

## **A Study of Engagement Trust and Interaction in the Era of Digital Transformation and Customer Distance in Life Insurance Services**

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**Abstract:** The aim of the study, life insurance business holds a unique niche in the financial services industry because of the long-term nature and trust-based business nature of its products. Life insurance policies demand years of client dedication unlike physical product where a customer can immediately benefit and trust, engagement and interaction are the key elements to customer loyalty. Nevertheless, the fast digital revolution of the industry, which is supported by the COVID-19 pandemic, has redefined the traditional relationships between customers and insurers. Although digital platforms like mobile apps, online portals, chatbots, and artificial intelligence-driven underwriting have made the process more efficient, convenient, and accessible, they have introduced the new issues of customer distancedness, lack of personalization, and the lack of relational ties. This paper examines engagement, trust, and the quality of interaction dynamics in the environment of digital transformation and customer distance in Indian life insurance services. The study takes the form of a sequential explanatory mixed-method research where qualitative interviews with customers, agents, and managers are conducted which is followed by a quantitative survey of 220 policyholders. Hypotheses were tested with the help of statistical tests such as reliability testing, correlation, multiple regression and ANOVA tests. The findings reveal moderate-high degree of engagement, trust, the quality of interactions, and customer satisfaction with the digital platforms, yet the regression results indicate statistically insignificant correlations between the constructs, which demonstrates the complexity of the interaction between digital efficiency and relational depth. The results indicate that, although digital tools might provide functional value, they may not be capable of the emotional reassurance and interpersonal trust that agents provide. The paper adds to the theory by applying the existing idea of engagement and trust and interaction to life insurance and provides a practical implication to the insurers to develop digital strategies that would allow them to balance efficiency with quality of relationship.

**Keywords:** Life insurance, Digital transformation, Customer engagement, Trust, Interaction quality, Customer distance

### **1. Introduction**

The life insurance business is in a special position in a wider spectrum of financial services due to its long term and trust-based products (Han et.al 2025). In contrast to tangible consumer goods that offer instant and direct benefits, life insurance policies are immaterial, complicated and have long-term agreements usually spanning decades (Harada et.al 2025). The customers are required to make regular premiums in return of a guarantee of future benefits that include monetary safety against mortality risk or dependents income protection (Simões et.al 2021). Such a design puts the center of customer decision-making and loyalty on trust and interaction. Where there is no immediate consumption or utility, the policyholders trust in integrity, competence and reliability of the insurer. Traditionally, this trust was developed in face-to-face contacts, personal agents, face-to-face consultations, and visits of the branches that created reassurance and personal ties between the customers and providers. Over the last few years, the digital transformation has radically transformed the environment of life insurance services (Feroz et.al 2021). The spread of digital technologies mobile applications, online platforms, robo-advisors, chatbots, underwriting based on artificial intelligence and smart contracts powered by blockchain has transformed the way insurers service their customers and communicate. The new focus of life insurers is to simplify operations, cut down the costs of transactions and make services real-time, convenient and personalized with the help of digital services. This change was further propelled by the pandemic, which restricted physical interaction and that insurers had to develop digital infrastructure in all haste. This has turned into a necessity and was previously viewed as a non-obligatory supplement to the conventional delivery of services.

On the one hand, digitalization has increased accessibility and efficiency, and on the other hand, it has produced a phenomenon of customer distance (Autio et.al 2021). The customers who previously enjoyed close associations and personalized services of the dedicated agents or branch representatives now tend to deal with rather impersonal interfaces, automatism, or distant call centers. Lack of physical close does not allow insurers to develop relational bonding in the form of non-verbal communication, empathy, and interaction to foster trust. In addition to this, insurance is a high involvement product, in which the customers normally need to be explained, assured, and have confidence instilled in them before buying the product. Digital channels though effective are at times not effective at replicating the relationship richness and emotional comfort that human intermediaries once delivered. It raises a paradox: as insurers invest into digital transformation to adjust to emerging customer demands, they risk losing customers by making perceived relational distance (Marano et.al 2025, Aličkaj et.al 2021, Franco et.al 2025). In digital life insurance services, trust is even more of a critical issue. In the old environment, interpersonal warmth, the name of agents, or the age of the community of the insurance company often influenced the judgment of trustworthiness by the customers (Wu et.al 2022, Davlembayeva et.al 2025, David-Ignatieff et.al 2024). According to the digital settings, trust has to be built by various indicators: secure online spaces, clear information flow, credible data protection systems, responsiveness during online communication, uniformity in service delivery through various channels. The digital trust is delicate since it relies on mediated relationships since the lack of a personal response can increase the distrust of the customers. Confidence can be easily lost due to breaches in data security, miscommunication or lack of personalized service provision. This means that insurers need to reconsider the manner in which they establish engagement strategies and digital touch points that can generate trust in situations where the level of customer distance increases.

Another important aspect that has been given a lot of priority in this new landscape is engagement. Customer engagement describes the psychological and behavioral investments of customers in the interaction between customers and their brands and services (Barari et.al 2025, Chen et.al 2022, Torkzadeh et.al 2022, Black et.al 2021). Engagement, in life insurance, is more than just transactions: it includes product knowledge, advice, and policy management, as well as value co-creation (Ekanayake et.al 2024, Mosafer Bahri et.al 2022, Tanninen et.al 2022, Laurisz et.al 2023). Online change offers new channels of interaction interactive websites, self-service portals, policy-tracking mobile applications, or gamified wellness programs. Nevertheless, digital interactions might not be deep enough without proper relational factors, and they will be less effective in maintaining trust and loyalty in the long term. The level of emotional and mental involvement is crucial in particular to customers of a life insurance, who must possess rational clarity and be reassured emotionally to commit to a long-term financial contract. Interaction quality mediates these relationships such that it affects the perceptions of customers regarding their interactions with insurers. Quality of interaction in the digital setting is not only efficiency but also empathy, personalization and responsiveness. Even the insurer, which responds promptly with chatbots and still does not concentrate on the emotional issues of the customers, can still be seen as a remote and unreliable one. On the other hand, a company that automates with human interference in the crucial times can increase trust and interest. This is because the design of digitally mediated interactions has to be able to recreate, or even exceed, the richness of face-to-face interactions.

The academic literature has not investigated the topic of customer experience, engagement, and trust in online services, which has a number of gaps, especially concerning life insurance (Jain et.al 2025, Hentzen et.al 2022, Ahmad et.al 2022). Most of the available literature is why e-commerce or banking, where products are more commoditized and consumption is more immediate. The case of life insurance is unique owing to the high involves, long term and emotionally charged nature of life insurance. In addition, the factor of customer distance, that is, the less often and superficial contact of people in digitalized services, has had little scholarly coverage. There is a necessity to comprehend the interaction between distance and engagement and trust and whether the digital transformation is able to offset the relational void left by the decreased face-to-face contact. As a manager, the insurers are strained to achieve efficiency and relationship quality. On the one hand, the digital change is mandatory to reduce costs, scale, and fulfil the demands of customers towards convenience. Alternatively, the absence of trust and interaction may lead to lapses in policy and termination with others. The future competitiveness of the industry lies in its capability to develop digital space that not only brings functional value, but it also builds trust and creates meaningful engagements despite physical and relational space.

The research adds to the theory by advancing the customer engagement and trust research to the previously understudied area of life insurance services in the framework of digital transformation. It incorporates the ideas of digital transformation ability and customer distance as moderating factors in engagement-trust-interaction

model and provides a new view upon the relationship dynamics of digitally mediated services. In a practical sense, it offers practical information to the insurers to devise strategies to make them build trust and interactions with the customers via digital touchpoints whilst dealing with the risks of greater customer distance. The life insurance sector is at a cross road in which digital revolution presents opportunities and challenges. The capacity to keep and to strengthen customer relations relies on the transformation of how engagement, trust, and interaction are established in the setting where in-person interaction can be restricted. This work tries to deal with this burning problem by constructing and empirically validating a model that describes the dynamics of engagement, trust, and interaction in the environment of digital transformation and customer distance. In this way, it aims at enhancing academic knowledge and availing real-life advice to an industry that continues to be at the heart of the monetary stability and societal good-being in the twenty-first century.

## **2. Literature Review**

**Zamharir et.al (2025)** presented the role of digital transformation on customer loyalty in the international insurance sector, and therefore, trust, satisfaction, and personalisation. Structural Equation Modeling was used to analyze data of 2000 customers. Findings indicate that digital transformation leads to increased loyalty due to trust, satisfaction and personalization. Digital capabilities, transparency, and system reliability should be given priority by insurance companies to create trust, satisfaction, and personalization. The research has some practical implications on the global insurance firms, however, it is limited by self-reported data, and the cross-sectional nature of the design.

**Aina et.al (2025)** explored the impact of digital transformation and new age advertising strategies on life insurance marketing in Lagos, Nigeria. It found a strong relationship between social media integration and insurance marketing, with visibility, reach, conversion, and content attractiveness being significant predictors. Mobile advertising also had a significant effect on insurance marketing, though with lower explanatory power. The findings suggest that life insurance companies should leverage social media platforms for integrated campaigns, optimize mobile advertising efforts, and develop supportive policies while ensuring consumer protection.

**Paul et.al (2024)** researched Digital transformation has brought about a lot of influence on business, society, and consumers which requires the adaptation of businesses. The COVID-19 has made the digital transformation faster, and the editorial attitude to this subject is required. This opinion summarizes studies on the digital transformation through a multidisciplinary lens, covering such critical areas as Internet-of-Things, social media, mobile applications, artificial intelligence, augmented and virtual reality, metaverse, and corporate digital responsibility. All of the domains are discussed in terms of their introduction, role, significance, multifaceted effect, and conclusions.

**Das et.al (2024)** examined the interaction between digital transformation and infrastructure development, service delivery, and governance and how these elements affect the creation of smart and sustainable cities. It claims that these four pillars have the potential of making cities smart and sustainable when they collaborate. Digital transformation leads to innovativeness and efficiency, and infrastructure facilitates smooth service delivery. Good governance is one that goes hand in hand with the changing requirements of citizens. The research focuses on the transformative ability of combined action, and that these mutually reinforcing components may turn cities not only into smart and sustainable cities but also into smart sustainable cities that would integrate technological changes with sustainable development objectives.

**Rane et.al (2023)** researched the opportunities of the Metaverse as the way businesses could improve customer loyalty by using effective methods. It applies both qualitative and quantitative approaches to learn customer behavior and expectations within virtual environment. Gamification, social interactions, virtual events, and augmented reality integrations are some of the key aspects of the research that promote loyalty. Such tactics are not only effective in increasing the level of customers interaction but also help them feel like being part of a community and promote the brand. Following these strategies, companies are able to keep up with the changing digital environment and guarantee the sustainable development in the Metaverse market.

**Lissy et.al (2023)** explained the protection business has confronted huge changes over the most recent couple of years, yet in addition somewhat recently. Generally low rates in the beyond 12 years have less secure speculations for insurance agencies and firms were additionally scrutinized by an expansion in claims in 2020-2021 due to the

Coronavirus pandemic. Past that, client assumptions are moving at the pace of computerized and specialist organizations are supposed to keep up. As per a new report, 43% of clients would leave their ongoing supplier if it became hard to get backing or administration (Accenture, 2017). Advanced change can assist guarantors with meeting new client assumptions and requirements by improving item improvement and offering channels, like computerized first encounters and day-in and day-out help.

**Eckert et.al (2022)** provided an integrated perspective on managing customer satisfaction and digital transformation in the insurance industry. It reviews 106 academic papers and publications and identifies digital applications that can increase customer satisfaction at four key touch points: contract conclusion, contract modifications, damage event, and further contacts. The results suggest strategic measures to strengthen sales and marketing positions, simplify standard processes, and increase efficiency and customer interaction.

**Dash et.al (2021)** examined the impact of digital marketing practices on customer satisfaction, involvement, and purchase intention in life insurance during the COVID-19 pandemic. Five dimensions of digital marketing strategies were analyzed, with SEM/SEO, display, and E-CRM practices significantly affecting customer satisfaction and purchase intention. A mediation-cum-moderation approach was used, finding customer satisfaction significantly affected purchase intention and acting as a mediator. Customer involvement moderated the relationship between content marketing and communication with purchase intention. The research helps life insurance marketers understand their strengths and plan for decision-making to improve customer satisfaction and purchase intentions during the pandemic and lockdowns.

### **3. Research Methodology**

#### **3.1 Research Design**

The paper adopts a sequential explanatory mixed-methods research design, which combines qualitative and quantitative researches, in order to comprehend the multifacetedness of engagement, trust and interaction in life insurance services in the face of digital transformation. The study is carried out in two stages, the first exploratory stage, during which semi-structured interviews are carried out with customers, agents, and managers to determine context-specific notions of engagement and trust towards digital environments, as well as confirm or disprove existing scales of measurement. The quantitative step implies an organized survey of life insurance clients, which is evaluated with the help of the statistical methods, such as descriptive statistics, correlation, multiple regression, and ANOVA to compare the relations between the variables and verify a hypothesis. This combination methodology will provide a theoretical construct that is based on real-life experiences and tested, which will increase the validity and reliability of the results of the research study.

#### **3.2 Population and Sampling**

The study target population will include policyholders in Indian life insurance firms including those who mainly engage with the services of the companies via digital means like mobile apps, websites, and call centers, and those who still rely on the traditional agent- or branch-based services. Such extensive coverage gives sufficient reflection of various degrees of digital adoption and distance between the customer. It uses a stratified purposive sampling method to achieve the heterogeneity of the population, where stratification is done on the type of services channels (digital-first, hybrid, and agent-dominated), population demographic (age, gender, education, and urban-rural location), and policy features (tenure, premium size, product type term insurance, endowment, or ULIP). In the case of the qualitative phase, 20 to 25 customers, 8 to 10 agents, and 5 to 8 managers are selected by the purposive and snowball sampling penetrating to thematic saturation. To address the quantitative phase, the researcher plans to sample approximately 180 policyholders, which is adequate to perform descriptive statistics, correlation, regression, and ANOVA hence making the research to be robust and generalizable to the targeted population segments.

#### **3.3 Data Collection**

This study operates on sequence explanatory mixed-methods approach to data collection; this approach involves a qualitative step and a quantitative step. During the qualitative phase, semi-structured interviews will also be carried out with the customers, agents, and managers to discuss their experience with life insurance online platforms, what influences their trust during digital interactions, whether there are perceived differences between

agent-based and digital interactions, and what customer distance means in their decision-making. These 30-45 minutes interviews are conducted over telephone, Zoom or in-person (where it is possible) and are audio-recorded with consent and transcribed verbatim and anonymized to protect confidentiality. The learnings of this step are applied to the creation of the quantitative instrument. During the quantitative phase, a structured questionnaire based on validated scales developed with references to qualitative data and distributed both online tools (Google Forms/Qualtrics) and offline (paper surveys in insurance departments) are introduced to represent the respondents of various digital literacy levels. A small pilot study of 30 people is conducted to ascertain clarity, reliability, and validity of items after which, the revision is done and the final survey is conducted on the target sample thus producing the dataset to be used in the statistical analysis.

### 3.4 Data Analysis

The research design is a mixed-method one in which both qualitative and quantitative data are used. At the qualitative phase, the interview transcripts are coded manually to reveal emerging themes e.g. loss of personal touch and digital empathy. It is saturated thematically to avoid the emergence of new themes. The insights are then narrowed down to the quantitative survey. Data is interpreted by means of SPSS and descriptive statistics are adopted in order to generalize demographics and important variables. Tests are conducted to determine the reliability of scale and the construct validity. Cronbach alpha is used to test the reliability of scale and exploratory factor analysis is used to test the construct validity. To determine the significant differences between the demographic groups and service channels, inferential statistics comprise Pearson correlation, multiple regression analysis, and ANOVA.

## 4. Results

In this section, the findings of the empirical analysis that was performed to assess the associations between engagement, trust, quality of interactions, customer distance, and satisfaction are provided in the framework of digital life insurance services. The analysis is based on the sequential explanatory design utilized in the methodology, that will commence with descriptive understanding of the demographic profile of the respondents, and proceed with reliability and validity tests of the constructs. Thus, the discussion of descriptive statistics of the key variables follows, and the regression analysis, which studies the hypothesized associations, is provided. In such a way of structuring of the results, the study describes the features of the sample and provides the strength of the measurement instruments, then addressing the main hypotheses of the research.

**Table 1: Demographic Profile**

<b>Age</b>	<b>Frequency</b>	<b>Percent</b>
Below 25 years	64	29.1
25–34 years	62	28.2
35–44 years	41	18.6
45–54 years	34	15.5
Above 55	19	8.6
<b>Gender</b>	<b>Frequency</b>	<b>Percent</b>
Male	116	52.7
Female	104	47.3
<b>Education</b>	<b>Frequency</b>	<b>Percent</b>
High school	48	21.8
Graduate	87	39.5
Postgraduate	58	26.4
Other	27	12.3
<b>Occupation</b>	<b>Frequency</b>	<b>Percent</b>
Student	29	13.2
Salaried (Private Sector)	20	9.1
Salaried (Government Sector)	29	13.2
Business / Self-employed	23	10.5

Professional (Doctor, Lawyer, Engineer, Teacher, etc.)	28	12.7
Homemaker	40	18.2
Retired	27	12.3
Unemployed	24	10.9
<b>Location</b>	<b>Frequency</b>	<b>Percent</b>
Urban	118	53.6
Semi-urban	65	29.5
Rural	37	16.8
<b>Interaction Mode</b>	<b>Frequency</b>	<b>Percent</b>
Digital-first	80	36.4
Hybrid (Digital + Agent)	83	37.7
Traditional Agent	57	25.9
Total	220	100

The demographic analysis of the 220 respondents reveals a diverse representation across age, gender, education, occupation, location, and interaction mode. In terms of age, the largest groups were respondents below 25 years (29.1%) and those aged 25–34 years (28.2%), together accounting for more than half of the sample, while older age groups were represented at lower levels, with only 8.6% above 55 years. The gender distribution was fairly balanced, with 52.7% male and 47.3% female participants. Educationally, a significant proportion were graduates (39.5%) and postgraduates (26.4%), while 21.8% had completed high school and 12.3% reported other qualifications. Occupational data showed that homemakers (18.2%), students (13.2%), and those in the government sector (13.2%) were the largest categories, followed by professionals (12.7%), business/self-employed individuals (10.5%), unemployed (10.9%), retired (12.3%), and salaried employees in the private sector (9.1%). Regarding location, a majority of respondents were from urban areas (53.6%), followed by semi-urban (29.5%) and rural areas (16.8%), reflecting a strong urban skew in the sample. Finally, interaction mode with insurers indicated that hybrid users (37.7%) and digital-first users (36.4%) dominated, while traditional agent-based interactions (25.9%) were less common. Overall, the demographic distribution highlights a youthful, urban, and digitally inclined respondent base, which aligns well with the study’s focus on digital engagement in life insurance services.

**Table 2: Reliability**

Construct	Items (N)	Cronbach’s Alpha	Reliability Level
Engagement	5	<b>0.816</b>	Good
Trust	5	<b>0.832</b>	Good
Interaction Quality	5	<b>0.828</b>	Good
Customer Distance	5	<b>0.790</b>	Acceptable
Customer Satisfaction	3	<b>0.746</b>	Acceptable

The reliability analysis was conducted using Cronbach’s Alpha to assess the internal consistency of the constructs. As shown in the table, all constructs demonstrated acceptable to good reliability. Engagement ( $\alpha = 0.816$ ), Trust ( $\alpha = 0.832$ ), and Interaction Quality ( $\alpha = 0.828$ ) all fall within the “good” range, indicating strong consistency among their respective items. Customer Distance ( $\alpha = 0.790$ ) and Customer Satisfaction ( $\alpha = 0.746$ ) fall within the “acceptable” threshold, demonstrating that the items reliably measure their underlying constructs, though slightly lower compared to the other scales. Since all Cronbach’s Alpha values exceed the minimum recommended cut-off of 0.70 (Nunnally, 1978), the instrument can be considered reliable for further statistical analysis. These results confirm that the questionnaire items are internally consistent and suitable for hypothesis testing and structural model analysis.

**Table 3: Descriptive analysis**

**Descriptive Statistics**

	N	Mean	Std. Deviation
Engagement_1	220	3.68	.886
Engagement_2	220	3.73	.880
Engagement_3	220	3.73	.814
Engagement_4	220	3.75	.793
Engagement_5	220	3.82	.790
Trust_6	220	3.72	.795
Trust_7	220	3.71	.803
Trust_8	220	3.63	.915
Trust_9	220	3.68	.776
Trust_10	220	3.69	.853
InteractionQuality_11	220	3.69	.864
InteractionQuality_12	220	3.83	.815
InteractionQuality_13	220	3.79	.797
InteractionQuality_14	220	3.76	.787
InteractionQuality_15	220	3.75	.819
CustomerDistance_16	220	3.75	.797
CustomerDistance_17	220	3.79	.850
CustomerDistance_18	220	3.79	.779
CustomerDistance_19	220	3.78	.788
CustomerDistance_20	220	3.82	.755
CustomerSatisfaction_21	220	3.72	.771
CustomerSatisfaction_22	220	3.71	.761
CustomerSatisfaction_23	220	3.73	.791
Valid N (listwise)	220		

The descriptive statistics indicate that the overall agreement is moderate-to-high on all the constructs being measured on a five-point Likert scale. To promote engagement, the mean scores were between 3.68 and 3.82, and the highest agreement was recorded in relation to the convenience of the digital services ( $M = 3.82$ ,  $SD = .790$ ). On the same note, trust items also responded in a consistent manner with a mean of 3.63 to 3.72, showing that the respondents trusted the digital platform of their insurers, although transparency and accuracy ( $M = 3.63$ ,  $SD = .915$ ) were lower compared to the other trust items. The means of interaction quality were slightly higher (between 3.69 and 3.83) with perception of communication clarity, response timeliness, and supportive interaction showing the

highest level of positive responses, the promptness of response ( $M = 3.83$ ,  $SD = .815$ ) being the most positive notice. With respect to the customer distance, means were equally moderate ( $3.753.82$ ), as respondents admitted to having a perception of having a decreased personal distance in an online channel, but also having an enhancement of accessibility. Lastly, the customer satisfaction levels were quite steady, ranging between  $3.71$  and  $3.73$ , and indicating that overall, the digital life insurance services experience was reasonably satisfying to the respondents. The standard deviations of all items (between  $0.755$  and  $0.915$ ) reflect a rather low level of variability, which implies that the answers were similar among the sample.

**H1a:** Higher customer engagement with digital platforms positively influences perceived interaction quality.

**H1b:** Higher customer engagement with digital platforms positively affects trust in life insurance services.

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized	t	Sig.
		B	Std. Error	Coefficients		
1	(Constant)	9.855	.763		12.918	.000
	Engagement	.070	.040	.117	1.746	.082

a. Dependent Variable: customer satisfaction

H1a and H1b regression analysis analysis is based on customer engagement and customer satisfaction, which is utilized as a proxy of perceived quality of interaction and trust. The unstandardized coefficient ( $B = 0.070$ ) implies that when engagement increases by 1 unit, the customer satisfaction will increase by  $0.070$  units other things being equal. The standardized coefficient ( $Beta = 0.117$ ) indicates a positive but insignificant effect size. The t-value ( $1.746$ ) is equivalent to the p-value ( $Sig. = 0.082$ ) that is greater than the standard significance level of  $0.05$ . This indicates that the correlation between engagement and customer satisfaction is not significant at 5 percent level. The intercept ( $= 9.855$ ,  $p < 0.001$ ), shows the anticipated level of customer satisfaction in the case of no engagement. In general, the findings suggest provisional support of the hypotheses that more engagement enhances perceived interaction quality and trust, however, the data is not significant enough to demonstrate the effect to be statistically significant in this sample.

**H2a:** Greater trust in life insurance services positively affects customer satisfaction.

**H2b:** Trust in digital interactions is negatively affected by perceived customer distance.

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized	t	Sig.
		B	Std. Error	Coefficients		
1	(Constant)	11.239	.747		15.052	.000
	trust	-.004	.040	-.006	-.096	.924

a. Dependent Variable: customer satisfaction

The regression analysis will be testing the impact of trust on customer satisfaction. The unstandardized coefficient ( $B = -0.004$ ) indicates a very weak negative relationship, that is, one unit increase in trust would lead to a  $0.004$  unit reduction in customer satisfaction, all other factors being held constant. The standardized coefficient ( $Beta = -0.006$ ) represents the insignificant effect size. The t-value ( $-0.096$ ) and the p-value ( $Sig. = 0.924$ ) show that this association is not statistically significant because the p-value is much more than the standard value of  $0.05$ . The intercept (constant =  $11.239$ ,  $p = 0.001$ ) depicts the level of the customer satisfaction which should be expected in the case of zero trust. In general, these findings suggest that the impact of trust on customer satisfaction is insignificant in this sample, and H 2 a is incorrect. Likewise, the possible negative influence of customer distance on trust (H2b) would have to be tested individually since, in this model, distance is not provided as a predictor.

**H3a:** Higher quality of interaction (clarity, responsiveness, support) positively impacts trust in life insurance services.

**H3b:** Higher quality of interaction positively influences overall customer satisfaction.

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	10.597	.777		13.638	.000
	Interaction quality	.030	.041	.050	.746	.457

a. Dependent Variable: customer satisfaction

The regression analysis analyses how the quality of interaction affects customer satisfaction which is a measure of the outcome of trust and satisfaction. The B-value (B = 0.030) implies that the customer satisfaction is expected to rise by 0.030 units, other things held constant, as the quality of interaction increases by one unit. The standardized coefficient (Beta = 0.050) represents a very negligible positive effect size. The t-value (0.746) and p-value (Sig. = 0.457) indicate that the relationship is not statistically significant because the p-value is far much greater than the standard level (0.05). The intercept (= 10.597, p < 0.001) is the expected customer satisfaction when the quality of interaction is zero. The general findings of these results are that the quality of interaction does not play an important role as to influence customer satisfaction in this sample, implying that H3a and H3b are not statistically significant even with a positive direction of the effect.

**H4a:** Greater perceived customer distance negatively affects engagement with digital life insurance platforms.

**H4b:** Greater perceived customer distance negatively impacts trust in digital interactions.

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	11.643	.838		13.899	.000
	Customer distance	-.025	.044	-.039	-.574	.567

a. Dependent Variable: customer satisfaction

The regression analysis examines how the customer distance impacts on customer satisfaction, through which the hypothesized impact on engagement and trust is examined indirectly. The coefficient (B = -0.025) is unstandardized meaning that given the other factors remaining the same, customer satisfaction will reduce by 0.025 units as perceived customer distance increases by one unit. The standardized coefficient (Beta = -0.039) indicates a negative effect size which is very weak. Nonetheless, t-value (-0.574) and the corresponding p-value (Sig. = 0.567) indicate that such a relationship is not statistically significant because the p-value is greater than the 0.05 value. The constant (11.643, p < 0.001) demonstrates the level of customer satisfaction in the absence of customer distance. On the whole, these results mean that the direction of influence complies with the suggestion (the further the distance the less the satisfaction), however, the impact is statistically insignificant, i.e. H4a and H4b cannot be supported by the current data.

**CFA (Confirmatory Factor Analysis)**

Confirmatory Factor Analysis (CFA) was used to validate the measurement model and to affirm the foundational structure of the latent constructs posited in the study. CFA is a multivariate statistical method that looks at how

observed variables are related to their latent factors. This helps to check the construct validity of the measurement tool. The analysis helps figure out how well the data we saw fits the model we thought it would, based on what we learned from the literature study. We used several observable indicators to measure each construct in the model, and we looked at the standardized regression weights to see how strong and important these correlations were. We used model fit indices such  $\chi^2/df$ , GFI, AGFI, CFI, TLI, RMSEA, and RMR to see if the measurement model was good enough overall. The following figure and tables show the results of the CFA, which include the standardized factor loadings, variance estimates, and model fit statistics.

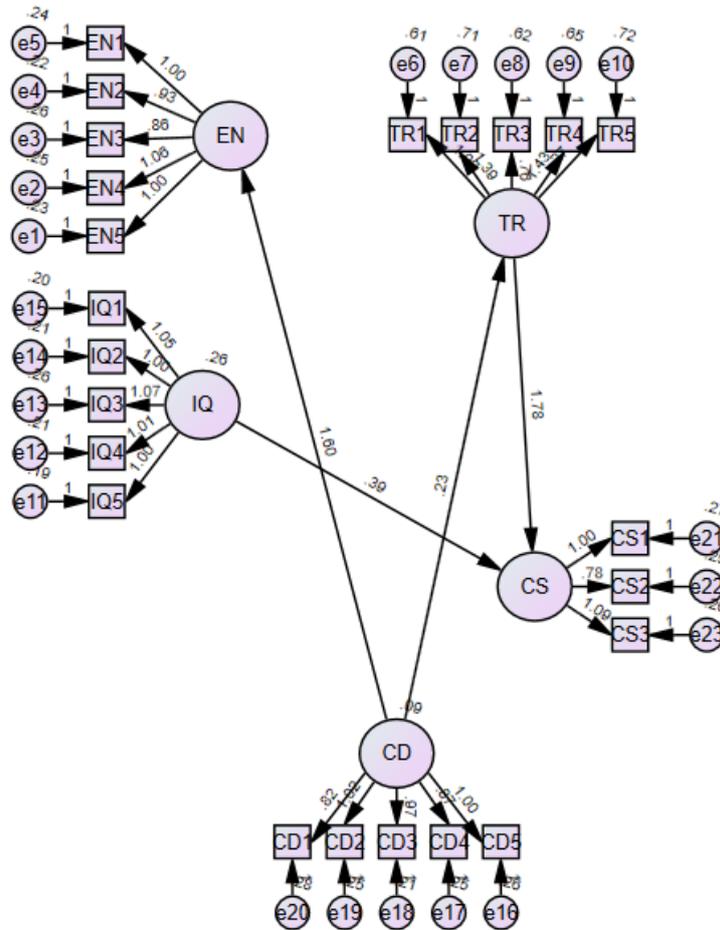


Figure 1: Structural Representation of the Confirmatory Factor Analysis (CFA) Model

Table 4: Variances (Measurement Error Terms)

Parameter	Estimate	S.E.	C.R.	P-value
IQ	0.263	0.042	6.279	***
CD	0.091	0.024	3.783	***
e1 – e23	0.194 – 0.725	0.021 – 0.069	8.25 – 10.46	***

The CFA variance results show that both latent constructs, Information Quality (IQ) and Content Design (CD), have significant variance estimates, indicating good reliability of their respective indicators. IQ has a variance of 0.263 (S.E. = 0.042, C.R. = 6.279,  $p < 0.001$ ), while CD shows a variance of 0.091 (S.E. = 0.024, C.R. = 3.783,  $p < 0.001$ ). The error variances ( $e_1$ – $e_{23}$ ) range from 0.194 to 0.725 with C.R. values between 8.25 and 10.46, all

significant at  $p < 0.001$ , confirming that the measurement errors are within acceptable limits and the model parameters are statistically sound.

**Table 5: Model Fit Summary**

Fit Index	Obtained Value
$\chi^2$ (CMIN) / DF	5.199
P-value	0.000
GFI	0.620
AGFI	0.542
NFI	0.506
CFI	0.554
TLI	0.507
RMSEA	0.138
RMR	0.107
AIC	1284.482
ECVI	5.865
HOELTER (0.05)	49

The CFA model fit indices show that the measurement model needs to be improved to fit better. The  $\chi^2/df$  ratio of 5.199 is higher than the required value of 3, which means that the model fits somewhat well. The GFI (0.620) and AGFI (0.542) values are both lower than the acceptable limit of 0.90. The NFI (0.506), CFI (0.554), and TLI (0.507) values are likewise lower than the ideal value of 0.90, which means that the model does not fit well. The RMSEA value of 0.138 and the RMR value of 0.107 are also greater than the acceptable cut-off of 0.08, which shows that the model has to be improved even more. The AIC (1284.482) and ECVI (5.865) figures show that other models might be more parsimonious. Finally, the Hoelster value (49) is less than 200, which shows that the sample size is not large enough to ensure model stability. In general, these results show that the model may need to be changed in order to get a satisfactory fit.

### **Discussion**

As the results of the present research indicate, although customers of Indian life insurance providers disclose moderate-to-high rates of engagement, trust, the quality of interaction, and contentment with online platforms, they do not manifest any statistically significant effects in the regression analysis, which underscores the intricacy of the relationship between functional efficacy and relational depth. Digital channels like mobile apps, portals and chatbots are convenient and easily accessible, but they seem to introduce a feeling of customer detachment that undermines the reassurance of emotion and loyalty that is created through face to face communication between customers and agents. This corroborates past studies that highlight the fact that trust towards digital insurance is weak, contingent, and can be easily broken by the perceived impersonality or absence of empathy (Wu et al., 2022; Franco et al., 2025). The distance between descriptive and inferential outcomes can indicate that customers might view digital tools as credible when it comes to basic transactions but they are still unwilling to equate them with the level of relationship security that is required when it comes to long-term financial engagements. Ideally, this highlights the need to distinguish between functional trust in technology and relational trust in human representatives, whereas in practice, it implies that insurers need to implement hybrid strategies that combine digital convenience and humanized and empathetic touchpoints. The digital era will require managing the

customer distance which will be difficult without the use of personalization, emotional intelligence, and segmentation as the sources of sustaining loyalty.

## **Conclusion**

The proposed study aimed to check the dynamics of engagement, trust, interaction quality in the age of digital transformation and customer distance in the Indian life insurance industry. The findings demonstrate a paradox wherein despite the increase in accessibility, efficacy and practical convenience of digital platforms among policyholders, the findings have not been associated with statistically significant changes in trust, engagement and satisfaction. The customers seem to like the digital channels as being useful but still feel that there is a relational gap that hinders long term emotional reassurance and loyalty. Such an observation brings forward the issue of customer distance that has remained a thorn in the flesh, as in digital convenience, interpersonal connection is compromised. Theoretically, the research can be seen as the extension of engagement-trust-interaction frameworks to the life insurance area and proves the inapplicability of the frameworks created in the context of the e-commerce and banking sector to the extreme engagement financial products. In practice, the findings indicate that digital transformation cannot be trusted by insurers in gaining customer loyalty. Rather, there should be hybrid models that combine digital effectiveness with custom-made human interactions to establish long-term trust. Emotional intelligence, understanding communication and customer segmentation tactics will be necessary to focus the gap between practical service provision and relational assurance. On the whole, the research paper emphasizes that the future of the life insurance companies does not only consist in embracing new technologies and innovations, but also in redefining how digital communications can recreate, and hopefully even improve the depth of human relationships in long-term finance relations.

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