

Bridging the Trust Gap: The Interplay of Operational Efficiency and Digital Customer Satisfaction in India's Non-Banking Financial Sector

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ABSTRACT

The digital revolution is having a profound impact on the customer service that India's Non-Banking Financial Companies (NBFCs) provide. Finding out what makes digital service delivery so special for customers and earning their confidence is the driving force behind this study. Research participants in the Guntur District include both customers (N = 899) and employees (N = 147). Regulatory compliance include fair procedures and transparency; customer results include trust and satisfaction. The research uses multiple regression analysis to examine the mediating effect of operational efficiency in this link. Regulatory compliance directly contributes to the formation of faith in digital platforms, while operational efficiency significantly impacts the level of consumer contentment, according to the study. The results show that seamless digital operations, transparent practices, and strong compliance frameworks are strategically important for promoting adoption and use of digital services by non-bank financial companies (NBFCs) and for fostering financial inclusion. The results have a realised margin of error of about $\pm 3.27\%$. Particularly in markets that are semi-urban or rural, this is crucial.

Keywords: Digital Transformation, Customer Satisfaction, Trust, Operational Efficiency, Regulatory Compliance, NBFCs, Financial Inclusion

1. Introduction

Customers' interactions with India's Non-Banking Financial Companies (NBFCs) have been dramatically altered by the industry's fast digitisation. Mobile apps, rapid lending, and automated customer service have been used by NBFCs to broaden financial access in India's varied market, spurred on by the government's Digital India plan and regulatory backing for programs like UPI and eKYC. Customers should expect unprecedented ease, quickness, and participation as a result of this change. Trust from customers is more important than ever before due to the additional vulnerabilities brought about by the move to digital platforms. Regulators have brought attention to concerns about data security, algorithmic transparency, and ethical digital lending practices. The Reserve Bank of India (RBI) in particular has issued rules to safeguard customers. Customers' perceptions of the digital platform's compliance (e.g., transparency regarding fees and data security) and the platform's

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underlying operational efficiency (e.g., transaction speed and accuracy) are more important than the interface's aesthetics when it comes to creating a good digital experience. While there is a lot of evidence in the existing literature that digital banking is more user-friendly and thus more satisfying for customers, very little is known about how institutional operational performance (such as reduced errors or faster processes) in the context of non-bank financial companies (NBFCs) leads to quantifiable customer satisfaction and trust, particularly in non-metropolitan regions. Few studies have examined the connection between digitalization's internal efficiency improvements and satisfaction from the outside. From the perspective of the consumer, this research aims to statistically assess this vital relationship. The purpose of this paper is twofold. First, it will use a large sample of 899 customers from the Guntur District to determine how customers feel about digital compliance (e.g., security, transparency) and key operational efficiency outcomes (e.g., reduced errors, faster disbursement). Second, it will model how these factors affect overall customer satisfaction and the crucial outcome of trust.

2. Review Of Literature

Customer outcomes, or the "demand side" of digital transformation, are the subject of this section's empirical research analysis. Various factors, including service quality, operational performance, and regulatory transparency, impact these results. Customer satisfaction with digital financial services is positively impacted by transaction speed, convenience of use, and usability, according to empirical research (Singh & Dey, 2017; Gupta & Mehta, 2020). In semi-urban regions in particular, NBFC customers benefited from the time savings and ease of transactions made possible by digital wallets and mobile apps (Verma & Jain, 2016; Sharma & Rao, 2024). In order to increase the availability of loans to underserved communities, such as migrant workers, non-bank financial companies (NBFCs) have turned to digital platforms (Agarwal, Chatterjee, & Agarwal, 2017; World Bank, 2018). The underlying service delivery system's dependability and speed are directly proportional to customer satisfaction. In order for the consumer to have a favourable experience, the operational efficiency benefits that the NBFC achieves must be evident to them. High service quality and system dependability are seen externally as improvements to internal processes, such as automation that eliminated documentation mistakes and bottlenecks (Bansal & Gupta, 2018; Saxena & Sharma, 2021). (Verma & Mishra, 2021). Fast disbursement and shorter loan turnaround times are seen by customers as responsiveness and additional value, leading to higher satisfaction levels (Narayan & Bhatia, 2018; PwC, 2022).

Research Gap

The literature strongly implies a link, but there is a clear need for high-precision empirical work that **quantitatively models the full causal chain**: from perceived Operational Efficiency and Compliance Transparency to the final customer outcomes of Satisfaction and Trust. By analyzing a large-scale customer dataset (N=899) from Guntur District, this study provides the required statistical power and regional focus to model the mediating role of efficiency and the direct role of transparency in building trust in a critical, under-represented market segment.

2.5. Research Problem

The rapid digitalization of the NBFC sector has revolutionized service delivery, yet a comprehensive understanding of how these changes are perceived by the end-user remains limited, especially in regional markets like Guntur District. Existing literature confirms that convenience is a driver of initial digital adoption, but the core research problem lies in the challenge of sustained engagement.

3. Methodology

The primary emphasis was on the customer perspective, also known as the demand-side. The main emphasis of the study in Guntur, Andhra Pradesh, was respondents from the district's urban, semi-urban, and rural marketplaces. As a target market, we anticipated around 30,000 frequent users of digital NBFC services. We achieved high levels of representativeness by using Stratified Random Sampling and clustering the data according to NBFC category. The survey received 899 completed customer surveys, with a response rate of 90.2% and a margin of error of about $\approx 3.27\%$ with 95% confidence. This was lower than the expected sample size of 908 (calculated using Cochran's formula (1977) and enhanced for subgroup analysis). The research aimed to recruit 455, or all staff and management, from registered NBFCs in the area. We used a Stratified Random Sampling technique that equally dispersed participants over major NBFC categories to ensure that the sample was reflective of the organization's region. According to Yamane's (1967) estimate with a 95% confidence level, the study yielded 147 completed questionnaires from institutional respondents, which is below the minimum sample size of 213. A standardised questionnaire was sent to customers, who were asked to rate the following: service quality, security, transparency, satisfaction, and confidence. Such information served as the main source. The main focus of the data collection was to get information from consumers in Guntur District who were using digital NBFC services. This was done via the use of a structured quantitative questionnaire. Careful consideration went into the instrument's design so that it could assess important customer-centric factors, most often measured using a five-point Likert scale, such as digital service quality, perceived operational efficiency, trust, and satisfaction (H₃, H₄, H₅). Using Stratified Random Sampling, we reached out to several NBFC branches in urban, semi-urban, and rural locations to get a good cross-section of our client base, which is believed to be over 30,000 strong. Using SPSS, we tested the hypothesised associations relating customer outcomes by analysing the large customer dataset (n=899). Customers' demographics, opinions on service quality, and levels of trust were summarised using initial descriptive statistics. Regression Analysis was the main tool for inferential testing. All 899 participants voluntarily and informedly gave their consent, their answers were kept completely anonymous, and the dataset was securely handled and used exclusively for the doctoral research's declared academic purpose.

Study of Objectives

To evaluate **customer satisfaction, trust, and digital adoption behaviour** in relation to NBFCs' technology-enabled services, focusing on both urban and semi-urban borrowers in Guntur District.

1. To analyze the interrelationship between customer perception of **operational efficiency** and **compliance transparency** with final outcomes such as **satisfaction** and **trust**.
2. To identify the influence of **digital literacy and accessibility** as a moderating factor on the relationship between digital service quality and customer satisfaction in semi-urban and rural areas.
3. To propose customer-centric recommendations for NBFCs and policymakers aimed at enhancing service quality, building trust, and promoting inclusive digital financial adoption.

Hypotheses

Based on the customer-centric objectives and the observed market dynamics, the study proposes the following hypotheses to empirically test the customer outcomes of digital transformation:

H₃: Customer Satisfaction Hypothesis

Digital service quality—including accessibility, usability, and data security—has a significant positive effect on customer satisfaction and trust in NBFC digital platforms.

H4: Interrelationship Hypothesis

There is a significant correlation between regulatory compliance, operational efficiency, and customer satisfaction among digitally transformed NBFCs.

(Rationale: Effective regulatory adherence (transparency) and operational improvements (speed/accuracy) experienced by the customer together foster confidence and institutional credibility (PwC India, 2022; NASSCOM, 2022).)

H5: Moderation Hypothesis

The relationship between digital transformation and customer satisfaction is moderated by the level of digital literacy and accessibility among customers in semi-urban and rural areas.

(Rationale: Limited digital literacy and infrastructure constraints can weaken the benefits of digital transformation on end-user experience (World Bank, 2018; NITI Aayog, 2024).) A systematic quantitative questionnaire was used to get data from NBFC consumers who used digital services. The questionnaire was designed to capture demand-side impressions. Digital Service Quality, Trust, and Satisfaction (H3) and the perceived advantages of Operational Efficiency/Transparency (H4) were measured using the instrument's specialised sections, such as Section D: Customer Experience and Satisfaction. Using a five-point Likert scale, the items were standardised. Stratified Random Sampling was used to achieve a high level of representativeness in the Guntur District, with a proportionate allocation across urban, semi-urban, and rural regions, on the basis of the expected customer population (N = 30,000). With 899 finished answers from customers, the research reached 99% of its target sample and produced a statistically strong dataset that allowed for in-depth subgroup analysis thanks to the high response rate and small margin of error. A variety of methods for analysing data, including descriptive statistics, regression, moderation analysis, and correlation Using SPSS software, we generated and analysed the customer dataset. To begin, we used descriptive statistics (Means, Standard Deviations) to create a baseline knowledge of the demographic profile and how customers perceive the quality and satisfaction levels of digital services. With the use of inferential statistics, we tested three hypotheses (H3, H4, and H5): first, we examined the initial associations between the variables (H4) by correlation analysis. In order to determine if digital service quality directly affects satisfaction and trust, we used a multiple regression analysis (H3). Regular validation and reliability analyses ensured that the methodology was rigorous. The instrument was built on top-notch models for service quality and customer trust, which allowed for content validity to be confirmed by expert assessment

4. Results And Discussion**4.1. Demographic Profile of Customer Respondents****4.1.1 Gender****Table 4.1.1: Gender**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid				
Male	606	67.4	67.4	67.4
Female	293	32.6	32.6	100.0
Total	899	100.0	100.0	

The table shows the gender distribution of the **899 respondents** in the study. A clear majority of respondents are **male**, totaling **606 respondents (67.4%)**, while **female respondents** account

for **293 respondents (32.6%)**. The cumulative percentages indicate that males dominate the sample, comprising over two-thirds of the respondents.

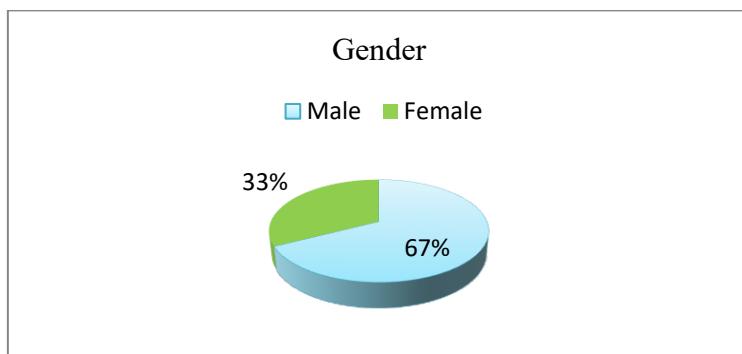


Figure 4.1.1: Gender

4.1.2 Location

Table 4.1.2: Location

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Urban	241	26.8	26.8	26.8
Semi-Urban	304	33.8	33.8	60.6
Rural	354	39.4	39.4	100.0
Total	899	100.0	100.0	

The table shows the largest group of customer respondents is from **rural areas (39.4%)**, followed closely by those from **semi-urban areas (33.8%)**, while urban respondents constitute 26.8% of the total sample. Cumulatively, **over 73% of the sample is drawn from non-urban regions**, confirming that the study successfully captured the outreach and role of NBFC digital services in semi-urban and rural populations.

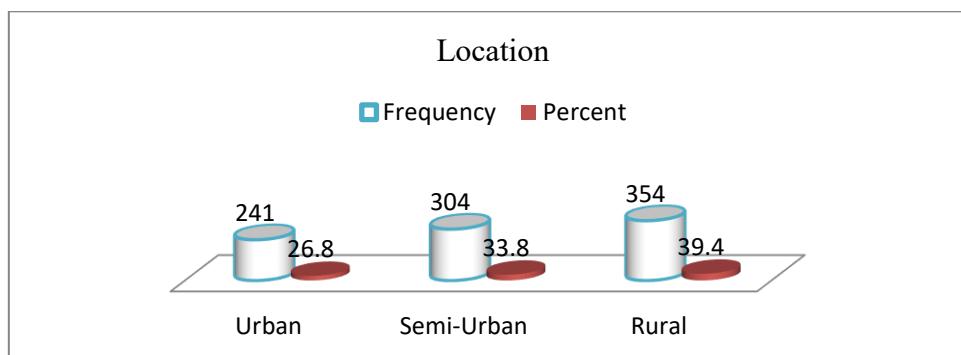


Figure 4.1.2: Location

The Chi-Square analyses conducted on key customer outcomes—including trust, satisfaction, and digital adoption—reveal that these outcomes are **significantly influenced by demographic factors**. Specifically, **Location** demonstrated a meaningful relationship with trust in online data security, implying that perceptions of digital safety vary across urban, semi-urban, and rural users. Furthermore, **Age** was strongly associated with satisfaction regarding the accessibility of digital

services, with younger customers reporting higher contentment. The study also highlighted that **Educational Qualification** significantly affected customers' ability to navigate NBFC apps, underscoring the critical role of digital literacy in adoption.

4.2. Reliability and Validity Assessment of Measurement Scales

Table 4.2.1: Reliability Statistics – DTP and CSI for customers

Scale	Cronbach's Alpha	No. of Items
Digital Transformation Perception (DTP)	0.898	8
Customer Satisfaction Index (CSI)	0.839	8

Both scales demonstrate high internal consistency, confirming reliability for further statistical analysis.

4.3. Descriptive Analysis of Perceived Digital Service Quality and Customer Outcomes

4.3.1: DTP variables Mean and SD

The mean scores of the Digital Transformation Perception (DTP) items indicate that customers generally view NBFC digital initiatives positively. Accessibility ($M = 4.07$), transparency ($M = 4.02$), and quick decision-making ($M = 4.22$) received the highest ratings, reflecting strong appreciation for digital efficiency. Moderate scores for user-friendliness ($M = 3.84$) and use of digital data ($M = 3.41$) show perceived benefits with some scope for enhancement. Lower means for fair digital lending practices ($M = 3.07$) and organizational support ($M = 3.01$) point to areas needing improvement. Standard deviations (0.90–1.36) suggest moderate variation in responses, indicating differing customer experiences across digital service dimensions.

Table 4.3.1:: Item Statistics- DTP

	Mean	S.D	N
Digital services have improved accessibility of NBFC services.	4.07	1.028	899
The NBFC's digital initiatives are user-friendly and efficient.	3.84	1.158	899
Digitalization has enhanced transparency and accountability.	4.02	.907	899
Digital transformation supports quick decision-making and service delivery.	4.22	.912	899
The NBFC's digital services are transparent and follow fair digital lending practices.	3.07	1.367	899
The organization provides adequate support for digital platform usage.	3.01	1.179	899
Data generated through digital systems are used effectively for decision-making.	3.41	1.074	899
Overall, digital transformation has improved the image of the NBFC.	3.38	1.200	899

The ANOVA findings show that several DTP variables differ significantly by location. Accessibility ($p = .003$), quick decision-making ($p = .036$), effective use of digital data ($p = .000$), and improvement in

NBFC image ($p = .036$) vary across urban, semi-urban, and rural customers, indicating location-based differences in perception. In contrast, user-friendliness, transparency, fairness in lending, and support for digital platforms show no significant variation, suggesting consistency across groups. Overall, some aspects of digital transformation are influenced by geography, while others remain uniformly perceived.

4.3.2 CSI variables Mean and SD

The CSI mean scores indicate that NBFC customers generally hold positive views of digital services. Overall digital experience shows the highest satisfaction ($M = 4.51$, $SD = 0.653$), and willingness to recommend digital services is also strong ($M = 4.20$). Customers report favorable outcomes such as fewer transaction errors ($M = 3.95$), better service after digitalisation ($M = 4.05$), confidence in data security ($M = 3.93$), and reduced branch visits ($M = 3.91$). Lower means for navigation ease ($M = 3.49$) and clarity of interest rate information ($M = 3.77$) highlight areas needing improvement. Overall, the mean values reflect a largely positive customer perception of NBFC digital services.

Table 4.3.2: Item Statistics-CSI

	Mean	S.D	N
The NBFC's app or website is easy to navigate	3.49	1.135	899
Digital services reduce the need to visit the branch physically.	3.91	.918	899
I trust that my personal and financial data are secure online.	3.93	.946	899
The digital system provides clear information about interest rates and charges.	3.77	1.112	899
Customer service has improved since digitalisation.	4.05	1.025	899
Transaction errors have reduced with digital operations.	3.95	.951	899
I am satisfied with the overall digital experience provided by the NBFC.	4.51	.653	899
I would recommend my NBFC's digital services to others.	4.20	1.021	899

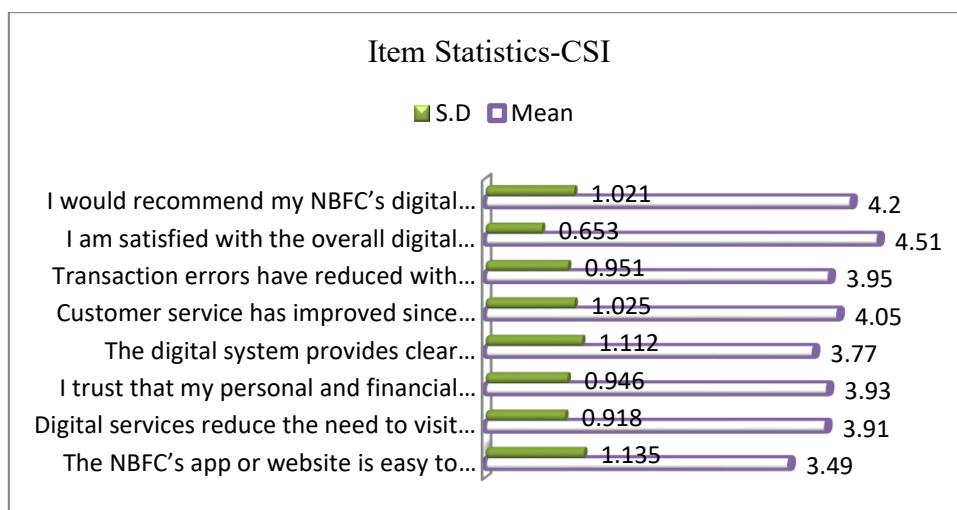


Figure 4.3.2: Item Statistics-CSI

The t-test results show significant gender differences for reduced branch visits, clarity of information, improved customer service, overall satisfaction, and willingness to recommend, while variables like

navigation ease, data security, and error reduction show no significant variation. Overall, gender influences some satisfaction dimensions, but core digital service aspects are viewed similarly by both groups.

4.4. Hypothesis Testing (H3): Digital Service Quality, Satisfaction, and Trust

Objective: To evaluate customer satisfaction, trust, and digital adoption behaviour in relation to NBFCs' technology-enabled services, focusing on both urban and semi-urban borrowers in Guntur District.

Hypothesis: Digital service quality—including accessibility, usability, and data security—has a significant positive effect on customer satisfaction and trust in NBFC digital platforms.

Hypothesis:

Digital service quality → Customer Satisfaction

Multiple Regression Model:

Table 4.4.1: Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.798 ^a	.636	.635	.24367	1.997

a. Predictors: (Constant), D4-Transparent, D1- Usability, D3- DataSecurity, D2- Accessibility

b. Dependent Variable: CSI

The **R value (.798)** indicates a strong positive relationship between the four predictors and customer satisfaction. **R² (.636)** implies that 63.6% of the variance in customer satisfaction is explained by the combined effect of accessibility, usability, data security, and transparency. The **Adjusted R² (.635)** confirms that the model is a good fit for the population after adjusting for the number of predictors. The **Durbin-Watson value (1.997)** is close to 2, indicating no significant autocorrelation in the residuals.

Table 4.4.2: ANOVA^a

Model	Sum of Squares	df	Mean Square	F	Sig.
1	92.835	4	23.209	390.875	.000 ^b
	53.083	894	.059		
	145.918	898			

a. Dependent Variable: CSI

b. Predictors: (Constant), D4-Transparent, D1- Usability, D3- DataSecurity,

D2- Accessibility

The ANOVA results show that the overall regression model is highly significant (**F = 390.875, p = .000**), confirming that the combined effect of the four service quality dimensions significantly predicts customer satisfaction.

Table 4.4.3: Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	1.834	.056		32.477	.000
D2- Accessibility	.131	.009	.298	14.056	.000
D1- Usability	.142	.007	.400	19.079	.000
D3- DataSecurity	.130	.009	.306	14.935	.000
D4-Transparent	.165	.007	.455	22.356	.000

a. Dependent Variable: CSI

All four predictors are **significant** ($p < .001$), indicating that each contributes meaningfully to explaining customer satisfaction. **Transparency (Beta = .455)** has the strongest effect, followed by **Usability (.400)**, **Data Security (.306)**, and **Accessibility (.298)**. The positive coefficients indicate that increases in these service quality dimensions lead to higher customer satisfaction.

Regression Equation (based on coefficients):

$$\text{CSI} = 1.834 + 0.131(\text{Accessibility}) + 0.142(\text{Usability}) + 0.130(\text{Data Security}) \\ + 0.165(\text{Transparency})$$

The findings strongly support that digital service quality significantly enhances customer satisfaction and trust in NBFC digital platforms. Regression results show that 63.6% of the variation in satisfaction is explained by accessibility, usability, data security, and transparency, with transparency being the strongest predictor. All standardized coefficients are positive and significant, confirming that improvements in each dimension directly boost satisfaction. The overall model is statistically significant, and the Durbin-Watson value near 2 indicates independent residuals, reinforcing the model's reliability. Overall, the results emphasize that transparent communication, user-friendly design, secure systems, and accessible services are central to strengthening satisfaction and loyalty. These insights can guide NBFCs in refining digital platforms and better aligning services with customer expectations.

4.5. Hypothesis Testing (H4): The Correlation between Perceived Efficiency/Compliance and Satisfaction

Objective: To analyze the interrelationship between regulatory compliance, operational efficiency, and customer satisfaction, identifying causal or correlative patterns that influence overall digital transformation outcomes.

Hypothesis: There is a **significant correlation** between regulatory compliance, operational efficiency, and customer satisfaction among digitally transformed NBFCs.

This hypothesis explores the relationships among Regulatory Compliance (RCI), Operational Efficiency (OEI), and Customer Satisfaction (CSI) to determine how digital transformation outcomes interact within NBFCs. Thus, H4 provides an integrated view of how digital transformation shapes institutional performance and customer experience.

Table 4.5.1: Correlations RCI and CSI

		RCI	CSI
RCI	Pearson Correlation	1	.632
	Sig. (2-tailed)		.013
	N	147	147/899
CSI	Pearson Correlation	.632	1
	Sig. (2-tailed)	.013	
	N	147/899	899

The Pearson correlation coefficient between Regulatory Compliance Index (RCI) and Customer Satisfaction Index (CSI) is **r = 0.632** with a significance level of **p = 0.013**. The relationship is statistically significant ($p < 0.05$), confirming that regulatory adherence is meaningfully associated with higher levels of customer satisfaction.

Table 4.5.2: Correlations OEI and CSI

		OEI	CSI
OEI	Pearson Correlation	1	.671
	Sig. (2-tailed)		.023
	N	147	147/899
CSI	Pearson Correlation	.671	1
	Sig. (2-tailed)	.023	
	N	147/899	899

The Pearson correlation coefficient between Operational Efficiency Index (OEI) and Customer Satisfaction Index (CSI) is **r = 0.671** with a significance level of **p = 0.023**. This shows a **strong positive correlation**, suggesting that improvements in operational efficiency are associated with higher customer satisfaction in NBFC digital services. The relationship is statistically significant ($p < 0.05$), indicating that more efficient operations directly contribute to enhanced customer experiences.

4.6. Hypothesis Testing (H5): The Moderating Effect of Digital Literacy/Accessibility

Objective: To identify challenges and best practices experienced by NBFCs during their transition to digital operations, and to propose policy and managerial recommendations for strengthening compliance readiness, operational resilience, and customer-centric innovation.

Hypothesis: The relationship between digital transformation and customer satisfaction is moderated by the level of digital literacy and accessibility among customers in semi-urban and rural areas.

The moderation hypothesis examines whether the effect of digital transformation on customer satisfaction changes with customers' digital literacy and technology access, especially in semi-urban and rural areas. The regression model includes an interaction term, with CSI predicted by DTP, digital literacy, and their combined influence.

Table 4.6.1: Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.456 ^a	.208	.204	.285	1.982

a. Predictors: (Constant), cDTP x Digital Literacy, iDTP, B2-DigitalLiteracy

b. Dependent Variable: cCSI

The model shows a **moderate positive relationship** between the predictors and customer satisfaction ($R = .456$). $R^2 = .208$ indicates that 20.8% of the variance in CSI is explained by digital transformation, digital literacy, and their interaction. Adjusted R^2 (.204) confirms model reliability after accounting for predictor variables. Durbin-Watson value (1.982) suggests no autocorrelation in residuals.

Table 4.6.2: ANOVA^a

Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	30.402	3	10.134	124.45
	Residual	115.516	895	0.129	
	Total	145.918	898		

a. Dependent Variable: CSI

b. Predictors: (Constant), DTP x Digital Literacy, DTP, B2-Digital Literacy

The regression model is **highly significant** ($F = 124.45$, $p = .000$), indicating that the predictors together explain a significant portion of variance in customer satisfaction. This supports the moderation hypothesis by showing that digital literacy interacts meaningfully with digital transformation to influence satisfaction.

5. Conclusion, Recommendations, And Future Research

5.1. Conclusion

This study confirms that NBFC digital transformation significantly impacts customer satisfaction and trust. Key conclusions are:

- **Digital service quality** (accessibility, usability, transparency, and data security) directly enhances satisfaction.
- **Operational efficiency and regulatory compliance** strengthen customer perceptions and foster trust.
- **Digital literacy** moderates these effects, particularly in semi-urban and rural areas, reinforcing the importance of inclusive digital adoption strategies.

Overall, the findings demonstrate that integrated strategies combining technology, operational improvements, and customer education are critical to bridging the trust gap in NBFC digital services.

5.2. Managerial Recommendations for Enhancing Customer Trust and Digital Interfaces

1. **Enhance Transparency:** Clearly communicate fees, interest rates, policies, and digital lending criteria to reduce perceived risk.
2. **Improve Usability and Accessibility:** Simplify app/website navigation, streamline workflows, and ensure mobile responsiveness.
3. **Strengthen Data Security:** Implement robust cybersecurity measures and regularly update customers on protective measures.

5.3. Policy Recommendations for Promoting Inclusive Digital Literacy

1. **Government and Regulatory Support:** Implement incentives for NBFCs to provide digital training to underserved populations.
2. **Community-Based Digital Initiatives:** Partner with local institutions and NGOs to provide hands-on digital literacy programs.

5.4. Limitations of the Study and Directions for Future Research**Limitations:**

The study focuses on a single district (Guntur), which may limit generalizability to other regions of India. Data were collected via self-reported surveys, which may introduce response biases. The research captures a cross-sectional perspective, limiting insights into long-term behavioral changes.

Future Research Directions:

- Conduct longitudinal studies to assess evolving customer trust and satisfaction over time.
- Expand research across multiple districts or states to enhance generalizability.
- Investigate additional moderating factors, such as socio-economic status or digital infrastructure quality, on digital adoption outcomes.
- Explore the role of emerging technologies (AI chatbots, machine learning-based lending) in shaping operational efficiency and customer trust.

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