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Can disclosures influence life insurance purchase decisions?

Evidence From Rural Low-Income Households in Tamil Nadu

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Executive Summary

Life insurance is an important financial tool that allows households to manage financial risks arising from the death of an earning member. Yet, in 2019, life insurance penetration (percentage of insurance premiums to GDP) was only 2.82%. While 38.3% of Indian households reported having a life insurance product as on September 2021, life insurance covered only 1.2% of the mortality protection needs of the country. Among those who do own a life insurance policy, traditional life insurance plans such as endowment plans (bundle of insurance plus investment) are much more prevalent than term life insurance plans (pure risk protection product). We find this to also be true for low-income households. However, endowment plans are less than ideal for three key reasons. First, they offer low death cover per rupee of premium paid compared to term life insurance. Second, they provide low returns on their savings component compared to other products available in the financial market. Finally, they penalise customers substantially if the plans are surrendered before the policy completion date. All these features are significant, particularly for low-income households whose earnings are small and subject to volatility and therefore make endowment products unsuitable for low-income households.

There are several reasons for low take-up of life insurance policies in general and specifically low take-up of term life insurance. These factors range from supply side barriers such as misaligned incentive structures for agents selling life insurance policies, lack of availability and accessibility to a larger suite of life insurance products customized to the needs of low-income households to demand-side barriers such as household's contextual factors and their behavioural preferences and attitudes pertaining to life insurance products. To narrow down the scope of this study, we aim to understand the role of effective information disclosures in steering households towards buying term life insurance over endowment plans. We focus on information disclosure as a solution as we believe that it is the first of many steps required to ensure suitable product sales for customers.

We partnered with ideas42, a behavioural science consulting firm for this study. The objective of the study was to first, identify behavioral barriers and drivers of life insurance uptake among low-income households in India and second, to test the effectiveness of information disclosures in encouraging customers to make thoughtful insurance purchase decisions.

Diagnosis and Design

Through behavioral interviews among life insurance customers from low-income households in rural Tamil Nadu, India, we found that most respondents did not seek out life insurance policies and were often sold policies based on their relationship and trust with community based-local agents. Potential customers were presented with only one kind of life insurance- the endowment policy- because of which they viewed life insurance primarily as a savings product with an additional insurance benefit. Customers had limited awareness of alternate insurance policies such as the term life insurance. Even when presented with a term life insurance policy, they were concerned about the loss of premium in case the policyholder survived rather than the protection it offered for a lesser premium in case of death.

We designed and tested multiple information disclosure options in the study geography. These were designed using behavioral design principles to specifically address the barriers diagnosed. We finalized the options and design formats through prototyping and user-testing with randomly selected households in the study geography. Three types of disclosure designs were created. First, an inaccurate disclosure type for a standard endowment plan to create a proxy for the business-as-usual scenario. This group was labelled as 'inaccurate disclosure type' as the returns were forecasted based on 4% and 8% scenarios as prescribed by the regulator (although the Bose Committee set up by the Ministry of Finance in 2015 referred to this practice as misleading). Moreover, the surrender terms were not disclosed in this group. Second, an accurate disclosure type for a standard endowment plan- this included the surrender terms and returns were disclosed as a function of amount invested along with the historical returns for the product, as recommended by the Bose Committee. Third, an accurate disclosure for two comparable options- (1) a standard endowment plan and (2) a bundled product comprising term life insurance and recurring deposit savings account. The third scenario effectively allowed households to compare and contrast the features of the two product choices. The features of the products presented to the respondents in this study were based on existing products available in the market. The standard endowment plan was mirrored based on Life Insurance Corporation's New Endowment Plan, the term life insurance was mirrored based on the Pradhan Mantri Jeevan Jyoti Bima Yojana and the savings plan was similar to the National Savings Recurring Deposit Account offered by the Post Office.[1]

Testing and Results

To set up the disclosure design experiment, we purposively sampled 500 households from Kumbakonam, a small town in the Thanjavur district of Tamil Nadu based on an inclusion criterion pertaining to income levels, awareness of life insurance and intention to buy life insurance in the future. The sampled households were randomly allocated into one of the three disclosure groups. The final experiment was conducted among a total of 305 households, depending on their availability and consent to participate in the study. Trained enumerators from a survey agency went door-to-door to present the disclosure designs to respondents. The respondents' willingness to purchase endowment policy in a hypothetical scenario and reasons for their response was collected and recorded across each of the three groups.

The responses were analyzed using a regression analysis to determine the role of disclosures in affecting the willingness to purchase an endowment policy. Based on the analysis between Group 1 (endowment policy with inaccurate disclosure) and Group 2 (endowment policy with accurate disclosure) responses, we found that the odds of buying an endowment plan for Group 2 respondents was 31% lower compared to the odds for Group 1 respondents. However, this difference was statistically insignificant. When comparing Group 2 and Group 3 (endowment policy with accurate disclosure and an alternate bundled product), we found that the odds of buying an endowment plan for Group 3 respondents was 72% lower compared to the odds for Group 2 respondents and was

[1] It must be noted that the product features presented to the study participants was done so in a hypothetical scenario and the actual names of the product or the financial service provider was not used, in order to ensure that the respondents do not assume the experiment as a real sale scenario. The respondents were clearly informed at the beginning of the experiment that their willingness to buy the product was being gauged in a hypothetical scenario and no real sales was being made.

statistically significant at 1%. These results indicate that truthful disclosures are necessary but may not be sufficient to steer customers towards better product choices. Instead, in addition to truthful disclosures, customers should be presented with alternate options, wherever possible, so that they can compare and contrast as opposed to being presented with only one option. This can help them benchmark the product features across various options and make better purchase decisions.

Policy Implications

- Low-income customers have become habituated to thinking about life insurance as an investment product because they have largely been sold life insurance in the form of a standard endowment plan. Accurate disclosures that inform poor customers about realistic returns are not sufficient to change this habit. A change in habit requires offering multiple products using accurate and complete disclosures, so that customers can benchmark returns and other features and make an informed choice that is more suitable to their needs. This is also in line with the recommendations of the Bose Committee that explicitly stated that the cost of the life cover in a bundled product should be compared with the cost of pure life cover for a similar life and tenor and should be disclosed alongside such that a customer is able to evaluate the true value of the product.
- Accurate and complete information disclosures should be mandated in the sale of any financial products as it is the first of many steps required to ensure suitable product sales for customers. Results from our study indicated that when presented with accurate disclosures, respondent's willingness to buy an endowment plan reduced.
- Key features of the product should be disclosed explicitly as they are crucial in determining purchase decisions. In the context of life insurance, features such as policy tenure, premium amount, returns, life cover and surrender clause should be explicitly disclosed. In our study, we found returns and terms of surrender to play a decisive role in customers' decision.
- Disclosure format matters. Key features of the product should be presented in a concise and easy to understand format. Results from our study highlighted that a table format along with a simple explainer (to describe the meaning of terms and conditions of the product) was effective in communicating the key features of the product. As recommended by the Bose Committee, at the point of sale, a one-page disclosure must be signed by the seller and the buyer. The one- pager must contain information in a manner that can be understood by the customer.

Section 1: Introduction

Life insurance is an important financial tool that allows households to manage financial risks arising from the death of an earning member. Yet, in 2019, life insurance penetration (percentage of insurance premiums to GDP) was only 2.82%.[2] While 38.3% of Indian households reported having a life insurance product as on September 2021[3], life insurance covered only 1.2% of the mortality protection needs of the country.[4] Broadly, there are two types of life insurance plans sold in India - term life insurance products that are typically pure risk protection plans that offer only death cover with no return of the premium paid and traditional composite products such as endowment plans that offer a bundle of investment and insurance with a return on the premium paid. Among those who own a life insurance policy in India, traditional life insurance plans such as endowment plans are much more prevalent than term life insurance plans. We find this to also be true for low-income households. 21% of low-income households own an endowment plan compared to 16% who own a term life insurance, according to the All-India Debt and Investment Survey, 2019.[5] However, endowment plans are less than ideal for three key reasons. First, they offer low death cover per rupee of premium paid compared to term life insurance. Second, they provide low returns on their savings component compared to other products available in the financial market. Finally, they penalise customers substantially if the plans are surrendered before the policy completion date. All these features are significant, particularly for low-income households whose earnings are small and subject to volatility and therefore make endowment products unsuitable for low-income households.

There are several reasons for the low take-up of life insurance policies in general, specifically the low take-up of term life insurance among low-income households. The supply of life insurance products in India is driven by individual and corporate agents, who contributed more than 90% to individual new business of life insurers in the financial year 2020-21.[6] However, misaligned incentive structure for agents has resulted in mis-selling, whereby products which earn high commissions but are not particularly suitable for low-income households, such as endowment plans, have been sold to customers.[7] The lack of transparent product disclosures is another significant issue on account of which customers have to rely on opaque and misleading disclosures in making their purchase decisions.[8] Endowment products particularly have been critiqued for this lack of transparency.[9] Further, insurance product distribution in India is characterised by a lack of availability and accessibility to a larger suite of life insurance products targeted towards the low-income segment. On the demand side, barriers such as household contextual factors that limit their awareness and priority for a life insurance product and their behavioural preferences and attitudes act as a deterrent to increased uptake of life insurance.[10] These factors combined have resulted in low uptake of life insurance products in India.

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[2] See summary of Indian Insurance Market from IRDAI here
[3] See insights from CMIE-CPHS data, (Dvara Research, 2022) here
[4] See (Swiss Re Institute, 2020) here
[5] See insights from (AIDIS, 2019) here
[6] See (IRDAI, 2022), here
[7] See (Anagol et al., 2015) here, (Halan et al., 2013) here and (George, 2020) here
[8] See (Ministry of Finance, 2015) here and (Anagol et al., 2015) here
[9] See (Ministry of Finance, GoI, 2015) here
[10] See (Kakkar and Shukla, 2010) here and (Baucheta and Murdoch, 2019) here

In this research study, we are particularly interested in addressing the issue of information asymmetry in the Indian life insurance market and studying the role of accurate product disclosures in influencing customer's intent to purchase endowment and term life insurance plans. We, therefore, ask the following two research questions –

1. Do accurate disclosures dissuade individuals from purchasing endowment policies?
   We hypothesise that accurate and complete product disclosures will help provide meaningful and transparent information to individuals, thereby revealing the drawbacks of an endowment policy and dissuading individuals from purchasing endowment plans.

2. Does providing alternatives in addition to accurate disclosures dissuade individuals from purchasing endowment policies?
   We hypothesise that in addition to truthful disclosures, providing alternatives that help individuals compare and contrast will allow them to benchmark the rate of return along with other product features and dissuade them from purchasing endowment plans and steer them towards a term life insurance policy.

Existing studies that have looked at the role of information disclosure in life insurance-purchase decisions in the Indian context have found mixed results. The study by Halan and Sane (2017) experimented with four types of disclosures for an endowment product in the cities of Mumbai and Delhi: (i) a baseline product with no additional disclosure, (ii) disclosure of the actual rate of return on the product, (iii) disclosure of the rate of return and a benchmark return of a similar product (iv) the rate of return, benchmark return and product features of a more cost-effective competing product. The authors found that only the second treatment, providing disclosure of the actual rate of return, had any significant impact on product perception, albeit small. People were 4.2% less likely to think that an endowment plan gave good returns. However, they did not find any impact on the intention to purchase the product. The authors attributed this to cognitive overload and individuals' inability to understand product features other than the concept of 'returns'.[11] The study by Balakina et al. (2020) tests the impact of a product-specific education video that provides individuals with 'rules of thumb' in terms of the right questions to ask while buying an insurance product. They found significant but small effects, i.e., a 3% decline in intention to purchase endowment products and a 5.6% increase in intention to purchase term life insurance.[12]

While misaligned incentives in the life insurance market, one of the key factors driving the sale of traditional life insurance products, needs policy attention, we focus on information disclosure as a potential solution for two reasons. First, information disclosure is the first of many steps required to ensure suitable product sales for customers. Just as bad (misaligned) incentives drive bad (opaque) disclosures in the life insurance market in India, resulting in mis-selling of traditional life insurance plans, we posit that accurate disclosure can bring in an element of transparency and drive a wedge between misaligned incentives and unsuitable sales, while potentially reducing an agent's influence on customers' product choices. Second, information disclosure that helps create awareness about various product choices available in the market can enable consumers to compare and contrast the features of each type of product, leading to informed and potentially better decisions. The regulatory need to address both these issues: a) to revamp agent incentive structure for various life insurance

[11] See (Halan and Sane, 2017) here
[12] See (Balakina et al., 2020) here

products to avoid mis-selling and unsuitable sale of life insurance and b) to revise disclosure standards to bring in "*transparent disclosures that enable consumers to understand products, compare them, and consequently choose those that serve their interests"*, have also been acknowledged and recommended by the expert committee set up by the Ministry of Finance.[13]

The rest of the report is structured as follows. We start by describing the context in which life insurance products are sold in India. We then move to describing the research methodology across the three phases- diagnosis, user testing and experimental design. This is followed by the details of the experiment and its implementation, followed by results from the experiment. We conclude the report by laying out potential limitations in the design of the study and policy implications based on the study results.

Section 2: Context Setting

Broadly, there are two types of life insurance products sold in India – 1. term insurance products and 2. composite products that bundle insurance with investments. Term insurance products are generally pure risk protection plans that offer only death cover with no return of premium paid. Within composite products, there are further two types of plans – 2.1. traditional insurance products such as endowment plans, money-back plans, and whole-life insurance plans, which invest largely in government bonds, are not linked to market returns and offer guaranteed maturity benefits. Over and above the guaranteed benefits, these plans also typically include a non-guaranteed benefit that is based on a share in profits of the insurance service provider (called participating plans). The Insurance Regulatory Development Authority of India (IRDAI) mandates that the non-guaranteed benefits be illustrated in absolute terms to the customer at hypothetical 4% and 8% return scenarios[14]; 2.2. Unit-linked insurance plans (ULIPs) on the other hand are market linked across asset classes.

Composite insurance plus investment products offer returns on the premium paid, although the returns vary depending on the specific type of plan the customer choses (market linked versus non-market linked, participating versus non-participating plans, etc.). Among Indian households who do intend to buy insurance, endowment products are hugely popular across all income groups. According to the 2019-All-India Debt and Investment Survey, on an average, 27% of Indian households own an endowment plan compared to 18% who own a term life insurance product.[15] For Life Insurance Corporation of India (LIC), which is the largest insurance provider in the country[16], the new business premium that came in from selling term insurance policies stood at less than 1% during the year 2020-21, substantiating our point about the popularity of endowment plans in India.[17]

However, endowment plans offer lower life cover and returns compared to other life insurance products available in the market (Halan and Sane, 2017).[18] Comparison of a standard endowment plan with a term life insurance shows that for a life cover of INR 25,00,000 (USD 31,224), a term life

[13] See (Ministry of Finance, GoI, 2015) here
[14] See IRDAI mandated benefit illustration here
[15] See insights from (AIDIS, 2019) here
[16] Details about LIC's market share as a percentage of total premium and number of policies sold can be found here
[17] Why do Indian prefer insurance to mutual funds? See here
[18] See (Halan and Sane, 2017) here

insurance requires an annual premium of INR 7,675 (USD 96), whereas an endowment plan requires an annual premium of INR 2,50,000 (USD 3,122). Since agent commission is based on a percentage of premium paid by the customer (predominantly ranging from 15% to 35%), this naturally incentivizes the agent to sell endowment plans due to its higher premium value, despite its unsuitability for low-income households.[19] Researchers have noted that this has also led to agents aggressively selling endowment plans on the back of inaccurate and incomplete disclosures. "*For example, these products often benchmark returns to a number other than the amount invested, making it difficult for the customers to decode the real costs and benefits of the policy"* (Halan and Sane, 2017). Moreover, our field visits highlighted that agents rarely disclose the surrender terms (the amount the customer is eligible to get back if s/he surrenders the policy before the maturity period) of an endowment plan and almost never talk about alternate life insurance products such as term-life insurance, which is cheaper and much more cost-effective than an endowment plan.

Given this context, the Bose committee *"to recommend measures for curbing mis-selling and rationalising distribution incentives in financial products"* set up by the Ministry of Finance in 2015 made the following recommendations pertaining to disclosure standards: (i) returns should be clearly disclosed at the point of sale and must be a function of the money invested. (ii) at the point of sale, a one-page disclosure must be signed by the seller and the buyer. the page must contain information in a manner that can be understood by the buyer. (iii) on-going disclosure must contain the average annual historical return through an Internal Rate of Return (IRR) disclosure. (iv) disclosures must be made machine readable. (v) cost of the life cover in a bundled product should be compared with the cost of pure life cover for a similar life and tenor and should be disclosed alongside such that a customer is able to evaluate the true value of the product.[20] Through this study, we test the efficacy of disclosures that follow these standards, specifically points (i), (iii) and (v) and analyse its impact on household's life insurance purchase decision.

Section 3: Research Methodology

The study adopts a behavioural lab-in-the field experiment design to address the questions it sets out to answer. The study was conducted in three phases. The first phase called the diagnosis stage focused on building a nuanced understanding of the problem by conducting a literature review, speaking to field experts, and conducting qualitative surveys in the study area to validate the problem statement and understand the behavioral factors influencing the take up of life insurance products. The second phase called the user testing stage incorporated the findings from the first phase into potential disclosure designs. The disclosures were created with the objective of bridging the information gap pertaining to the features of financial products relevant to this study. These designs were then tested among respondents in the study geography to arrive at a final disclosure design. The final disclosure format was designed based on the feedback received when testing the different disclosure designs among the target group for the study. Feedback pertaining to content, design format, product features and commentary for the disclosures was incorporated in the final design. The third and final stage called the experimental design and testing involved conducting a randomized controlled trial among 300 individuals, who were randomly assigned across three different groups, with each group receiving

[19] See (Anagol et al., 2015) here, (Halan et al., 2013) here and (George, 2020) here

[20] See (Ministry of Finance, GoI, 2015) here

a unique information disclosure intervention pertaining to life insurance and other comparable products. Study participants were then asked about their willingness to purchase the relevant product in a hypothetical scenario. This allowed us to evaluate the efficacy of information disclosure in influencing individual's product choice. The study was conducted in 5 villages of Kumbakonam block, Thanjavur district, in the state of Tamil Nadu between January to June 2022. The next three sections discuss each of the three stages in detail along with the learnings from each stage.

Section 4: Phase 1: Diagnosis

The objective of the diagnosis stage was to validate the problem statement. To this end, we reviewed the literature with a focus on behavioral drivers that influence take-up of insurance and in particular the take-up of endowment policy versus term life insurance. We also interviewed expert stakeholders (academicians, financial providers, sector experts) to understand industry perspectives, challenges, and past efforts to promote life insurance products. Insights from these helped us refine the scope to specific problems pertaining to take-up of life insurance among Indian households.

Given the scope of this project, we narrowed down the following problems among customers buying life insurance.

1. **Individuals from the low-income segment are aware of insurance but do not know about term life insurance**
2. **Individuals from the low-income segment do not prefer term life insurance over endowment plans**

In the diagnosis phase we generated information on the psychological and situational features that could contribute to the identified problems. We conducted on-field Focus Group Discussions (FGDs) with roughly 10 respondents in rural Tamil Nadu to understand their perceptions of life insurance. We then conducted a behavioral mapping exercise to list the possible behavioral hypotheses driving customer's preference for endowment products over term life insurance. We followed the mapping with behavioral interviews on the field with 22 (current and potential) life insurance customers from low-income households and 2 insurance agents in Ariyalur and Thanjavur districts of rural Tamil Nadu (we could not reach out to more insurance agents).

Through the synthesis of desk research and field findings we were able to validate our behavioral hypotheses and prioritize barriers that affect decision making when purchasing insurance products.

Field insights

A summary of the field findings is presented below.

1. Among those who had life insurance policies, everyone owned endowment policies. People were <u>not aware of term life insurance at all</u>. When features of term insurance were explained, people did not respond in its favor.
2. There is low financial literacy and even <u>lower insurance literacy</u> among low-income households.
    a. While many people knew that insurance meant that a beneficiary received a protection cover after the death of the policy holder, they still perceived their life insurance policy as a "savings product with life cover". *"Life insurance is for our future use as well as for our children's education needs"*.

b. Many people we approached did not know what insurance meant and did not have any insurance policy. Some of those who had insurance did not call it 'insurance' and referred to it as "policy" or "LIC", even if it was a savings product or any other scheme.

3. Life insurance is largely a push product for this segment of the population. Respondents held a nil to weak intention to purchase insurance and everyone who had policies took it because it was sold to them by agents who were their close acquaintances. Very few respondents we spoke to sought out life insurance and they did so either because of their experience of benefitting from insurance or they had seen others receive the insurance benefit, in case of a death. Respondents did not think they need only life insurance, and instead saw savings as a key need. *"Insurance policies are more suited for those who are older, have health issues or are part of risky jobs like drivers."*

4. The product pitch for endowment policies was often framed in terms of returns "You invest X amount of money and get back Y amount" causing people to see it as a savings product rather than an insurance policy. Respondents who purchased life insurance, did not know about key features such as life cover or lock-in period. This reinforced people's desire to get back returns on any amount paid towards insurance. This was a key factor for their reservation about term life insurance product, where returns (life cover) were conditional on the death of the policy holder. *"What happens to the premium amount I have paid in term policy? How can I not get it back after the term period?"*

5. Agents are an important influence in insurance purchase decisions. In most cases, respondents didn't understand the terms of their policy, yet they purchased insurance (and other financial products as well) either on the grounds of social relationships (family, friends, etc.) or reciprocity. Most agents pitch only the endowment product and believe that this policy is good for customers. The few agents we spoke to themselves also preferred the endowment policy.

6. Prior unpleasant experiences deter people from considering any new insurance products, thinking they are too complex or not safe.

    a. Some respondents we met had lapsed endowment policies, which they were unable to continue due to their inability to pay premium within the stipulated timeframe. In these instances, respondents were unable to get any returns on their premiums due to the policy lock-in period. Respondents did not know about the lock-in period or money they could get back based on the surrender clause of the policy and reported being informed about losing their entire money in case of non-payment. This also indicates that agents were not transparent with their customers about the complete details of the surrender clause and had little to no incentive to support their customers in helping them continue these policies.

    b. Some respondents were cheated or lost money even with known agents. In most cases, agents blamed companies for nil or negligible returns on the policies owing to the company's poor performance.

Behavioral barriers

Based on the synthesis of the findings, the following behavioral barriers were prioritized. These factors underlined respondent's decision making around life insurance and in particular their preference for endowment products over term life policy.

1. **Problem: Low-income households are aware of life insurance but do not know about term life insurance**

- ***Agents present only endowment products to people (Lack of Salience)***
    - The agent has greater interest to sell endowment policies as the financial incentives are better compared to term life insurance.
    - The only options that agents present to customers are the differences in the premium amounts across different endowment plans and the money back feature of an endowment policy.
    - The agent, who is well known in the customer's social circle, explains a few key features of the product verbally to make the sale. Neither does the customer seek, nor does the agent offer any alternative or comparable products.
- ***People don't intend to purchase insurance (Limited awareness)***
    - Insurance is currently a push product and customers do not make an active choice or look for the best product in the market.
    - Agents themselves do not understand the various types of insurance products available in the market.
- ***People trust the products which their agents present (Trust)***
    - Most current and potential customers we spoke to knew the agent personally and trusted them to provide the appropriate product for their needs, hence they didn't look for options beyond what the agent offered.

- ***People view endowment product as a savings product with added insurance benefit (Mental Models)***
    - Customers perceived their insurance policy as "savings" and paid their periodic installment to save for future needs of the family like child's education, daughter's marriage, etc. There was a high focus on maturity benefits or returns on investment.
    - Customers were generally aware that they would get a protection amount in the case of death of the policy holder but that this was a secondary feature in their view.

2. **Problem: Low-income households do not prefer term life insurance over endowment plan**

- ***People do not think that their risk of death is high enough to buy pure life cover (Optimism Bias, Identity)***
  - When presented with both term and endowment policy options, customers focus only on the case where they survive the term period and lose the premium paid thus far. Customers do not visualize the alternate death condition as they think their risk of death is low.
  - Customers believed that only those who belonged to a certain demography (older, suffering from illness) or risky professions (like drivers) needed term policy, thinking they have a higher probability of death.
- ***People do not want to lose the premium paid (Loss Aversion, Sunk Cost Fallacy, Status Quo)***
  - Customers can't understand why they would lose what they have paid.
  - Customers have always had the experience of getting back returns when taking a policy or any deposit product.
  - The focus of customers is tunneled on the maturity benefit and that drives their decisions in favor of the endowment product.
- ***Endowment products are convenient for customers (Hassles)***
  - Term policy would require the customer to locate their own savings options for the differential amount.
  - Customers see the endowment product and its lock-in feature as a commitment device for saving compared to other savings options like bank deposits, post office, etc.
- ***People don't see others around them with term policy (Social Proof, Social Norms)***
  - Everyone around the customers has a policy where they get something back.
  - They do not think that their trusted sources such as agents known to them or well-known insurance service providers in India such as LIC offer such products.

Section 5: Phase 2: User Testing and Disclosure Design

Given that lack of accurate information is one of the key barriers to uptake of insurance products and that this barrier is more acute in the case of term-life insurance product, we tested the efficacy of disclosure as a solution in bridging this information gap. The objective of this stage of research was to arrive at a disclosure design through which the features of term-life and endowment policies could be presented to study participants in a clear and transparent manner. A strong disclosure design should ideally address the behavioral barriers identified in the diagnosis phase. The key considerations that guided the design process were to keep the disclosures simple to explain with minimal information overload. Following is a list of key behavioural barriers addressed through our disclosure design.

	Key behavioural barriers addressed	Design concept
1.	Agents present only endowment products to customers (Lack of Salience)	Present term life insurance as an alternate option for comparison
2.	Customers don't intend to purchase insurance (Limited awareness) - Customers are not making an active choice - Neither the customer seeks, nor the agent offers any alternative or comparison products.	Talk about the salience of insurance as a risk protection mechanism and proofing households from economic shock
3.	Customers trust the products which their agents present (Trust) - Agents give limited information about the policy and highlight positive aspects more strongly	Present all the key features of the product including the surrender case clearly and accurately
4.	Customers view endowment products as savings product with added insurance benefit (Mental Models)	Draw salience to the death scenario and showcase term life and savings as a bundled option in order to tackle the customer's mental models associated with endowment products
5.	Customers do not think their risk of death is high enough to buy pure life cover (Optimism bias, Identity)	Draw salience to the death scenario
6.	Customers do not want to lose the premium paid in case of term life insurance (Loss Aversion, Sunk cost fallacy, Status Quo)	Present term insurance + saving as a bundled option to make it comparable to endowment product where one loses the term insurance premium paid but gains on the savings component; Highlight the case that when a customer can't pay premium and drops out of endowment policy, they stand to lose their premium paid; Highlight overall rate of return for endowment products, which is low because part of premium is towards providing life cover and only a part of it is invested
7.	Endowment products are convenient for customers (Hassles) - Offers insurance plus savings	Present term insurance + saving as a bundled option. Use features of Post Office-

	- Lock-in feature	Recurring Deposit for the saving component and PMJJBY plan for the term life insurance, such that both the saving and term insurance can be technically purchased at a single location, thereby avoiding hassle; Provide saving option with lock-in feature

Disclosure design prototypes

User testing is an essential step in the behavioral design process. In this step, multiple prototypes of the shortlisted design versions are developed and presented to end-users in order to arrive at the final design. We developed two versions of design each for term insurance, endowment policy, and a comparable option, comprising key features and surrender cases which were presented to potential customers for their feedback. We developed a written script for the enumerator with explanations for how to describe each design verbally. The designs were printed and presented to the study participant, and the enumerator explained the designs based on the script provided. We chose this approach given the existing context and awareness levels of the target population, which indicated that simply presenting policy documents to customers would not be sufficient and that policy features had to be explained in detail. The design options developed for user testing can be found here. We collected user feedback on various aspects of the design such as the content, framing, and the way the disclosure was presented. The final disclosure designs were then modified based on user feedback on the prototypes (refer to Annexure 3 for user feedback on the disclosure designs).

Design considerations for final disclosure design

- Three disclosure designs were finalised for three intervention groups (detailed in the next section). These are- endowment policy with inaccurate disclosure, endowment policy with accurate disclosure and endowment policy with a comparable option comprising a bundle of term life plus recurring deposit (RD) saving account
- A table format was selected to depict policy features and surrender clauses in detail
- Key policy features such as premium amount, tenure, and insurance coverage were adjusted to reflect the target population's context and preferences.
- The written and verbal commentary was fine-tuned and detailed based on customer feedback to ensure that they understood the features clearly before making their final purchase decision.
- The three types of products presented in the final design (endowment policy, term life insurance and RD) were mirrored based on existing products available in the market. The standard endowment plan was mirrored based on Life Insurance Corporation's New Endowment Plan, the term life insurance was mirrored based on the Pradhan Mantri Jeevan Jyoti Bima Yojana and the savings plan was similar to the National Savings Recurring Deposit

Account offered by the Post Office.[21] The final disclosure design along with the final script can be found in Annexure 2.

Section 6: Phase 3: Experimental Design

To test the effectiveness of information disclosures in influencing individual's willingness to purchase life insurance, we conducted a randomized controlled trial (RCT) with potential insurance customers[22] through a lab-in-the-field experiment[23].

A summary of the lab-in-the-field implementation process is as follows:

1. An external survey agency recruited the sample from 5 villages in Tamil Nadu based on a set of pre-decided criteria linked to their awareness and interest in life insurance.
2. The sample was randomised across 3 groups and across 6 enumerators.
3. Enumerators presented the respective intervention design in-person to each respondent based on their allocations. The policy features indicated in the designs were presented as part of a research exercise and not as products available in the market.
4. Enumerators collected the respondents' response on whether they would or would not purchase the policy and reasons for the same in a hypothetical scenario.

The final intervention groups are summarised below along with a description of the disclosure design provided to individuals in each group (refer to Annexure 2 for the final disclosure design and script for the three groups).

- Group 1: Presented endowment policy features with inaccurate disclosures to create a proxy for the business-as-usual case, i.e., the way an endowment policy is currently sold by agents in the study area.[24]
- Group 2: Presented endowment policy features with accurate disclosures

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[21] It must be noted that the product features presented to the study participants was done so in a hypothetical scenario and the actual names of the product or the financial service provider was not used, in order to ensure that the respondents do not assume the experiment as a real sale scenario. The respondents were clearly informed at the beginning of the experiment that their willingness to buy the product was being gauged in a hypothetical scenario and no real sales was being made.

[22] Individuals from low-income households who expressed interest in purchasing life insurance or who had a life insurance in the past. Both these criteria reflected that the individual had a fair understanding of the purpose that a life insurance product serves.

[23] This type of experimentation offers an opportunity to combine typical elements of both laboratory and field experiments. It is conducted in a naturalistic field setting among the relevant population but uses a standard lab protocol to dig deeper and understand preferences, decision making, and behaviors of the respondents. Gneezy,U., Imas, A. *Preferences in the Wild.*

[24] The features of the endowment plan presented to respondents in Group 1, 2 and 3 for the purpose of our experiment was mirrored based on Life Insurance Corporation's New Endowment Plan (Plan # T914), which is a non-linked, participating, individual, life assurance savings plan. For more details, see here.

- Group 3: Presented endowment policy features with accurate disclosures AND showed a comparable option consisting of a term life insurance[25] and a recurring deposit savings plan[26] for the respondent to benchmark features of the endowment policy

Group 1: Endowment policy with inaccurate disclosures[27]

Respondents in this group were offered an endowment policy through written disclosure of product features pertaining to life cover, tenure and premium amount payable every year. However, instead of disclosing returns as a function of the amount invested, returns were illustrated in absolute terms at hypothetical 4% and 8% return scenarios as prescribed by the regulator and currently being practiced by insurance providers.[28] Additionally, the group was not presented with information on the amount they could expect in case the policy was surrendered before the end of the policy term. This was done to reflect existing practice of agents as was learnt through feedback from field interviews during diagnosis and user-testing stages.

Group 2: Endowment policy with accurate disclosures

Respondents in this group were offered the same endowment policy as in Group 1, but with more detailed, accurate, and realistic information. As compared to Group 1, they were presented the following information:

- Return was disclosed as a percentage of the amount invested using the Internal Rate of Return (IRR). Given that the endowment plan used in the experiment was a participating plan, the IRR presented was based on historical performance (3.6%) for similar policies by a leading insurance provider in India, as compared to an assumed 4% and 8% earned by the insurance provider in Group 1.
- Respondents received information on the amount they would get back in case they chose to surrender the policy before the end of the tenure, unlike Group 1. This was presented in the form of a table showing the total surrender value in amount for each year.

Group 3: Endowment policy along with a comparable option

Respondents in this group were presented with endowment policy features (as in Group 2) and a comparable alternate option[29], that provided similar insurance protection and a long-term saving option. For the comparable option, a hypothetical bundled product comprising term life insurance and a recurring deposit (RD) savings plan was used. Both these product features were modelled on existing products available in the market and offered by nationalized banks and post offices, though not

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[25] The features of the term life insurance presented to respondents in Group 3 for the purpose of our experiment was mirrored based on the Pradhan Mantri Jeevan Jyoti Bima Yojana, which is a term-life insurance with a life cover of INR 2,00,000 and an annual premium of INR 436. For more details, see here.

[26] The features of recurring deposit saving plan presented to respondents in Group 3 for the purpose of our experiment was mirrored based on the National Savings Recurring Deposit Account offered by India Post. For more details about this product, see here.

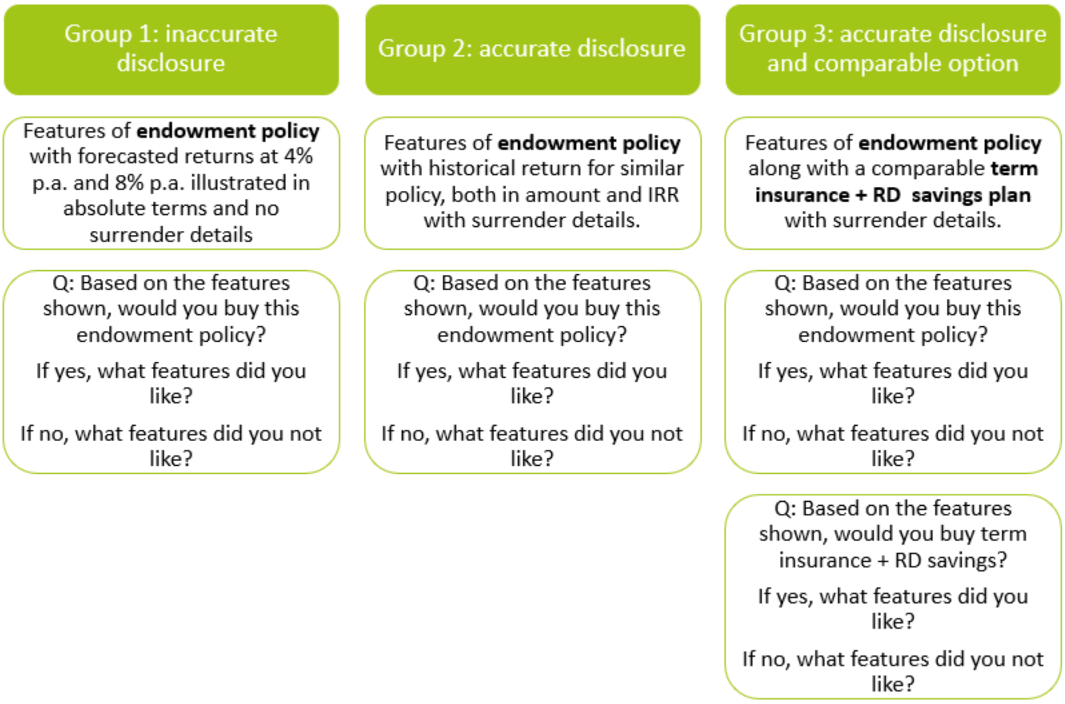
[27] There is a specific sense in which we are using the terms "accurate/inaccurate" and the terms "truthful/misleading" interchangeably. If the disclosure is misleading the customer about the future, then it is providing an inaccurate picture of what can be expected.

[28] The Bose Committee notes that forecasting future returns benchmarked to 4% and 8% is misleading and recommends that participating plans should show benefits as a function of the invested amount using IRR.

[29] The Bose Committee explicitly states that the cost of the life cover in a bundled product should be compared with the cost of pure life cover as in a term policy for a similar life and tenor and should be disclosed alongside such that a customer is able to evaluate the true value of the product.

offered together as a bundle. Respondents were also presented with returns and surrender implications for both options as done in Group 2.

Figure 1: Summary of disclosure design features for the three groups



Section 7: Experiment Implementation

Figure 2: Steps involved in experiment implementation

A. Selecting the sample

To select the sample for the lab-in-the-field experiment, we partnered with an external survey agency to conduct a listing survey across 5 villages of Kumbakonam in Thanjavur district of Tamil Nadu, India. In May 2022, the survey agency conducted the listing survey to arrive at the study sample who would fit our pre-defined inclusion criteria for the experiment. The pre-defined inclusion criteria ensured that the target population being administered the experiment understood life insurance, could afford it, and either already owned insurance or had an intention to buy insurance in the near future. Such an inclusion criteria was used to ensure that the study participants were not new to the concept of life insurance, as the objective of the study was not to understand the barriers to take-up of life insurance but rather to understand the choice of life insurance among those who understood and were willing to buy life insurance. Thus, participants in the experiment needed to:

- have a basic understanding of life insurance
- have a life insurance policy currently or in the past (or) have interest and willingness to purchase life insurance
- fall within the household income range of 10,000 INR (125 USD) to 25,000 INR (315 USD) per month
- be willing to participate in the experiment

B. Randomization and sample allocation

The 508 individuals from the listing survey were randomly allocated into one of the 3 groups and randomly mapped to one of the six enumerators, who presented the corresponding disclosure designs to the study participants. The three intervention groups were compared across village, age, gender, monthly income, and life insurance ownership to ensure that they were balanced, and that the randomization was valid.

C. Enumerator training

We developed detailed scripts to be used by the enumerators to explain the policy features to the respondents, as they were not habituated to reading policy documents. The respondents were shown tables with summary features and the enumerators explained the features in line with the scripts provided to them. Six enumerators from the external survey agency were given a 2-day training in presenting the interventions and following the scripts to equip them to collect the respondents' choices and be prepared to address queries that the respondents may have. The enumerators also conducted a few dummy interviews for practice and received feedback on addressing queries in a better manner. This ensured that the enumerators were able to administer the policy options as comfortably as an insurance agent would in a real-life situation, although this was a lab-in-the-field experiment.

D. Experiment rollout

In June 2022, enumerators administered the experiment on field and collected the respondent's responses on a) their willingness to purchase endowment life insurance and b) reasons for making their choice. Measuring the difference in response between the respective treatment and control groups and analyzing the stated reasons enabled us to identify the effect of information disclosures in influencing respondent's willingness towards purchasing endowment insurance policies.

E. Monitoring

We ensured regular monitoring of the experiment's implementation process through timely checks on experiment protocols, reviewing data from the field, addressing any queries from enumerators promptly, and conducting field monitoring visits at regular intervals. These validation steps ensured that the validity and design of the experiment remained uncompromised. The experiment was completed with 305 respondents from the initial sample of 508, based on their availability and willingness to participate in the experiment.

Section 8: Data Analysis and Results

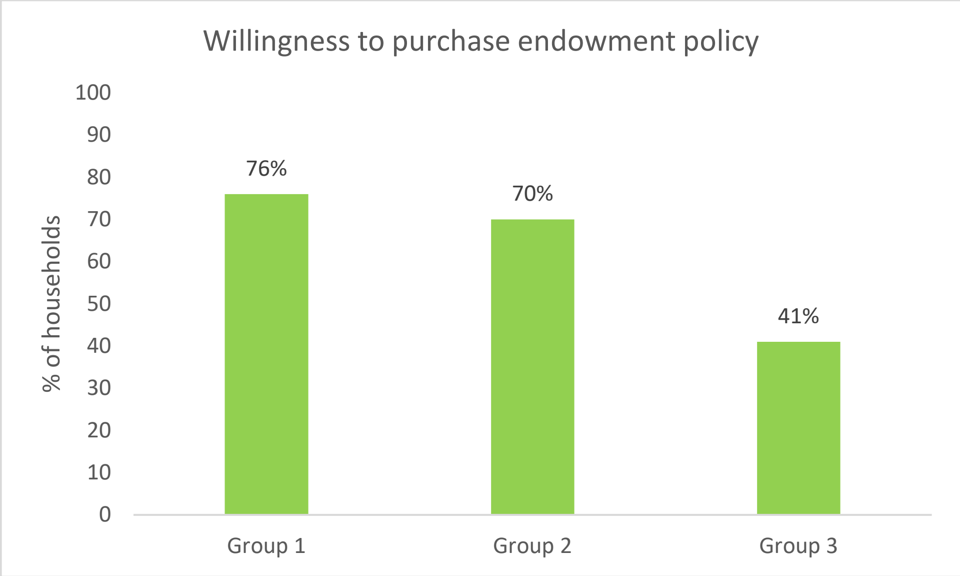
The data collected as part of the lab-in-the-field experiment was analysed to address the following research questions:

1. Do accurate disclosures dissuade individuals from purchasing endowment policies?
    - We compare the difference in willingness to purchase an endowment policy between respondents in **Group 1** (inaccurate endowment plan disclosure) and respondents in **Group 2** (accurate endowment plan disclosures)
2. Does providing alternatives in addition to accurate disclosures dissuade individuals from purchasing endowment policies?
    - We compare the difference in willingness to purchase an endowment policy between respondents in **Group 2** (accurate endowment plan disclosures) and respondents in **Group 3** (accurate endowment plan disclosures plus an alternate comparable option)

Descriptive Statistics

Respondent characteristics are balanced across gender, monthly income, age and life insurance ownership (refer to Annexure 1, Table 3A and 3B). Respondents in each of the three groups were asked about their willingness to purchase an endowment plan. According to the survey data, the willingness to purchase an endowment plan was highest for Group 1 at 76%. This was the group that was presented with inaccurate endowment plan disclosures. When presented with accurate endowment plan disclosures, the willingness reduced by 6 percentage points for Group 2. Finally, only 41% of Group 3 respondents, the group which received accurate disclosures about both an endowment plan as well as a comparable bundled insurance plus investment product, were inclined to buy an endowment plan (refer to Annexure 1, Table 2).

Figure 3: Willingness to purchase endowment policy by groups



Empirical Specification

Our primary outcome of interest is related to respondent's willingness to purchase an endowment plan. To measure the impact of disclosures, we use a logistic regression model for our equation.

$$\text{Logit } (Y_i) = \alpha_i + \beta{*}T_i + g{*}X_i + u_i$$

The dependent variable Y_i is the response to the question- 'based on the features of the policy shown to you, would you buy the endowment plan?'. It takes value 1 if the respondent answers 'yes' and 0 otherwise. Logit $(Y_i) = \ln (P_i/1-P_i)$, refers to the log of odds ratio in favour of buying the endowment plan, i.e., the ratio of the probability that the individual will buy the endowment plan to the probability that s/he will not. The logit model assumes that the log of the odds ratio is linearly related to the explanatory variables. T_i is a dummy variable indicating whether the respondent is in the treatment group (T_i =1) or control group (T_i =0). X_i is the vector of respondent characteristics including gender, income, age, prior insurance ownership, enumerator code and village code.

Results

A. Comparison between Group 1 and Group 2: inaccurate versus accurate endowment policy disclosures

When comparing inaccurate versus accurate endowment policy disclosures, Group 1 forms the control group while Group 2 forms the treatment group. As per the regression result, the beta coefficient for the treatment variable is -0.366 (refer to Table 4A, column 1 in Annexure 1). This means that holding other variables constant, if disclosure type is switched from inaccurate to accurate endowment plan, the log of odds in favour of buying an endowment plan reduces by 0.366. A beta coefficient of -0.366 translates into a decrease in the odds ratio by 0.69 or 69%, implying that the odds of buying the endowment plan for Group 2 respondents is 31% lower compared to the odds for Group 1 respondents.[30] However, this effect is **not statistically significant**, even though the direction of the result indicates that accurate disclosures could reduce the willingness to purchase endowment plans (given low returns and low life cover).

B. Comparison between Group 2 and Group 3: accurate endowment policy disclosure versus comparable and accurate life insurance policy options

Here we compare respondent's willingness to purchase endowment plan between Group 2 and Group 3. Group 2 respondents are presented with accurate endowment plan disclosure whereas Group 3 respondents are presented with two options. First, an accurate endowment policy disclosure and second, a bundled product disclosure comprising term life insurance and recurring deposit saving plan. As per the regression result, beta coefficient for the treatment variable is -1.280 (refer to Table 4B, column 1 in Annexure 1). This means that holding other variables constant, if disclosure type is switched from accurate endowment plan to accurate + comparable policy options, the log of odds in favour of buying an endowment plan reduces by 1.280. A beta coefficient of -1.280 translates into a decrease in the odds ratio by 0.28 or 28%, implying that the odds of buying an endowment plan for Group 3 respondents is 72% lower compared to the odds for Group 2 respondents.[31] This effect is **statistically significant at 1%**, indicating that the reduced preference for an endowment plan is due to the type of disclosures presented, i.e., a comparable option being presented to respondents in Group 3. Additionally, of the 60% respondents in Group 3 who voted against buying an endowment plan, roughly 90% of them expressed their willingness to buy the bundled product (insurance plus investment product).

Section 9: Discussion

Endowment plans are hugely popular among Indian households. Among low-income households who do intend to buy life insurance, endowment plans are the preferred choice as these are sold by community based- local agents who enjoy high levels of trust. In addition to the ease of availability of these products through agents, the endowment plan by its very design satisfies the dual need that low-income households have, that of, saving for a long-term goal along with protecting their risks. Combined with the fact that term life insurance is neither widely available nor sold to low-income households, it has created a situation where low-income households have become habituated to thinking about insurance first and foremost as an investment product with an additional risk protection feature. We see this in the first group, where 76% of respondents confirmed that they were willing to purchase an endowment plan based on the disclosure presented to them. When asked for a reason for their decision, the respondents pointed to returns and maturity benefit being the key factor, followed by affordable premium, and flexibility in premium payment options. Despite the fact that respondents were not shown surrender terms and returns were not disclosed as a percentage of the amount invested, the willingness to buy endowment policies among Group 1 respondents was high, indicating that endowment plans have become the go-to choice for low-income households, when buying a life insurance policy.

In the case of Group 2 respondents who were presented with accurate endowment policy disclosures, the take up reduced by 6 percentage points, but was still relatively high at 70%. This was in contrast to our initial hypothesis, which was that when presented with complete and accurate disclosures, the

[30] Odds ratio= exp (-0.366) = 0.69
[31] Odds ratio= exp (-1.280) = 0.28

willingness to purchase an endowment plan would substantially reduce as respondents would see the pitfalls of the product. In addition to the key terms and conditions of the product, accurate disclosure in Group 2 included the surrender term as well as the returns as a function of the amount invested and averaged out for the last ten years, in line with what was recommended by the Bose Committee. The surrender table (refer to Annexure 2, Group 2) which disclosed the amount the individual would get back if they withdrew from the policy before its completion rendered mixed results. On one hand, respondents found the information about surrender a compelling aspect in favor of the endowment policy as they would receive at least some amount back. On the other hand, some respondents cited unfavourable surrender term as the key reason for not choosing the endowment policy, given that they would lose partially or fully the premium paid depending on when they choose to exit from the policy.

Finally, while 'returns' were the top reason stated in favor of the endowment policy in Group 2, customers in Group 3 mentioned low returns as the main reason for voting against the endowment policy in Group 3. The respondents in Group 3, who were shown a comparable option found the bundled product, consisting of a term life insurance plus a recurring deposit saving plan, to provide better returns as well as higher life cover. This gives us good reason to conclude that on a standalone basis the target population often does not have a benchmark rate of return to assess their investment options. However, this changes when a benchmark is provided to compare the returns offered. Hence providing benchmark rates of return is an important feature to be disclosed and explained when presenting an endowment insurance policy.

The differences in the results between presenting respondents with an inaccurate endowment policy disclosure compared to an accurate one versus presenting them with comparable options implies that in addition to accurate disclosures, it is important to provide customers with alternatives so that they can compare and contrast the benefits and pitfalls of the product. Low-income customers have become habituated to thinking about insurance as an investment product with an additional insurance benefit because they have largely been sold life insurance only in the form of a standard endowment plan. Accurate disclosures that inform customers about realistic returns are not sufficient to change this habit. A change in habit requires offering multiple products through accurate and complete disclosures, so that customers can benchmark returns and other features and make an informed choice that is more suitable to their needs.

This study addresses the question of the role of information disclosures in influencing customer's product choice and finds its effect to be substantial. However, as acknowledged at the outset of this report, complete and accurate information disclosure is only the first of many steps required to ensure suitable sale. The concept of 'information disclosure' by its very nature places the onus on the customers to make the right decisions for themselves, which might not be feasible given the Indian context of low levels of awareness and exposure to the formal financial system among low-income households. In this regard, IRDA's 2019 guideline on mandating life insurers to conduct suitability assessment and make product recommendation based on customer's profile is a step in the right direction and rightly places the onus of suitable sale on the provider. However, a review by Dvara Research found wide variation in the manner in which market participants have interpreted and implemented IRDAI's suitability regulations. The analysis found that several life insurance companies in India often leave it to the customer to determine their own risk profile and do not explicitly take the responsibility of conducting a suitability assessment, exposing drawbacks in the suitability process being implemented by insurance providers in India.[32] While the need for strengthening the suitability process cannot be denied, the role of information disclosure in informing customers about various products available in the market through accurate and complete disclosures, at the very least, can create a wedge between misaligned incentives and unsuitable sales.

Section 10: Limitations of the Study

- The purposive sampling done in the experiment limits the potential scalability of the results. The results presented are more likely to be applicable to only those populations who meet the sampling criteria of the study.
- The insurance agent plays a crucial role for this target population. The applicability of the results is likely to be impacted by the method of administration of the insurance policies to potential customers. This experiment used enumerators who were trained and monitored regularly as a proxy for insurance agents to present and explain the disclosures for insurance policies in a hypothetical scenario. Adjusting for the role of the agent and devising accountability mechanisms would be a key consideration when such interventions are to be implemented by insurance agents in practice.
- This was a lab-in-the-field study where respondents were presented a hypothetical situation to assess their willingness to purchase an endowment plan under various disclosure scenarios. There is likely to be a change in preferences in real-life situations when respondents actually have to commit earnings towards a financial product. We believe that while the magnitude of the result could change in a real-life scenario, the direction of the results would most likely remain the same.
- In Group 3, the comparable option shown was a hypothetical bundled option comprising a term life insurance and a RD savings product. While this option was modelled on two separate financial products available to this target population in the market, there is currently no provision in the market for the two products to be offered as a bundle together, even though the two separate products can technically be bought at a single location through a financial institution such as a bank or a post office. However, the availability of comparable options and convenience in sourcing alternate policies could be a key consideration for customers. This aspect was not tested as part of this experiment.

Section 11: Policy Implications

- **In addition to truthful disclosures, providing customers with multiple options that lets them compare and contrast the product features, can help shift existing habits.** Low-income customers have become habituated to thinking about life insurance as an investment product because they have largely been sold life insurance in the form of a standard endowment plan. Accurate disclosures that inform poor customers about realistic returns are not sufficient to change this habit. A change in habit requires offering multiple products using accurate and complete disclosures, so that customers can benchmark returns and other features and make an informed choice that is more suitable to their needs. This is also in line with the recommendations of the Bose Committee that explicitly stated that the cost of the life cover in a bundled product should be compared with the cost of pure life cover for a similar life and tenor and should be disclosed alongside such that a customer is able to evaluate the true value

[32] See Dvara Research's analysis on tracing IRDAI's regulations on suitability and its interpretation by market participants here and here

of the product. However, these recommendations have not yet been mandated and therefore the lack of regulatory requirement to benchmark endowment plan against other life insurance products is a significant shortcoming.

- **Accurate and complete information disclosures should be mandated in the sale of any financial products.** Accurate information disclosure is the first of many steps required to ensure suitable product sales for customers. Just as bad incentives drive bad disclosures, similarly, accurate disclosures can bring in an element of transparency and create a wedge between misaligned incentives and unsuitable sales, resulting in better outcomes for the customer. Results from our study indicated that when presented with accurate disclosures, respondent's willingness to buy an endowment plan reduced, even though the result was statistically insignificant.
- **Key features of the product should be disclosed explicitly as they are crucial in determining purchase decisions.** In the context of life insurance, features such as policy tenure, premium amount, returns, life cover and surrender clause are extremely important. Returns and terms of surrender were found to play a decisive role in customers' decision. The current requirement to show non-guaranteed absolute returns at hypothetical rates of 4% and 8% per annum as mandated by IRDAI is less than ideal. Instead, returns should be shown as a function of the amount invested using internal rate of return along with the average historical returns for the product, as recommended by the Bose Committee.
- **Disclosure format matters.** Lengthy disclosures do not serve customer's interests. Instead, key features of the product should be presented in a concise format. This as well as other studies (Agrawal et al., 2021)[33] have shown that a table format is useful when presenting the key features of a financial product. Given the complexity of information, efforts must be made to ensure that the information is presented in a transparent and easy to understand manner. Additionally, this study also highlights the benefits of including a simple explainer about the meaning of each feature such that the customer can relate better to the product and make an informed decision. In addition to written disclosures, FSPs and/or their agent should also explain the product features verbally. As recommended by the Bose Committee, at the point of sale, a one-page disclosure must be signed by the seller and the buyer. The one- pager must contain information in a manner that can be understood by the customer.

[33] See (Agrawal et al., 2021) here

Annexure 1: Descriptive statistics and regression results

1. Demographic summary

Variable	Categories	Group1	Group2	Group3	Total
Gender	Female	52	52	58	162
	Male	49	49	45	143
Monthly Income	<15k INR p.m	57	54	66	177
	>=15K INR p.m	44	47	37	128
Life Insurance Ownership	No	49	48	52	149
	Yes	52	53	51	156
Village	Sakkotai	26	25	15	66
	Ammachathram	19	15	14	48
	Palavandhan	22	28	40	90
	Koranadu	21	22	15	58
	Natchiarkovil	13	11	19	43
Enumerator Code	1	15	14	19	48
	2	19	20	15	54
	3	13	10	16	39
	4	14	19	17	50
	5	15	20	21	56
	6	25	18	15	58

2. Summary of willingness to take endowment policy between groups

Group 1	Freq.	Percent	Cum.
Yes	77	76.24	76.24
No	24	23.76	100.00
Total	101	100.00	

Group 2	Freq.	Percent	Cum.
Yes	71	70.30	70.30
No	30	29.70	100.00
Total	101	100.00	

Group 3	Freq.	Percent	Cum.
Yes	42	40.78	40.78
No	61	59.22	100.00
Total	103	100.00	

3. Balance Tables

A. Analysis of Group 1 vs Group 2

Variables	N	(Group 1) 0 Mean/SE	N	(Group 2) 1 Mean/SE	t-test Difference (1)-(2)
Customer Willingness to purchase Endowment 0 = No, 1= Yes	101	0.762 [0.043]	101	0.703 [0.046]	0.059
Gender 0 = Female, 1= Male	101	0.485 [0.050]	101	0.485 [0.050]	0.000
Age	101	34.099 [0.762]	101	35.703 [0.674]	-1.604
Enumerator code (1-6)	101	3.693 [0.181]	101	3.644 [0.171]	0.050
Village (1-5)	101	2.762 [0.137]	101	2.792 [0.132]	-0.030
Life insurance ownership 0 = No, 1= Yes	101	0.515 [0.050]	101	0.525 [0.050]	-0.010
Monthly Income 0 = < INR15k, 1 = >= INR15K	101	0.436 [0.050]	101	0.465 [0.050]	-0.030

The value displayed for t-tests are the differences in the means across the groups.

***, **, and * indicate significance at the 1, 5, and 10 percent critical level.

B. Analysis of Group 2 vs Group 3

Variables	N	(Group 2) 0 Mean/SE	N	(Group 3) 1 Mean/SE	t-test Difference (1)-(2)
Customer Willingness to purchase Endowment	101	0.703	103	0.408	0.295***
0 =No, 1= Yes		[0.046]		[0.049]	
Gender	101	0.485	103	0.437	0.048
0 =Female, 1= Male		[0.050]		[0.049]	
Age	101	35.703	103	36.049	-0.346
		[0.674]		[0.796]	
Enumerator code	101	3.644	103	3.495	0.148
(1-6)		[0.171]		[0.169]	
Village	101	2.792	103	3.087	-0.295
(1-5)		[0.132]		[0.125]	
Life insurance ownership	101	0.525	103	0.495	0.030
0= No, 1= Yes		[0.050]		[0.050]	
Monthly Income	101	0.465	103	0.359	0.106
0 = < INR15k, 1 = >= INR15K		[0.050]		[0.048]	

The value displayed for t-tests are the differences in the means across the groups.

***, **, and * indicate significance at the 1, 5, and 10 percent critical level.

4. Logistic regression

A. Group 1 (Control) and Group 2 (Treatment)

Variables	(1) Policy Willingness
Treatment effect	-0.366[34]
	(0.329)
Gender	-0.419
	(0.338)
Age	0.015
	(0.023)
Enumerator code	-0.056
	(0.098)
Village	-0.110
	(0.127)
Life insurance ownership	0.341
	(0.333)
Monthly Income	0.549
	(0.342)
Constant	0.994
	(0.988)
Observations	202

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

[34] Exponential of -0.366 is 0.69, which is the odds ratio of buying endowment for those in Group 2 versus buying endowment for those in Group 1. 1-0.69=0.31. Therefore, the odds of buying an endowment for Group 2 respondent was 31% lower than the odds of buying for Group 1 respondent.

B. Group 2 (Control) and Group 3 (Treatment)

Variables	(1) Policy Willingness
Treatment effect	-1.280***[35]
	(0.308)
Gender	-0.627**
	(0.306)
Age	0.005
	(0.020)
Enumerator code	-0.053
	(0.093)
Village	-0.038
	(0.115)
Life insurance ownership	0.0151
	(0.311)
Monthly income	0.136
	(0.317)
Constant	1.231
	(0.901)
Observations	204

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

[35] Exponential of -1.280 is 0.278, which is the odds ratio of buying endowment for those in Group 3 versus buying endowment for those in Group 2. 1-0.278=0.72. Therefore, the odds of buying an endowment for Group 3 respondent was 72% lower than the odds of buying for Group 2 respondent.

Annexure 2: Final design script

A. Summary of design options depicted in this document

Group 1 – Endowment Policy with inaccurate disclosures

- Table of policy disclosures (assumed rates of 4%, 8%) and without surrender case

Group 2 – Endowment Policy with accurate disclosures

- Table of policy disclosures (historical pay-out) with surrender case

Group 3 – Comparison of Endowment and Term + Recurring Deposit Saving

- Table of policy with detailed disclosures for each policy + Surrender table

B. Designs

Group 1. Endowment with inaccurate disclosures

Hi, thank you for participating in this study on life insurance. Can you please help me with a few details about yourself.

- Age *(Number Input)*
- Education level
  - *Primary school*
  - *Secondary school*
  - *Graduate*
  - *Post Graduate*
- Occupation
  - *Self-employed in agriculture*
  - *Self-employed in non-agriculture*
  - *Regular wage or salary earning*
  - *Casual labour in agriculture*
  - *Casual labour in non-agriculture*
  - *Others*
- Do you have a bank account? *(Y/N)*
- Do you have any insurance ? *(Y/N)*
  - If yes, can you share details about the policy
  - Premium paid (annual) ____*(Number Input)*
  - Insurance cover ____*(Number Input)*
  - Tenure ____*(Number Input)*
  - Maturity Benefit ____*(Number Input)*

Thank you for sharing this. I will tell you about a life insurance policy. Please tell me your feedback afterwards. If you have any questions, you can ask me after I explain.

This is a policy that offers two components. One, in case the policy holder is no more, there is financial protection for the family. Two, in case the policy holder is alive at the end of the policy period and they have been paying the premium regularly, there is savings for future needs of the policy holder and their family.

Commentary: [Keep finger at each line of table as you speak about it]

In this policy, you pay an amount of ₹10,870 every year for 10 years. This comes to a monthly amount of ₹ 905. You can choose to pay this amount either monthly, once in 3 months, half yearly or annually. Unfortunately, if you pass away within the 10 years, your family will get ₹ 1 lakh and policy ends.

Else, if you complete the policy term and pay the premium regularly, at the end of 10 years you get a guaranteed return of ₹1 lakh. There is also a non-guaranteed bonus amount which you can get depending on the performance of the company. For example - if the company bonus is 4% you get ₹15,000 and if bonus is 8% you get ₹32,400. However, this is not guaranteed and you could get more or less than these amounts.

Protection + Saving		
Premium amount	Annual ₹10,870 (Monthly - ₹905)	What the policy holder pays every year. This can also be paid on quarterly or half yearly basis
Insurance period	10 years	Years for which policy is valid
Total premium paid	₹1,08,700	Total amount the policy holder has paid in 10 years
Death Benefit	₹1,00,000	If policy holder dies, the family gets this guaranteed amount
Maturity Benefit	Guaranteed - ₹1,00,000 Bonus at 4% - ₹15,000 Bonus at 8%- ₹32,400	Guaranteed - If the policy holder survives, they will get this amount for sure at the end of the term Bonus – This is a non-guaranteed amount. This will an extra amount the policy holder gets depending on the performance of the company

Q1. Based on the features of the policy shown to you, would you buy this policy?
Q2. If yes, what features do you like? If no, what do you not like about it?

Thank you for participating in this study. I'll note down your questions and share with the relevant authorities.

Group 2. Endowment Policy with accurate disclosures

Hi, thank you for participating in this study on life insurance. Can you please help me with a few details about yourself?

- Age *(Number Input)*
- Education level
  - *Primary school*
  - *Secondary school*
  - *Graduate*
  - *Post Graduate*
- Occupation
  - *Self-employed in agriculture*
  - *Self-employed in non-agriculture*
  - *Regular wage or salary earning*
  - *Casual labour in agriculture*
  - *Casual labour in non-agriculture*
  - *Others*
- Do you have a bank account? *(Y/N)*
- Do you have any insurance ? *(Y/N)*
  - If yes, can you share details about the policy
  - Premium paid (annual) ____*(Number Input)*
  - Insurance cover ____*(Number Input)*
  - Tenure ____*(Number Input)*
  - Maturity Benefit ____*(Number Input)*

Thank you for sharing this. I will tell you about a life insurance policy. Please tell me your feedback afterwards. If you have any questions, you can ask me after I explain.

This is a policy that offers two components. One, in case the policy holder is no more, there is financial protection for the family. Two, in case the policy holder is alive at the end of the policy period and they have been paying the premium regularly, there is savings for future needs of the policy holder and their family.

Commentary: [Keep finger at each line of table as you speak about it]

In this policy, you pay an amount of ₹10,870 every year for 10 years. This comes to a monthly amount of ₹905. You can choose to pay this amount either monthly, once in 3 months, half yearly or annually. Unfortunately, if you pass away within the 10 years, your family will get ₹1 lakh and policy ends.

Else, if you complete the policy term and pay the premium regularly, at the end of 10 years you get a guaranteed return of ₹1 lakh. There is also a non-guaranteed bonus amount which you can get depending on the performance of the company. Based on the bonus declared by the company in the last 10 years, policy holders have got an average additional bonus of ₹33,000 at an indicative rate of return of 3.6%. However, this is not guaranteed and you could get more or less than these amounts.

Protection + Saving		
Premium amount	Annual ₹10,870 (Monthly - ₹905)	What the policy holder pays every year. This can also be paid on quarterly or half yearly basis
Insurance period	10 years	Years for which policy is valid
Total premium paid	₹1,08,700	Total amount the policy holder has paid in 10 years
Death Benefit	₹1,00,000	If policy holder dies, the family gets this guaranteed amount
Maturity Benefit	Guaranteed - ₹1,00,000 Indicative bonus based on last 10 years bonus declared – ₹33,000 Indicative Rate of return – 3.6%	Guaranteed - If the policy holder survives, they will get this amount for sure at the end of the term Bonus – This is a non-guaranteed amount. This will an extra amount the policy holder gets depending on the performance of the company

Surrender: Another important point about this policy is that if for any reason you cannot pay the premium amount regularly, you can surrender the policy and you will get back some part of what you have paid, depending on when you surrender – [point to the table.]

[Keep finger at each line of table as you speak about it]

Column 1 refers to Year.
Column 2 is the total premium amount you have paid till that year.
Column 3 is the guaranteed surrender amount you get back.
Column 4 gives an example of the indicative additional bonus you receive based on past performance of the company. Note that the amounts presented in Column D are examples of the non-guaranteed amount. The actual amount that one will receive can either get more or less based on the company's performance in the market.

For example in year 5, you would have paid ₹54,350. In case you surrender the policy, you would get back a guaranteed amount of ₹27,175 and a non-guaranteed surrender bonus of ₹3,962 based on the company's past performance. This would amount to a total of ₹31,137.

Surrender Values : Insurance+ Saving Policy Annual Premium – ₹10,870			
1	**2**	**3**	**4**
1	₹10,870	₹0	₹0
2	₹21,740	₹6,522	₹0
3	₹32,610	₹11,414	₹1,953
4	₹43,480	₹21,740	₹3,249
5	₹54,350	₹27,175	₹3,962
6	₹65,220	₹37,175	₹4,772
7	₹76,090	₹49,459	₹5,681
8	₹86,960	₹56,524	₹6,764
9	₹97,830	₹70,438	₹8,037
10	₹1,08,700	₹97,830	₹9,900

Q1. Based on the features of the policy shown to you, would you buy this Policy?
Q2. If yes, what features do you like? If no, what do you not like about it?

Thank you for participating in this study. I'll note down your questions and share with the relevant authorities.

Group 3. Comparison of Endowment and Term + Recurring Deposit Saving

Hi, thank you for participating in this study on life insurance. Can you please help me with a few details about yourself?

- Age *(Number Input)*
- Education level
    - *Primary school*
    - *Secondary school*
    - *Graduate*
    - *Post Graduate*
- Occupation
    - *Self-employed in agriculture*
    - *Self-employed in non-agriculture*
    - *Regular wage or salary earning*
    - *Casual labour in agriculture*
    - *Casual labour in non-agriculture*
    - *Others*
- Do you have a bank account? *(Y/N)*
- Do you have any insurance ? *(Y/N)*
    - If yes, can you share details about the policy
    - Premium paid (annual) ____*(Number Input)*
    - Insurance cover ____*(Number Input)*
    - Tenure ____*(Number Input)*
    - Maturity Benefit ____*(Number Input)*

Thank you for sharing this. I will tell you about 2 options for life insurance policies. Please tell me your feedback afterwards. If you have any questions, you can ask me after I explain.

<u>Commentary for Policy A</u> [Keep finger at each line of table as you speak about it]

Policy A offers two components in one policy. One, in case the policy holder is no more, there is financial protection for the family. Two, in case the policy holder is alive at the end of the policy period and they have been paying the premium regularly, there is savings for future needs of the policy holder and their family

In this policy, you pay an amount of ₹10,870 every year for 10 years. This comes to a monthly amount of ₹905. You can choose to pay this amount either monthly, once in 3 months, half yearly or annually. Unfortunately, if you pass away within the 10 years, your family will get ₹ 1 lakh and policy ends.

Else, if you complete the policy term and pay the premium regularly, at the end of 10 years you get a guaranteed return of ₹1 lakh. There is also a non-guaranteed bonus amount which you can get depending on the performance of the company. Based on the bonus declared by the company in the last 10 years, policy holders have got an average additional bonus of ₹33,000. However, this is not guaranteed and you could get more or less than these amounts.

The amount you would have paid in 10 years would total to ₹1,08,700 and you CAN get ₹1,33,000 at an indicative rate of return of 3.6%.

<u>Commentary for Policy B+C -</u> [Keep finger at each line of table as you speak about it]

As another option for Policy A, we are showing you 2 products – one only life insurance policy and one is only a savings plan. These two policies offer insurance cover in case policy holder is no more and also provides savings for future needs. I will walk you through each of them.

- In case of the pure insurance policy B, you pay ₹330 every year. Unfortunately, if you pass away, the family will get ₹2 lakhs as protection and policy ends. You can continue this policy for as many years till the age of 50. However, if you survive, there will be no return.
- In case of the savings plan C, you deposit an annual amount of ₹10,800 every year for 10 years in a recurring deposit, which comes to ₹900 per month. You can choose to pay either monthly, once in 3 months, half yearly or annually.
- The amount you would have paid in 10 years for both B and C together would total to ₹ 1,11,300 and you WILL get ₹ 1,45,415 at rate of return of 5.8%.

	A	B + C		
Policy / Savings period of <u>10 years</u>	**Policy A - Insurance Protection + Saving**	**Policy B - Pure Insurance Protection**	**Plan C - Saving**	**Comments**
Insurance cover	₹1 Lakh	₹2 Lakhs	-	*If policy holder dies, the family gets this amount*
Customer payout	Annual - ₹10,870 (Monthly - ₹905)	Annual - ₹330	Annual - ₹10,800 (Monthly- ₹900)	*What the policy holder pays every year. This can be also be paid on a half yearly and quarterly basis for A and C.*
Total paid over 10 years	**₹1,08,700**	₹ 3,300	₹ 1,08,000	*Amount paid overall in 10 years*
		₹ 1,11,300		
Maturity Benefit at end of policy period	Guaranteed - ₹1,00,000 (0%)	None	Guaranteed - ₹1,45,415 (5.8%)	*<u>Guaranteed</u> - If the policy holder survives the period, they will get this amount for sure at the end of the term*
	Indicative bonus based on last 10 years – ₹33,000 (3.6%)			*<u>Bonus</u> – This is a non-guaranteed amount. This will an extra amount the policy holder gets depending on the performance of the company*

Surrender: Another important point about both policies, if for any reason you cannot pay the premium amount in Policy A or saving amount in Policy C every year regularly for 10 years, you can surrender the policy and you will get some portion of what you have paid back, depending on when you surrender – point to the table.

[Show tables side by side]

<u>For Policy A:</u> [Keep finger at each line of table as you speak about it]
Column 1 refers to Year.
Column 2 is the total premium amount you have paid till that year.
Column 3 is the guaranteed surrender amount you get back.
Column 4 gives an example of the indicative additional bonus you receive based on past performance of the company. Note that the amounts presented in Column D are examples of the non-guaranteed amount. The actual amount that one will receive can either get more or less based on the company's performance in the market.

For example in year 5, you would have paid ₹54,350. In case you surrender the policy, you would get back a guaranteed amount of ₹27,175 and a non-guaranteed surrender bonus of ₹3,962 based on the company's past performance. This would amount to a total of ₹31, 137.

Surrender Values : Insurance+ Saving Policy (Policy A) Annual Premium – ₹ 10870			
1	**2**	**3**	**4**
Year	**Total Premium Paid (Excl GST)**	**Guaranteed Surrender Value**	**Non-Guaranteed Surrender Bonus based on average of 10-year historical returns**
1	₹10,870	₹0	₹0
2	₹21,740	₹6,522	₹0
3	₹32,610	₹11,414	₹1,953
4	₹43,480	₹21,740	₹3,249
5	₹54,350	₹27,175	₹3,962
6	₹65,220	₹37,175	₹4,772
7	₹76,090	₹49,459	₹5,681
8	₹86,960	₹56,524	₹6,764
9	₹97,830	₹70,438	₹8,037
10	₹1,08,700	₹97,830	₹9,900

For Savings plan C [Keep finger at each line of table as you speak about it]

Column 1 refers to Year.
Column 2 is the total savings you have paid till that year.
Column 3 is the guaranteed return amount you get back at a lower rate of 4% instead of 5.8%

For example in year 5, you would have paid ₹54,000. In case you surrender the policy in that year, you would get back a guaranteed amount of ₹62,725. This policy has a lock-in period of 3 years, so if you withdraw within the 3 year period, you would get back the returns mentioned in the table after 3years. This policy needs to be renewed at year 5.

Return Values in Plan C RD annual savings amount – ₹ 10,800		
1	**2**	**3**
Year	**Cumulative Savings**	**Return Values at 4%** (*Lock-in period of 3 years)
1	₹10800	₹11035*
2	₹21600	₹22520*
3	₹32400	₹34470*
4	₹43200	₹46906
5	₹54000	₹62725
6	₹64800	₹73313

7	₹75600	₹87325
8	₹86400	₹101905
9	₹97200	₹117080
10	₹108000	₹132871

Q1. Based on the features of the policy shown to you, would you buy Policy A?
Q2. If yes, what features do you like? If no, what do you not like about it?

Q3. Based on the features of the policy shown to you, would you buy Policy B+C?
Q4. If yes, what features do you like? If no, what do you not like about it?

Thank you for participating in this study. I'll note down your questions and share with the relevant authorities.

Annexure 3: Field user testing

The preliminary design options (along with script) were prototyped and user-tested on field. The user testing process aimed to collect feedback from users based on their understanding of life insurance and clarity around designs. We interviewed 10 respondents in Kumbakonam district, Tamil Nadu who met the following sampling criteria:

- Must have a basic understanding of life insurance i.e., respondent is able to correctly articulate the primary features of a life insurance policy. Examples of correct understanding are given in the survey instrument for enumerators to refer to and validate.
- Must have a life insurance policy currently or had one in the past (or) have interest and willingness to purchase life insurance when offered.
- Must fall within the household income range of 10,000 INR (125 USD) to 25,000 INR (315 USD) per month.

We presented different design options for each type of life insurance product along with the commentary from the script to the customers and collected their feedback. The insights from user testing are summarized below:

	User Feedback	Design implication
1	Content: • People asked about the purpose of the study • People wanted to know the source / origin of the policies and preferred a reliable source like government / trusted agent to sell the policy	• Add more details about the project both at recruitment stage and interview stage • Add some info about source (government/ private)/ availability of the policies in the FAQ, that was prepared for enumerator's benefit
2	Commentary: • Information presented needs to be repeated. People asked questions to confirm the information shown in the designs • Words/ framing is crucial – "Death" is a sensitive matter, terms like "product" was not clear	• Explain policy features in a slower manner, pause to let them ask questions. Repeat features of the policy as needed. • Expand the script to elaborate more on the definitions of the two life insurance policies • Walk through one row of the surrender table as an example. • Words/ framing: Avoid using words like "die", "death" directly and instead use "person no more with you / if there is loss of life suddenly". Use the term "policy" instead of "product" in the script.

	User Feedback	Design implication
3	Design format: • Tables were preferred over charts and infographics	• Use tables in disclosure and surrender designs
4	Insurance Product: • People found the existing premium range out of bounds for them and preferred premium range of 10,000 INR (125 USD) per year • Recurring Deposit savings return of 4 lakhs INR (5037 USD) skewed the decision in its favour over lower endowment returns • Some people would not meet the 15-year policy term due to being older	• Use endowment product of 10,000 INR (125 USD) range, which offers 1 lakh INR (1260 USD) cover • Use 10-year time period (instead of 15), which also makes RD return more comparable with endowment and would suit wider age bracket (up to 50 years)
5	Endowment plan: • People's choice altered upon showing surrender information Surrender • People thought the amount presented in '4% and 8% return' columns was additional bonus, over and above the guaranteed amount • Mentioning that "you always get lower than what you have paid unless you complete the term" made the shortcoming of endowment more salient	• Ask for decision about endowment only after disclosure and surrender are shown and explained • Edit surrender table to show only additional bonus amount in '4% and 8% return' columns • Remove the sentence "you always get lower than what you have paid unless you complete the term", as people were able to see and understand this point from the table
6	Term plan: • People were confused whether they would get back the premium paid in case of no death • People who were presented with only the term life product showed a unanimous preference for the policy, perhaps due to the low premium amount	• Alter the commentary to state clearly that there are no returns in case of survival of policy holder within the term • Reconsider if presenting term life standalone option would provide meaningful results
7	Comparison:	• Show information in parts along with the commentary. (Eg. using slider

	User Feedback	Design implication
	• People got overwhelmed with the information presented in the comparison table	which covers other columns when explaining one column). Simplify/ merge some of the information.
8	<u>Sampling:</u> • People with lower income bracket (less than 1lakh INR (1260 USD)) were not interested in saving as they prioritised managing their day-to-day expenses • People aged 55 years and above did not meet the age limit criteria • Some people who understood insurance did not display an explicit intention to purchase insurance at the moment, but were in a position to understand the designs and share their preferences	Points to note for sampling: • Edit income and age criteria to include customers with an intention and willingness to purchase life insurance and who meet the age limit criteria • Frame intention and awareness questions in sampling stage to be more inclusive