

Project 2 | Interaction Design '24

Conversational design of a chatbot for complex decision-making

Probing Chatbot for ICICI Prudential Life Insurance

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Guided by : Prof. Swati Pal

Declaration

I declare that this written document represents my ideas in my own words and where others ideas or words have been included, I have adequately cited and referenced the original sources. I also declare that I have adhered to all principles of academic honesty and integrity and have not misrepresented or fabricated or falsified any idea, data, fact or source in my submission. I understand that any violation of the above will be cause for disciplinary action by the institute and can also evoke penal action from the sources which have thus not been properly cited or from whom proper permission has not been taken when needed.

A handwritten signature in dark ink, reading "June Sardar." with a horizontal line under the name.

June Sardar

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Interaction Design

IDC School of Design, IIT Bombay.

December 2023

Approval Sheet

Interaction Design Project 2 titled “Probing Chatbot for ICICI Prudential Life Insurance” by June Sardar (Roll Number 22M2242) is approved for fulfillment of the requirement for the degree of ‘Masters in Design’ in Interaction Design at the Industrial Design Centre, Indian Institute of Technology, Bombay.

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12-Aug-24 (approved via email)

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Acknowledgment

I would like to extend my heartfelt gratitude and appreciation to Professor Swati Pal for her invaluable guidance, support, and mentorship during the course of my research project. Her expertise, insightful feedback, and unwavering encouragement have played a pivotal role in shaping the direction and enhancing the quality of this study. I am immensely grateful for her dedication and commitment to my academic and personal growth.

I would also like to express my sincere thanks to all the faculty members in the Interaction Design department and

my classmates for their valuable input and constructive discussions throughout the design process. Their perspectives and contributions have been invaluable in refining and strengthening the outcomes of this research.

I am also indebted to Swarnali Banerjee for her assistance with the expert review of my design. Lastly, I would like to express my deepest appreciation to my family and friends for their unwavering support and encouragement.

June Sardar

Abstract

This project explores the development of a conversational chatbot tailored for the intricacies of complex decision-making within the domain of insurance, specifically focusing on ICICI Prudential Life Insurance. The objective is to design a probing chatbot that engages users in a natural and informative dialogue, aiding them in navigating the complexities of insurance-related decisions.

To enhance the user experience, the chatbot incorporates probing techniques, allowing it to delve deeper into user preferences and requirements. By posing targeted questions, the chatbot aims to gather comprehensive information, enabling it to offer more accurate and customized suggestions. This approach not only streamlines the decision-making process but also fosters a sense of user engagement and trust.

ICICI Prudential Life Insurance serves as a practical application context for this project, allowing the chatbot to be tailored to the specific nuances and intricacies of the insurance industry. The collaboration with ICICI Prudential ensures that the chatbot aligns with industry standards, compliance requirements, and reflects the company's commitment to providing personalized and user-centric services.

The anticipated outcome of this project is a sophisticated probing chatbot that significantly enhances the efficiency of decision-making processes for users seeking information and guidance within the realm of ICICI Prudential Life Insurance. Additionally, insights gained from this project can contribute to the broader field of conversational AI, offering valuable lessons and best practices for designing chatbots in other complex decision-making domains.

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01 Introduction

Financial illiteracy and underinsurance pose critical challenges to the financial sustainability and well-being of families. The insurance market in India is one such field where information is asymmetrical.

The probing chatbot developed in the project serves as a practical solution to enhance insurance literacy by engaging users in natural and informative dialogues. By addressing the nuances of complex decision-making within ICICI Prudential Life Insurance, the chatbot becomes a valuable tool for middle-class consumers in India. The probing approach, involving tailored questions and personalized recommendations, aims to improve users' understanding of insurance concepts and facilitate more informed purchasing decisions..

Our study's emphasis on the mediating factors, such as trust, perceived benefits, and favorable attitudes towards

insurance, aligns with the project's focus on creating a user-centric and trustworthy chatbot.

As the probing chatbot project and our study converge in addressing the complexities of insurance decisions, the combined insights can offer a holistic approach to improving financial literacy, promoting insurance understanding, and encouraging individuals to make informed choices for their financial security and well-being.

01.a Overview

The project aims to explore the capabilities of chatbots in scaffolding human cognition during complex decision-making tasks, an area that remains largely unexplored. While existing conversational designs for chatbots are primarily utilized for customer service, such as answering FAQs, or as consumer products like Alexa, their potential to facilitate deeper cognitive engagement is underutilized. This research seeks to investigate how a chatbot can be designed to prompt users to reflect on their decisions, guiding them through tasks in a way that enhances their self-awareness and decision-making

process. Through this interaction, the chatbot will not just assist but also challenge and support users in navigating more complex cognitive tasks.

01.b Domain

Buying life insurance is often perceived as a complex and daunting task, particularly due to low financial literacy and the common reliance on insurance agents for decision-making. In India, despite the critical role life insurance plays in enhancing financial well-being, the market suffers from low penetration rates compared to many other countries. This is a significant issue, as it suggests that many people are not adequately protected. The solution lies in empowering consumers by making them aware of the important factors and personal biases that should be considered when selecting and optimizing an insurance policy. By educating consumers on these aspects, they can make more informed decisions that better align with their financial needs and goals, ultimately improving the accessibility and effectiveness of life insurance in India.

01.c User Group

Young adults in India, particularly those aged 22-35 who have recently started a job or a family, are increasingly looking into life insurance as they can afford to pay the premiums. This demographic shift towards a younger population in India means that these individuals are expected to earn and invest or save a portion of their income. Additionally, since purchasing life insurance at an early age generally results in lower premiums, it is in their best interest to understand the benefits of life insurance sooner rather than later. By studying consumer behavior and motivations behind buying life insurance, this project aims to promote better financial inclusion by helping young adults make more informed and strategic choices in securing their financial future.

02 Literature Review

02.a Global rise of chatbot popularity

The global rise of chatbot popularity signifies a paradigm shift in the way businesses and individuals engage with technology. Chatbots, powered by artificial intelligence (AI) and natural language processing (NLP), have become ubiquitous across various industries, transforming customer interactions and streamlining processes. Several factors contribute to the widespread adoption and popularity of chatbots on a global scale

% Enhanced Customer Experience:

Chatbots offer a 24/7 availability for customer queries, providing immediate responses and assistance%

% Accessibility Across Platforms:

Chatbots seamlessly integrate with various communication channels, including websites, messaging apps, and social media platforms. This versatility ensures that users can engage with chatbots through their preferred channels, making interactions more accessible and convenient%

% Pandemic-Driven Digital Transformation:

The global COVID-19 pandemic accelerated the digital transformation across industries, leading to an increased reliance on online services. Chatbots played a crucial role in ensuring seamless digital interactions

02.b Insurance and Chatbots

What are insurance chatbots?

Insurance chatbots are AI-powered conversational agents designed to interact with users in the insurance industry, offering a range of services and assistance. These chatbots leverage artificial intelligence (AI), natural language processing (NLP), and machine learning to understand and respond to user queries in a human-like manner.

How Chatbots For Insurance Are Being Used In 2023?

Here are the 8 most common use cases.

1. Settling and processing claims
2. Answer queries from existing customers
3. Explore cross-selling opportunities

4. Provide policy information and answer specific questions from new customers
5. Act as the first line of contact for agents
6. Help in insurance premium collection
7. Data collection for lead generation
8. Bot to live agent hand-off

Example

1. Aditya Birla Sun Life Insurance has joined forces with Gupshup, a conversational messaging platform, offers a complete life insurance experience on WhatsApp, covering the entire process from onboarding to policy issuance. The WhatsApp chatbot facilitates various services, including generating insurance quotes, making premium payments, and undergoing underwriting, all in real-time.
2. SBI General Insurance has introduced a WhatsApp chatbot, allowing customers to not only buy new insurance policies but also renew existing ones and initiate claims directly through WhatsApp.

3. Boing, the chatbot from Bajaj Allianz General, is actively addressing customer inquiries related to health and motor insurance. Additionally, the platform enables users to file claims, obtain electronic copies of policies, verify policy and claim statuses, and find the locations of branches, hospitals, or workshops.
4. ICICI Lombard is using its chatbot MyRA for sale of policies as well. MyRA offers the capability to purchase and renew two-wheeler insurance policies. For more intricate claim- related inquiries, the system redirects the queries to human agents, recognizing the complexity of providing responses. Concurrently, MyRA is now utilized by the insurer to market certain intricate products, such as fire and burglary insurance, to small and medium enterprises.

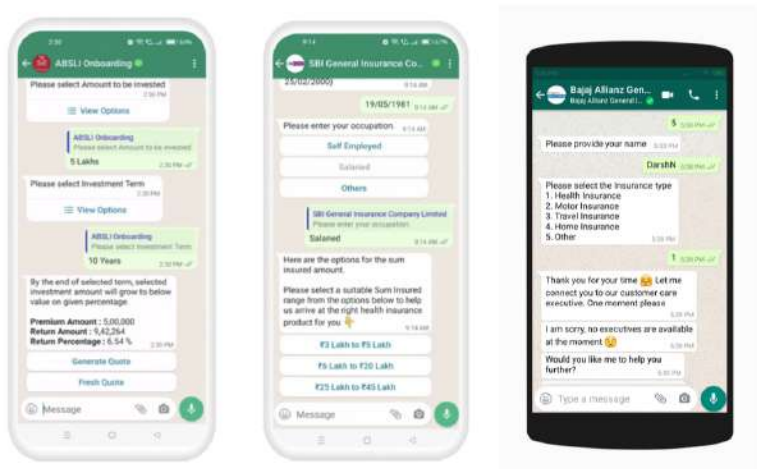


Fig : Existing Insurance Chatbot conversations

Here, in the context of insurance, we see a prevalent application involving the utilization of conversational "robo-advisors." These advisors aim to (i) gather information on users' interests, preferences (e.g., specific industries), values (including environmental and social aspects), and risk tolerance, and subsequently (ii) offer recommendations for suitable financial products, and investment strategies. For insurance providers, employing robo-advisors presents the advantage of streamlining customer onboarding and support processes, enhancing overall efficiency.

02.c Biases that occur during buying insurance

1. **Anchoring Bias:** Anchoring bias occurs when individuals rely too heavily on the first piece of information they receive. In insurance, this might happen if an initial quote is perceived as the standard, leading individuals to base subsequent decisions and comparisons on that anchor.
2. **Confirmation Bias:** Confirmation bias involves giving preference to information that confirms pre-existing beliefs or expectations. When buying insurance, individuals might selectively focus on information that aligns with their initial opinions about a particular policy or provider.
3. **Overconfidence Bias:** Overconfidence bias occurs when individuals overestimate their own abilities or knowledge. This bias can lead people to believe they have a more comprehensive understanding of insurance terms and conditions than they actually do, potentially influencing their purchasing decisions.
4. **Social Proof Bias:** Social proof bias involves relying on the actions or opinions of others in

decision-making. In the context of insurance, individuals may be influenced by the choices of their peers or societal norms rather than conducting an independent assessment of their own needs

5. Framing Bias: Framing bias occurs when the way information is presented influences decision-making. Insurers can inadvertently influence buyers by framing policy details in a particular way, emphasizing certain aspects that may not be the most relevant for the buyer's needs.

03 ProjectDetails

03.a Objectives

We have three major goals that give rise to our specific objectives:

1. Understanding Consumer Behavior and Rationale in Insurance Economic

- Investigate the trade-offs consumers make between premium costs, deductibles, coverage limits, and policy features.
- Analyze the role of cognitive biases, risk perception, and heuristics in shaping insurance purchase decisions.
- Identify Behavioral Responses to Insurance incentives and nudges.

2. Current practices in selling Life Insurance in India

- Examine the traditional sales channels (agents) and digital methods (Website) to sell Insurance.

- Explore conversation strategies, vocabulary and elements used in shaping insurance purchase decisions.

3. Design and Evaluation of a chatbot for buying Life Insurance

- Design an efficient task completion chatbot by incorporating conversations that probe complex thinking as involved in Objective 1 and 2, for users to select the product best suited for them.
- Assess the chatbot's effectiveness in helping users make informed decisions through Wizards of OZ testing.

03.b Scope

Evaluate and design a text based chatbot for the purchasing of a range of life insurance products offered by ICICI Prudential Life Insurance, including term insurance, endowment plans, and ULIPs.

03.c Assumptions

In this context, it is assumed that consumers have already selected ICICI as their preferred insurance provider, whether for its reputation, product offerings, or other factors. Consequently, the research and design efforts will be concentrated on enhancing the customer journey specifically after they have arrived on ICICI's website or mobile application.

03.d Limitations

This project is not aimed at increasing awareness or building motivation to purchase life insurance products. Instead, it operates on the assumption that the target consumers are already motivated and financially capable of paying life insurance premiums. The focus is solely on enhancing the user experience once these consumers have decided to explore or purchase a policy, ensuring they can easily navigate through the available options. The design will address the specific needs of individuals who are ready to buy, streamlining the process to make it as efficient and user-friendly as possible.

04 Primary Research

04.a Preliminary Data collection - Consumers

To understand consumer behavior and rationale in Insurance, we developed questionnaires to gather insights from potential users regarding their preferences, expectations, and pain points in dealing with insurance-related decisions.

The participants for the interview are split into two groups.

Group 1 are consumers who have some type of life insurance and can speak on their experience with it. Semi structured interviews were conducted with them.

Group 2 are consumers who are prospective buyers looking into getting an Insurance policy but do not have any prior knowledge about insurance. They were made to call insurance agents of specified providers and were given a prompt to follow.

Alongside we also include questions about their comfort level with conversational interfaces, the specific information they seek, and their willingness to engage with a chatbot for insurance-related queries.

Consumers

Group 1

Have Life insurance	Semi structured interviews
p1	Male, 27 Unmarried, Service (private sector)
p2	Male, 29 Married, Service (private sector)
p3	Female, 31 Married, Service (private sector)
p4	Male, 24 Unmarried, Service (private sector)
p5	Female, 25 Unmarried, Service (private sector)
p6	Male, 35 Married, Service (private sector)

Fig : Group 1 Participant details

04.b Prompts and Interview Questionnaires

Group 1:

1. Prompt 1 (p1, p2, p3) - Pretend to have income ranging from 6-20 LPA, salaried in private sector, no critical health issue, opposed to taking add on riders, calling to enquire about the quotes, open to further establishment calls.
2. Prompt 2 (p4, p5, p6) - Pretend to have income ranging from 6-20 LPA, starting or has just started a business, inclined towards critical illness and similar riders.

Group 2:

1. Prompt 1- p7 - Wants Term Insurance, Married, with child. p8 - Wants Endowment Plan, Married, with child. p9 - Wants ULIP, Married, with child, Medium risk appetite.

2. Prompt 2 - p10 - Wants Term Insurance, Married. p11 - Wants Endowment Plan, Married. p12 - Wants ULIP, Married, High risk appetite.



Fig :Group 2 Participant details

04.c Questionnaire

1. How frequently do you engage with digital platforms for insurance-related information.
2. On a scale of 1 to 5, how comfortable are you with using chatbots or virtual assistants for obtaining information? (1 being very uncomfortable, 5 being very comfortable.
3. Have you previously interacted with a chatbot for insurance-related inquiries? If yes, please share your general experience. If not, what has been your hesitation or reason for not doing so?
4. Have you previously interacted with a chatbot for insurance- related inquiries? If yes, please share your general experience. If not, what has been your hesitation or reason for not doing so?
5. What specific information are you most likely to seek when dealing with insurance-related queries? (Select all that apply)
 - Policy Coverage Detail
 - Premium Payment Information
 - Investment Advice
 - Claim Processing Information
 - Risk Assessment
 - Other(please specify)
6. In dealing with insurance-related decisions, do you prefer to receive detailed information or a concise summary from a chatbot? Why?
7. What factors contribute most to your trust in a chatbot's recommendations regarding insurance decisions? (Rank in order of importance, 1 being the most important)
 - Accuracy of information
 - Clarity of explanation
 - Previous positive experience
 - Speed of response
 - Other (please specify)
8. Would you prefer a chatbot that asks probing questions to better understand your insurance needs, or a more straightforward, information-driven interaction? Can you provide examples of the types of probing questions you would find intrusive?

9. What measures would increase your confidence in the security and privacy of your information when using a chatbot for insurance-related interactions?

05 Insights

05.a Consumer Behavior and Rationale in Insurance Economics

1. General motives to buy Life Insurance -

The motivations behind purchasing life insurance are often multifaceted and deeply rooted in the financial landscape and social security considerations. In the context of India, where access to government pension schemes might be limited for certain segments of the population, life insurance serves as a pivotal financial instrument, addressing both risk mitigation and long-term savings and investment needs.

2. Significant determinants of life insurance demand -

The demand for life insurance is influenced by a myriad of factors, and understanding these determinants is crucial for insurance agents to tailor their conversations effectively. Several key life

events and personal circumstances play a significant role in shaping individuals' decisions to purchase life insurance. Age, starting a new job/income growth, education, marriage, the birth of a child, occupation all have a positive impact on purchasing decisions.

3. Navigating through Shifting Conversations -

Insurance agents adeptly shift conversations based on consumer responses to determinants. Recognizing the unique circumstances of each client, insurance agents provide personalized advice based on determinants. For example, a young professional may be more interested in policies with investment components, while a parent may prioritize coverage for the financial security of their family.

4. Factors affecting the decision-making of the consumer -

Insurance products can be intricate, involving various terms, conditions, and coverage nuances. Consumers find it challenging to grasp the full

extent of these complexities, leading to a lack of confidence in making informed decisions independently. Due to the complexity of insurance products, they often turn to external sources for guidance like friends, family members, or colleagues who have experience with insurance. Additionally, consumers rely heavily on insurance agents for explanations and recommendations.

05.b Findings from - Preliminary Data collection Group1

Individuals who maintain a close relationship with insurance agents often purchase substantial insurance coverage, viewing it as a highly significant aspect of their financial planning. For many, the decision to buy life insurance is influenced more by a sense of loyalty or obligation to the agent, sometimes treating the purchase as a favor rather than a fully informed choice. These consumers tend not to question the insurance options recommended by their agent, as doing so could be perceived as doubting the agent's trustworthiness. This dynamic can lead to a lack of critical evaluation of the

policies being purchased, with the consumer placing complete trust in the agent's judgment.

Participant Statements

1. "I don't really know kya insurance dilwaya hai papa ne but bus 2000 kat ta hai so I don't think much about it."
2. "Knowing the life insurance agent socially since he is my dad's friend and wohi dekhta hai yesab, I felt a social obligation to invest in an insurance policy."
3. "Tax benefit k liye liya tha sab colleagues mil k, LIC to mandatory hai and EK aur Max Life ka."
4. "Life insurance purchase was needed in order to get some loans/services from ICICI, isiliye sasta sa term insurance le liya."

Findings

1. Most consumers do not know much about insurance.
2. It isn't a product associated with much about insurance pleasure or enjoyment, so it

doesn't generate interest, often viewed as a necessary evil.

3. The decision to buy insurance is not given much

time or consideration.

4. After purchase is made, it's not given much time or forgotten about thereafter.

05.c Current practices in selling Life Insurance [Online]

Purchasing Term Life Insurance

1

Term Insurance Calculator

Are you a Non-Resident Indian? ☐ No ☐ Yes

I identify as: ☐ Male ☐ Female

I consume Tobacco: ☐ Yes ☒ No

Date Of Birth: MM/YY/YY

Mobile Number: Enter Number

Email ID: Enter Your Email ID

Annual Income: Select your income

Occupation: Salaried

Educational Qualification: Graduate & above

Pincode: Enter your pincode

City:

[Click here for ICICI group employee discount](#)

☒ By submitting my details, I undertake my KYC registration and authorize ICICI Prudential Life and its representatives to contact me through mail, ICICI phoneapp or E-mail. I further consent to share my information on confidential basis with third parties for evaluating and processing this proposal.

☐ If you wish to calculate your term insurance premium without sharing your personal details, [Click Here](#)

[Check Premium](#)

2

ICICI Pru iProtect Smart Here is your customised plan [Claims Corner](#)

YOUR PLAN

Life Cover: ₹ 1.50 Crore

Policy Term: 30 years

ADD-ON: 34 Critical Illness Cover* @ ₹158 / month

ADD-ON: Accidental Death Cover* @ ₹287 / month

Keep these documents handy

3

Premium Payment Term

Regular Pay	Limited Pay	Limited Pay	Limited Pay	Limited Pay	Surv Pay On
Pay for 36 Years	Pay for 5 Years	Pay for 7 Years	Pay for 10 Years	Pay for 31 Years	Pay On
₹1,313	₹5,338	₹4,341	₹3,711	₹1,477	₹1
	Save ₹2,46,308 (44%)	Save ₹2,82,572 (36%)	Save ₹1,21,898 (31%)	Save ₹13,772 (3%)	

4

Nominee will receive

Lump-Sum Payout	Regular Income	Increasing Income	Lump Sum + Regular Income
Entire amount of ₹1.50 Crore in a single installment	Monthly installment of ₹1,25,000 for 10 years	Monthly installment from ₹1,25,000 increasing by 5%	₹75.00 Lakh +

Mandatory questions asked to determine 'customised' premium but actually just the Annual Income is taken into consideration.

Already pre-filled fields, doesn't justify why. Option to modify is there but again no guidance on how it affects the buyer.

Information provided next to Insurance jargons used.

Consumer is lead by USPs displayed next to each choice, use of sheer numbers instead of explaining how.

Pros are always highlighted but never the cons. No comparison of choices.

Fig : Steps to purchasing a Term Life

5

Your Premium (Incl. Tax)

₹1,313

5% discount applied

Additional 2.5% off on Yearly Premiums

Monthly

Proceed

Nudges like additional offers are used to navigate users to certain choices

6

Easy fill my details from Aadhaar

- ✓ Shorter application form as personal details are prefilled
- ✓ Your KYC documents waived off

Get OTP

Locate Aadhaar no/ Virtual ID number

OTP Verification

OTP has been sent to the mobile number linked to your Aadhaar. This OTP remains valid for 15 minutes.

8 4 6 9 5 1

Did not receive OTP? [Resend OTP](#)

Adding personal information again, which is a heuristic flaw

7

Policy cover note

Policy details	
Name of policy:	ICICI PruLife iProtect Smart
Application number:	0802451066
Life cover amount:	₹1.50 Crore
Life cover duration:	36 years
Critical illness cover amount:	
Critical illness cover duration:	
Accidental death benefit amount:	₹50.00 Lakh
Accidental death benefit duration:	36 years
Premium paying term:	36 years
Premium amount to be paid:	₹ 1,313 / Monthly
Policy holder details	
Name:	June Sardar

8

PLEASE READ THE TERMS & CONDITIONS CAREFULLY

Agreement to Terms & Conditions

Did you Know?

35%* of our customers have opted for an accidental death benefit cover

Did you Know?

Policy will continue with the life cover reduced by the extent of the critical illness benefit paid

Fill out application

You are 9 minutes away from securing your family's future.

Full Name as per ID Proof *
of the policy holder

June Sardar

Please enter the correct name as per your ID Proof, preferably as per your PAN card

NEXT

Overwhelming terms and conditions used that users find difficult to comprehend

Fig : Steps to purchasing a Term Life

16

Purchasing ULIP and Endowment Life Insurance

[Back](#) [Why invest in ULIP?](#)

Personalise your plan Buying for Self | Female | 24 years

You invest: ₹ 15000 ☒ Policy Term (For): 20 Years

Payment Frequency: ☒ Monthly ☐ Half-Yearly ☐ Yearly

Payment Options: ☒ Regular ☐ Limited

Pay For: 20 Years

Your Investment Strategy

☒ Aggressive ☐ Balanced ☐ Conservative

High risk, High Returns

Get Tax-Free* Maturity Amount

₹ 74.12 Lakh ARR 8% -4%

+ Life cover ₹12.6 Lakh

You will get ₹ 74.12 Lakh at the end of 20 years by investing just ₹15,000 Monthly for 20 years

Tax Saving ₹21.25 Lakh

Rider option added @ ₹ 0/month [Edit](#)

ARR (Assumed Rate of Return) refers to the standard assumption for the rate of return of 8% and 4%, as specified by IRDAI. Please check our [fund performance](#) to track the actual returns.

Fund Details

We recommend the below strategy based on your risk level. You can also edit this allocation as per your choice.

Mid Cap Index Fund ☒ Equity ☐ 3 Y Returns NA ☐ 100%

[Edit Fund Allocation](#)

By selecting this checkbox, I agree and confirm that I have read and understood the **Electronic Benefit Illustration (EBI)** and wish to

Total Premium (Excl. of GST) ₹ 15,000

[Proceed](#)

[Back](#) **Customise your plan**

ASSURED INCOME **ASSURED INCOME WITH 110% ROP**

Invest (excl.GST) ₹ 3000 Monthly

Pay For: 7 Years 10 Years 12 Years

Get Income For: 15 Years 20 Years 25 Years 30 Years

Income Starts From: 12th Year

Avoid better features by holding corpus for 1 additional year

Want your life cover for income period? ☒ Yes ☐ No

Want income on specific date? ☒ Yes ☐ No

Overall Returns ₹13.52 Lakh

Get Guaranteed Tax-Free Income

Yearly Income ☒ 110% Return of Premium

₹31,870 For 30 years + **₹3.96 Lakh** On the 41st year

& ₹3.6 Lakh Life Cover

You will get a total of ₹13.52 Lakh by investing just ₹3,000 Monthly for 10 years.

₹18,747 extra online Tax saving upto ₹4.22 Lakh

Get enhanced protection with our add-on riders [+ Add](#)

☒ By selecting this checkbox, I agree and confirm that I have read and understood the Electronic Benefit Illustration (EBI) and wish to proceed to purchase the policy.

☐ To undergo suitability analysis, please [click here](#).

By not undergoing the suitability analysis, you confirm to purchase the policy based on your independent assessment of the suitability of the product.

[Download EBI](#)

[Proceed](#)

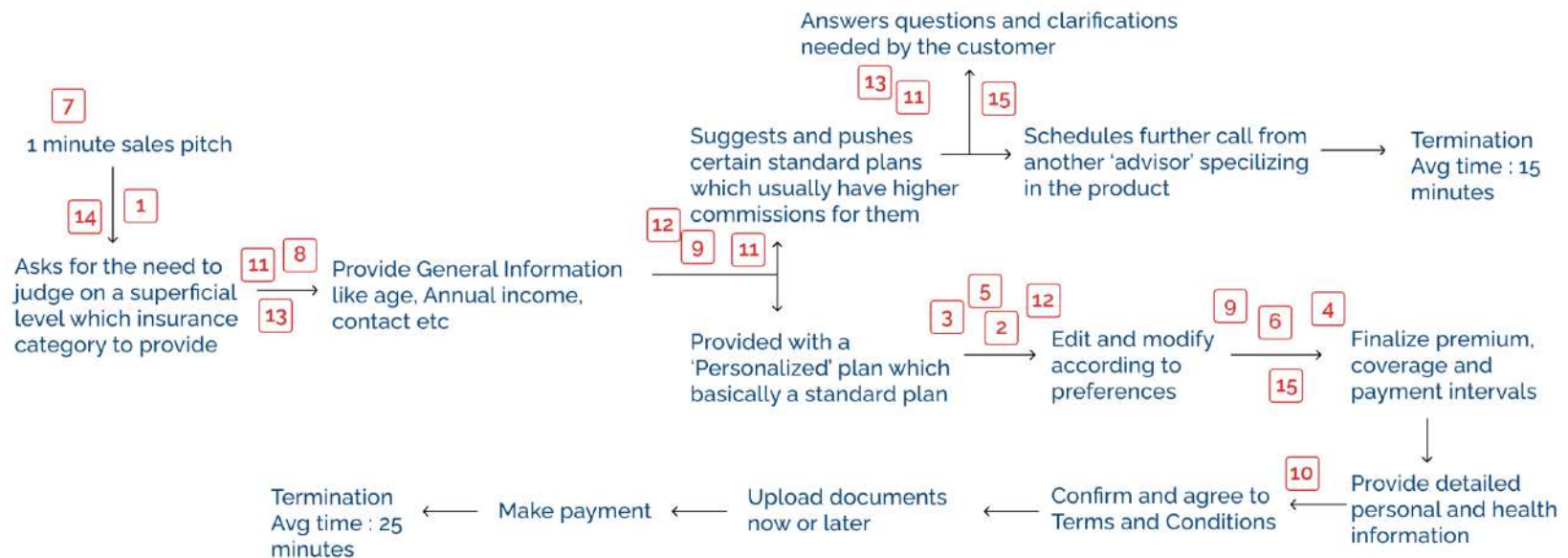
Fig : Steps to purchasing a ULIP

06 Task Flow

06.a Insurance decisions

We map the following decisions a user has to take on a task flow.

1. Coverage Amount
2. Budget and Affordability
3. Coverage Type
4. Coverage Amount
5. Health and Age
6. Policy Riders
7. Insurance Company Reputation
8. Underwriting Process
9. Beneficiary Designation
10. Policy Terms and Conditions
11. Cash Value and Investment Options
12. 12 Policy Duration
13. Policy Flexibility
14. Tax Considerations
15. Comparing Quotes



06.b Utterance Farming

Defining a class of utterances with similar semantic content.

A. Example : **Identifying the financial goals and needs**

CA prompt : **“What is your reason to buy life insurance?”**

Possible utterances :

1. I'm looking for a simple and affordable insurance option.
2. I need coverage for a specific period, like 20 years.
3. I want to ensure my family's financial security until my mortgage is paid off.
4. I'm concerned about the financial impact on my loved ones if something happens to me during the next decade.
5. I'm a young professional and want insurance that covers me while I'm still building my savings.
6. I'm planning to start a family soon, and I want insurance that will provide for them if I'm not around.
7. I'm not interested in complicated investment options; I just want straightforward protection for my family.
8. I need insurance that will replace my income until my kids are financially independent.
9. I want to make sure my spouse can maintain our current lifestyle if I pass away unexpectedly.
10. I need insurance to cover my outstanding student loans and other debts until they're paid off."

Intent : **Term Insurance**

B. Example : **Identifying the financial goals and needs**

CA prompt : **“What is your reason to buy life insurance?”**

Possible utterances :

1. I'm looking for a life insurance policy that also allows me to invest in the stock market.
2. I want to combine life insurance coverage with potential investment growth.
3. I'm interested in a policy that offers both protection and the opportunity to build wealth.

4. I want my life insurance to have an element of investment, so my money doesn't just sit idle.
5. I'm looking for a life insurance plan that can help me grow my savings over time.
6. I want my insurance premiums to have the potential for higher returns.
7. I'm considering life insurance as a long-term investment strategy.
8. I'd like to have more control over how my insurance premiums are invested.
9. I want my life insurance to provide not just a death benefit but also a financial asset.
10. I'm interested in a policy that offers investment choices within the insurance plan."

Intent : **ULIP**

06.c Sample Dialogues

For Selection of Appropriate sub-categories of product - Asking for 'primary goal' then asking for 'secondary goal' and after that superimposing and

assessing both needs gives rise to finding a more nuanced combination of needs.

For Preventing intentional or unintentional misinformation exchange, sets clear boundaries

- When asking about personal information, alert them as to how it will be used or verified
E.g. When asking whether they consume alcohol or not, let the user know that the company will verify it through a medical check up

For laying out all possible options so that the user can make an informed judgment at their own discretion

- Recommend the best suited choice for the customer along with displaying the other choices that they have

Whatever choice they make, clearly state the USPs or Pros of it along with the addition of a 'but' followed by the cons

07 Conversation Mapping



		Remarks
1. Deciding the type of insurance	Opting for an insurance policy because a. suggested by someone b. can afford it now c. changes in circumstances	1. Asking for Primary and Secondary Goal 2. Asking for specific goals like a major Milestones(eg. child's education), or retirement. 3. Asking for a range they are comfortable spending per year.
A. For TERM INSURANCE		
2. Creating a suitable policy	Does not understand the under writing process that goes into determining their insurability and premium	1. Asking for only primary information that affects their premium along with providing information on why or how they should answer it 2. Suggesting a Life Cover and asking them to rethink based on their debts, assets and family lifestyle. 3. Suggesting a Tenure while showing how retirement age and exit options were considered. 4. Asking if they want to change the tenure period while showing how longer tenure means higher premium due to higher risk.

Juxtaposition of goals to determine a more focused plan.

E.g. Smoker or non-smoker will be verified

Ideal Policy Term = Your Expected Retirement Age – Your Current Age
OR
Your Expected Age to attain Zero Liability – Your Current Age

2. Creating a suitable policy

Does not understand the under writing process that goes into determining their insurability and premium

5. Asking if they want to pay the premium in a single lump sum or make regular payments of Monthly, Half yearly and Annually.
6. If the later is chosen, show how they can save on Premium by paying a larger amount for shorter period.
7. Asking if they want a lump sum payout or regular income or both outlining the pros and cons of each.
8. Asking if they want to add any additional coverage options (riders) or (add-ons) like critical illness, disability, or accidental death while stating the benefits of add-ons.
9. If yes then give the options that they can choose from.
10. State when opting their selected rider is especially crucial and then ask if they want to continue with their selection.
11. Asking if they are satisfied with their choice or do they wish to compare with a new plan.
12. Asking if they want to view other already curated plans within the same premium range that they just decided upon.

Should we state pros and cons right at the start or progressively?

If the user replies negatively, then provide the benefits and ask again.

There is an x% increase/decrease in premium but you enjoy/risk etc. etc.

Do you want to understand through an example?

3. Understanding terms of the policy

Is not able to comprehend the policy and its associated terms & conditions

1. Show a consolidated review of their plan and highlight additional benefits.
2. Ask if they want to know about Exclusions and Limitations – events that are not covered by their insurance policy.
3. State the documents and formalities needed and the further process and time needed in buying the insurance.
4. Ask if they want to know about anything regarding their chosen plan before moving on to filling the application.

Ask questions and then decide for them based on their ans or let them choose and ask question on their choice?

B. For ULIP INSURANCE

2. Creating a suitable policy

Does not understand the under writing process that goes into determining their insurability and premium

1. Asking for only primary information that affects their premium along with providing information on why or how they should answer it
2. Asking if they want to invest Monthly, Half yearly or Yearly.
3. Suggesting a Tenure while showing how retirement age and exit options were considered.
4. Suggesting a Life Cover and Maturity Amount they'll receive (based on their chose payment frequency and amount they are comfortable spending on premiums), asking them to rethink based on their debts, assets and family lifestyle.
5. Show the amount of Tax Benefits and how it was calculated for the opted premium.
6. Asking if they are satisfied with the current premium, or they want to increase or decrease it.
7. Asking if they want to pay Regularly for the entire term or from options of Limited years.
8. To suggest an investment strategy, ask about their risk tolerance and investment horizon and investment objectives.
9. Show suggested fund allocation and state that they can change it with zero premium allocation charges or switching charges.
10. State that ULIPs have a lock-in period of 5 years during which one cannot withdraw funds without incurring penalties.
11. State the terms and conditions for making partial withdrawals.
12. Asking if they want to add any additional coverage options (riders) or (add-ons) like critical illness, disability, or accidental death while stating the benefits of add-ons.

Stating at the get go what they should consider while making a choice
OR

After they have made the choice, ask them a question that makes them rethink their choice?

If they are going beyond their previous premium budget, remind them that ARR remains the same but they save more in Tax Benefits

Reminder that one need s to keep track of fund NAVs and make constant decisions about switching, redirecting, and investing funds

2. Creating a suitable policy

Does not understand the under writing process that goes into determining their insurability and premium

13. Asking if they want a lump sum payout or regular income or both outlining the pros and cons of each.

One needs to stay invested for long term to be able to maximise their returns.

The lock-in period of ULIPs can actually be an advantage if you are really eyeing the long term.

3. Understanding terms of the policy

Is not able to comprehend the policy and its associated terms & conditions

1. Show the various charges associated with ULIPs.
2. Show a consolidated review of their plan and highlight additional benefits.
3. Ask if they want to know about Exclusions and Limitations – events that are not covered by their insurance policy.

ULIPS are ideal for long-term goals that don't require early withdrawals, otherwise charges levied in that case will neutralise the gains.

08 Defining the Chatbot's persona

Four primary tone-of-voice dimensions (Tone selected in each pain has been highlighted)

1. Bot A -

- Formal vs **casual**
- **Serious** vs funny
- **Respectful** vs irreverent
- **Matter-of-fact** vs enthusiastic

"Hi, I'm thinking about getting a ULIP plan from ICICI Bank, and I could use some guidance."

"Hello! That's a wise choice. ULIPs offer a great combo of insurance and investment. Let's get started. What's your main goal with this plan?"

"My main goal is to secure my family's financial future and maybe get some returns on my investments."

"Totally get that. Now, let's dive into the nitty-gritty. How much coverage are you thinking of?"

"I'm looking at a coverage of ₹1,000,000."

"Sounds good. Next, how long do you want this plan to last?"

We have terms like 10, 20, and 30 years."

"I think 15 years"

"Alright, that works. How about the premium payments?"

How often are you planning to shell out those premiums - monthly, semi-annually, or annually?"

"I'll go with the annual option"

"Perfect! Now, let's get to the meat of it. How do you want to divide your investment between equity and debt funds

"I'm thinking 70% in equity and 30% in debt."

"Do you have specific funds in mind, or should I toss in some recommendations based on your preferences?"

"I'm interested in your recommendations."

"Super. For the equity side, I'd suggest ICICI Prudential XYZ Fund, and for the debt portion, ICICI Prudential Income Fund. What do you say?"

"Those sound good to me. I'll go with your picks."

"Great choice! Now, about fund switching. How many times a year do you want to make switches between your chosen funds?"

"I think up to 4 free switches a year should do"

2. Bot B -

- **Formal** vs. casual
- Serious vs. **funny**
- **Respectful** vs. irreverent
- Matter-of-fact vs. **enthusiastic**

"Hello, I'm interested in acquiring a ULIP plan from ICICI Bank. Could you help me?"

"You're in luck; I'm here to guide you through this ULIP adventure with ICICI Bank. First things first, what's the grand plan for this ULIP of yours?"

"I'm looking to secure my family's future and maybe score some investment gains on the side."

"Ah, the classic two-birds-with-one-stone approach. Now, let's move along. What amount of coverage are you considering for your ULIP policy?"

"Got it. And let's not forget the lock-in period. How do you feel about that? We're looking at a five-year lock-in here."

"A five-year lock-in is OK with me."

"I'm looking at a coverage of ₹1,000,000."

Now that's what I call shooting for the stars! Next up, how long do you want this ULIP journey to be - 10, 20, or 30 years maybe?

"I think 15 years"

"15 years it is! Now, let's discuss the premiums - how often do you want to open your wallet, partner - monthly, quarterly, semi-annually, or annually?"

"I'll go with the annual option"

"Annual it is! Now, let's address the allocation of your funds. Do you lean more towards equity, debt, or a bit of both?"

"I'm thinking 70% in equity and 30% in debt."

"Riding the investment range, I like it! Do you have particular fund selections in mind, or would you like me to suggest some?"

"I'm interested in your recommendations."

"Given your preferences, I recommend ICICI Prudential XTZ Fund for equity and ICICI Prudential Income Fund for debt. How does that line up with your plans?"

"Those sound good to me. I'll go with your picks."

"Wonderful! Now, about fund switching - how often do you see yourself making changes, if at all?"

"I think up to 4 free switches a year should do"

"Excellent! Before we proceed further, let's discuss the lock-in period. Are you comfortable with a lock-in period, and if so, what's your preferred duration?"

"A five-year lock-in is OK with me."

3. Bot C -

- **Formal** vs. casual
- **Serious** vs. funny
- **Respectful** vs. irreverent
- **Matter-of-fact** vs. enthusiastic

"Hi, I'm thinking about getting a ULIP plan from ICICI Bank, and I could use some guidance."

"Of course! I'd be happy to assist you with the process of selecting a ULIP plan from ICICI Bank. Let's start with some basic information. What's your primary goal or objective for this ULIP plan?"

"My main goal is to secure my family's financial future and maybe get some returns on my investments."

"How much insurance coverage are you looking for? This will be the amount paid to your beneficiaries in case of your demise."

"I'm looking at a coverage of ₹1,000,000."

"How long would you like the ULIP plan to be in force?"

"I think 15 years"

"How often would you like to make premium payments - monthly, quarterly, semi-annually, or annually?"

"I'll go with the annual option"

"ULIPs offer various funds for investment, such as equity, debt, or balanced options. What's your preference for asset allocation?"

"I'm thinking 70% in equity and 30% in debt."

"Do you have specific funds in mind from ICICI Bank's ULIP offerings, or should I recommend some based on your preferences?"

"I'm interested in your recommendations."

"Based on your balanced approach, I recommend ICICI Prudential XYZ Fund and ICICI Prudential Income Fund. These funds have a strong track record."

"Those sound good to me. I'll go with your picks."

"How often would you like to have the option to make fund switches?"

"I think up to 4 free switches a year should do"

"ULIPs typically have a lock-in period during which you cannot make withdrawals without penalties. Are you comfortable with a lock-in period, and if so, for how long?"

"A five-year lock-in is OK with me."

Testing

Wizard of Oz testing was done on an existing chatting platform like Whatsapp. The questions asked by the Chatbot were all leading questions so as not to burden the

user with the know-how of the insurance domain, and as the goal was to understand tonality preferences.

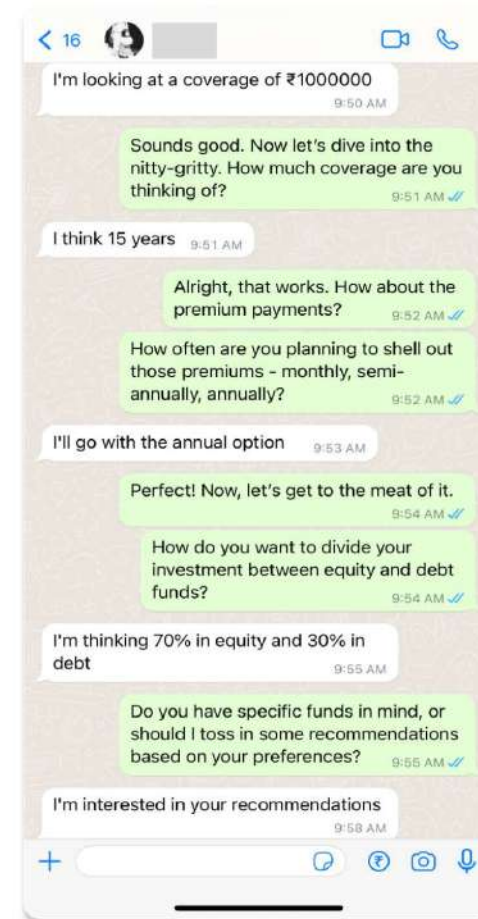


Fig : Wizard of Oz testing over Whatsapp

5 Users were asked to assess the Chatbots on a 5 point

Likert scale regarding-

1. Professionalism
2. Trustworthiness
3. Willingness to assist

Result

Chatbot A came out to be on top with a score of - 13/15, followed by Chatbot C and then B.

The final tonality hence was decided to be - TM

1. Casual
2. Serious
3. Respectful
4. Matter-of-fact

09 User persona

Name: Aryan Mehra

Age: 28

Gender: Male

Location: Mumbai, India

Marital Status: Recently married, expecting a child

Employment: Contract worker at an MNC

Insurance Provider Interest: ICICI Prudential

Background: Aryan is a 28-year-old Indian male based in Mumbai. He recently got married and is eagerly awaiting the arrival of his first child. His colleagues recommended looking into life insurance.

Employment and Financial Status: Aryan works on a contract basis at an MNC. He doesn't have

employer-provided insurance. Aryan's income is stable but not high, and he's concerned about his family's financial future.

Insurance Needs: Aryan seeks straightforward, hassle-free life insurance from ICICI Prudential to protect his family. He's overwhelmed by the complexity of insurance terms and wants a simple, comprehensive policy.

Goals and Concerns: Aryan's main goal is to secure his family's financial future. He's also concerned about potential medical and education expenses. He prefers a simple insurance policy to provide peace of mind.

Personality and Lifestyle: Aryan is practical, responsible, and values simplicity. He wants a hassle-free insurance solution that doesn't consume too much time or energy.

10 Sample dialogues

Crude prompt by . Chatbot will guide/lead.

"Hi, I'm thinking about getting a Insurance plan from ICICI Bank, and I could use some guidance."

"Hey Aryan! Nice to chat with you today. I hear you're looking into life insurance from ICICI Prudential. Let's get started. What's your primary goal for this insurance?"

Addressing by name which has been already fetched by the system

"My primary goal is to ensure my family's financial security."

"That's a commendable goal, Aryan. How about any secondary goals or specific milestones you want to cover, like your child's education or Guaranteed Income after retirement?"

Chatbot leads the user towards more specific requirements

Chatbot considers financial security + child's education

"Well, I am worried about my child's education expenses, and I also want to make sure my family is financially secure during my retirement."

"Great! Now, let's talk about your budget. In a ballpark figure, how much are you comfortable spending on insurance per year?"

Clearly defines the boundaries

"I'd say around 20,000 to 30,000 INR per year."

"Thanks for sharing, Aryan. Based on your goals and budget, I'd recommend the ICICI Pru Gold Savings Plan. Now, let's talk about some key factors that will determine your premium."



"First, we need to know about your debts, assets, and family lifestyle. This helps calculate the ideal life cover for you. Please share any relevant information."

"I don't have significant debts, and my family has a modest lifestyle. We don't own many assets, just our home."

"Thank you for the details, Aryan. Based on this, I'd suggest a life cover of 1 crore INR. Now, let's discuss the tenure. We considered your retirement age and exit options. How long do you want the plan to last?"

"Ideal Policy Term = Your Expected Retirement Age – Your Current Age "

"I think a tenure of 30 years sounds good, as it aligns with my retirement plans."

"Sure, Aryan. Just so you know, a longer tenure means a higher premium due to increased risk. Are you okay with that?"

"Yes, that's fine."

"Perfect. Now, regarding premium payment, would you like to pay in a lump sum or make regular payments – Monthly, Half-yearly, or Annually?"

"I prefer making annual payments."

"Great choice! Paying annually can save you some money. Now, regarding the payout, do you want a lump sum or regular income for your family? Or maybe a combination of both?"

"I think a combination of both, lump sum and regular income, would be best."

"Wise decision, Aryan. Now, would you like to add any additional coverage options (riders) like critical illness, disability, or accidental death? They can provide extra security."

"Yes, I'd like to add critical illness coverage."

"Critical illness coverage is crucial, especially in your case. Now, here are your options: [List of critical illness coverage options]. Which one do you prefer?"

"I'll go with the comprehensive critical illness coverage."

"Smart choice! Is there anything else you'd like to add, or are you satisfied with your choices?"

"I'm satisfied with these options."

"Wonderful! Now, would you like to compare this plan with a different one, or are you good to proceed?"

"No, I'm good to proceed with this plan."

"Fantastic, Aryan! Here's a consolidated review of your plan: [Summary of the chosen plan and additional benefits]. Everything looks good?"

"Yes, it looks good."

"Alright, before we move on to filling the application, do you want to know about any exclusions or limitations – events not covered by your insurance policy?"

"Yes, please tell me about the exclusions and limitations."

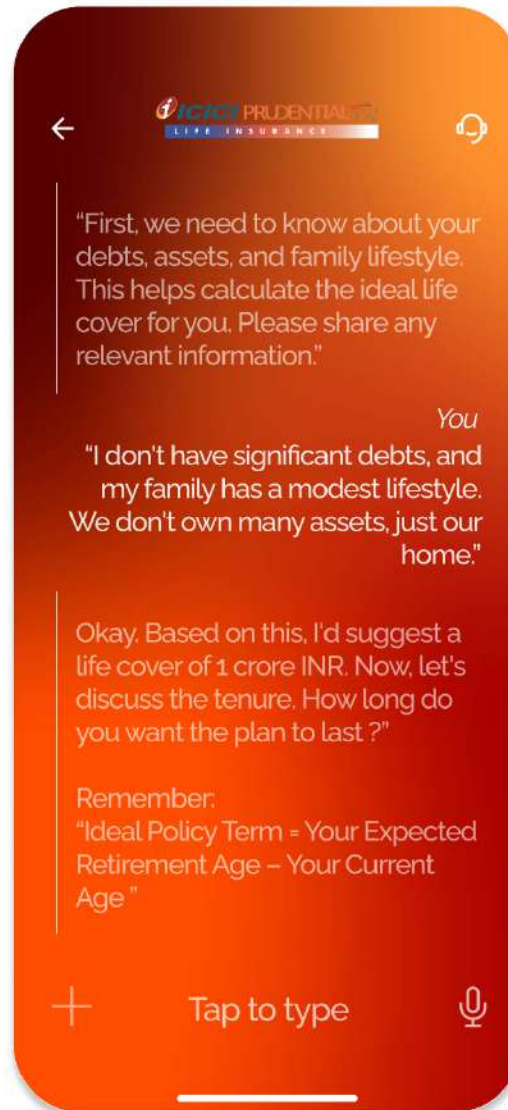
"Sure, here are the details [Exclusions and Limitations]. Now, what documents and formalities are needed, and what's the process and time involved in buying this insurance?"

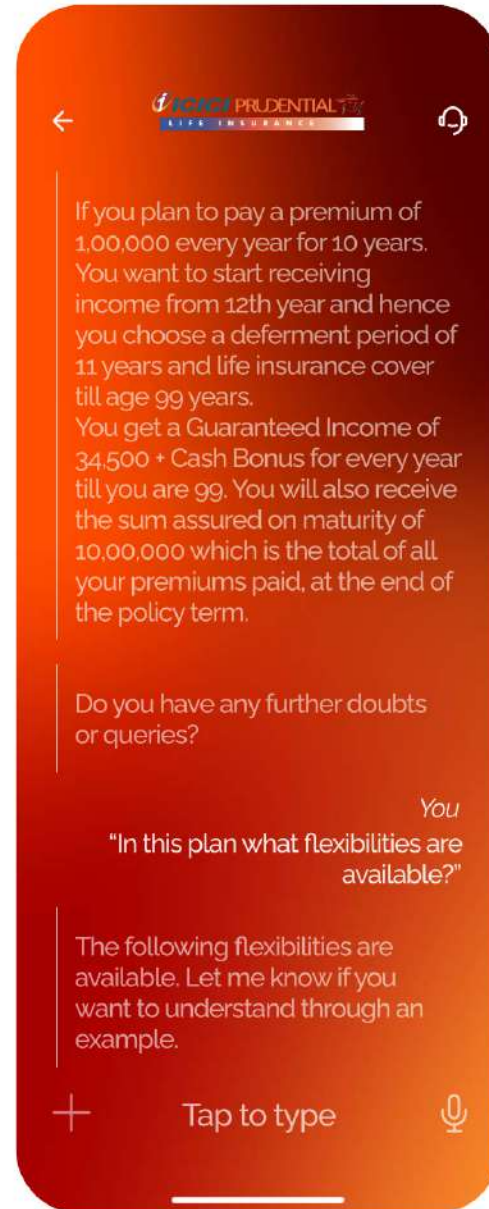
"Just a heads-up, Aryan, you'll need [List of Documents]. The process usually takes a few days to a couple of weeks. Does that work for you?"

"That sounds good. I'm ready to proceed."

"Excellent, Aryan! Let's get started with the application. If you have any more questions along the way, feel free to ask."

Screens





11 Findings

Did the primary-secondary approach work?

	Replies	Post study statements	Result
User 1	"a more secure future for my family, obviously" "yes, I want to retire tension free and have an income"	Wont everyone have the same goal?	Worked User realized they can be more focused on what they want besides life cover.
		Overconfidence bias. Did not consider requirements in depth. Wants to jump straight into a policy	Did not work User did not realize there were other possible milestone options also.
User 2	"i want a health coverage along with life coverage, as i work as a nurse at CMC" "no, I just want added health protection. Will it be a secondary goal? "	My profession requires me to have it	Did not work User didnt understand the meaning of 'primary goal' and 'secondary goal'. Considered as jargon.
		Loss Aversion bias. Prioritize health cover over an effective coverage due to fear.	Did not work User already offered more information than needed in the first question.

Did the primary-secondary approach work?

	Replies	Post study statements	Result
User 3	"a simple term life policy which gives maturity benefits. No Ulips or anything"	I know ulips are not useful in the long run. Insurance should be simple.	Worked User understood the meaning of primary and secondary since he provided additional information.
	"i want guaranteed maturity benefits, no additions and guaranteed return in lump sum "	Confirmation bias. Already has preconceived beliefs about ULIPS, riders and maturity.	Did not work User completely avoided the intended purpose of the follow up question. Proves that juxtaposition won't work for confirmation biases.
User 4	"i want a second income source along with protection"	I thought these are the only milestone options?	Worked User understood the meaning of primary and secondary since they provided additional information.
	"Are these the only options I have"	Confirmation bias. Preconceived idea about saving and investment	Somewhat worked User did not realize there were other possible milestone options also but was able to comprehend as they asked further.
	"i actually want to save for a car in 2-3 years. i want to invest for car"		

12 Evaluation

Three parameters to evaluate

1. Clarity and Understandability -

Assess how clearly the chatbot communicates information and guidance and if the language used is easily understandable for the target audience. Consider whether the chatbot effectively conveys complex concepts or decision-making processes in a way that users can comprehend.

Likert Scale Criteria:

- **1:Very unclear and confusing**
- **3:Neutral or somewhat clear**
- **5:Very clear and easy to understand**

2. Decision Support and Effectiveness -

Assess the chatbot's actual contribution to the decision-making process. Whether the information provided is helpful, accurate, and aligns with the user's goals. Consider if the chatbot guides users

through a logical decision- making flow and assists in reaching informed conclusions.

Likert Scale Criteria:

- **1:Ineffective In Providing Decision support**
- **3:Moderately Effective In Guiding decision-making**
- **5: Highly effective in providing valuable decision support**

3. Trustworthiness of Chatbot -

Assess the reliability, transparency, and consistency of the information provided. Does the chatbot clearly communicate the basis for its recommendations? Is the information and advice provided by the chatbot consistent throughout the conversation?

Likert Scale Criteria:

- **1:Not Trustworthy at All**
- **3:NeutralorsomewhatTrustworthy**
- **5:HighlyTrustworthy**

The Testing

Wizard of Oz testing on Whatsapp

Time Limit- Participant can reply within 24 hrs

Participants - 10

Age Group - 25 to 34

Time Limit- Decide and confirm on purchasing any insurance plan from ICICI Prudential

Background - Have an idea about life insurance

The Results

A	B	C	D	E	F
Participants	Proficiency	Task Completion	Parameter 1	Parameter 2	Parameter 3
p1	4/10	Incomplete	5	5	5
p2	3.5/10	Incomplete	5	5	5
p3	5/10	Completed	4	3	3
p4	5/10	Completed	5	4	4
p5	2/10	Incomplete	5	5	4
p6	4/10	Completed	4	3	3
p7	5/10	Incomplete	5	3	4
p8	4.5/10	Completed	4	4	4
p9	3/10	Completed	4	4	3
p10	5/10	Completed	4	3	4

Participant Feedback

Replies of the chatbot are too long at times.

Reminders were at times viewed as tiresome as they unintentionally questioned the user's knowledge.

Limitations

Evaluation on the Likert scale might be skewed towards our favor due to guilt of not being able to complete the task.

Scope of further study

ICICI was chosen in particular so as to have an existing insurance purchase framework to base upon while designing the conversation. Testing the findings of this project aligning with other insurance providers can give rise to creating a guideline for Probing Chatbots in Insurance Decision-making.

13 Conclusion

To enhance decision-making processes, particularly in complex tasks like selecting insurance policies, AI-driven tools must be designed to address common cognitive biases effectively. While AI can help mitigate biases such as confirmation bias and loss aversion, it must be carefully structured to avoid introducing new biases, like anchoring bias, which can occur when information is not presented neutrally. For instance, when asking leading questions, it is crucial to provide a full range of relevant options to the user, rather than limiting choices, which could inadvertently anchor the user to a particular option.

To maintain trust and transparency, every recommendation made by the chatbot should be aligned with the company's underwriting policies and presented as a suggestion rather than a directive. These recommendations should be backed by clear reasoning, often explained in multiple layers, to help users understand the logic behind them. Furthermore, to combat biases like overconfidence and loss aversion, the

chatbot should not only offer suggestions but also prompt users to inquire why certain options are being suggested. Finally, the chatbot should remind users of crucial factors they need to consider before making a decision, ensuring that they are fully informed and less likely to be swayed by biases. This approach helps foster a more balanced and thoughtful decision-making process, empowering users to make choices that are truly in their best interest.

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