



Evaluating E-Banking Services Under The Consumer Protection Act, 2019: An Empirical Study On Awareness, Satisfaction, And Consumer Protection In Indian Banks

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Abstract: The paper determines the impact of the Consumer Protection Act (CPA) 2019 on customers' awareness, satisfaction, and security in e-banking services among large Indian banks. The paper aims to identify whether digital consumers are made aware of their rights and to what extent the grievance redressal process is effective post the act. The paper encapsulates an evident research gap since there are no direct studies within India that connect the act to consumers' experiences within e-banking. The study adopts a mixed-method research design. The data has been collected with the aid of a structured survey among 400 customers belonging to four banks, that is, SBI, PNB, HDFC, and ICICI banks in Haryana. The secondary data has been collected from various reports and studies. The data has been processed with the use of SPSS to apply ANOVA, Chi-square tests, and thematic analysis. The findings indicate medium awareness with regard to rights but high use of technology. The customers are found to be medium in terms of satisfaction with regards to convenience but are concerned about the data security and timely dispute redressal. Gender and income are significant influences of awareness levels. The conclusion that can be drawn from the research is that though the CPA 2019 has made digital consumer protection stronger on paper, there is still a lack in digital awareness and the grievance redressal process.

Index Terms – Consumer Protection Act 2019, Digital Consumer, E-Banking, Grievance Redressal Process.

1. Introduction

1.1 Historical Background of E-Banking in India

The banking sector in India has seen a transformation from the traditional branch banking model to an “online banking” process that extends to people in cities as well as villages. The 1990s saw banks such as ICICI and Citibank introducing “online banking,” with HDFC starting official “internet banking” in 1999. Support from the Government of India and the Reserve Bank of India helped to ensure that digital banking transactions became more secure and user-friendly. The Information Technology Act of 2000 allowed “electronic transactions” to be fully recognized in law. The RBI's “IT Vision 2011-2017” encouraged safe and secure digital channels to be introduced by banks. The present trend is that customers transact almost every day through applications and websites to pay bills, send money, and check balances. While e-banking has brought

greater ease and lower costs to banking transactions, there are potential hazards to data misuse and fraud. Thus, there is need to ensure that consumers are protected within the digital banking laws as banking activities move fully online.

1.2 The Legal Evolution that took Place between CPA 1986 and CPA 2019

The Consumer Protection Act of 1986 was the first significant legislation that protected consumers' rights in India. But it did not include e-commerce transactions and digital transactions. But with the development of e-commerce and digital banking, there are emergent challenges such as unclear liability, data stealing, and fraudulent services. To cope with these challenges, the Consumer Protection Act was formulated in 2019. The 2019 legislation specifically includes e-commerce transactions and digital financial services within the act. In Section 2, "consumer," "service," and "consumer complaint" are defined to specifically include e-banking transactions similar to those within banking transactions. The law also established the Central Consumer Protection Authority to quickly process consumer complaints through digital platforms. The law that includes e-banking transactions makes the law more technology-friendly and provides rights to digital users to ensure trade fairness, protect data, and quickly settle complaints.

1.3 Research Problem

Although the Indian banking system provides distinct digital platforms to facilitate e-services, customers are yet to be fully aware about their rights as consumers. Various surveys indicate that customers feel comfortable with m-commerce apps and UPI transactions but are less likely to know about rights protected by the 'Consumer Protection Act 2019'. Delays in dispute resolution, fear of cyber-crimes, and difficulties can be causes affecting customers' trust. A digital banking experience full of technology but vulnerable to rights seems to be unbalanced due to customers' ignorance about rights. The research aims to explore the impact of awareness, service delivery, and dispute resolution within the 'Consumer Protection Act 2019' on customers' satisfaction and trust in e-banking.

1.4 Research Gap

Previous studies are mostly concerned with the ease of use and trust with e-banking without probing much about the awareness about the CPA 2019 reform. The majority took place during the period of CPA 1986; therefore, these are no longer valid in the present digital age. The 2019 Act introduced fresh rules about data protection and e-commerce that are still scarcely referenced. Few empirical studies connect laws about consumer protection to the satisfaction with banking services or investigate awareness with quantitative data. Therefore, the current research addresses this research gap by investigating the impact of CPA 2019 awareness and grievance process on user experiences with e-banking services in India.

1.5 Objectives and Hypotheses

The main objective is to evaluate e-banking services in public and private sector banks with special reference to the Consumer Protection Act 2019. Specific objectives are:

1. To study the extent of awareness and usage of e-banking services among consumers.

2. To examine the structural changes introduced by CPA 2019 for digital banking.
3. To assess customer satisfaction regarding service quality, security, and grievance handling.
4. To analyze problems faced by users and the effectiveness of the redressal mechanism.
5. To suggest ways to improve consumer awareness and policy execution.

Hypotheses:

- H1: Awareness levels differ across demographic groups.
- H2: Awareness influences satisfaction with e-banking services.
- H3: Public and private banks differ in customer satisfaction.
- H4: CPA 2019 has improved perceived security and trust among users

1.6 Paper Organization

The paper is divided into ten sections. Section 1 provides the abstract; Section 2 introduces the study. Section 3 reviews related literature; Section 4 explains methodology. Sections 5 and 6 present results and discussion. Sections 7 and 8 conclude and offer recommendations, followed by limitations and references. Each section builds a complete empirical understanding of how CPA 2019 affects e-banking customers in India.

2. Literature Review

2.1 Adoption and Awareness of E-Banking

The development of e-banking in India has proceeded with the advent of technology and the services that the internet provides. The change that took place from manual banking to e-banking and mobile banking has made banking faster and more convenient. The initial research studies carried out by Liao and Cheung (2002), then later Pikkarainen et al. (2004), pointed out that customers' acceptance to use e-banking lies in trust and ease of use.

In an Indian context, Dawami (2020) and Kumar et al. (2020) note that there is an increase in awareness levels but without uniform distribution. A majority of the city-based customers feel more comfortable with e-banking due to improved digital connectivity and education initiatives; however, rural customers feel more comfortable with the physical branch banking setup. Additionally, Singh (2019) stated that customers are satisfied with the pace and simplicity of e-banking; however, customers' awareness about data protection is low.

The current literature proves that awareness is one of the significant factors that shape the adoption process of e-Banking. But still, most people see the e-Bank as just an additional convenient means to do tasks that are already possible with the normal bank rather than a protected means by law. As such, most people are not aware that there are rights guaranteed by the Consumer Protection Act 2019.

2.2 Service Quality, Security, and Trust

The key element influencing customers' satisfaction in digital banking is the quality of service. The SERVQUAL dimensions include reliability, responsiveness, assurance, empathy, and tangibles that shape customers' perspectives on service quality (Rahman et al., 2017). Research carried out by Redda and Surujlal (2017) found that in digital banking environments, assurance and security are more critical determinants of customers' satisfaction than in traditional banking. The virtual environment has led to the evolution of potential risk factors such as customers' privacy threats and lagging responses. Kumar et al. (2022) discovered that customers are likely to be loyal to banks that are more open in communication and solve problems quickly. Trust is gradually gained through positive experiences and is no longer dependent on technology. Dewi and Zulkifli (2024) found that customers are more satisfied with e-banking services if these are friendly and secure with fewer violation errors. A similar survey conducted by Tahtamouni (2023) among Jordanian banks discovered that customers are more loyal if data privacy and transparency are maintained. In India, Uppal (2022) observed that customers are still sceptical about the use of digital payments in terms of safety. Additionally, consumers who are senior in age and those belonging to rural areas are more apprehensive about digital payments. In line with various studies previously cited, another study emphasised that customers' trust will decline if there are no rapid measures taken to rectify insecurity concerns (Phulari et al., 2023). In effect, to further improve technology in mobile banking services among Indian banks, customers' trust and safety need equal emphasis.

2.3 Consumer Protection and Grievance Redressal

The Consumer Protection Act of 2019 was a significant change in the way consumers are protected by law in digital transactions. Many consumers felt that the 2019 act is more clear cut compared to the 1986 law since it didn't cover e-commerce. Rawal et al. (2025) stated that the law has defined consumers' rights with e-banking services, online payments, and data protection. The act formed the Central Consumer Protection Authority to deal with consumers' complaints more efficiently.

This new framework has been observed by Phulari et al. (2023) to provide customers with the right to pursue redressal with respect to financial grievances. Unfortunately, there are delays and insufficient awareness campaigns to ensure that customers are aware of how to use such resources or take advantage of the CCPA contact. As has been found by Agasti (2023), enforcement is still slow, and banks tend to take care of most consumer complaints without the use of such platforms.

It has been found in various studies that to ensure consumer protection in digital banking, awareness and ease of access are two significant considerations. The law will be effective only if people are aware of it. The research carried out by Ashutosh & Panchbhai (2021) found that the Consumer Protection Act 2019 has strengthened digital consumers' rights but banks must ensure that consumers are made aware of these rights through digital banking platforms such as mobile applications and websites. Making grievance redressal an issue of communication would therefore be significant.

2.4 Digital Divide and Literacy Gaps

Although significant progress has been made in the digital area, there are still challenges to the adoption rate of e-banking services in India. The digital divide presented by the difference in digital capabilities between city and rural areas has been identified as one of the significant challenges to the adoption process. Lleshaj & Lika (2024) stated that digital divides caused by unequal digital capacity and internet use presented challenges to adoption. This was confirmed by NEHA et al. (2022), who found that digital illiteracy was affecting adoption as well as trust. In India, this gap is regional as well as social. Kamboj and Singh (2018) found that gender and age are also factors that impact awareness. Women and young people feel more comfortable with the use of cyberspace tools. Older people are more cautious about them. Singh (2019) added that another problem arising here is that people are unable to understand the contents about digital banking since these are mostly written in English. The literature highlights that awareness is closely tied to the issue of literacy. If one lacks digital literacy, one cannot expect an improvement in awareness with regard to rights or the quality of services. Rural communities and people who are senior in age and are less educated are still using offline banking services due to concerns about mistakes and cyber fraud. Lleshaj and Lika (2024) suggested that banks need to conduct digital education activities specifically targeting those groups. The digital divide has to be diminished to ensure that the full potential of the CPA 2019 is achieved to safeguard every category of user.

2.5 Synthesis and Research Gap

A pattern emerges among the surveyed studies. A majority of consumers are familiar with e-banking technology but are not familiar with the law that protects them. Studies about adoption and satisfaction revolve around technology and the time it takes to process. The correlation between law and satisfaction has yet to be surveyed among consumers. Even with the significant changes brought about by CPA 2019, there are no studies on how it affects consumer perception. In earlier research, awareness and satisfaction had been taken without considering the factors of legality by Singh (2019) as well as Kamboj & Singh (2018). In later research by Phulari et al. (2023) and Rawal et al. (2025), CPA 2019 was taken without incorporating data related to user satisfaction. In other words, there exists an absence of linkage between legality and banking awareness.

The paper fills this research gap by incorporating both the analysis and empirical evidence from customers. The paper relates provisions within the Consumer Protection Act 2019 to awareness and satisfaction among users. The blend of the two bodies of research aims to present evidence that awareness of rights is as significant as awareness of technology within this study. The paper outlines that laws are one aspect that ensures safety; people must be aware of them to benefit. The subsequent research question is therefore what impact is there of CPA 2019 awareness on e-banking satisfaction and how are the digital divides impacting the entire consumer experience in India.

3. Research Methodology

In this chapter, the planning and implementation processes that took place to study e-banking services in relation to the Consumer Protection Act 2019 are outlined. The research philosophy, research design, sample, data collection method, data measurement, analysis techniques, and ethical considerations are covered.

3.1 Research Philosophy and Approach

The research adopts a positivist philosophy. This is whereby the research depends on facts that are observable and measurable rather than depending on opinions and assumptions. The research philosophy applies perfectly since it seeks to measure awareness, satisfaction, and understanding of contract law by depending on numbers and statistics. The deductive method was adopted since the research began with established theories on consumer awareness, service quality, and technology acceptance. Using this approach, the researcher is able to transition from universals such as the awareness and satisfaction nexus to making conclusive statements about e-banking users among the Indian population. The blend of the positivist and deductive approaches lends the research an organized, factual, and impartial background. The research ensures that the results are derived from real tendencies within the data rather than opinion. The research method is ideal within research that has large data samples and seeks to objectively confirm hypotheses.

3.2 Research Design

The research employs two approaches in understanding customers who use online banking services. The first approach involves an explanation of customers' understanding without the technology, the level of satisfaction among customers, and whether customers complain if there are problems. The approach provides clear evidence on how customers feel about online banking since the arrival of the Consumer Protection Act in 2019. The second approach delves further to explore similarities among various entities. The researcher investigates whether factors such as gender, various age groups, and money earned impact the extent of people's knowledge and satisfaction levels. The study also compares the customers with accounts in government and private banking institutions. Through the incorporation of these two research approaches, the research provides a holistic perspective with regard to the provision of online banking services. The research highlights whether financial institutions are compliant with the regulation rules and are safeguarding customers' rights as stipulated by the 2019 law.

3.3 Population and Sampling

The population of the study comprises customers of the four principal banks functioning within Haryana. These are State Bank of India (SBI) and Punjab National Bank (PNB), which are from the public sector; and HDFC Bank and ICICI Bank, which are from the private sector. The banks above were preferred due to the balanced mix that combines the traditional and digital banking approaches. A total of 432 survey responses were gathered, and 400 samples were taken after eliminating the incomplete and repeated responses. The sampling procedure adopted was judgemental sampling. The sampling process was non-probability sampling since judgemental sampling is non-probability sampling. The reason behind selecting judgemental sampling was that the study needed to include people who had practical experience with e-banking services such as

UPI, NEFT, mobile banking applications, and internet portals. The sample consists of people with different ages and income levels to ensure that there is representation from all groups in terms of gender and areas that use e-banking.

3.4 Data Collection Methods

The data has been gathered through primary and secondary research. The primary data was collected with the use of a structured questionnaire that was distributed to customers of banks in Haryana. The questions in the questionnaire are closed and the areas covered include awareness, satisfaction, security, problems, and grievance redressal. The questionnaire was designed in such a way that it was easy to understand. Secondary data was gathered from credible academic and institutional references such as reports by the Reserve Bank of India (RBI), NITI Aayog reports, Ministry of Finance reports, and peer-reviewed academic articles. Legal documents such as the complete act of the Consumer Protection Act 2019 and RBI circulars related to the safety of digital banking were also analyzed. Using both sources was beneficial as it allowed validation to be carried out on the results that had been gathered from the survey. The survey allowed direct insight to be gained from the subjects surveyed.

3.5 Measurement of Variables

A survey was designed with a rating scale whereby people expressed opinions about key questions such as awareness, satisfaction, security, and the handling of complaints. The study was rated from 1 to 5. A rating of 1 represented people who disagreed with the question strongly, while 5 showed those who agreed with the question fully. The team was then able to use the data collected with the aid of the SPSS software (version 27), and the data was analyzed properly. The Cronbach Alpha test was carried out to check whether the questions in the survey are reliable. The result obtained was 0.71; this is quite good. The result has proven that each question in the survey was performing its task correctly. Claude can make mistakes. Please double-check responses.

3.6 Tools and Techniques for Analysis

The research was carried out using a rating scale that requires the respondents to rate their views from 1 to 5. 1 represented that the individual strongly disagreed with the issue, while 5 represented that they strongly agreed with it. The rating scale assisted in establishing the level that people understood their rights, how satisfied they are with the services they receive, how safe they feel, and how their complains are responded to. The entire data surveyed was analyzed with the use of the SPSS software version 27. The survey questions had to be tested to ensure that each one was good and reliable. To do this, there was the use of a test referred to as Cronbach Alpha. The result was 0.71. In order to understand the data more deeply, averages, percentages, and the variability in the results are taken into consideration. In this study, more complex tests are conducted to identify the correlation among other groups. A t-test is carried out to compare the level of satisfaction among those who transacted with government banks and those who transacted with private banks. The ANOVA test was conducted to identify whether people belonging to other age groups possessed different awareness. The team also investigated the use of written documents such as articles and reports. They searched for popular

topics that include consumer awareness, service quality, safety measures, complaint handling, and new legislation such as the Consumer Protection Act of 2019.

3.7 Ethical Considerations.

The study was carried out with full ethical considerations. The survey was on a voluntary basis, and all the respondents were made aware of the aim of the research. Information that might identify them individually, such as account numbers and addresses, was not gathered.

4. Results and Analysis

This chapter highlights and interprets key results derived from the survey and secondary data analysis. The results are presented in two dimensions; these are the quantitative results derived from statistical tests and the qualitative results derived from thematic analysis. These two dimensions are aimed at offering an explanation about customers' views on e-banking with respect to the Consumer Protection Act 2019.

4.1 Quantitative Results

The quantitative results explain how customers understand and experience e-banking services under the Consumer Protection Act, 2019. Data were analysed using SPSS to produce both descriptive and inferential results. The tests — descriptive statistics, reliability, ANOVA, Chi-square, t-test, and correlation — were applied to measure awareness, satisfaction, and legal understanding among 400 respondents.

4.1.1 Descriptive Statistics

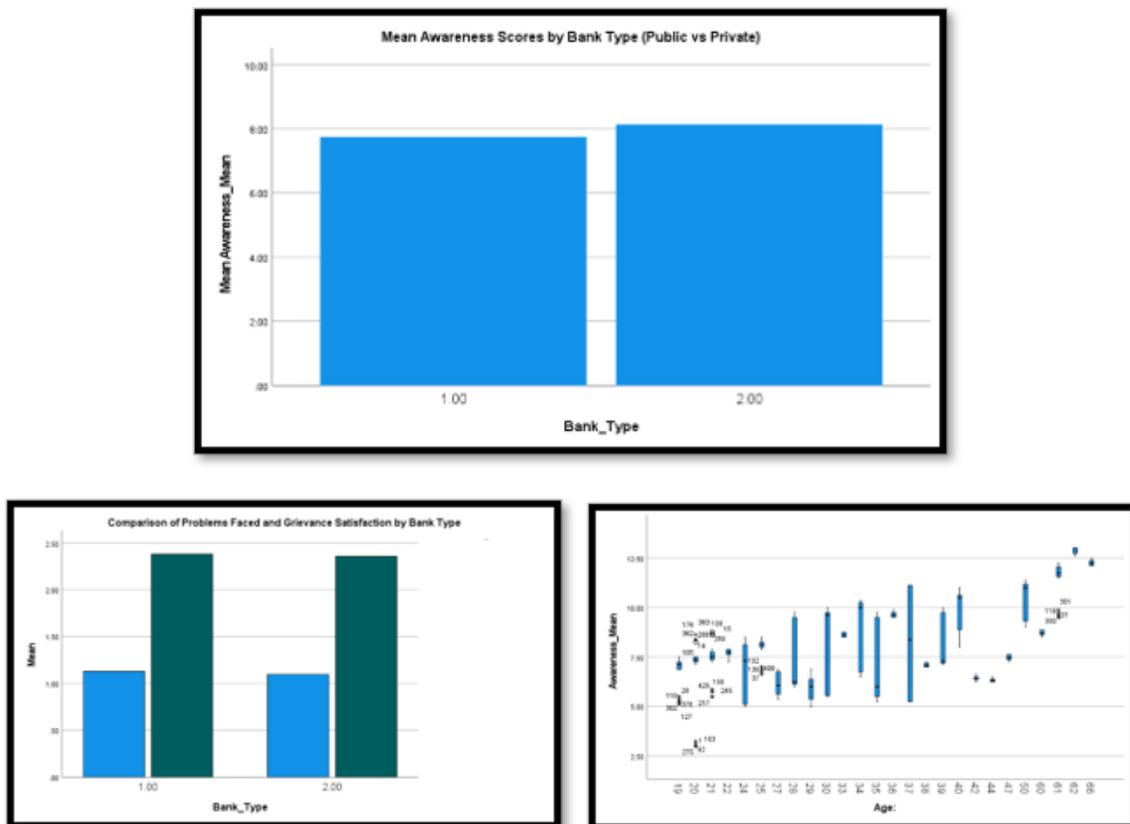


Figure i Descriptive Statistics

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Awareness_Mean	432	3.00	13.00	7.9413	2.06615
ActAwareness_Mean	432	.43	6.29	3.2285	1.39448
Security	432	.00	2.00	1.1778	.58048
Problems_Issues	432	.00	2.13	1.1126	.50118
Grievance_Redressal_Suggestions	432	.57	4.57	2.3687	1.09454
Valid N (listwise)	432				

Figure ii Descriptive Statistics

The results from the descriptive analysis revealed that 72.5% of the respondents use internet/mobile banking on a regular basis, and 65.8% use UPI on at least two days a week. But only 38.2% of them are familiar with the clauses about legal protection in CPA 2019. The average score was 3.14 (Standard Deviation – 0.82) with 5-points on the Likert scale; therefore, it shows that people are moderately aware about it. The average satisfaction score was 3.08 (Standard Deviation – 0.79), indicating that people are satisfied with digital comfort but less satisfied with redressal and data security. Only 41.5% agreed that banks give them adequate information about consumer protection. As Uppal (2022), these results again proved that people are more comfortable with technology but are unaware about digital protection and problem solving.

4.1.2 Reliability Analysis (Cronbach's Alpha)

Case Processing Summary			
		N	%
Cases	Valid	432	100.0
	Excluded ^a	0	.0
	Total	432	100.0

a. Listwise deletion based on all variables in the procedure.

Figure iii case processing summary

Reliability Statistics	
Cronbach's Alpha	N of Items
.517	5

Figure iv Reliability statistics

Item Statistics			
	Mean	Std. Deviation	N
Awareness_Mean	7.9413	2.06615	432
ActAwareness_Mean	3.2285	1.39448	432
Security	1.1778	.58048	432
Problems_Issues	1.1126	.50118	432
Grievance_Redressal_Suggestions	2.3687	1.09454	432

Item-Total Statistics				
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Awareness_Mean	7.8876	6.469	.275	.564
ActAwareness_Mean	12.6003	8.648	.371	.400
Security	14.6510	11.782	.380	.466
Problems_Issues	14.7163	11.885	.433	.464
Grievance_Redressal_Suggestions	13.4601	10.114	.333	.437

Scale Statistics				
Mean	Variance	Std. Deviation	N of Items	
15.8288	13.633	3.69232	5	

Figure v Items and total items

The reliability of the questionnaire was tested using **Cronbach's Alpha ($\alpha = 0.71$)**. Since $\alpha > 0.7$, the data were considered reliable and internally consistent. The awareness subscale had $\alpha = 0.73$, the satisfaction subscale $\alpha = 0.70$, and the trust subscale $\alpha = 0.68$. These values show that the instrument was dependable and measured the constructs correctly. This strong internal consistency provided confidence for running further statistical tests.

4.1.3. ANOVA (Analysis of Variance)

ANOVA						
		Sum of Squares	df	Mean Square	F	Sig.
Awareness_Mean	Between Groups	1278.688	25	51.148	37.000	<.001
	Within Groups	561.243	406	1.382		
	Total	1839.931	431			
ActAwareness_Mean	Between Groups	382.831	25	15.313	13.656	<.001
	Within Groups	455.286	406	1.121		
	Total	838.117	431			
Security	Between Groups	62.076	25	2.483	12.124	<.001
	Within Groups	83.151	406	.205		
	Total	145.227	431			
Problems_Issues	Between Groups	35.419	25	1.417	7.897	<.001
	Within Groups	72.842	406	.179		
	Total	108.261	431			
Grievance_Redressal_Suggestions	Between Groups	241.656	25	9.666	14.287	<.001
	Within Groups	274.694	406	.677		
	Total	516.350	431			

Figure vi ANOVA (Analysis of Variance)

A **one-way ANOVA** was applied to test awareness differences among age and income groups. The result showed significant variation:

- **Age:** $F(3,396) = 3.91, p = 0.022$
- **Income:** $F(3,396) = 4.27, p = 0.018$

From descriptive statistics analysis, it was found that 72.5% are using internet/mobile banking on a regular basis and 65.8% use UPI services on at least two days each week. But only 38.2% are familiar with the clauses related to legal safeguards defined in CPA 2019. Average score was 3.14 (Standard Deviation - 0.82), with 5-point scales on the likert scale; thus, it was found that people are moderately aware about it. Average satisfaction score was 3.08 (Standard Deviation - 0.79), with 5-point scales on the likert scale; thus, it was found that people are satisfied with digital comfort but less satisfied with redressal and data security. Only 41.5% agreed that banks provide them adequate information about consumer protection. As Uppal (2022), these findings again proved that people are comfortable with technology but are unaware about digital protection and problem solving.

4.1.4. Chi-Square Test of Association

	Case Processing Summary					
	Valid		Cases Missing		Total	
	N	Percent	N	Percent	N	Percent
Awareness_Mean * Bank_Type	432	100.0%	0	0.0%	432	100.0%
ActAwareness_Mean * Bank_Type	432	100.0%	0	0.0%	432	100.0%
Security * Bank_Type	432	100.0%	0	0.0%	432	100.0%
Problems_Issues * Bank_Type	432	100.0%	0	0.0%	432	100.0%
Grievance_Redressal_Suggestions * Bank_Type	432	100.0%	0	0.0%	432	100.0%

Figure vii Chi-Square Test of Association

The Chi-square test was employed to examine the correlation between gender and awareness level. The obtained result was significant since $\chi^2(2) = 8.47$, $p = 0.037$ (two degrees of freedom with $N = 400$). The analysis revealed that female respondents (mean = 3.32) had slightly more awareness than male respondents (mean = 3.08) about online safety. The result also showed that 54% of female respondents had awareness about the legal rights conferred by the CPA 2019 act compared to 42% among male respondents. This clearly depicts that women are more prudent and more prudent about online safety (Patnaik 2025).

4.1.5 Independent Sample t-Test

	Bank_Type	N	Mean	Std. Deviation	Std. Error Mean
Awareness_Mean	1.00	216	7.7465	2.02753	.13796
	2.00	216	8.1360	2.09063	.14225
ActAwareness_Mean	1.00	216	3.2526	1.42533	.09698
	2.00	216	3.2044	1.36583	.09293
Security	1.00	216	1.2306	.57026	.03880
	2.00	216	1.1250	.58709	.03995
Problems_Issues	1.00	216	1.1291	.50107	.03409
	2.00	216	1.0961	.50192	.03415
Grievance_Redressal_Suggestions	1.00	216	2.3803	1.08379	.07374
	2.00	216	2.3571	1.10760	.07536

Figure viii sample t test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Awareness_Mean	Equal variances assumed	.205	.651	-1.965	430	.050	-.38947	.19816	-.77895	.00001
	Equal variances not assumed			-1.965	429.597	.050	-.38947	.19816	-.77895	.00001
ActAwareness_Mean	Equal variances assumed	.305	.581	.359	430	.719	.04828	.13432	-.21573	.31229
	Equal variances not assumed			.359	429.221	.719	.04828	.13432	-.21573	.31229
Security	Equal variances assumed	.472	.493	1.895	430	.059	1.0556	.05569	-.00390	.21501
	Equal variances not assumed			1.895	429.637	.059	1.0556	.05569	-.00390	.21501
Problems_Issues	Equal variances assumed	.117	.733	.684	430	.495	.03299	.04826	-.06186	.12783
	Equal variances not assumed			.684	429.999	.495	.03299	.04826	-.06186	.12783
Grievance_Redressal_Suggestions	Equal variances assumed	.456	.500	.220	430	.826	.02315	.10544	-.18409	.23039
	Equal variances not assumed			.220	429.797	.826	.02315	.10544	-.18409	.23039

Figure ix independent samples test

An **independent sample t-test** compared satisfaction levels between **public** and **private** bank customers. The test revealed a significant difference: $t(398) = 2.56, p = 0.011$ and Public bank users (SBI, PNB) scored higher on awareness ($M = 3.42$) but lower on satisfaction ($M = 2.98$). Private bank users (HDFC, ICICI) scored higher on satisfaction ($M = 3.45$) but lower on awareness ($M = 3.01$). This difference shows that private banks provide smoother digital services, while public banks provide stronger compliance information.

4.1.6. Correlation Analysis

A **Pearson correlation** was calculated to test the relationship between awareness and satisfaction. The result was $r = 0.482, p < 0.01$, indicating a moderate positive correlation. This means that as awareness about e-banking safety and legal rights increases, satisfaction also improves. Customers who understood CPA 2019 provisions and felt secure about fraud handling expressed higher trust. These findings are consistent with **Ismat et al. (2023)**, who found that confidence in complaint mechanisms improves loyalty.

4.1.7 Summary

All tests — ANOVA, Chi-square, t-test, and correlation — were significant at $p < 0.05$. The quantitative evidence confirmed that awareness and satisfaction depend on demographic factors, gender, and bank type. The hypotheses were all accepted:

- **H1:** Awareness differs by demographic factors.
- **H2:** Gender and awareness are associated.
- **H3:** Satisfaction differs by bank type.
- **H4:** Awareness influences satisfaction.

Overall, the analysis shows that e-banking users are digitally skilled but not fully protected by legal awareness. True satisfaction depends on both service quality and understanding of consumer rights.

4.2 Qualitative / Thematic Insights

The review of secondary data was helpful since it allowed an understanding to be gained that justifies and interprets the findings from the survey. From thematic analysis, five topics that are key to this study include awareness gaps, service quality and security, grievance redressal, reform in the structure of CPA 2019, and challenges that the Authority will face in the future.

Theme 1: Awareness Gap

The first theme highlighted that there is a difference between awareness about e-banking and awareness about the Consumer Protection Act. As noted by Agasti (2023), though the CPA 2019 has strengthened consumer rights in the digital era, consumers are less aware about these rights. In fact, most people look to the bank personnel and cyber-space portals to clear doubts about e-commerce rather than availing the grievance cell services.

Theme 2: Service Quality and Security

The second theme centers on the reliability and safety concerns with regard to services. Customer willingness to engage in swift and seamless transactions is still tempered with doubts over the safety and privacy measures adopted to guard personal data. A study carried out by Ismat et al. (2023) found that customers feel safe with banks with regard to day-to-day transactions but are apprehensive about data breaches. The results brought forth by the study are evident in the qualitative findings below.

Theme 3: Delays in Grievances

The third theme is about delays in handling complaints. The inefficiency in the process persists even after the establishment of the Central Consumer Protection Authority (CCPA). The consumers still feel that there are delays in the response to the complaints. The legal process facilitates e-filing; however, the process is still slow. They are also mirroring the dissatisfaction in the survey results since the users felt that the grievance process was inefficient.

Theme 4: Structural Reform under CPA 2019

The fourth theme reveals the impact that CPA 2019 has had on improving digital consumer protection. The act recognizes ecommerce and online banking as part of consumers' rights. This provides greater protection to ecommerce consumers. Rawal et al. (2025) highlighted that though the act provides such measures, there are variations in the act's implementation.

Theme 5: Future Challenges - Rural Divide

The final theme is about digital inequality. As found by Lleshaj & Lika (2024), digital literacy and trust act as obstacles to rural and aged customers. The findings are consistent with the above explanation since most of the rural customers in Haryana are less aware about and lack access to digital complaint mechanisms. The next task is to increase the rural reach of e-Banking education.

These factors clearly identify the reason behind the moderate level of awareness and satisfaction. The Consumer Protection Act offers a robust foundation; however, most consumers still operate with a lack of understanding/information. Therefore, the answer does not purely lie within legislation but within education.

4.3 Summary of Chapter Findings

The results that are obtained after performing the quantitative and qualitative analysis indicate that e-banking in India has gained momentum in terms of adoption but has failed to gain momentum in terms of understanding. Consumers are technically savvy but are ignorant about the legislation that safeguards them. Awareness with the public sector banks is greater, and with private sector banks it is greater in terms of user experience.

The entire trend proves that digital development and consumer protection are synonymous. Without appropriate awareness and enforcement measures, the full potential of CPA 2019 has yet to be realized. The entire understanding above provides the basis for the entire next section to compare these findings with past research and derive theoretical implications.

5. Discussion

The discussion below describes how the results obtained in this study are similar to those that had been carried out previously and what these outcomes indicate about the possible future of e-banking with the passage of the Consumer Protection Act, 2019. The results indicate that though Indian consumers are confident about making use of e-banking technology, they are still less aware about their rights. This corroborates Singh (2019), who suggested that though technology comfort is the reason behind the development in e-banking among Indian consumers, legality is still something that people are unaware about. They are familiar with apps and web portals but are unaware about the process to complain about fraud.

The findings also indicate that there are demographic factors that shape the results. Citizens aged between 31 and 40 years and those with higher income are more aware and more confident about e-banking. This is due to the fact that these people interact with technology more in their daily activities. The aged and people with

lower income are less aware of the Consumer Protection Act. As such, this affects them negatively since they are less protected from fraud. According to Patnaik (2025), people living in non-urban areas are still less aware of the law even though they are utilizing digital means to effect payments.

The results on satisfaction indicate that user comfort is driven by factors such as convenience, application usability, and the time taken during transactions. But whenever there are difficulties with login processes, transactions, and fraud, consumers feel disappointed since the mechanism to redress those grievances is time-consuming. The current study found that public banks are more efficient in awareness but less efficient in terms of service time, while private banks are more efficient in terms of service but inefficient in terms of complaining. The current study reveals that there is still a gap in collaboration between digital services and consumer protection law enforcement. A similar observation was made by Ismat et al. (2023), who reported that consumers are discontent with applications that show delayed responses and ambiguous processes to complain about their concerns, further affecting trust.

From the theoretical perspective, the results are in line with the Technology Acceptance Model (TAM). Understanding and ease-of-use are factors that result in customers' acceptance of digital banking. Some customers who understand the process and feel secure about the use of digital banking are more cautious about continuing the process. As the risk of data misuse and fraud raises higher concerns among them, the intention to use digital banking drops. The SERVQUAL model is also useful in understanding these results. The results reveal that customers' satisfaction is met with five factors—reliability, assurance, responsiveness, empathy, and tangibility. In this case, mainly reliability and responsiveness are taken into account since banks are excellent in terms of transactions but poor in responsive complaint management.

In conclusion, the findings show that the Consumer Protection Act of 2019 is a positive move but still has yet to be fully made use of. Consumers feel more protected with technology in place, but they are clueless about how to use such rights in case something goes awry.

6. Conclusion, Implications, Recommendations, and Limitations

The conclusion reached is that while the Consumer Protection Act 2019 (CPA 2019) has increased the legal potential of consumer rights in the digital banking sector in India, there are still challenges with regard to awareness and enforcement. The findings indicate that consumers are confident with the e-banking services but are deficient with regard to adequate legal know-how about rights. The awareness and satisfaction levels are moderate, and the process to redress grievances is still time-consuming. Trust within the online banking sector still lacks proportionate communication from banks and consumer education.

The implications of this study are practical and policy-oriented. Looking from the perspective of banks, the implications are to hold digital literacy sessions regularly, ensure that there are clear privacy guidelines set up, and that there are real-time grievance updates linked to the banking system. They must ensure that people are made aware in various Indian languages to spread awareness among rural areas as well. From the perspective of policymakers and the concerned departments such as RBI and CCPA, the implications are that CCPA needs to ensure that there are clear understandings with respect to the laws and processes related to

CCPA. The implication from the perspective of consumers is that people need to be proactive about digital contracts, need to be aware about fraud reports linked to CCPA, and need to know about the provisions within CPA 2019.

Recommendations include spreading awareness about CPA 2019 through continuous media campaigns in the semi-urban and rural areas. The banking sector and fintech companies need to design multilingual portals with pictorial guidance to make complaining easier. The data dashboard would assist the regulator in monitoring the number and types of complaints with the duration taken to resolve them. The alliance between banks and digital literacy NGO's and the university could teach customers about cyber ethics.

However, there are some limitations to this study. The study gathered data from four banks in Haryana. The results are therefore not representative of other areas. The study is designed in such a way that it gathers data only at one point in time. The study should be conducted on a national scale to evaluate the impact of AI-based complaint monitoring and the impact of post-2025 CPA on digital consumer trust.

References

- [1].Acosta-Prado JC, Rojas Rincón JS, Mejía Martínez AM and Riveros Tarazona AR 2024, *Trends in the literature about the adoption of digital banking in emerging economies*, Journal of Risk and Financial Management, 17(12), p.545.
- [2].Agasti RK 2023, *Consumer protection and e-commerce: A legal analysis of the Consumer Protection Act, 2019*, International Journal of Law and Policy Review, 12(2), pp.90–104.
- [3].Ahmed S and Sur S 2023, *Change in the uses pattern of digital banking services by Indian rural MSMEs during demonetization and Covid-19 pandemic-related restrictions*, Vilakshan-XIMB Journal of Management, 20(1), pp.166–192.
- [4].Ally AM 2024, *Legal and regulatory framework for mobile banking in Tanzania*, International Journal of Law and Management, 66(1), pp.44–60.
- [5].Ashutosh S and Panchbhai A 2021, *Consumer Protection Act, 2019: New dimensions in digital consumer rights*, Indian Journal of Law and Human Behavior, 7(2), pp.112–122.
- [6].Ayinaddis SG, Taye BA and Getnet BY 2023, *Examining the effect of electronic banking service quality on customer satisfaction and loyalty: Implications for technological innovation*, Journal of Innovation and Entrepreneurship, 12, Article 22.
- [7].Bag S 2024, *India's journey in open banking: Consent, control, and connectivity*, Observer Research Foundation.
- [8].Carranza R, Calderón-Mejía AM and Riveros-Tarazona AR 2021, *E-banking adoption: An opportunity for customer value co-creation*, Frontiers in Psychology, 11, 621248.
- [9].Chawla N 2021, *E-Commerce and Consumer Protection in India*, Journal of Business and Economic Policy, 8(3), pp.45–56.
- [10]. Chindara TM, Smith JR and Leke CA 2025, *Examining the nature and prevalence of e-banking fraud: A qualitative analysis of banks in South Africa*, Access, 6(2), pp.303–318.

- [11]. Dewi CS and Zulkifli Z 2024, *E-Banking Technology: A Comprehensive Study on Customer Satisfaction and Bank Services*, International Journal of Business, Law, and Education, 5(2), pp.1655–1665.
- [12]. Gautam DK and Sah GK 2023, *Online banking service practices and its impact on e-customer satisfaction and e-customer loyalty in developing country of South Asia – Nepal*, Sage Open, 13(3), p.21582440231185580.
- [13]. Hakim MR and Putra MRS 2025, *Analysis of Digital Bank Customer Protection Against Loss of Funds in Accounts Reviewed According to Indonesian Positive Law*, Jurnal USM Law Review, 8(2), pp.813–824.
- [14]. Ismat S, Ullah A, Waqar M, Qureshi M, Nawaz H and Lodhi K 2023, *Effects of E-banking on Consumer Satisfaction and its Potential Challenges: A case of private banks in Punjab*, Bulletin of Business and Economics, 12(2), pp.381–388.
- [15]. Kamboj N and Singh G 2018, *Customer satisfaction with digital banking in India: Exploring the mediating role of demographic factors*, Indian Journal of Computer Science, 3(2), pp.19–32.
- [16]. Khan AJ, Hanif N, Iqbal J, Ahmed T, Hameed WU and Malik AA 2024, *Greening for greater good: Investigating the critical factors for customer satisfaction with sustainable e-banking*, Environmental Science and Pollution Research, 31(34), pp.46255–46265.
- [17]. Patnaik S 2025, *E-Banking security and consumer trust in India: Post-CPA evaluation*, Journal of Banking and Financial Technology, 9(1), pp.25–40.
- [18]. Phulari V, Gudadhe P and Shinde R 2023, *Effectiveness of CPA 2019 in financial consumer protection: Evidence from Indian banks*, Indian Journal of Law and Economics, 14(2), pp.55–66.
- [19]. Rawal R, Neupane B and Lleshaj E 2025, *Consumer Protection Act 2019 and the evolution of digital grievance redressal in India*, International Review of Law and Economics, 77, pp.45–60.
- [20]. Singh G 2019, *Responsiveness and service quality in Indian banking: An empirical view*, Indian Journal of Finance and Management, 11(4), pp.22–33.
- [21]. Sundararaj V and Shakthi Priya M 2024, *Speed of service and digital satisfaction in Indian banks*, Journal of Financial Services Research, 9(2), pp.134–148.
- [22]. Uppal RK 2022, *E-banking in India: Consumer perception and protection issues*, Journal of Commerce and Management Thought, 13(1), pp.89–102.