



The Study of Policyholder's Perception Towards Evolution of InsurTech Companies

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Abstract : In recent years, InsureTech companies have changed how the insurance industry works by using technology to manage policies, process claims, and improve customer service. With more people using digital platforms, policyholder's views on insurance services have also changed. The last decade made digital insurance services even more important, as people had to rely on online platforms for buying and managing insurance. This study focuses on how InsurTech companies have changed and how policyholder's trust, concerns, and preferences have changed. This study aims to assess policyholders' awareness and understanding of InsurTech companies and their services, analyze the factors influencing policyholders' perception and adoption of digital insurance services, and examine the role of COVID-19 in accelerating the adoption of digital insurance solutions. For the study, a structured questionnaire was shared with people from different areas of Gujarat, and 151 responses were collected. This study uses descriptive analysis and a multiple regression model to understand how technology and consumer trust have influenced people's opinions about digital insurance services. The findings of this study will help insurance companies, policy agents, and other stakeholders understand how policyholder's expectations and concerns have changed. This will help them create better strategies to increase trust, improve digital adoption, and ensure the long-term success of InsurTech services.

IndexTerms - InsurTech, Digital Adoption, Policyholder, COVID-19, Trust insert.

Introduction

Insurance plays a crucial role in financial security by providing individuals and businesses with protection against unforeseen risks. According to NCERT, insurance is a contract where an individual pays a premium to an insurance company in exchange for financial compensation in case of any specific loss or damage. Traditionally, insurance processes have been manual and time-consuming, but with advancements in technology, the industry is evolving to become more efficient and efficient.

India has witnessed significant progress in digitalization over the past few decades. The government initiatives such as Digital India, launched in 2015, have improved internet connectivity and smartphone usage. Digital services have expanded across various sectors like banking, healthcare, education, etc. The insurance industry was slow to adopt digitalization but now has integrated technology into its processes. Online policy issuance, AI-driven risk assessment, and digital claim processes have become common in the insurance industry. As a result, more people are choosing digital insurance solutions, which led to the rise of InsureTech, which is a revolution for the insurance sector.

InsureTech is a short form for Insurance and Technology, which means the use of technology to make insurance services faster, easier, and more efficient. InsureTech companies use Artificial Intelligence (AI) for analyzing data and recording data to improve insurance processes. The main motive of InsureTech is to make insurance services easier and more effective for people. Unlike traditional insurance companies, InsureTech offers policies that meet individuals' needs, provide quicker services, and use digital tools to improve processes. Adopting technology helps insurance companies to reach out more customers than before, especially those who have limited access to insurance services. InsureTech companies provide various services to make insurance easier and more accessible for policyholders. They use advanced technology to analyze risks and decide prices for policies. Digital tools help in processing claims quickly, reducing paperwork and making it even simpler for policyholders to redeem their claims. Online records ensure safe transactions and prevent fraudulent practices. InsureTech also offers flexible payment options, where policyholders can pay based on usage, like car insurance that charges based on the kilometers driven, similar to paying for fuel that is used. Short-term insurance plans, such as travel insurance, are available as per policyholder's requirements. InsureTech promotes group insurance where policyholders collectively contribute to cover their claims. These innovations make the insurance industry more accessible and efficient.

Literature Review:

The insurance sector is changing due to technology and increasing concerns about cyber security. Several studies have discussed how these changes affect insurance companies, customers, and the overall market.

A study by Kshetri (2017) focused on cybersecurity threats in the insurance industry, especially in the U.S. The research showed that when a company faces a data breach, customers lose trust, which leads to financial losses. This highlights the need for strong cybersecurity systems. However, since the study only covered the U.S., it does not explain how cyber security challenges impact insurance companies in other countries.

Similarly, Andriole (2020) examined how insurance companies deal with cyber risks. The study found that while many firms use advanced security technology, they often fail to train employees properly, which makes them vulnerable to cyberattacks. This shows that training staff is just as important as using technology to keep customer data safe. However, the research did not analyze how well these strategies work in the long run.

A global study by ISO (2021) compared cyber security policies in different countries. It found that while some nations have strong security systems, others struggle with weak protection, leaving personal data at risk. Although this research gives a broad view of global cyber security measures, it does not focus much on how individual policyholders are affected. In Europe, Bohme and Moore (2018) studied the financial impact of cybersecurity failures on insurance companies. This research found that data breaches not only lead to immediate financial losses but also damage

a company's reputation, causing customers to leave. This aligns with earlier research that shows trust is crucial in the insurance industry. However, this study does not explore ways to prevent such losses.

In India, Singh and Singh (2022) looked at the role of government rules in cyber security for insurance firms. Their study found that while there are regulations in place, many companies struggle to follow them due to a lack of resources and expertise. This highlights the need for better support to help companies follow security guidelines. However, the study does not focus on how technology can help improve compliance, which remains an area for future research.

Apart from cyber security, technology is also transforming the insurance industry. Ma and Ren (2023) studied how InsurTech innovations are affecting the market. They found that investors responded positively to innovations like blockchain, peer-to-peer insurance, and on-demand digital insurance. However, strategies like digital distribution and data analytics received a negative response. Interestingly, the study also found that when technology firms introduce new services, they disrupt the insurance industry. But when traditional insurance companies make similar changes, it has little effect on the market. This research shows how technology is reshaping the insurance industry in unexpected ways.

Another study by Volosovych et al. (2021) examined how the COVID-19 pandemic changed the insurance market. The study found that digital adoption in insurance increased rapidly, with companies using AI, chatbots, and predictive analytics to improve services. However, it also highlighted problems such as rising fraud, increased customer interactions, and growing competition from big tech companies. These findings suggest that the pandemic made InsurTech more important for the future of the industry.

Additionally, Ramadan et al. (2023) focused on changes in shopping behavior during the pandemic, especially in e-commerce. The study categorized online shoppers into four types based on their interest in technology and shopping habits. It also identified two major phases of consumer behavior changes during the pandemic. These insights help businesses, including insurance firms, understand how to adapt to digital trends and customer expectations.

A study by McKinsey & Company (2021) explored how AI is transforming the insurance sector. It found that AI-driven solutions, such as chatbots and predictive analytics, have improved customer service, fraud detection, and risk assessment. These advancements have made claims processing faster and more efficient. However, the study also highlighted concerns about data privacy and the ethical challenges of AI decision-making. While this research focuses on the benefits of AI, it does not discuss how AI impacts employment in the insurance sector.

Similarly, Zetzsche et al. (2018) studied the impact of blockchain on fraud prevention in the insurance industry. The research found that blockchain creates tamper-proof records, reducing fraud and improving transparency in claims processing. However, the adoption of blockchain is slow due to regulatory challenges and high implementation costs. While this study highlights blockchain's potential, it does not provide enough real-world examples from developing countries, where insurance fraud is a major issue.

Another study by Romanosky et al. (2019) examined the challenges of cyber insurance and how insurers assess cyber risks. The study found that many businesses underestimate the importance of cyber insurance, leading to coverage gaps. Insurers use factors like company size, industry, and past data breaches

to determine policy pricing, but accurately pricing cyber risks remains a challenge. However, this study does not explore whether small and medium size businesses can afford cyber insurance or if government support could improve coverage.

In the area of underwriting, Cummins and Rubio-Misas (2020) analyzed how big data is reshaping the insurance industry. The study found that machine learning helps insurers assess risks more accurately, leading to better pricing and personalized policies. However, the study also pointed out concerns about data bias, which could result in certain groups of customers being treated unfairly. While the study explains the benefits of big data, it does not explore how insurers can ensure fairness and transparency in their algorithms.

Lastly, Deloitte Insights (2022) focused on how digitalization is improving customer experience in the insurance sector. The research found that mobile apps, self-service portals, and AI-powered recommendations have made insurance more accessible. However, it does not analyze whether these advancements have made insurance more affordable for low-income customers.

Research Objective

1. To assess policyholders' awareness and understanding of InsurTech companies and their services.
2. To analyze the factors influencing policyholders' perception and adoption of digital insurance services.
3. To examine the role of COVID-19 in accelerating the adoption of digital insurance solutions.

Hypotheses

- **H₀:** There is no significant relationship between InsurTech awareness and user experience with digital insurance services.
- **H₁ :** There is significant relationship between InsurTech awareness and user experience with digital insurance services.

Research Design and Data Collection

Qualitative method and Quantitative method are approached for this study. Primary data and secondary data have been considered for the study. Primary data has been collected through structured questionnaires and formal and informal interviews of the policyholders. Secondary data have been collected from journals, official websites of financial companies, and published government reports.

Sample size and sampling method

The study employs a simple random sampling method. Data is collected from a sample of 175 respondents but only 151 responses are considered.

Tools of the study

Chi-square test, and descriptive analysis have been considered for data analysis.

Limitations of the study

- Primary data have been considered and limited to 350 respondents for this study.
- The study is limited to only policyholders.
- Rapid technological advancements may render findings time-sensitive.

Data analysis and findings

The table no. 1 represents the demographic profile of respondents. It shows that 47 percent of the respondents are female and 53 percent of the respondents are male by their gender.

The table further represents the age group of respondents, 55 percent of respondents are below 25 years, 19.2 percent of respondents are in the age group of 25 – 34 years, 7.9 percent and 6.6 percent of total respondents represent the age group of 45 – 54 and 55 and above years respectively.

Table 1 Demographic profile of respondents					
Gender					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	FEMALE	71	47.0	47.0	47.0
	MALE	80	53.0	53.0	100.0
	Total	151	100.0	100.0	
Age					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	BELOW 25	25	55.0	55.0	55.0
	25 – 34	47	19.2	19.2	74.2
	35 – 44	38	11.3	11.3	85.5
	45 – 54	8	7.9	7.9	93.4
	ABOVE 55	1	6.6	6.6	100.0
	Total	151	100.0	100.0	
Education Qualification					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	High School or Below	21	15.9	15.9	15.9
	Graduate	25	51.0	51.0	66.9
	Postgraduate	61	25.8	25.8	92.7
	Professional Certification	4	7.3	7.3	100.0

	Total	128	100.0	100.0	
Occupation					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Insurance Professional	12	7.9	7.9	7.9
	Financial Analyst	22	14.6	14.6	22.5
	Policyholder / Customer	34	22.6	22.6	45.1
	Entrepreneur / Business Owner	35	23.2	23.2	68.3
	Student	16	10.6	10.6	78.9
	Academician / Researcher	32	21.1	21.1	100.0
	Total	151	100.0	100.0	

The table gives a clear idea about the demographic profile of the respondents. In terms of gender, out of 151 people, 47% are females and 53% are males. This shows a slight majority of males, but overall the ratio is balanced. When we look at age groups, 55% of the respondents are below 25, which means most of the respondents are young. The next age group is 25-34 years consisting of 19.2% of total respondents, followed by 35-44 years 11.3%. Only 7.9% are between 45-54 years age group and just 6.6% are above 55 years. This means the majority of the respondents are young. Talking about the educational qualification of respondents, 51% of respondents out of 151 respondents are graduates, then followed by post-graduated respondents which are 25.8% of total respondents. 15.9% of the respondents have studied only up to high school or below and 7.3% of the respondents have professional certification. Altogether, all respondents are well educated .

Table 2 Features of the InsuTech							
	N	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
Ease of access & convenience	151	.4267	.49625	.300	.198	-1.936	.394
Faster claims processing	151	.4733	.50096	.108	.198	-2.015	.394
Lower costs & better pricing	151	.3826	.48765	.488	.199	-1.786	.395
AI-driven personalized recommendations	151	.2583	.43914	1.116	.197	-.766	.392
Better customer support	151	.2267	.55740	4.744	.198	35.290	.394
Not Applicable	151	.0795	.27137	3.141	.197	7.971	.392
Valid N (listwise)	151						

The table 2 reveal varying perceptions of AI-driven insurance benefits. "Ease of access & convenience" and "Faster claims processing" have similar means (~0.43–0.47) and low skewness, indicating moderate agreement. "Lower costs & better pricing" (M = 0.38) shows slightly more variability, while "AI-driven personalized recommendations" (M = 0.26) is positively skewed, suggesting lower agreement. "Better customer support" (M = 0.23) exhibits extreme positive skewness (4.744) and kurtosis (35.290), indicating

highly skewed responses. "Not Applicable" ($M = 0.08$) is also highly skewed (3.141), suggesting most respondents found AI benefits relevant.

Table 3 Concern towards InsurTech							
	N	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
Data security & privacy risks	151	.5099	.50156	-.040	.197	-2.025	.392
Lack of human interaction	151	.4371	.49768	.256	.197	-1.960	.392
Complexity in understanding policies	151	.4503	.49918	.202	.197	-1.986	.392
Trust in digital insurers	151	.3974	.49098	.424	.197	-1.845	.392
Valid N (listwise)	151						

The statistics reveal key concerns about AI-driven insurance in the above table 3. "Data security & privacy risks" ($M = 0.51$) is the most significant issue, with nearly balanced opinions (skewness = -0.040). "Lack of human interaction" ($M = 0.44$) and "Complexity in understanding policies" ($M = 0.45$) have slight positive skewness, indicating moderate concerns. "Trust in digital insurers" ($M = 0.40$) shows higher skepticism with a skewness of 0.424. All concerns have negative kurtosis (~ -1.85 to -2.02), suggesting diverse and less concentrated responses.

- **During COVID 19 InsurTech**

Table 4 Perception of InsurTech during COVID 19 era							
	N	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
PERCEPTION_DURING_COVID	151	1.3576	.48089	.600	.197	-1.662	.392
DURING COVID	151	1.6159	.48800	-.481	.197	-1.792	.392
IMPORTANT DURING COVID	151	.4733	.50096	.108	.198	-2.015	.394
AI_BASED_CPROSECCES	151	.2267	.42008	1.319	.198	-.264	.394
CONTACTLESS_PREMIUM	151	.4533	.49949	.189	.198	-1.991	.394
RISK_ASSESSMENT	151	.1258	.33276	2.279	.197	3.237	.392
Valid N (listwise)	151						

The above table 4 highlights the perceptions of InsurTech benefits during the COVID-19 era. "Perception during COVID" ($M = 1.36$) and "During COVID" ($M = 1.62$) suggest that respondents acknowledged the role of AI in insurance, with slight skewness variations indicating diverse opinions. "Important during COVID" ($M = 0.47$) shows a balanced response, while "AI-based processes" ($M = 0.23$) has a high positive skewness (1.319), suggesting limited adoption. "Contactless premium payments" ($M = 0.45$) had moderate acceptance, while "Risk assessment" ($M = 0.13$) was the least acknowledged benefit, with high skewness (2.279), indicating that few respondents considered it crucial. Overall, InsurTech played a vital role during COVID-19, particularly in contactless processes and claims handling.

- **H₀:** There is no significant relationship between InsurTech awareness and user experience with digital insurance services.

- **H₁** : There is significant relationship between InsurTech awareness and user experience with digital insurance services.

To check the above hypothesis Chi- Square test is used and following cross tabulation revealed the correlation between awareness of InsurTech among policy holder and their experience of digital insurance.

Table 5 Awariness of InsurTech and user experience Count							
		User Experience					Total
		Average	Excellent	Good	Not Applicable	Poor	
Awareness of InsurTech	NO	19	5	21	12	3	60
	YES	9	28	48	6	0	91
Total		28	33	69	18	3	151

The crosstabulation table 5 shows the relationship between Awareness of InsurTech and Experience with Digital Insurance Services. Among respondents aware of InsurTech, 28 rated their experience as Excellent, 48 as Good, and none as Poor, indicating a largely positive experience. In contrast, among those unaware, only 5 rated their experience as Excellent, while 19 rated it as Average and 3 as Poor, showing a relatively less favorable experience.

Table 6 Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	30.070 ^a	4	.000
Likelihood Ratio	31.968	4	.000
N of Valid Cases	151		

a. 2 cells (20.0%) have expected count less than 5. The minimum expected count is 1.19.

As per the Chi-Square test result, (table 6) a Pearson Chi-Square value is 30.070 with df = 4 and a p-value of 0.000, which is statistically significant at the 5% level ($p < 0.05$). This indicates a strong association between InsurTech awareness and user experience with digital insurance services. Since the p-value (0.000) is less than 0.05, the null hypothesis (H_0) is fail to accept and concluded that awareness of InsurTech significantly influences the user experience with digital insurance services.

Findings and Suggestions

- Findings reveals that people generally recognize AI's benefits in making insurance more accessible and speeding up claims. However, they are less convinced about its role in reducing costs or providing personalized recommendations. Many strongly disagree that AI improves customer support.
- It is concluded that people prefer human support and find AI-based insurance policies somewhat difficult to understand.
- As per findings policyholders are more concerned about data privacy and security and considered it as a significant concern.
- During COVID-19 policyholders adopted InsurTech by considering the fact of contactless premium payments and risk assessment rather than going for traditional insurance company.

- The findings suggest that individuals who are aware of InsurTech tend to have a more positive experience with digital insurance services. This implies that increasing awareness and education about InsurTech could enhance user satisfaction and adoption of digital insurance platforms.
- Since awareness of InsurTech is strongly linked to a better user experience, insurance companies should invest in educational initiatives, such as webinars, social media content, and customer workshops, to improve understanding and adoption of digital insurance services.
- As those unaware of InsurTech had a relatively poor experience, insurers should simplify digital insurance platforms, provide user-friendly interfaces, and offer guided assistance (chatbots, tutorials) to enhance accessibility for less tech-savvy users.
- Highlighting success stories and customer testimonials from those with excellent experiences can help build trust and encourage hesitant users to explore digital insurance services, ultimately increasing adoption rates.

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