the replies, as evidenced by the higher standard deviation (1.33). Q5's replies are generally more evenly distributed over the spectrum.

Q6	
Mean	2.563636364
Standard Error	0.108463584
<b>Me</b> dian	2
Mode	2
Standard Deviation	1.137575667
Sample Variance	1.294078399
Kurtosis	-0.412074258
Skewness	0.468400184
Range	4
Minimum Minimum	1
Maximum Maximum	5
Sum	282
Count	110
Largest(1)	5
Smallest(1)	1
Confidence Level(95.0%)	0.214971298

The distribution is comparable to that of Q1–Q3, with a mean rating of 2.56. The mode and median of the responses are 2, and they exhibit a minor positive skewness (skewness = 0.47). The moderate (1.14) standard deviation indicates some response variability.

Q7	
Mean	2.490909091
Standard Error	0.125714276
Median	2
Mode	1
Standard Deviation	1.318502449
Sample Variance	1.738448707
Kurtosis	-1.13846214
Skewness	0.325794919
Range	4
Minimum	1
Maximum	5
Sum	274
Count	110
Largest(1)	5
Smallest(1)	1
Confidence Level(95.0%)	0.249161608

Similar to Q3, the mean rating for responses to Q7 is 2.49. With a mean of 1 and a median of 2, the distribution has a modest positive skewness (skewness = 0.33). When compared to Q1–Q3, the standard deviation is higher (1.32), suggesting greater variability in the replies.

Q8	
Mean	2.754545455
Standard Error	0.102663741
Median Median	3
Mode	3
Standard Deviation	1.076746404
Sample Variance	1.159382819
Kurtosis	-0.373436421
Skewness	0.282063783
Range	4
Minimum Minimum	1
Maximum Maximum	5
Sum	303
Count	110
Largest(1)	5
Smallest(1)	1
Confidence Level(95.0%)	0.203476198

It has a mean rating of 2.75 with a distribution that is comparable to Q4. With a mode and median of 3, the replies exhibit a small positive skewness (skewness = 0.28). There may be some variation in the responses, as indicated by the moderate 1.08 standard deviation.

Q9	
Mean	2.663636364
Standard Error	0.121347228
Median	2
Mode	2
Standard Deviation	1.272700464
Sample Variance	1.619766472
Kurtosis	-0.857269827
Skewness	0.468442827
Range	4
Minimum	1
Maximum	5
Sum	293
Count	110
Largest(1)	5
Smallest(1)	1
Confidence Level(95.0%)	0.240506261

The mean rating for the responses to Q9 is 2.66, and the distribution is comparable to that of Q4–Q8. With a mode and median of 2, the distribution has a modest positive skewness (skewness = 0.47). The moderate (1.27) standard deviation

Q10	
Mean	2.436363636
Standard Error	0.113718902
Median Median	2
Mode	2
Standard Deviation	1.192693911
Sample Variance	1.422518766
Kurtosis	-0.98419157
Skewness	0.417908164
Range	4
Minimum Minimum	1
Maximum Maximum	5
Sum	268
Count	110
Largest(1)	5
Smallest(1)	1
Confidence Level(95.0%)	0.225387168

With a distribution resembling that of Q1–Q3, the mean rating for Q10 is 2.54. The mode and median are both 2, and the replies have a little positive skewness (skewness = 0.42). There may have been some variation in the responses, as the standard deviation is rather moderate (1.19).

#### **Interpretation of the data**

- Central Tendency: The average ratings for each question fall between 2.44 and 2.75, meaning that respondents often placed the questions in the middle of the scale, which has a range of 1 to 5.
- Variability: There may be variations in the response distribution among questions based on the standard deviations. While some questions have a modest level of variability, some have a higher or lower level.
- Skewness and Kurtosis: The replies' distribution shape is shown by the values of skewness and kurtosis. The majority of the questions show a modest positive skewness, indicating that more answers lean towards the

negative end of the spectrum. Kurtosis readings typically show that distributions are rather flat.

• Consistency: There are determined trends across questions, such as the mode frequently being at 2, indicating that this rating is frequently the most popular response, despite variances in mean ratings and variability.

Based on the data as a whole, it appears that respondents generally score the questions in the middle of the scale, however there is some variation in their answers. While responses are generally distributed over the scale, the minor positive skewness suggests a propensity towards lower evaluations.

#### **REGRESSION**

Input Y range: Implementing digital transformation strategies poses significant challenges for cooperative banks.

Input X range: Digital transformation has a positive impact on customer experience in cooperative banks.

#### SUMMARY OUTPUT F & L

Regr <mark>essio</mark> n Stati <mark>stic</mark> s	
Multip <mark>le</mark> R	0.125
R Square	0.016
Adjusted R Square	0.006
Sta <mark>ndar</mark> d Erro <mark>r</mark>	1.103
Observations	110.000

#### **ANOVA**

					Significance F
	df	SS	MS	F	
Regression	1	2.080	2.080	1.710	0.194
Residual	108	131.411	1.217	1 Journ	al
Total	109	133.491			

		St <mark>and</mark> ard				Upper 95%		Upper
	<mark>Coe</mark> ffic <mark>ient</mark> s	E <mark>rror</mark>	t Stat	P-value	95%		95.0%	95.0%
Intercept	2.202	0.245	8.992	0.000	1.716	2.687	1.716	2.687
X Variable 1	0.109	0.083	1.307	0.194	-0.056	0.273	-0.056	0.273

### **Interpretation of the Data:**

- Regression: A slight positive correlation (multiple R = 0.125) exists between the dependent variable (f & 1) and the predictor variable (X Variable 1). The dependent variable's variability can only be explained by the predictor variable to the extent indicated by the dependent variable's R-square value of 0.016.
- ANOVA: The ANOVA table evaluates the regression model's overall significance. At the traditional alpha threshold of 0.05, the regression model is not statistically significant, according to the F-statistic of 1.710 and associated p-value of 0.194. Consequently, the variability in the dependent variable is not substantially explained by the predictor variable.

• Coefficients: The projected mean value of the dependent variable when the predictor variable is zero is indicated by the intercept's coefficient of 2.202. The dependent variable changes by one unit for every unit rise in the predictor variable, according to the coefficient of X Variable 1, which is 0.109. The coefficient for X Variable 1 is not statistically significant, though, with a t-statistic of 1.307 and a p-value of 0.194.

The analysis indicates that there isn't a significant linear correlation between the dependent variable (f & l) and the predictor variable (X Variable 1). The non-significant F-statistic and low R-squared value indicate that the regression model is unable to sufficiently explain the variability in the dependent variable. Consequently, in this particular scenario, the predictor variable does not significantly predict the dependent variable.

#### **LIMITATIONS**

- The analysis may not accurately reflect the broader population because it is based on a narrow sample of respondents. Insufficient diversity or exclusion of significant demographics from the sample may lead to conclusions that are not entirely representative of the views or experiences of the general public.
- There is a chance that respondents will give socially acceptable answers or misremember their experiences, which could skew the results. For instance, depending on outside factors or their own opinions, respondents might be more likely to give questions a higher or lower rating.
- The estimated coefficients and the ability to identify meaningful associations may be weakened by measurement error in the dependant and predictor variables.
- The association between one predictor variable and the dependent variable is the only one taken into account in the analysis. Omitted variable bias could result from additional significant variables that were overlooked in the analysis.
- Although it establishes a statistical association, the regression analysis does not infer causality. It's possible that other unobserved factors or causal mechanisms account for the apparent correlation between the dependant and predictor variables.

# **CONCLUSION**

In India, the cooperative banking industry's digital transformation marks a significant turn towards modernization and improved service provision. Cooperative banks have the potential to completely transform the traditional banking industry by embracing digital technology and meeting the changing needs of its clientele in a financial system that is changing quickly.

Descriptive statistics obtained from consumer preferences and demographic information lay a solid foundation for

Descriptive statistics obtained from consumer preferences and demographic information lay a solid foundation for comprehending the target market and customising digital solutions to meet their needs. These data show patterns and trends that cooperative banks can use to inform the creation of tailored digital services and experiences that increase client loyalty and engagement.

Regression analysis does, however, indicate that a more sophisticated approach is required to fully understand the factors impacting digital adoption in cooperative banks. Although preliminary results point to a beneficial relationship between digital infrastructure and consumer engagement, more research is necessary given the importance and scope of these associations. Cooperative banks must fully understand the nuances of consumer behaviour and preferences in order to create digital strategies that appeal to a wide range of customers.

Even with the advancements, there are still obstacles to overcome, such as the necessity for seamless digital platform integration and cybersecurity concerns. These difficulties do, however, present chances for advancement and expansion. Cooperative banks may strengthen their digital skills and remain ahead of the curve by making investments in advanced technology, user-friendly interfaces, and strong cybersecurity measures.

In the future, cooperative alliances with fintech companies and authorities can speed up the process of digital transformation by allowing regulatory assistance and the sharing of expertise. Furthermore, longitudinal research that follows the development of digital initiatives in cooperative banks can provide insightful information about new trends and best practices that will help inform future strategic choices.

In conclusion, India's cooperative banking industry may take advantage of hitherto untapped potential thanks to digital revolution. Cooperative banks can revolutionise banking experiences, increase operational effectiveness, and eventually provide customers with easy access to financial services in the digital age by leveraging technology.

# REFERENCES

Sharma, M. A. (2020). Analysis of the Information Security of Co-Operative Banks of India.

Ms. Isha Apte and Dr. Varsha Nerlekar. (2020). Study of Impact Of Digitalization On Financial Performance Of Urban Co-operative Banks.

Jain, M. V. (2021). Role of digital economy and technology adoption for financial inclusion in India.

al., C. (. (n.d.). Developments and challenges in the cooperative banking sector. Kumar, A. S.

(2020). Assessing the Impact of Digital Transformation on the Performance of Cooperative Banks in India.

Verma, D. R. (2023). Building a Sustainable Regulatory Framework for Digital Transformation in Delhi's Cooperative Bank.

Prof. M. Guruprasad, e. a. (2018). Performance Analysis of Indian Banks – A comparative study of Commercial Bank and Urban Cooperative Bank.

Malhotra, V. K. (2021). Challenges to Digital Banking Adoption in Delhi's Urban Cooperative Banks: A Customer Perspective.

Jadhav, D. S. (2021). Impact of Information Technology on Cooperative Banks in India: A Study of Select Urban Cooperative Banks in Pune Distric.

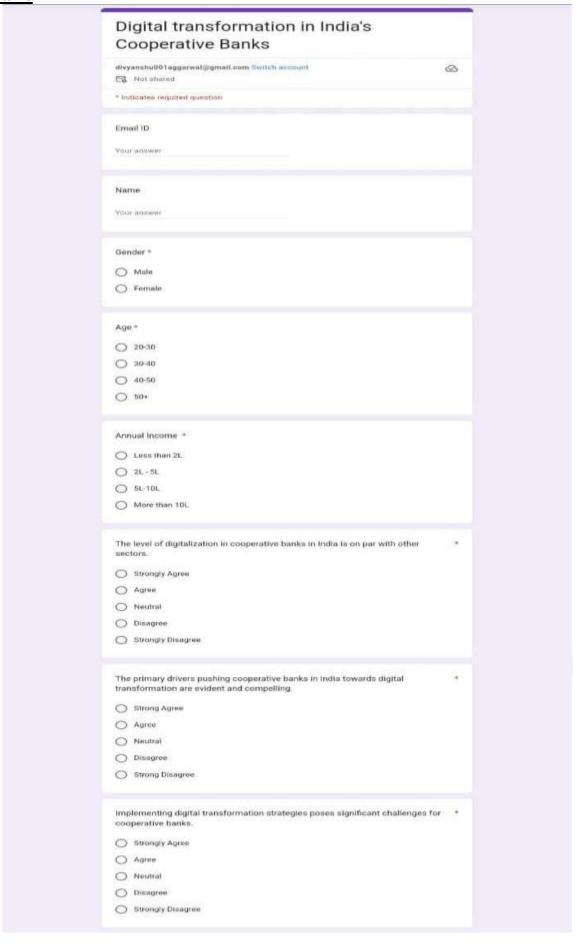
Nebhnani, M. (2022, Feb 28). Digital Transformation in Cooperative Banks.

Retrieved from igital Transformation in Cooperative Banks: https://pirimidtech.com/digital-transformation-in-cooperative-banks/

Oberoi, M. K. (n.d.). *Technology leading the change in india's co-operative banking landscape*. Retrieved from technology leading the change in india's co-operative banking landscape: https://www.edgeverve.com/finacle/testimonials/technology-leading- change-indias-co-operative-banking-landscape/

## **ANNEXURE**

### Questionnaire



	,   1	
	The state of the s	٠
	liatives.	
0	Strong Agree	
0	2007 200 <sub>0</sub> y	
2.3	) Neutral	
100	) Disagree	
0	) Strong Disagree	
	operative banks in India adequately ensure the security and privacy of stomer data during digital transformation efforts.	
0	Strongly Agree	
	Agree	
	Neutral	
0	Disagree	
0	Strongly Disagree	
	gulatory frameworks significantly influence digital transformation strategies fo operative banks in India.	(E
	Strongly Agree	
	Agree	
0	Neutral	
	Disagree	
0	Strongly Disagree	
	operative banks in India are adopting key technologies to facilitate digital naformation effectively.	
0	Strongly Agree	
0	) Agree	
0	Neutral	
0	Disagree	
0	Strongly Disagree	
	operative banks in India have clear metrics to measure the success of their pital transformation initiatives.	*
0	Strongly Agree	
0	Agree	
0	Neutral	
	Disagree	
0	Strongly Disagree	
	gital transformation has a positive impact on customer experience in operative banks.	×
0	Strongly Agree	
	Agree	
	Neutral	
	Disagree	
	Strongly Disagree	
	operative banks in India effectively address the digital skills gap among their aployees to support digital transformation efforts.	9
0	Strongly Agree	
0	) Agree	
0	Neutral	
0	Disagree	
0	Strongly Disagree	
500	emit Clear	form
	CHAIL CHAIL	

## **Responses**

							Cooperative bunks in					Cooperative banks
			The level of	The primary drivers pushing cooperative	Implementing clotter	Cooperative banks in	Incle adequately ensure the security	Regulatory frameworks significantly influence	Dooperative banks in India are edopting key	Cooperative banks in India have clear	Digital Inanaformation	India effectively address the digital
			digitalization in	benks in India towards	turnformation	India effectively	and privacy of	digital transformation	technologies to	metrics to measure the	has a positive impact	skills gap among th
			osoperative banks in India is on par with	digital transformation are evident and	strategies poses significant challenges	prioritize their digital Interespondent	customer data during dipital transformation	alteitegkes for properative banks in	facilitate digital transformation	success of their cigital transformation	on customer expense on in	employees to supplicable transformation
Dender	Age	Annual Income	other sectors.	companing.	for ecoperative curves.	antorinos.	ottoda.	India.	effectively.	initiatives.	cooperative banks.	offpits.
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Termole	30-49	More than 104	Agrici	ACTA	Agricia	Agne	Agree	Agree Agree	Action		Agron	Agrical Agrica
Visco	40-53	25 54.	Agree	Noutral	Strongly Agroo	Neveot	Osagree	Agree	Disagree	Agree	Agree	Agree
Marie Factura	29-39	Lets than 25. 25 54.	Peoutral	Nouto	Noutral	Neutol	Peoutral	Nouttoi	Nevtral	Neutral	Neutral	Nouttel
Visite	20-20	2L - NL SL+10L	Strongly Disagree Agree	Strong Disagree Noutes	Disagrasi Disagrasi	Creageon Creageon	Strongly Desgree Nouttel	Droagnoe Agrae	Neutral Strongly Agree		Strongly Doeston Strongly Doeston	Disagner Disagner
Anne	50+	More than 104	Agree	Agree	Agree	Neutral	Strongly Agree	Agree	Strongly Agree		Strongly Agree	Agree
Persola	20-30	Less than 2L	Disagree	Disagroe	Disagrae	Disagree	Disagree	Disagnee	Disagravi	Disagrae	Disagrae	Disagree
Mare Mare	40-00	More than 101. St101.	Agree Strongly Dissorre	Stong Agele Dragtee	Agree Dissorted	Strong Agree Neurosi	Strongly Agree Strongly Disagree	Noutrol Neutrol	Strongly Agree		Agroe Neuton	Noutral Noutral
Vale	30-48	5L-10L	Stongly Agree	Stong Ages	Strongly Agree	Neutral	Strongly Agree	Agree	Strongly Disagree Neutral	Neutral	Agron	Strongly Agree
Termole	40-50	More than 101.	Strongly Agree	Strong Agen	Agino	Agree	Strongly Agree	Agree	Strongly Agree		Agree	Strongly Agree
Fernania Visite	30-49 20-34	SC-10L Less than 2L	Disagree	Noutral	Agree Agree	Neutral Neutral	Agree	Noutral	Agree		Neviral	Strongly Agree
Vario	40.00	25 84.	Agree Strongly Agree	Agree	Agree	Agne	Agree	Noutral Noutral	Nevaral Nevaral		Strongly Agree Neutral	Agneri Strongly Agree
Valie	56+	Non than 10L	7910,0781	Neutral	Agree	Neviol	7901,8781	Strongs Agree	Strongy Agree		Agree	Agree
Valve	20-30	25 54.	Agree	Agree	Agree	Agron	Agner	Sixingly Agree	Strongly Agrees		Strongly Agree	Strongly Agree
Termalia Alane	20-30 40-50	Less than 2L blow than 10L	Agree	Nouted Disagnie	Newtrall Newtral	Nevrol Strong Agent	Osagrea Agree	Noutsol Agree	Meutral Aprile	Neutral Strongly Apres	Disagree Agree	Agres Agres
Asie	20-30	Less than 2L	Noutral	Neutro	Noutral	Neutral	Noutral	Agree	Disagree	Disagne	Objective	Nouttel
Asse	30.43	54-10L	Agree	Grong Apton	Strongly Agree	Strong Agree	Agree	Agree	Strongly Agree	Agree	Strongly Agree	Agrice
Terrorie erosie	20-30	Liess than 2L	Non-Assi Non-Assi	Dragton	Strongly Disagree	Disagroo	Neutral Simple Annua	Strongs Disagree	Strongy Disagree	Strongly Disagree	Strongly Deagnor	Disagree Someon Assess
- Security	30-49	25 64. 51101.	Noutral Noutral	Agree Agree	Agree Disagree	Agroe Disagno	Strongly Agree Strongly Disagree	Strongly Agree Strongly Disagree	Agree Disagree		Agron Neutral	Strongly Agree Strongly Delagree
Naie	29-56	Less than 26	Agree	Agree	Neutral	Disagree	Diagree	Disagne	Disagree		Agree	Agree
Visio	36-49	5L-10L	Strongly Agree	Neutral	Strongly agree	Osageo	Neutral	Agree	Strongly Agree	Agree	Agroe	Agree
Mone Fernale	20-50 40-50	25 56. Lean trans 26	Agree	Noutsal Noutsal	Agree Street Arms	Neutral	Agree Streets Asses	Agree	Strongly Disagree	Neutral	Disagree	Dragwe
Alake	30-43	Less than 26. SL+OL	Noutral	Noutral Noutral	Strongly Agree Acree	Agree Disagree	Strongly Agree Noutral	Agree Strongly Agree	Strongly Agree Strongly Disagree		Neutral Agree	Agree Agree
Visio	40-50	Less than 2t.	Agree	Noutral	Strongly Agree	Nevoul	Dragree	Agree	Strongy Agree	Strongly disagree	Neveol	Disagree
Asno	40-53	Less than 2L	Noutral	Agree	Neutral	Disagene	Noutral	Strong's Agree	Disagree	Noutral	Strangly Agree	Griongly Agree
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Permalia	20-50	Less than 2L	Agree	Noutral	Aprill	Strong Agree	Stoney Appe	Strongly Disagree Agree	Agree Disagree		Agroo Agroo	Agree
Auro	30-49	2L - 5L	Noutral	Disagroe	Disagree	Neutral	Strongly Disagree	Shorigly agree	Strongly Agree	Agree	Strangly Agree	Agree
Visio Visio	30-43	SL-10L	Noutral Constals areas	Grong Disagree	Ageno	Disagroo	Neutral	Storigly Disagree	Dissores		Agroo	Nouted Control
Asio	20-30 40-60	Now than 10L SL-10L	Stongly agree Stongly Agree	Disagnie Strong Agree	Disagree Strongly Agroo	Neutral Strang Agree	Strongly agree Deagree	Noussal Agree	Agree Disagree		Strangly Disagree Neutral	Strongly Agree Neutral
ernale	40-50	More than 104	Agne	Diagroe	Apren	Disagno	Agree	Noutral	Strongy Agree		Meutral	Strongly Agree
erraie	30-43	Less than 2L	Strongly Disagree	Stong Aprel	Agree	Agree	Shorigly Agree	Strongly Agree	Strongly Agree	Agree	Agron	Osagree
ernate Apio	20-34	Less than 25.	Strongly Agree	Agree	Apren	Disagroo	Strongly Agree	Agree	Mestral .		Strongly Agree	Agree
Asie	90 v	5L-10L 5L-10L	Agree	Proutoi Dragne	Acres Acres	Neutral Agree	Diagree Diagree	Noutrol Noutrol	Neutrali Disorpre		Disapres Disapres	Romer Strongly Agree
Sensale	40-93	25 54.	Agree	Agree	Agree	Agree	Agree	Desgree	Acres		Strongly Disagree	Strong's Disagree
ensile	29-34	Lean than 25.	Agree	Agree	Neutral	Neurosi	Shongly Disagree	Noutral	Strongly opens		Agree	Agree
Terropia Malo	20-50	More than 104.	Agree	Strong Agen	Neutral	Neutral	Agree	Stonos Agres	Strongly Agree		Ageno	Shongly Agree
Farmake	29-34	5L-10L 5L-10L	Agree	Agree Stong Agree	Strongly Ageno	Agree Neurosi	Stoney Agree	None is No. 4 to 1	Strongly Agree Neutral		Ageon Strangty Disagree	Agree Doegno
Water	26-30	Leas than 25.	Agree	Acres	Strong V Disopres	Strang Agree	Deagne	Noutabl	Acree		Strangly Agree	Disagree
Farmaka	50+	Less than 25.	Noutral	Agree	Acres	Neutral	Strongly Aprolo	Disaston	Aprilo		Mexical	Strongty Aprelo
Male Male	26-36	Lean their St.	Strongly Agent	Shong Agree	Daugree	Neutral	Shongly Disagree	Noutral	Mouter		Strangly Agree	Nouted
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Male	29-30	Leto then 25.	Strongly agree	Agree	Acres	Agree	Acres	Acres	Acres		Nextor	Strongly Agree
Ternale	20-38	2t 54.	Strongy Agen	Strong Agree	Disagree	Neutral	Agree	Strongly agree	Mestral	Acres	Dissorter	Nouted
Fernale Fernale	30-43	SU-FOL	Agree	Agree	Strongly Disagree	Disagree	Noutral	Agree	Disagree		Strangly Agree	Acres
Fernale	40-60 30-40	bitose share 104. 54-404.	Agree Neutral	Noutrol	Street ly agree	Neutral Disagree	Deagwe Deagwe	Noutral Acres	Strongly Agree Anne		Nautral Autro	Stongs Agree Dragger
Valo	36-65	Less than St.	Strongly Disagree	Stono Disagree	Acreso	Asse	Agree	Disagree	Street Acres		Agon	Strongy Agree
Asie Asie	30-49	DL - SL	Agree	Novabasi	Acres	Storo Agree	Sycondy scree	Stronge Agree	Mester	Agree	Strangly Agree	Acces
Asio	40-94 50+	St St. Most than 101.	Agree Dangme	Agree	Neutral Acete	Neutral	Strongly Agree	Grono's Disagree	Meutral		Agron	Agree
lamake	30-48	Less than 25.	Strongly Agree	Nouttol	Strongly Ageno	Asse	Strongly Disagree Strongly Assen	Agree Gronoly Disagree	Meutral Dissortio		Strangly Disagree Strangly Asses	Agree Disagree
Asie	30:40	5L/40L	Agree	Distance	Acatel	Disease	Strongly Agent	Bhonois Aoras	Shonay Apres	Disasse	Skangly Ages	Dangere
Semala.	30-43	21.156	Noutral	Chraquee	Noutral	Neutral	Strongly Agree	Nouttal	Distorio	Deagne	Nextol	Agree
Aslo Aslo	30.43	51 51. Marie Marie 444	Nootral Stronger poses	Acres	Moutes!	Disagree	Strongly across	Doagson	Shongly Agency		Agron.	Shongly Ageso
ionale	20-34	More than 101. Less than 26.	Strongly agree Agree	Noutral Access	Strongly agree Armon	Agroe Dhaggoo	Stongly Associ	Acres a Non-dead	Moutral Street Anno	Non-real Non-real	Meutoli Skonoly Dokasio	Doubles Noutral
Auto	20.35	Mon than 154	Strongty Disagree	Stong Asso	Moutos!	Storo Apre	Nondral	Noulttal	Street Water	Strongly Ages	Strangly Agree	Doagne
Tomale Auto	30.48	Mose than 101.	Noutral	Acres	Montrell	Neutral	Noutral	Agree	Chromatic services	No. red	Disagree	Noutral
Auto	40.63	Less than 26. St. 40L	Strongly agree Strongly Disserce	Nontral Acres	Strongly Agree Disagram	Nieutral Nieutral	Acres Noutral	Deagne.	Strongly Agree Strongly Disagree	Agree	Meutoli Meutoli	Strongly Disagrass Acres
Anie	30.43	214.	Agree	Agree	Agree	Oleagano	Noutral	Agree	Agree	Agree Agree	Strongly Designer	Dospos
Asiro	20-30	5L-10L	Acres	Nouteal	Disagras	Neutral	Noutral	Novirol	Disagras	Nactral	Agner	Disagree
Auto	20.55	Less than 25.	Nondrei	Non-Asial	Acres	Disagate	Sweeply Disagree	NonAtti	Strongy agent	Desgree	Agree	Acres
Asie	40.64	Less than 25	Scenary Dissores	Agree	Shongly Agree Distorns	Strang Ages Disasse	Disagras Neutral	Non-Anni Non-Anni	Strongly Agree Strongly Agree	Despera ton, tout	Ageo	Acces
Ferniale	40-64	5L-10L	Strongly Apten	Distance	Ages	Agree	Smongly Disagree	Noutral	Shongly Agmin		Agen	Stongly Agree
Atalo	20-55	Less Bun St.	Brongly Agen	November	Strongly Agency	Neytool	Agest	Prongs Disagree	Disapre	Nonemal	Meutot	Oxonply Agento
Fernale Fernale	40-60	Monthau Mt.	Strongly Agen Acres	Ages	Agree	Nautral Assess	Acres	Nondral	Agenta Anno	Strongly Agens	Agene	Agree Districts Assess
Water	00.34	Loss Stan St.	Noctral	No. And	Nangree Nangree	Story Ages	Disagree	Acces	Street Aprel Street Aprel	Acres	Asso	Dongers
Fermula	30.43	21 - 51	Acres	Agree	Agen	Sharp Ages	Disagrees	Shangly Agrico	Distriction	Agree	Sharply Designo	Neutral
Alate Terrania	96-38	0. 0	No. total	Ages	Acres	Agree	Despise	1200	Agree		Strongly Agree	Agree
-ernere Vernere	30.43	50-800 Mose than 181	Acres	Strong Designer	Acres Agrees	Novice	Agree Story Age (	Mary Artes!	Strongly Disagrap		Ageto-	Nonday!
Atalo	40-03	Lean than 25	Agras	Storig Agess Storig Agess	Agree Strengts Agree	Agree Novhd	Agree	North Control	Market	Disapso Novirol	Désagras Agrico	Noutral Noutral
Auto	40-53	Leaster St.	Noutral	Agree	Agend	Agree	Strongly Disagree	Grongly Agree	Strongly Disserve	Agras	Strongly Agree	Ocapio
Aslo Servane	56a	64.00	Disagner	Story April	Arreno	Risched	Noutral	Acres a	Discourse	Elecents Asses	Strongly Dragator	Agree
Atalo	26-34	32 - 64 32 - 64	Agree	Pina a seri	Disagrap Disagrap	Strong Agree Observe	Stongly Agent Stongly Agent		Etropy Ages		Barrer .	Disagno Smorgly-Agree
Note	20.55	51 64.	Acres	Stogen	Strongly Agrees Acres	Neurod	Acres	Acres	Streety Agree		Agree	Stongy Ages
Atalo	20-33	Monthun 484	Agree	Non-Amil Personal	Dangero	No. of the last	Dasper	Agree .	Aller de	Principal and	Congress .	Agree
Asso	20-58	64-10L	Agree	No. Ann.	Concessor Agency	Nound	Oncess Agent	Agree	Printers of the Parket of the	Name and Address of the Owner, when the Owner, which the Owner,	Stongly Agree	Desgree
Asso	30-43	Moss than 454	Agras Nector	Non-Anni Access	America Maria Anni	Ringtoni Renna Asses	Strongly Agrees Nov. Amil		Elengy Oteagree	Annual Princes	Shongly Agree	Nacital Special Physics
arruis	20-48	81.404	Disagree	Agree Grong Agree	Antonio de la Constantion de l	Stong Apito Agree	Nondrai		Strongly Agree		Agico Agico	Drongly Disagns Drongly Agent
pristate	20-55	Less 850 - 25	Aprel	Agree	Progress	Novac	Acres	Shorage Changes	Strongly Agents	Access	Agree	Nonatori
Terresia Molec	40-00	54-104	Nochral	Group Agent	Principles -	Agree	Grongly Disserve	No.450	Montag	Desgree	the state of	Ghongly-Agree
Asio Asio	20.00	Loss than 25.	Pinnana	Doegoo	Maria Santa	Newton	Strongly Agents	Doegroo	Agree	Stionely Aprox	4940	Storpy Ages
Auto	00-00	Same State St.	Bronger-Aprop	Agree	Dangree	Terrarione	Diagno	Disagram Discrete egree	Agree	August 1	Designed September	Agras Brongs Agras
		Lots from St.	Grongly Agency	Pendani Pendani	Aprilo Strongly Disagrap	Disease Agree	Dage	Storige agree	regress)	Personal Property and Property	Agent	Agos
Malo	40.03											
Atalo Atalo	20.55	Less than 25.	Non-head	Perchair	Agree	Congress	Stoney Ages		THE REAL PROPERTY.	Dunger	Den my Company	Agree
		Cost than III.	Dangma Agent	Agree Service Agree	Access Access	Congres Congres Agree	Stongly-Agent Stongly-Agent	Stongly Agree	Designer Company	Agree	Deargy Overson Seargy Agree Navins	Agree Duegree

Research Through Innovation

# Likert's Scale

		Annual Income	The lovet of digitalization in cooperative banks in India is as par with other sectors.	are evident and competing.	transformation strategies poses significant challenges for cooperative banks.		and privacy of customer data during digital transformation efforts.	Regulatory frameworks significantly influence digital transformation strategies for cooperative banks in India.	Cooperative bends in tedia are adopting kity technologies to tacattate digital transformation effectively.	Cooperative banks in India have dear metrics to measure the success of their digital transformation inflatives.	Digital transformation has a positive impact on customer experience in cooperative banks.	Cooperative banks in India effectively address the digital skills gap among their employees to support digital transformation efforts.
Female Female	35 36			2			2 1	2	1 2	3		4
Female	75	2					5		3	4		
Female Female	25 45			4			6 4	4	- 4		4	4
Female	35	3	4	3	2		3 2	3	2			1
Female Female	25						1 4	5 5				
Female	26 36	2					2 1	1				
Female	35		2	2	- 4		5	5				5
Female Female	45 25			3	1 2		2 1	2	4	3		4
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Female Female	36 25						2 1	1 2			-	4
Female	45				2		2 2		2			5
Female Female	25 25			2	3		9 5	3	1	4		2
Female	25				1		1					
Female	56			2	2		1		2		-	
Female Female	25 35			2	5		3 2	1 2	3 4	1	4	2
Female	45				2		3 4		1	1		
Female Female	36 35		1	3	1	-	4	2	2		-	4
Female	36			- 4	3		9 1	3	4			
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Female	26			2	1		4	3	-	4		2
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Male Male	25	- 3		-	2			3	4			-
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