



## IMPACT OF DIGITALIZATION ON SERVICE QUALITY OF THE LIFE INSURANCE CORPORATION OF INDIA

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### **Abstract**

*The rapid advancement of digitalization has profoundly transformed the operational framework of the insurance industry, with the Life Insurance Corporation of India (LIC) at the forefront of this technological revolution. Recognizing the critical importance of digital innovation, LIC has strategically prioritized digital transformation and diversified its product portfolio to optimize returns for stakeholders. This study investigates the impact of digitalization on service quality at LIC, specifically examining policyholder perceptions and satisfaction levels. Employing a quantitative research approach, the research collected data from 480 policyholders across six Indian states using a structured questionnaire. The methodology incorporated multiple statistical techniques, including reliability analysis, onesample t-tests, regression analysis, and the Kruskal-Wallis test, to comprehensively examine various aspects of digital service quality. The results revealed significantly positive perceptions of LIC's digital transformation, with particularly high scores for digital platforms' accessibility and policy management effectiveness. Demographic analysis revealed that occupation was the only significant predictor of satisfaction, while satisfaction levels remained consistent across different policy types. Despite the overall positive impact, security concerns emerged as the primary challenge in digital service adoption. The study contributes to the understanding of digital transformation in the insurance sector and provides insights for insurers implementing digital solutions. The findings suggest that while LIC has successfully implemented digital services across its operations, addressing security concerns should be prioritized to enhance customer confidence in digital platforms.*

**Keywords:** *Digitalization, Service Quality, Life Insurance, Customer Satisfaction, LIC.*

### **Introduction**

The operational environment of the insurance industry has undergone a considerable transformation with the emergence of digitalization. This shift is particularly evident in the Life Insurance Corporation of India (LIC), which has launched a digital transformation initiative called DIVE (Digital Innovation and Value Enhancement). The program aims to enhance the experiences of customers, employees, partners, and its field force. To achieve this, LIC has allocated rupees 600 crore and set an ambitious target to become a "paperless" organization within two years. LIC is focusing on digital transformation and product mix to ensure better returns for its stakeholders (Siddhartha Mohanty, 2023). The adoption of digital technologies such as mobile applications, online portals, and customer relationship management (CRM) systems has streamlined services across the insurance sector. These advancements have also enhanced operational efficiency and improved customer engagement. In recent years, the adoption of digital tools has reshaped service delivery, creating opportunities for insurance companies to enhance customer experiences while reducing operational costs (Eckert & Osterrieder, 2020). The use of digital tools enables insurance firms to provide more personalized services, improve customer interaction, and

automate processes like claims processing and policy management (Kipkosgei, 2022). However, while digitalization offers substantial benefits, it also presents challenges such as customer apprehension towards digital platforms, technical difficulties, and security concerns (Yaneva, 2023).

In the insurance sector, customer satisfaction and loyalty depend mostly on the quality of services. The integration of digital technologies has positively impacted service quality by improving factors such as responsiveness, reliability, and ease of access to services (Skaf et al., 2024). For instance, the use of digital platforms has enhanced the efficiency of claims processing, reduced response times, and provided real-time updates, thereby increasing overall customer satisfaction. Studies also emphasize that maintaining high service quality is crucial for fostering customer loyalty, especially in highly competitive markets (Skaf et al., 2024). Digitalization has also created avenues for insurers to innovate in areas such as fraud detection, data analytics, and customer segmentation, further improving service quality and customer satisfaction (Kaur & Singh, 2023). However, despite the advantages, challenges persist in the adoption of digital services by LIC policyholders. Some customers face difficulties in using digital platforms due to a lack of digital literacy, while others express concerns about data privacy and the complexity of digital processes (Faizova et al., 2020).

Understanding these challenges is critical for insurers like LIC to design more inclusive and user friendly digital services, as customer satisfaction with digital platforms directly influences their willingness to continue using these services and remain loyal to the company (Méndez Aparicio et al., 2020).

In light of these developments, this study aims to examine the impact of digitalization on the LIC. Specifically, it seeks to assess how digitalization influences the service quality perceived by LIC policyholders. It also aims to evaluate the satisfaction levels of policyholders who use digital platforms for various LIC services. Additionally, the study investigates the challenges that policyholders face in adopting and using these digital services. Addressing these objectives will provide a comprehensive understanding of the role digitalization plays in impacting customer experiences and satisfaction in the insurance industry.

## **Review of Literature**

In a rapidly evolving global market, digitalization is crucial for modern business as it enhances efficiency, drives innovation, and supports competitiveness. The integration of digital tools helps businesses streamline processes, improve customer engagement, and enable data driven decision-making (Parida et al., 2015). It assists organizations in adapting to changes in consumer behavior, especially with the increased demand for online and remote services (Verhoef et al., 2021). In competitive terms, digital transformation allows businesses to implement scalable solutions, enhance agility, and foster a culture of continuous improvement (Matt et al., 2015). As a result, organizations that embrace digital transformation tend to outperform their peers and build resilience in the face of economic and market shifts.

Digital transformation has also significantly reshaped service quality in the insurance sector, making service delivery faster, more efficient, and customer centric. Technologies such as artificial intelligence, big data, and cloud computing enable insurers to design tailored products while streamlining critical processes like underwriting and claims (Eckert et al., 2022). The integration of the Internet of Things (IoT) and other digital tools within insurance companies, such as HDFC ERGO, has enhanced service efficiency and customer interactions (Desikan & Devi, 2021). Similarly, Kumar et al. (2023) highlight

the adoption of mobile applications and online customer service platforms in India, showing that these tools are essential for improving service quality. These advancements demonstrate how digitalization improves perceived service quality and leverages digital capabilities to meet the evolving needs of policyholders effectively.

In the insurance industry, digital services have positively impacted customer satisfaction. Digitalization enhances customer satisfaction by providing personalized experiences, increasing convenience, and improving response times. Through digital platforms, companies can better analyze customer data, allowing them to tailor products and services to meet specific needs and expectations (Buhalis & Sinarta, 2019). Additionally, digital tools such as chatbots, mobile apps, and social media platforms facilitate immediate customer support, fostering satisfaction through quick and effective communication (Klaus, 2013). Increased accessibility and personalization offered by digital solutions promote customer loyalty as they create smoother, more engaging interactions (Grewal et al., 2020).

Kaur and Singh (2022) find that InsurTech tools in India's life insurance sector significantly improve customer satisfaction by enabling efficient customer service and accessible online service distribution. Studies in other markets echo this trend, with Skaf et al. (2024) showing that well designed digital interfaces play a critical role in maintaining customer satisfaction, especially during times of crisis when user friendly and reliable systems are needed. Kipkosgei (2022) adds that digital communication tools, such as social media, have improved responsiveness and facilitated seamless interactions in Kenyan insurance firms, boosting policyholder satisfaction. In the context of measuring satisfaction specifically, Siddiqui and Sharma (2010) developed a service quality scale that includes technology and competence as key dimensions, providing LIC with an effective framework for evaluating digital service performance and understanding satisfaction levels.

While digitalization offers clear benefits, its adoption presents notable challenges. Faizova et al. (2020) caution that while InsurTech enhances service efficiency, it also introduces cybersecurity risks and data management complexities, creating potential barriers for policyholders. Al Adamat et al. (2023) emphasize the importance of user friendly platforms, as confusing or information sparse websites can hinder positive user experiences. Furthermore, Kohne and Kohne (2024) discuss the stress that digitalization can impose on intermediaries, which may indirectly impact the end customer's experience and satisfaction. To overcome these challenges, insurers like LIC must focus on simplifying digital tools, enhancing data security, and providing comprehensive guidance to help policyholders adopt digital services with confidence.

Despite the evident advantages of digitalization in enhancing service quality and customer satisfaction, there is limited research on the specific impact of digital tools in the insurance sector across diverse cultural contexts. Most studies focus on technologically advanced markets, leaving a gap in understanding how these digital transformations affect service quality and customer satisfaction in emerging economies. This study examines how digitalization influences the service quality perceived by LIC policyholders and evaluates the satisfaction levels of policyholders.

## **Methodology**

This study employs a quantitative research approach using a structured questionnaire distributed electronically to gather data from policyholders across various regions in India. The study covers states including Tamil Nadu, Karnataka, Delhi, Maharashtra, West Bengal, and Gujarat. The sample comprises 480 respondents representing diverse demographics, including variation in age groups, occupations, and

educational backgrounds. The data collection process employed a convenience sampling technique, chosen for its efficiency in reaching respondents quickly and effectively through electronic means. This method allowed to access participants who are readily available and willing to participate. Participants are selected from a pool of existing LIC policyholders, ensuring that responses reflect the experiences and satisfaction levels of actual users of LIC's services. Data collection was conducted over a three month period from April to June 2024. The collected data were analyzed using IBM SPSS Statistics 23. The questionnaire was structured to assess key dimensions such as service quality, satisfaction levels, and challenges in digital adoption. Participants' responses were recorded on a five point Likert scale to quantitatively measure the digital service quality experienced by policyholders.

**Table 1. Reliability Statistics**

Cronbach's Alpha	N of Items
.636	16

The reliability analysis presented in Table 1 shows a Cronbach's Alpha coefficient of .836 for 16 items. This value indicates high internal consistency reliability of the measurement instrument. The coefficient exceeds the conventional threshold of 0.7 (Nunnally, 1967), demonstrating strong reliability of the scale. This high reliability suggests that the items consistently measure the same underlying construct, indicating that the survey instrument is robust and dependable for measuring the intended concepts. The strong internal consistency also supports the validity of the conclusions drawn from subsequent analyses.

### Results and Discussions

The impact of digitalization on the service quality perceived by policyholders is summarized in Table 2. This presents the results of one-sample t-tests examining various aspects of LIC's digital services. All measured aspects show statistically significant results ( $p < .001$ ) with high t-values. The digital platforms' accessibility for policy information scored exceptionally high (Mean = 4.863,  $t = 303.737$ ), indicating strong positive perception of information accessibility. Policy management effectiveness through digital tools received the highest mean score (4.940), shows excellent utility for policy management. Other aspects, including overall experience improvement (Mean = 4.046), service reliability (Mean = 4.035), and transaction security confidence (Mean = 4.044), all received consistently high ratings.

**Table 2. Impact of digitalization on the service quality perceived by policyholders**

					Lower	Upper
LIC's digital platforms provide easy access to information about my policies.	303.737	479	.000	4.863	4.83	4.89
The digital services offered by LIC have improved my overall experience with the company.	388.060	479	.000	4.046	4.03	4.07
LIC's digital services are reliable and efficient.	428.434	479	.000	4.035	4.02	4.05

The digital tools and services provided by LIC help me manage my policies more effectively.	423.709	479	.000	4.940	4.92	4.96
LIC's digitalization has enhanced the transparency of services.	438.336	479	.000	4.033	4.02	4.05
I feel confident using LIC's digital platforms to perform transactions securely.	412.630	479	.000	4.044	4.02	4.06

Table 3 presents the results of a regression analysis examining the demographic factors that affect satisfaction level of policyholders. The analysis reveals that occupation is the only statistically significant predictor ( $\beta = 0.143$ ,  $p = 0.039$ ), while educational qualification shows marginal significance ( $\beta = 0.133$ ,  $p = 0.057$ ). Other demographic factors, including age, gender, monthly income, policy duration, and policy type, did not show a significant influence on satisfaction levels. The model's  $R^2$  value of 0.015 suggests that demographic factors account for only 1.5% of the variance in satisfaction. This indicates that demographic characteristics play a minimal role in determining satisfaction levels. These findings support the assertion that well-designed digital interfaces are universally important across customer segments (Skaf et al., 2024). Additionally, the Durbin-Watson statistic of 1.694 indicates that the residuals exhibit acceptable levels of independence.

**Table 3. Satisfaction levels of policyholders using digital platforms**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	3.991	.096		41.724	.000
Age	.033	.024	.237	1.359	.175
Gender	-.017	.018	-.057	-.960	.338
Educational Qualification	.036	.019	.133	1.911	.057
Occupation	.013	.006	.143	2.070	.039
Monthly Income (in INR)	-.003	.022	-.021	-.118	.906
Duration of Policy with LIC	-.008	.021	-.082	-.410	.682
Type of LIC Policy Owned	.006	.010	.063	.579	.563
R= 0.123, $R^2 = 0.015$ , Durbin-Watson= 1.694, F=1.035 (0.405)					

The satisfaction levels of policyholders across different policy types were analyzed using the Kruskal-Wallis test. The results summarized in Table 4, show no statistically significant differences in satisfaction levels among the various policy types ( $p > .05$  for all measures). This suggests that the digital experience is consistently delivered across all policy categories. ULIP (Unit Linked Insurance Plan) holders showed slightly higher mean ranks in overall satisfaction (247.31), followed closely by Whole Life Insurance holders (247.05), though these differences are not statistically significant. The

consistency across policy types indicates that LIC has successfully implemented a standardized digital experience regardless of the insurance product type.

**Table 4. Satisfaction levels across different policy types**

Items	Type of LIC Policy Owned	N	Mean Rank	Chi-Square	Sig.
I am satisfied with the overall digital experience provided by LIC.	Endowment Policy	115	236.67	5.583	.233
	Term Insurance	79	235.54		
	Whole Life Insurance	66	247.05		
	ULIP	81	247.31		
	Pension Plan	139	239.41		
The digital platforms provided by LIC are user-friendly and easy to navigate.	Total	480		2.992	.559
	Endowment Policy	115	242.84		
	Term Insurance	79	229.18		
	Whole Life Insurance	66	241.07		
	ULIP	81	241.76		
	Pension Plan	139	243.99		
LIC's digital customer support services are responsive and helpful.	Total	480		3.336	.503
	Endowment Policy	115	233.43		
	Term Insurance	79	248.87		
	Whole Life Insurance	66	237.17		
	ULIP	81	245.89		
I am satisfied with the speed and efficiency of transactions through LIC's digital platforms.	Pension Plan	139	240.03	2.769	.597
	Total	480			
	Endowment Policy	115	243.32		
	Term Insurance	79	236.93		
	Whole Life Insurance	66	251.83		
The transition from offline to digital services has been smooth and hasslefree for me.	ULIP	81	246.10	.306	.989
	Pension Plan	139	231.55		
	Total	480			
	Endowment Policy	115	239.45		
	Term Insurance	79	238.70		
	Whole Life Insurance	66	239.52		
ULIP	81	242.20			
	Pension Plan	139	241.87		
	Total	480			

Table 5 examined the challenges faced by LIC policyholders in adopting digital services using mean ranks. The findings highlight a notable disparity between security concerns and other potential issues. Security concerns related to personal information on digital platforms received a high mean score of 4.02 (SD = 0.163), indicating that this is a significant issue for policyholders. In contrast, other challenges such as platform usage difficulties (Mean = 2.14), technical issues (Mean = 2.15), transaction

complications (Mean = 2.15), and platform selection confusion (Mean = 2.15) received considerably lower mean scores, with standard deviations around 0.6. This pattern suggests that while LIC has effectively addressed most operational and technical challenges during its digital transformation, security concerns remain a critical area that requires focused attention. These results indicate a successful digital transformation at LIC, with consistently positive user experiences across different service aspects and policy types. The primary area for improvement appears to be addressing security concerns, while the generally low scores for other challenges suggest effective implementation of digital services across the organization.

**Table 5: Challenges faced by LIC policyholders in adopting digital services.**

Challenges faced by the policyholders	Mean	N	S.D
I face difficulties in understanding how to use LIC's digital platforms.	2.14	480	.564
I encounter technical issues when using LIC's digital services.	2.15	480	.598
I find it challenging to make payments or complete transactions through LIC's digital platforms.	2.15	480	.609
The availability of multiple digital options confuses me in choosing the right platform.	2.15	480	.606
I am concerned about the security of my personal information when using LIC's digital platforms.	4.02	480	.163

### Conclusion

The findings of this study provide compelling evidence that digitalization has significantly enhanced the service quality of the Life Insurance Corporation of India (LIC). The research reveals several key areas with important implications for both practice and theory in the insurance sector. First, the analysis demonstrates that LIC's digital transformation has been largely successful in improving service delivery across multiple dimensions. The exceptionally high mean scores for digital platforms' accessibility (4.863) and policy management effectiveness (4.940) indicate that LIC has successfully implemented user-friendly digital solutions that meet policyholders' needs. Second, the study reveals consistently high satisfaction with digital services across different policy types, with no statistically significant variations among insurance products. This uniformity suggests that LIC has effectively standardized its digital experience, creating a cohesive digital ecosystem for all policyholders. Regression analysis revealed that demographic factors, with the exception of occupation, have minimal impact on satisfaction levels. The low coefficient of determination ( $R^2 = 0.015$ ) indicates that LIC's digital services are equally accessible and satisfactory across diverse customer segments, demonstrating the successful implementation of inclusive digital solutions.

However, the study also identifies critical areas requiring attention. Security concerns regarding digital platforms emerged as a primary challenge, highlighting the need for robust data protection measures and enhanced customer confidence. While other challenges such as platform usability and technical issues were found to have relatively low significance, the results underscore that successful technical implementation must be complemented by stringent security protocols to maintain customer trust. The study acknowledges limitations, particularly its focus on a single insurance provider in India. Future research could expand the investigation by conducting comparative analyses across multiple insurance providers, exploring digital service quality in different geographical regions, and implementing longitudinal studies to track the evolution of customer satisfaction with digital services.

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