



## **RURAL CUSTOMERS AND IMPACT OF DIGITALIZATION (ICT) IN CO-OPERATIVE BANKS WITH A FOCUS ON MADURAI DISTRICT CENTRAL CO-OPERATIVE BANK LTD**

**Dr. P. Duraisamy**

*Principal and Head, Department of Commerce, Karan Arts and Science College, Thenmathur, Thiruvannamalai.  
(Affiliated to Thiruvalluvar University, Serkkadu, and Vellore).*

### **Abstract**

*Cooperative bank is an institution established on the cooperative basis and dealing in ordinary banking business. Like other banks, the cooperative banks are founded by collecting funds through shares, accept deposits and grant loans. The major objective of cooperative banks is to promote rural customers. Information and Communication Technology (ICT) is increasingly becoming an invaluable and powerful tool driving economic development of a nation. Corporate entities around the world are considering it as a powerful tool of improving customer service quality, reducing cost of operation, better management of risk and security, reaching global market, increasing productivity and enhancing competitiveness. Therefore, the Co-operative banking system in the country found to be covering behind in adoption of ICT. This paper focuses the awareness and usage level of rural customers in digital facilities provided by MDCCB. And also analysis the problems faced by the rural customers to adopt ICT practices in MDCCB Ltd.*

**Key Words:** *Rural customers, Information Communication and Technology (ICT) and Cooperative Bank (MDCCB).*

### **I. Introduction and History of Cooperative Banks in India**

Information and Communication Technology (ICT) is fast becoming a vibrant channel that drives the nation economy. ICT is becoming increasingly important for the growth of the economy and is an important tool to sustain in the competitive economy Cooperative movement in India was started primarily for dealing with the problem of rural credit. The history of Indian cooperative banking started with the passing of Cooperative Societies Act in 1904. The objective of this Act was to establish cooperative credit societies “to encourage thrift, self-help and cooperation among agriculturists, artisans and persons of limited means.” Many cooperative credit societies were set up under this Act. The Cooperative Societies Act, 1912 recognized the need for establishing new organizations for supervision, auditing and supply of cooperative credit. These organizations were- (a) A union, consisting of primary societies; (b) the central banks; and (c) provincial banks<sup>1</sup>.

#### **1.1 Madurai District Central Co-Operative Bank Ltd**

A District Central Co-operative Bank generally functions within a three-tier structure in almost all the provinces excepting a few provinces where it functions in a two-tier structure. Under a three-tier structure form, it acts as the link between the Apex Bank at the top and societies and individuals the base as its constituent members. The Apex Bank is known as the State Co-operative Bank formed separately for each province affiliating the entire District Central Co-operative Banks one for every district within the province. The DCCBs manage their funds from sources like share capital, deposits, borrowing from State Co-operative Banks and other societies; DCCBs serve as an important link between these societies at the base level and the money market of the country. The Madurai District Central Cooperative Bank Ltd is the branch of The Tamil Nadu State Apex Cooperative Bank. Its IFSC Code is TNSC0010600. From this code, it can make the following major ICT functions.

**NEFT** - National Electronic Funds Transfer is a nation-wide payment system. Under this Scheme, individuals can electronically transfer funds from The Madurai District Central Cooperative Bank Ltd, The Tamil Nadu State Apex Cooperative Bank to any individual having an account with any other bank branch in the country participating in the Scheme. NEFT transactions are settled in batches.

**RTGS** - The acronym 'RTGS' stands for Real Time Gross Settlement, which can be defined as the continuous settlement of funds individually on an order by order basis (without netting). 'Real Time' means the processing of instructions at the time they are received rather than at some later time. 'Gross Settlement' means the settlement of



funds transfer instructions occurs individually. Considering that the funds settlement takes place in the books of the Reserve Bank of India, the payments are final and irrevocable.

**IMPS** - Immediate Payment Service Immediate Payment Service (IMPS) is an instant payment inter-bank electronic funds transfer system in India. IMPS offer an inter-bank electronic fund transfer service through mobile phones. Unlike NEFT and RTGS, the service is available 24/7 throughout the year including bank holidays. Online Banking IFSC codes are generally being used in Online Internet Banking transaction to pay for Best Mutual Funds, Telephone Bills, credit card and various other billers<sup>2</sup>.

The Madurai District Central Cooperative Bank Ltd. is a bank in India. It has 1 branch across India. It provides all the financial services to its customers like saving deposit, fixed deposit, recurring deposit, home loan, car loan, personal loan, PPF account, SMS banking, lockers, net banking, mobile banking, RTGS, NEFT, IMPS, E-Wallet, Atal Pension Yojana, Pradhan Mantri Jandhan Yojana, Pradhan Mantri Suraksha Bima Yojana, Pradhan Mantri Jeevan Jyoti Bima Yojana and many more.

## 2. Impact of Digitalization in Cooperative Banks with Rural Customers

Indian economy constitutes almost 60% of rural population which means majority community. India being a developing economy the technological innovations in cooperative sector effect the rural population in large. The consciousness of understanding and utilization of wide range of digital cooperative banking services is a key factor which apprehends the success of a digital economy. Digital banking is now gaining momentum up with Cooperative Banks being allowed to issue debit cards, credit cards, deploy ATM, open branches and expand the e-services. However, most of the Cooperative Banks are yet to obtain permission/license for Internet and mobile banking; there are several other challenges that Cooperative Banks confront to go digital. 'Customer-education' is also a key for real volumes in digital channels to grow. There exists a knowledge gap in understanding technology and digital channels among the rural customers. What this digitalization has done is transform the cooperative banks into data-driven organizations that better understand its customer, allowing them to provide a hybrid experience for customers seeking time-saving and efficient ways to conduct financial transactions.

## 3. Review of Literature

Nagnga, Stephen Irura (2013), conducted a study on "Technology Adoption and the Banking Agency in Rural Kenya". According to him technology adoption in developing countries are, by nature, problematic, characterized by poor business and governance conditions, low educational levels, and inappropriate infrastructure. Further, the researcher revealed that rural banks in Kenya were offering variety of mobile and agency banking services, but very small proportion of customers who access it, actually use it<sup>3</sup>.

SudhakaraRaoand.D.SuryachandraRao conducted a study o "Urban Co-Operative Banks In India: Survival Strategies in the Era of Globalization and Digitalization". In this study the strategies to be adopted by Urban Co-operative Banks to survive and grow in the dynamic banking system were analyzed by him<sup>4</sup>.

Firose (2012) has studied the performance of all the 14 District Co-operative Banks (DCBs) in Kerala using Data Envelopment Analysis (DEA). The technical efficiency (TE) of all the 14 DCBs based in Kerala has been decomposed into pure technical efficiency (PTE) and scale efficiency (SE). Recommendations for improvement in respect of inefficient DCBs are made<sup>5</sup>.

Reddy (2010) recommended a new approach to banks to reach wider population in rural areas by establishing mobile-banks/representatives/agents who operate on commercial basis rather than just by self-help groups. These agents/representatives work on commission basis and hence self-motivated and cost effective in assisting banks in service provision/deposit mobilization<sup>6</sup>.



#### 4. Research Methodology

##### 4.1 Objectives of this study:

1. To find out the Rural Customers Awareness and Usage level of digital facilities provided by Madurai District Central Co-operative banks.
2. To analysis the problems faced by the rural customer to adopt ICT practices in Madurai District Central Co-operative banks

##### Hypothesis

H<sub>0</sub>: There is no significant relationship between demographical profile of the rural customer and usage of ICT practices in Madurai District central Cooperative Bank Ltd.

##### 4.2 Method of Data Collection and Tools Used

The present study has been conducted on the basis of primary and secondary data. Primary data was collected by means of well-structured questionnaire and was analyzed carefully by using statistical technique like percentage analysis, Chi-Square test and weighted average method. Secondary data was collected from the Newspaper, Journals and Magazines. The collected data are tabulated and analyzed by using various statistical tools like percentage analysis, Chi square Test, Henry Garrett Ranking method and weighted average method.

##### 4.3 Sampling Design

Sampling is a technique or method of selection of samples. Convenient sampling method is used for this study. 75 rural customers of Madurai district central cooperative bank are selected as sample. This study has undertaken in the period from December 2018 to January 2019.

#### 5. Data Analysis and Interpretation

##### 5.1 Demographic profile of the Respondents (Percentage Analysis)

Table-1 Profile of the Respondents

Variables	Parameters	Frequency	Percentage	Cumulative Percentage
Gender	Male	52	69	69
	Female	23	31	100
	<b>Total</b>	<b>75</b>	<b>100</b>	
Age	Below 20	09	12	12
	21-40	36	48	60
	41-60	24	32	92
	Above 60	06	08	100
	<b>Total</b>	<b>75</b>	<b>100</b>	
Education	Illiterate	05	07	07
	Up to school	23	31	38
	Graduate	46	61	99
	Post graduate & Profession	01	01	100
	<b>Total</b>	<b>75</b>	<b>100</b>	
Monthly Income (Rs)	Below 20000	45	60	60
	20000-40000	26	35	95
	40000-60000	04	05	100
	<b>Total</b>	<b>75</b>	<b>100</b>	
Occupation	Govt employee	04	05	05
	Private employee	27	36	41
	Business	08	11	52
	Agriculture	19	25	77
	Student	09	12	89
	House wife	08	11	100
	<b>Total</b>	<b>75</b>	<b>100</b>	

Source: Primary Data



The table No; 4 shows that 52 out of the total of 75 respondents were males, representing approximately 69 percent of the entire sample size, while 23 were females, representing approximately 31 percent of the sample size. It can be deduced that out of the 75 respondents, 09 were below 20 years representing (12%), 36 were between the ages of 21-40 years representing (48%), 24 were between the ages of 41-60 years representing (32%), and 6 were above 60 years representing (8%).

It depicts the education qualification of the respondents, it can be deduced that out of the 75 respondents, 05 of the respondents are illiterate (7%), 23 of the respondents have up to School representing (31%), 46 of the respondents have Graduate representing (61%), 01 of the respondent have Post graduate & Profession representing (01%), It shows the monthly income of respondents, it can be deduced that out of the 75 respondents, 45 were below Rs. 20000 representing (60%), 26 were between Rs 20000-Rs.40000 representing (35%), 04 were between Rs 40000-Rs 60000 representing (05%).

It explains that out of 75 respondents, 4 were Government employee (5%), 27 were private employee (36%), 08 were in business (11%), 19 respondents were in agriculturist (25%), 09 were students (12%) and 08 were housewife (11%).

### 5.2 Awareness Level about Availability of ICT in cooperative bank among Rural Respondents (Weighted Average)

Table-2 ICT Awareness

S.No	Digital Factors	VH	H	M	L	VL	Total	Mean
1.	Internet Facilities	06 (08%)	13 (17%)	10 (13%)	12 (16%)	34 (46%)	75 (100%)	2.3
	Score	30	52	30	24	34	170	
2.	Computerization of branch	22 (29%)	09 (12%)	19 (25%)	05 (07%)	20 (27%)	75 (100%)	3.1
	Score	110	36	57	10	20	233	
3.	Automated Teller machine (ATM)	25 (34%)	24 (32%)	10 (13%)	04 (05%)	12 (16%)	75 (100%)	3.6
	Score	125	96	30	08	12	271	
4.	Credit cards	09 (12%)	17 (23%)	04 (05%)	18 (24%)	27 (36%)	75 (100%)	2.2
	Score	45	43	12	36	27	163	
5.	SMS Alert	16 (21%)	19 (25%)	05 (07%)	11 (15%)	24 (32%)	75 (100%)	2.9
	Score	80	76	15	22	24	217	
6.	Electronic fund transfer	05 (07%)	04 (5%)	02 (03%)	17 (23%)	47 (62%)	75 (100%)	1.7
	Score	25	16	06	34	47	128	
7.	Online Banking	12 (16%)	06 (08%)	03 (04%)	23 (31%)	31 (41%)	75 (100%)	2.3
	Score	60	24	09	46	31	170	
8.	Mobile banking	07 (09%)	10 (13%)	02 (03%)	27 (36%)	29 (39%)	75 (100%)	2.2
	Score	35	40	06	54	29	164	
9.	CCTV	23 (31%)	27 (36%)	07 (09%)	14 (19%)	04 (05%)	75 (100%)	3.8
	Score	115	108	27	28	04	282	
10.	E-passbook	02 (03%)	01 (01%)	06 (08%)	24 (32%)	42 (56%)	75 (100%)	1.6
	Score	10	04	18	48	42	122	

Source: Primary Data, VH-Very High, H-High, M-Moderate, L-Low, VL-Very Low



Table-2 revealed that, the Awareness of rural customers towards ICT practices. Out of 75 respondents most of the respondents having awareness in CCTV (Mean 3.8), ATM (Mean 3.6) and computerization branch (Mean 3.1). Majority of the respondents are not having the Awareness in E-passbook (Mean 1.6) and Electronic fund transfer (Mean 1.7).

### 5.3 Usage Level ICT Practices in Cooperative Bank among Rural Respondents (Chi-Square Test)

**H<sub>0</sub>:** There is no significant relationship between demographical profile of the rural customer and usage of ICT practices in Madurai District central Cooperative Bank Ltd.

**Table-3 Usage Level ICT Practices**

Factors	Level of Usage			Total	Chi-Square (P value)	Result
	Frequently used (N=10)	Rarely used (N=26)	Not used (N=39)			
<b>Gender</b>						
Male	06	20	26	52	0.54 > .05	Not Sig.
Female	04	06	13	23		
Total	10	26	39	75		
<b>Age</b>						
Below 20	03	02	04	09	0.7>0.05	Not Sig.
21-40	04	11	21	36		
41-60	03	10	11	24		
Above 60	-	03	03	06		
Total	10	26	39	75		
<b>Educational Qualification</b>						
Illiterate	01	01	03	05	.003<0.05	Sig.
Up to school	05	14	04	23		
Graduate	04	10	32	46		
Post graduate & Profession	-	01	-	01		
Total	10	26	39	75		
<b>Monthly Income (Rs)</b>						
Below 20000	04	11	30	45	0.043<0.05	Sig.
20000-40000	05	13	08	26		
40000-60000	01	02	01	04		
Total	10	26	39	75		
<b>Occupation</b>						
Govt. employee	02	01	01	04	0.0042<0.05	Sig.
Pvt employee	06	15	06	27		
Business	-	02	06	08		
Agriculture	-	04	15	19		
Student	02	02	05	09		
House wife	-	02	06	08		
Total	10	26	39	75		

**Source:** Primary Data, Level of Sig @5%

On the bases of chi-square test, Table-3 clearly explains that there is no significant relationship between Gender and age of the rural customer and usage of ICT practices in Madurai District central Cooperative Bank Ltd. So in these cases Null hypotheses are accepted. And there is a significant relationship between Educational Qualification, Monthly Income and Occupation of the rural customer and usage of ICT practices in Madurai District central Cooperative Bank Ltd. Therefore, in these cases Null hypotheses are rejected.



#### 5.4 Problems faced by the Rural Customers in using ICT practices of cooperative banks (Henry Garrett Ranking Analysis)

Henry Garrett Ranking Method is used for Rank Analyzes. Percent Position and Garrett value of our ranks are shown in Table -4.

**Table -4- Garrett Value**

Rank	1	2	3	4	5
Percent position: $100(R_{ij}-0.5)/N_j$	$100(1-0.5)/5=$ 10	$100(2-0.5)/5=$ 30	$100(3-0.5)$ /5= 50	$100(4-0.5)$ /5= 70	$100(5-0.5) /5$ = 90
Garrett Value (as per Garrett table)	76	61	50	40	25

$R_{ij}$  = Rank given for the  $i$ th variable by  $j$ th respondents.

$N_j$  = Number of variable ranked by  $j$ th respondents.

**Table-5 Problems faced by Rural Customers**

S. No	Problems	SA	A	N	DA	SDA	Total	Mean	Rank
1.	Lack of awareness	2432 (32)	1342 (22)	200 (04)	40 (01)	400 (16)	4414 (75)	58.85	V
2.	Lack of availability	1596 (21)	1098 (18)	350 (07)	480 (12)	425 (17)	3949 (75)	52.65	X
3.	Lack of co-operation form banker	2204 (29)	1159 (19)	100 (02)	720 (18)	175 (07)	4358 (75)	58.11	VII
4.	No proper guidance	2812 (37)	976 (16)	450 (09)	440 (11)	50 (02)	4728 (75)	63.04	I
5.	Difficult procedure	2052 (27)	1525 (25)	500 (10)	240 (06)	175 (07)	4492 (75)	59.89	IV
6.	Fear of security threats	988 (13)	671 (11)	400 (08)	1080 (27)	400 (16)	3539 (75)	47.19	XIII
7.	Technological illiteracy	2584 (34)	1281 (21)	200 (04)	360 (09)	175 (07)	4600 (75)	61.33	III
8.	Lack of Infrastructure	1444 (19)	1708 (28)	800 (16)	400 (10)	50 (02)	4402 (75)	58.69	VI
9.	Poor network connectivity	1748 (23)	915 (15)	300 (06)	480 (12)	475 (19)	3918 (75)	52.24	XI
10.	High cost of technology	1520 (20)	1098 (18)	500 (10)	840 (21)	150 (06)	4108 (75)	54.77	VIII
11.	No trained staff	1292 (17)	1159 (19)	650 (13)	320 (08)	450 (18)	3871 (75)	51.61	XII
12.	Hidden costs	836 (11)	1037 (17)	150 (03)	760 (19)	625 (25)	3408 (75)	45.44	XIV
13.	Limited services offered	1140 (15)	732 (12)	150 (03)	680 (17)	700 (28)	3402 (75)	45.36	XV
14.	Poor customer responses	1900 (25)	854 (14)	400 (08)	480 (12)	400 (16)	4034 (75)	53.79	IX
15.	Poor CRM	2888 (38)	732 (12)	450 (09)	440 (11)	125 (05)	4635 (75)	61.80	II

Source: Primary Data



Table-5 explains that the order of problem faced by the rural customer towards ICT practices in cooperative bank. As per Henry Garrett Ranking, No proper guidance got first rank, Poor CRM got second rank, Technological illiteracy got third rank, difficult procedure got fourth rank and Lack of awareness got fifth rank. And remaining factors got the succeeding ranks.

## **6. Suggestions**

1. The cooperative banks should adopt the modern methods of banking like internet banking, credit cards, ATM, etc.
2. The cooperative banks should provide proper guidance to rural customer for using digital facilities.
3. The cooperative banks should plan for keeping good Customer Relationship Management
4. The cooperative banks should improve the customer services of the bank to a better extent.
5. They should provide proper technical training to the rural customers.
6. The cooperative banks should increase the level of Awareness to rural customer with regard to ICT Practices.
7. The cooperative banks should create Awareness in Electronic fund transfer and E-Pass book.

## **Conclusion**

In this study revealed that the impact of digitalization in cooperative banks among rural customers. Cooperative banks are needed to improve their transaction in ICT. They have to create more awareness in digital facilities to their staff as well as customer. Most of the rural customers are following the traditional transactions. Cooperative banks are in the position to educate the rural customer for using digital facilities.

## **References**

1. <http://www.economicdiscussion.net>.
2. <https://www.fincash.com/1/ifsc-tnsc0010600-the-tamil-nadu-state-apex-cooperative-bank-madurai-tamil-nadu-the-madurai-district-central-cooperative-bank-ltd>.
3. Nganga, Stephen Irura (2013), "Technology Adoption and the Banking Agency in Rural Kenya", *Journal of Sociological Research*, Vol. 4, No. 1, pp 249-266.
4. B.SudhakaraRao, Dr.D.SuryachandraRao, "Urban Co-Operative Banks In India: Survival Strategies in the Era of Globalization and Digitalization", *IOSR Journal of Business and Management (IOSR-JBM)* e-ISSN: 2278-487X, p-ISSN: 2319-7668.
5. PP 46-49.
6. Firose P. S (2012), Technical Efficiency and its Decomposition in District Co-operative Banks in Kerala: A Data Envelopment Analysis Approach", *South Asian Academic Research Journals (SARJ)*, Vol. 2, Issue 3, March 2012, pp. 21-36.
7. Reddy, A. (2010), "Rural Banking Strategies for Inclusive Growth".