

Regulating consumer finance: Do disclosures matter? The case of life insurance

No. 212

09-Nov-2017

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New Delhi

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November 2017

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We use a sample-survey based experiment to estimate the effect of simplified life insurance disclosures. We randomise survey respondents into one of four product advertisements: 1) a baseline product with no additional disclosure, 2) disclosure of the actual rate of return on the product, 3) disclosure of the rate of return and a benchmark return of a similar product, and 4) the rate of return, benchmark return and product features of a more cost-effective competing product. We test if these incremental disclosures affect customer views of the product, and the intention to purchase. We find that relative to the baseline treatment, only Treatment 2, had an effect on product perceptions. Treatments which show additional data did not have a differential effect relative to the baseline treatment. None of the treatments had any impact on the intention to purchase.

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We thank Chirag Anand for research support. This paper is funded by a grant from the International Growth Center. The opinions expressed in the paper are our own and not necessarily that of our employers. All errors and omissions remain ours.

1 Introduction

Financial regulators around the world have increasingly demanded improved disclosures in the retail financial space in the hope that customers will be able to make more informed choices. Research on the impact of financial disclosures, however, has shown ambivalent effects. For example, Kozup, Howlett and Pagan (2008) show that the provision of supplemental information, particularly in a graphical format, interacts with performance and investment knowledge to influence perceptions and evaluations of mutual funds. However, when we look at actual portfolio choices, Beshears, Choi, Laibson and Madrian (2009) find that Summary Prospectus of mutual funds, which describe returns and costs, have no impact on actual investment. Research also suggests that, sometimes, mandatory disclosures are seen to have unintended consequences. Loewenstein, Cain and Sah (2011) show that under a regime of mandatory disclosures, advisors become more comfortable giving biased advice.

This suggests that mandating disclosures does not imply that consumers are able to understand them, and then act on them (Latin, 1994; Grubb, 2015). Disclosure effectiveness seems to be contingent on their design and implementation (Campbell, Mohr & Verlegh, 2012). As an example, presenting information in dollar, rather than percentage point terms have a larger effect (Hastings & Tejada-Ashton, 2008; Bertrand & Morse, 2011). Design of disclosures has become an important question in financial regulation.

Most research on disclosure design and effectiveness has focused on mutual fund and credit products. Insurance contracts can be more complex as they are often sold as an “endowment plan”, which is a composite product that bundles insurance and investment. Such bundling also often has a detrimental impact on their potential returns which customers may not be aware of. Research on life insurance, however, is sparse. There is one recent paper that measures the effects of different forms of presenting the price of life insurance contract components and especially of embedded investment guarantees on consumer evaluation of those products, and find that bundling the price actually has no effect (Huber, Gatzert & Schmeiser, 2015).

In India, the problem of poor disclosures is highest in the context of endowment insurance products (DEA, 2015). At the same time, insurance remains the second most popular savings instrument in the class of financial products, next only to basic bank deposits (Willis Towers Watson, 2015). Mis-selling of bundled insurance products has been estimated to have cost customers around USD 28 billion between 2004-2011 (Halan, Sane & Thomas, 2014). Audit studies have also provided evidence of poor sales practices, especially with regards to insurance products (Halan

& Sane, 2016; Anagol, Cole & Sarkar, 2017). Improving consumer protection outcomes in insurance remains a challenge.

In light of this, there are several questions that arise in the context of disclosures of insurance products. What features should be disclosed more visibly? When some salient features such as returns are disclosed, does that have an impact on consumer choices?

In this paper, we evaluate the effectiveness of disclosures in the context of the insurance market in India. We conduct household surveys in the cities of Mumbai and Delhi. We randomised survey respondents into one of four product advertisements: Treatment 1) a baseline product with no additional disclosure, Treatment 2) disclosure of the actual rate of return on the product, Treatment 3) disclosure of the rate of return and a benchmark return of a similar product, and Treatment 4) the rate of return, benchmark return and product features of a more cost-effective competing term insurance product. We test if these incremental disclosures affect customer views of the product, and the intention to purchase.

We find that the group which saw the disclosure related to the rate of return on the insurance product (Treatment 2), was 2.6 percentage points less likely to think that the product on offer was a “good” product relative to the group that saw the baseline product with no additional disclosure. Treatments which show additional data such as a comparison rate of return, or the price of a term insurance plan were not statistically significant from baseline product. Those with a higher score of financial literacy, and greater concerns about retirement react to the disclosure only in Treatment 2. Surprisingly, non-purchase of insurance in the past matters for effectiveness on product perception. None of the treatments had an impact on the intention to purchase.

These results suggest the following. First, when respondents are given more than one piece of information, such as the rate of return plus benchmark, or the rate of return plus the benchmark plus the price of a pure risk product, they are unable to use this information. Second, disclosure seems to work only when it is about a product feature customers know and understand. The concept of returns has been a part of the decision making calculus of the Indians since products prior to liberalisation only disclosed the returns, and this perhaps allows customers to understand the disclosure. Third, basic financial numeracy and retirement preparedness help towards recognising mostly the returns disclosure and not much else.

The paper proceeds as follows. Section 2 describes the research setting while section 3 presents the experimental design. Section 4 presents the participant characteristics. The results are discussed in Section 5. Effects by financial literacy,

retirement preparedness and past insurance purchase are discussed in Section 6 while Section 7 concludes.

2 Research setting

In this section we describe the market setting of India, as we think it has a bearing on the experimental design. Until the 1990s, India was a largely socialist state, including in the financial sector where the state set the prices and guaranteed returns. In this world, products were simple, disclosures were rudimentary, and centered around guarantees. As the different market sectors were opened up for private firms and financial products got market-linked, the government put in place independent regulators for rule making, oversight and sector development. The regulators themselves were drawn from the erstwhile monopolies and state-run firms.

The disclosure requirements by these regulators include mandating a broad sweep disclosure requirement of all “material” information. Financial firms have responded by throwing large quantities of paper full of jargon at consumers resulting in obfuscation through an information overload. At the time of making a sale, Halan and Sane (2016) find that disclosures on complex features are rarely voluntarily made, and when they are made, are either incomplete or inaccurate. The regulators response on mis-selling of financial products in India has been that the customers signed on the disclosures themselves, and hence penal action against financial firms is difficult.

Two government committees have taken very strong views on improving the quality and consistency of disclosures across different regulators. In 2010, the Committee on “Investor Awareness and Protection” (also known as the Swarup Committee) set up by the Ministry of Finance, recommended that investors be disclosed the income that the seller or adviser earns directly or indirectly from the product manufacturer (Recommendation 17.1) and be given a one-page note, with the most important terms and conditions so that the consumer understands the product and its impact fully (Recommendation 17.2) (DEA, 2010).

Five years later, another committee set up by the Ministry of Finance to “Recommend Measures for Curbing Mis-selling and Rationalising Distribution Incentives in Financial Products” (also known as the Bose Committee) took a deeper dive into disclosures and recommended the following (DEA, 2015):

1. Returns should be clearly disclosed at the point of sale, and must be a function of the money invested.

2. 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.
3. On-going disclosure must contain the average annual historical return through an IRR disclosure.
4. Disclosures must be made machine readable.

While the focus on disclosures has grown, there is not enough evidence on the efficacy of disclosures. Ideally, new proposed disclosures should be tested on a limited scale, via randomised field experiments, before they are rolled out to the general public (Greenstone, 2009). This motivates our experimental design.

3 Research design

There are two kinds of insurance products sold in India. These include the pure insurance products (i.e. *term insurance*) which do not have an investment component. The second category is that of *insurance bundled with investments*. Within the class of bundled products, there are two kinds. The first are the “traditional endowment products” which invest largely in government bonds and are not linked to market returns.¹ The second are the “unit-linked insurance plans” which are market-linked across asset classes.

Our experiment revolves around the endowment insurance product. This is for two reasons. First, while overall financial savings are low in India, life insurance accounts for 19% of total household financial assets in India of INR 12,356 billion for 2014-15, second only to the banking sector that holds 46.9% and ahead of the pension sector that holds 16.3% (Willis Towers Watson, 2015). Traditional endowment products account for 87% of the total business of INR 3.6 trillion in the life insurance market in India.²

Second, endowment insurance has some of the most opaque disclosures on product features as compared to other financial products in the market such as mutual funds, pension funds and small saving products sold by the government agencies. For example, these products often benchmark returns to a number other than the

¹Within this there are “participating plans” which offer a share in profits of the company, but these typically do not invest in stock market products. Non-participating plans typically provide a guaranteed benefit that accrues to the investor periodically or post policy completion, and the customer does not share in the profits of the company.

²See (IRDAI, 2016)

amount invested,³ making it difficult for customers to decode the real costs and benefits of the policy. The products give a small return to the investor who would be better off buying a term insurance plan and investing the rest of the money in a government guaranteed savings scheme with a similar tenure and tax benefits. Several of the recommendations by DEA (2015) pertain to these products.

3.1 The four product advertisements

The basic proposition for each experiment follows the sales pitch of endowment insurance plans in India. Our experiment tries to market a product with the following features that are common across all four experiments. This consists of an investment of INR 50,000 a year for 5 years that gives the buyer the following stream of benefits:

1. A tax break on income
2. Tax free returns
3. INR 500,000 life insurance cover for 15 years
4. Regular money back across the life of the policy.
5. Investor gets INR15,000 after 7 years, INR 15,000 after 10 years and INR 380,000 as a return of premium in year 15 along with a bonus.

The product structure embeds costs such as upfront commissions and on-going commissions, policy administration charges and mortality cost to sales agents. For example, this particular product would give the sales agent INR 7,500 as commission in year one.⁴ Beyond these features, each advertisement is varied in the following way.

Treatment 1 The first experiment provides basic information on product features, benefits, costs and disclaimers. This is our baseline advertisement. This is shown in Figure A in the Appendix.

Treatment 2 Experiment two adds one more piece of information. This tells the potential customer that the stream of benefits add upto an average annual tax free return of 4.04%. This information is useful because the average Indian investor knows the bank fixed deposit rates at a given point in time. At the time of this experiment, a 5-year bank deposit earned a pre-tax 8.25%

³Product brochures will showcase returns as saying: returns will be 200% of sum assured in 15 years.

⁴A lower commission would follow for subsequent years.

interest a year. This is shown in Figure B in the Appendix. At the highest tax bracket, the post tax bank deposit is still better than the insurance product return.

Treatment 3 Experiment three adds one more piece of information - it gives the return rate of a product with a similar holding period, tax benefit and guarantee. The benchmark product shown is the Public Provident Fund, which is a government guaranteed saving product that needs an annual contribution for 15 years. At the time of the experiment, the PPF gave a tax free 8.1% return. This is shown in Figure C in the Appendix.

The PPF is very similar to the life insurance product in the ad from a tax (It is an EEE product - it is exempt, exempt, exempt on tax at investment, accumulation and redemption) and tenure point of view. Like the insurance product in this experiment, it also provides a guaranteed rate of return. The only difference is that it does not provide life insurance coverage.

Treatment 4 Experiment Four adds one more piece of information - it gives the cost of a term life insurance plan for a similar amount and tenure. An INR 500,000 sum assured term policy for a 15 year period costs INR 1,000 a year. This is the most comprehensive advertisement of the four. This is shown in Figure D in the Appendix. The information in this ad describes that the product provides only a 4% return, the benchmark return on a similar savings product is 8.1%, and in fact, one could combine a much cheaper term insurance product with the benchmark PPF to do better than the bundled endowment insurance product on offer.

When a person buys a financial product, she must look at several attributes. The most easily understood attribute is returns. But bench-marking those returns to an industry standard, comparing to an alternate investment and mapping real return are some of the key determinants to rational consumer choice. Investors, should ideally, look for and use all these metrics of information. Our treatments, therefore, progressively added information on these attributes to map the impact on potential buyers. We expect approval rates for the products to drop drastically for those in treatment 4 over treatment 1. It is important to have the same product ad, with incremental information to map the behaviour change accurately. Our question is as follows: given more disclosures on issues relevant to costs and benefits of a financial product, would the experiment group with a better disclosure evaluate the product differently?

3.2 Sampling

We test for the effectiveness of the disclosures through a sample survey implemented in the cities of Mumbai and Delhi, as these are the largest cities in India, and likely to be the most aware of financial products in general. The total sample size of the study is 3000, equally split between the two cities.

We hired a survey agency, IMRB International, to conduct the survey operations. IMRB International is a market research firm headquartered in Mumbai, with operations in over 15 countries. It is a part of the Kantar Group, WPP's research, insights, and consultancy network.⁵

The survey was conducted through the electoral sampling method. In each city, the survey team conducted interviews from 300 starting points spread across the city, and conduct a maximum of 5 interviews from each starting point. The process is as follows. If there are 10000 addresses generated from the electoral rolls, and the survey needs 300 starting points, then every 33rd address is a starting point. From this starting point, the survey team followed the right hand rule and skipped every 5 households after one successful interview.⁶ The survey agency also did not sample from the slums in Mumbai or Delhi, as a product with almost INR 50,000 premium is irrelevant for people in slums.

The random application of the treatments described in the previous section was achieved by randomly picking one of the advertisement at each starting point, and following up with the three advertisements in the households that follow from that starting point. The interviews began in July 2016 and were completed in October 2016.

3.3 The survey design

The survey instrument consisted of four parts. The first part asked questions on socio-economic characteristics such as age, gender, marital status, education, occupation, and household income.

The second part asked questions on attitudes to risk, retirement, and measuring basic financial literacy. It also asks individuals their ownership of financial and real assets. In order to measure attitudes to risk, we use the question in Survey of Consumer Finances and also used by (Guiso, Sapienza & Zingales, 2013). The

⁵See imrbint.com

⁶The survey team did not count the number of non-responses, as it went to the next fifth household to complete the number of required responses.

question asks respondents how much financial risk they are willing to take when making financial decisions. The exact text is as follows: Which of the following statements comes closest to the amount of financial risk that you are willing to take when you make your financial investment? i) Take substantial financial risks expecting to earn substantial returns; ii) Take above average financial risks expecting to earn above average returns; iii) Take average financial risks expecting to earn average returns; iv) Not willing to take any financial risks. The question on thoughts on retirement ask if people were worried about meeting retirement expenses.

We measure financial literacy using standard measures on measuring financial literacy developed by Lusardi and Mitchell. The questions are designed to measure i) numeracy and capacity to do calculations related to interest rates, such as compound interest; (ii) understanding of inflation; and (iii) understanding of risk diversification, and follow the standard text as designed by (Lusardi & Mitchell, 2006).

In the third part we ask questions on prior experience with insurance purchases. This includes questions on whether they had purchased insurance, what kind, from whom. It also asks questions on the reasons for non-purchase, from those who had not purchased insurance in the past.

In the fourth part, we introduce one of the treatments, and evaluate responses towards the treatments. This includes questions such as whether the respondent thought that the product shown was a good product. We also test the respondent on whether they think that the product delivers on certain product features - such as returns, insurance cover, guaranteed nature of returns etc. This allows us to test if the respondents have understood product features. We then ask respondents if they would purchase the product, and the reasons for non-purchase.

The section on evaluating the effectiveness of the disclosures in the advertisements shown, asked respondents if they thought this was a good product, and if they would consider purchasing the product. The survey also asked questions on what product features respondents had understood and the reason they would not purchase the product.

3.4 Empirical specification

Our primary outcomes of interest are related to views on the product, and intention of product purchase.

To measure impacts of our various treatments, we estimate the following regression

equation:

$$Y_i = a + b_2Treat_{2i} + b_3Treat_{3i} + b_4Treat_{4i} + b_5X_i + e_i$$

The dependent variable Y_i is the response to the questions: whether the respondent thinks that the product shown is a good product, and whether the respondent would purchase the product. $Treat_{2i}$, $Treat_{3i}$, and $Treat_{4i}$ are dummy variables indicating assignment to treatment 2 (simple returns disclosure), 3 (returns plus benchmark returns disclosure), and 4 (returns, benchmark returns and term insurance disclosure), respectively. e_i is a mean-zero error term. The coefficients b_2 , b_3 and b_4 provide the impact of the different disclosure treatments relative to the baseline treatment on view on product and purchase decision. X_i is the vector of respondent characteristics including risk aversion, financial literacy and past insurance purchase. We use a linear probability model for our estimation.⁷

4 Participant characteristics

Table 1 shows the characteristics of the respondents by the product advertisement (treatment) that they were shown. We find that about 40-45% of the respondents are male, and 55-60% are female in all four experiments. Almost half of them are in the 30-39 and 40-49 age brackets, with about 75% of them being married. A third of all respondents across the four experiments are graduates, and another 50% have studied upto class XII.

A quarter of the respondents are private sector salaried employees, while about 17% run their own business. A third of the respondents are housewives. The experiment is also equally distributed in each income class. Most of the respondents have annual incomes upto INR 6 lakh. This translates to a monthly income of upto INR 50,000. It is possible that these respondents while find it difficult to save about 8-16% of their annual income in the insurance product described in our experiment. However, it still allows us to test if they are able to evaluate the product.

While socio-economic characteristics play an important role in savings decisions, attitudes to retirement and risk, and financial literacy are crucial in how a person perceives and understands a product. Table 2 presents the characteristics of the respondents in terms of their risk preferences, and financial savings.

⁷Our results do not change on the use of GLM models such as probit. These are available on request.

Table 1 Socio economic characteristics of respondents

	Experiment			
	1	2	3	4
Gender				
Female	45.90	42.65	42.70	43.50
Male	54.10	57.35	57.30	56.50
Age bracket				
20-29	26.99	31.08	27.26	29.05
30-39	32.79	29.00	33.24	31.96
40-49	25.73	25.36	25.45	23.74
50 or more	13.87	14.56	13.63	14.46
Marital status				
Married	75.28	74.51	78.03	74.40
Single	21.94	22.24	19.89	22.94
Education				
Std. XII	49.43	46.29	45.62	48.94
Undergraduate	8.95	11.31	10.85	9.95
Graduate or above	32.53	32.12	32.13	31.43
Occupation				
Housewife	34.55	32.77	33.94	31.96
Unemployed	1.64	1.69	2.23	2.12
Own business	17.91	14.56	17.80	18.44
Govt. employee	5.80	8.32	5.98	5.17
Private sector employee	25.98	27.57	27.82	27.32
Professional	0.50	0.39	0.56	0.53
Student	9.33	9.88	7.79	9.95
Annual Household income				
Less than INR 3 lakh	37.58	35.63	37.96	38.46
Between INR 3-6 lakh	39.09	41.09	35.60	37.93
Between INR 6-10 lakh	16.52	15.60	17.52	14.19
Between INR 10-25 lakh	5.54	5.72	7.79	7.56
Above INR 25 lakh	1.26	1.95	1.11	1.86
City				
Delhi	50	51	49	51
Mumbai	50	49	51	49
N	793	769	719	754

In terms of their risk preferences, a little more than 40% of the respondents across each experiment felt that they did not wish to take any risk in their financial investments, while about 40% were willing to take above average or substantial risks. Respondents are at opposite ends of the spectrum - either they want to take no risk at all, or want to take more than average risk.

A large proportion of respondents, almost 60%, were worried or very worried about their retirement. This indicates that these respondents would be interested in savings products. A little more than 60% across the four experiments either made their financial decisions themselves, or consulted family. Only about 7% respondents had no say in how to invest their money.

Consistent with the insurance penetration in India, about 38-40% of the respondents across the four experiments had bought an insurance product before. Almost 60% of the sample had never purchased insurance, and therefore, were less likely

Table 2 Characteristics of respondents

	Experiment			
	1	2	3	4
Take risk				
No risk	42.50	44.47	43.25	43.10
Average risk	15.89	13.52	17.11	15.78
Above average risk	26.86	25.49	23.09	24.40
Substantial risk	14.75	16.51	16.55	16.71
Retirement				
Not thought	14.75	14.56	14.33	15.92
Not worried at all	19.55	20.42	20.31	17.90
Worried	44.01	43.04	44.37	45.09
Very worried	21.69	21.98	21.00	21.09
Financial decisions				
Make myself	38.34	34.07	34.77	35.01
Make myself but consult family	33.04	34.59	38.25	34.75
Family makes	7.19	6.76	7.09	7.43
Family makes but consults me	20.18	24.06	19.33	22.15
Insurance purchase				
Not bought before	62.04	60.34	60.78	59.81
Bought before	37.96	39.66	39.22	40.19
N	793	769	719	754

to be familiar with the product features.

5 Results

We begin this section by first evaluating the impact of disclosures on the respondents views about the product. We then evaluate what they have understood of the particular product, after which we turn to the intention to purchase.

5.1 Is this a good product?

Table 3 presents the results on whether respondents think that the product is a good product, that is whether in the respondents view, the benefits of the product outweigh the costs.

In column (1) we show the results by the four experiments, where treatment 1, without any additional disclosures is the baseline. In column (2) we also control whether the ad was shown in English or Hindi. We additionally control for the financial literacy score in column (3), and previous purchase of life insurance in column (4). Column (5) presents the results with all the socio-economic controls as well as opinions on risk, retirement and ability to make independent financial

decisions.⁸

Table 3 Regression: Do you think this is a good product?

	<i>Dependent variable: Product is good</i>				
	(1)	(2)	(3)	(4)	(5)
Intercept	0.907*** (0.012)	0.879*** (0.014)	0.820*** (0.018)	0.811*** (0.018)	0.799*** (0.036)
Treatment 2	-0.027* (0.015)	-0.028* (0.015)	-0.026* (0.015)	-0.027* (0.015)	-0.025* (0.015)
Treatment 3	-0.004 (0.015)	-0.007 (0.015)	-0.008 (0.015)	-0.008 (0.015)	-0.003 (0.015)
Treatment 4	-0.003 (0.015)	-0.004 (0.015)	-0.003 (0.015)	-0.004 (0.015)	-0.001 (0.015)
In English: Yes		0.042*** (0.011)	0.047*** (0.011)	0.042*** (0.011)	0.012 (0.012)
Fin lit score			0.034*** (0.007)	0.031*** (0.007)	0.034*** (0.007)
Life insurance: Yes				0.050*** (0.011)	0.028** (0.012)
Additional controls	NO	NO	NO	NO	YES
Observations	3,012	3,012	3,012	3,012	3,012
R ²	0.001	0.006	0.015	0.021	0.096
<i>Note:</i>	*p<0.1; **p<0.05; ***p<0.01				
<i>Note:</i>	Controls for city of respondent				

Across all specifications we find that only Treatment 2 had a statistically significant, negative impact on product evaluation. The coefficient across the four specifications is between -2.8% and -2.5%, suggesting that those who saw Treatment 2 i.e. the treatment which disclosed the rate of return on the insurance product, were less likely to think that the product on offer was a “good” product. The consistency in coefficients proves that we have balance in respondent characteristics across all four experiments.

The coefficient on Treatment 2 by itself is very small, and is statistically significant only at the 10% level. This is not a very strong effect. Treatment 3 which additionally showed a comparison rate of return, and Treatment 4 which showed the price of a term insurance plan were not statistically significant from Treatment 1, which made none of these disclosures. These results suggest that our disclosures did not have a large and significant impact on people’s evaluation of the insurance product.

⁸The coefficients on all the controls are presented in Table A.1 in the Appendix.

The impact of Treatment 2 is consistent with that of Hunt, Stewart and Zaliauskas (2015) who find that telling investors what likely product returns were, induced a 0.41 percentage point larger devaluation of the products. In a product such as an endowment plan, where there are differing amounts earned at different points of time, it becomes difficult to evaluate the actual rate of return on the product. When respondents are shown the rate of return, their evaluation of the product falls. The other two treatments also show the rate of return, but show additional information as well. These treatments do not have any impact relative to the baseline treatment. This is a bit puzzling, and possibly suggests two things.

First, when there is a lot of information, people are likely to ignore all of it. Getting a rate of return that is higher than the risk-free deposit rate should be the base level of requirement for a person to buy a financial product. However, when respondents are given more than one piece of information, such as the rate of return plus benchmark, or the rate of return plus the benchmark plus the price of a pure risk product, they seem to have tuned out. In their experiment on disclosing energy efficiency of consumer products, Newell and Siikamäki (2014) find that consumers were most influenced by simple information about the monetary value of saving energy, while additional information about placing this cost within a range of comparable models did not have significant additional value.

Second, disclosure appears to work only when it is about a product feature customers know and understand. Weil, Fung, Graham and Fagotto (2006) suggests that transparency policies are effective only when the information they produce becomes “embedded” in the everyday decision-making routines of the users. Our view is that the concept of returns has been a part of the decision making calculus of Indians since products prior to liberalisation only disclosed the returns.

5.2 What have respondents understood?

We turn next to evaluating what respondents have understood about the product. This helps us to evaluate whether the respondents registered any of the disclosures made on the product advertisements that they were shown. More importantly, the question is whether the understanding on product features varies by the treatment. Table 4 shows the regression results of the various product features on the advertisements.

We find that only the disclosures in Treatment 2 had an effect on the perception of returns of the product. Those who were shown Treatment 2 were 4.2 percentage points less likely to think that the product gave good regular returns relative to those who were shown the baseline Treatment 1. Treatment 2 makes a specific

Table 4 Product characteristics

<i>Dependent variable: Product characteristic is true</i>							
	Regular Returns (1)	Doubles Inv (2)	Ins Cover (3)	Tax Break (4)	Guarantees Returns (5)	Compares Well (6)	Commission Reasonable (7)
Intercept	0.785*** (0.042)	0.786*** (0.052)	0.938*** (0.044)	0.793*** (0.047)	0.929*** (0.044)	0.776*** (0.051)	0.729*** (0.055)
Treatment 2	-0.041** (0.017)	0.008 (0.021)	-0.015 (0.018)	-0.005 (0.019)	-0.007 (0.018)	-0.008 (0.021)	-0.001 (0.022)
Treatment 3	-0.025 (0.017)	0.035 (0.021)	-0.006 (0.018)	0.015 (0.019)	-0.003 (0.018)	0.016 (0.021)	0.029 (0.022)
Treatment 4	-0.020 (0.017)	-0.007 (0.021)	-0.035** (0.018)	-0.005 (0.019)	-0.013 (0.018)	0.002 (0.021)	-0.004 (0.022)
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	3,012	3,012	3,012	3,012	3,012	3,012	3,012
R ²	0.071	0.105	0.054	0.066	0.055	0.047	0.055

Note:

*p<0.1; **p<0.05; ***p<0.01

Note:

Controls for socio-economic and risk characteristics

disclosure only about the actual return the product gives, and had a negative effect on the perception of the product. While Treatment 3 and Treatment 4 also show this information (along with other information), they did not affect the perception on returns.

The other interesting result is that on insurance cover. Only respondents that were shown Treatment 4 were 3.5 percentage points less likely to agree with the statement that the product gives insurance cover. The disclosure in Treatment 4 was about the price of a term insurance product. It is possible that this might have altered perceptions on the insurance cover that the product in the experiment provides. While the product in question does provide cover, it provides it at a higher cost than the term product. It is likely that Treatment 4 respondents understood that something was not right about the insurance cover, given the disclosure on term insurance. However, it was not enough to have changed their perceptions on whether this was a good product.

What is surprising is that there was no differential impact of Treatment 3 on any of the features, especially one that states that the product compares well with other products. We had expected that Treatment 3 respondents are able to see that a PPF gives far higher returns than the endowment insurance product. But this aspect was ignored by the respondents. One possible reason for the ineffectiveness of Treatment 3 is that respondents did not see the PPF as a comparable product

to the endowment product, as the PPF does not provide an insurance cover, and therefore did not consider it to be an appropriate benchmark.⁹

5.3 Intention to purchase

We turn next to whether the respondents would purchase the product. We find that 59% of those who answered yes to the product being a good product said that they would purchase the product. This is reflected in Table 5 which presents the results of the regression of intention to purchase product on the treatment.

Table 5 Regression: Would you purchase the product?

<i>Dependent variable: Purchase product</i>	
Intercept	0.34*** (0.087)
Treatment 2	0.037 (0.024)
Treatment 3	0.008 (0.024)
Treatment 4	-0.006 (0.024)
Product is good	0.38*** (0.03)
Observations	3,012
R ²	0.093
Adjusted R ²	0.084

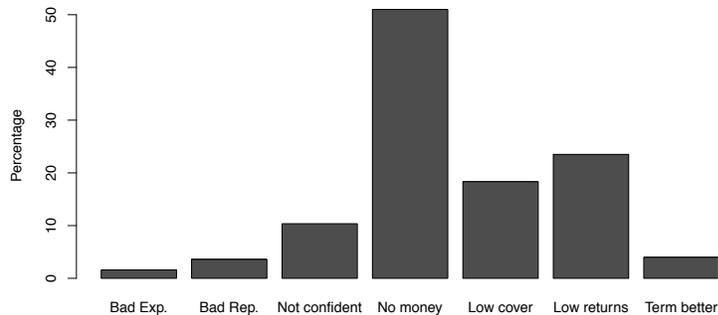
Note: *p<0.1; **p<0.05; ***p<0.01
Note: Controls for socio-economic and risk characteristics

Those who thought the product was a good product are more likely to also want to purchase the product, statistically significant at the 1% level. However, we find that there is no statistically significant difference in the probability of purchase across the different treatments. That is, the treatments do not differentially impact the probability of purchase.

We then try and understand the reasons given for non-purchase by those who thought that the product was not a good product. Figure 1 presents the results. While not enough money for premiums was the main reason, the next two reasons were related to the insurance cover and low returns of the product. These are consistent with the results in section 5.2 where people seem to be unhappy about product features such as returns and insurance cover that are correlated with the disclosures made.

⁹We tested the perception of the product by prior purchase of PPF, and did not find a difference between those who had and had not purchased PPF. Thus, we think that people were not able to see the link between the PPF and the disclosures in Treatment 3 at all.

Figure 1 The reasons for non purchase



6 Heterogeneous treatment effects

Our results indicate that only the returns disclosure had an impact on perceptions of the product. The other incremental disclosures were not significantly different from the baseline disclosure. None of the disclosures had any impact on the intention to purchase.

We are interested in understanding if those with more experience, or more awareness either in the form of financial literacy or attitudes to retirement are more likely to react to the disclosures. If we do find that this is so, then it suggests that disclosures can work as people become more aware and financially literate to be able to make sense of them.

6.1 Effects by prior experience in insurance

One could argue that prior experience of insurance purchase should make people more familiar with the product, and therefore, these people should be better able to understand the various disclosure statements. In Table 6 we show the treatment effect separately for those who have purchased insurance before (Column 1), and those who have not (Column 2). We also present the effects separately by the reason for non-purchase of prior insurance (Columns 4-7). These include the respondent saying there was no need for insurance, he did not understand the products, he did not like the products, he has heard bad experiences from others, and that some other family member had purchased.

We find that none of the disclosures in the advertisements had any effect on the

Table 6 Prior experience of insurance

<i>Dependent variable: The product is a good product</i>							
	Bought before		Reasons not bought before				
	Yes (1)	No (2)	No need (3)	Don't understand (4)	Don't like (5)	Others bad (6)	Family has (7)
Intercept	0.815*** (0.052)	0.817*** (0.052)	0.766*** (0.073)	1.224*** (0.216)	0.932*** (0.147)	0.532** (0.247)	0.719*** (0.096)
Treatment 2	0.002 (0.020)	-0.041** (0.020)	-0.045 (0.029)	-0.127* (0.069)	-0.003 (0.060)	-0.011 (0.087)	-0.027 (0.036)
Treatment 3	-0.017 (0.020)	0.008 (0.021)	-0.012 (0.029)	0.049 (0.069)	-0.024 (0.063)	-0.063 (0.085)	0.008 (0.038)
Treatment 4	0.007 (0.020)	-0.006 (0.021)	-0.006 (0.028)	-0.080 (0.070)	0.029 (0.061)	-0.132 (0.090)	0.024 (0.038)
Observations	1,183	1,829	1,016	229	168	123	324
R ²	0.074	0.106	0.161	0.198	0.325	0.270	0.206
<i>Note:</i>						*p<0.1; **p<0.05; ***p<0.01	
<i>Note:</i>	Controls for city of respondent						

perception of the product of those who have purchased insurance in the past. Those who have never purchased insurance in the past, were in fact, were less likely to think of the product as a good product.

The respondents who had not bought insurance because they had not understood the products were more likely to see the disclosure on returns in Treatment 2, and less likely, almost 13.4 percentage points, to think that the product was a good product. People who have been perceptive enough to not buy an insurance product before because of complex product features, were the once likely to understand the disclosure on returns.

6.2 Effects by financial literacy

Besides past purchase of insurance, we expect that basic financial literacy should matter for the ability of respondents to read the disclosures on the product advertisements. As described in section 3.3 our financial literacy questions are designed to measure i) numeracy and capacity to do calculations related to interest rates, such as compound interest, (ii) understanding of inflation, and (iii) understanding of risk diversification, and follow the standard text as designed by (Lusardi & Mitchell, 2006).

We divide the score on financial literacy into three categories. The first is those who got all three answers incorrect. The second is those who got at least one answer correct. The third is those who got two or more answers correct. We then estimate the treatment effect separately for the three groups. The results are shown in Table 7.

Table 7 Effects by financial literacy

	<i>Dependent variable: Product is good</i>		
	Financial literacy score		
	Zero (1)	One (2)	Two or more (3)
Intercept	0.707*** (0.105)	0.797*** (0.058)	0.989*** (0.045)
Treatment 2	-0.023 (0.036)	-0.011 (0.025)	-0.032* (0.019)
Treatment 3	-0.002 (0.037)	-0.004 (0.026)	-0.005 (0.019)
Treatment 4	-0.015 (0.036)	-0.002 (0.026)	0.003 (0.019)
Observations	575	1,138	1,299
R ²	0.179	0.180	0.065
<i>Note:</i>	*p<0.1; **p<0.05; ***p<0.01		

We find that those with the a financial literacy score of 2 or 3 were able to read the disclosures, and show a 3.2 percentage point decline in their perception of the ad. Here again, it is only Treatment 2 that has an impact. Basic financial literacy makes a difference in the ability to understand returns disclosures. It, however, is not enough in understanding more complex disclosures that were shown in Treatment 3 and Treatment 4.

6.3 Effects by retirement concerns

We next test the effectiveness of the treatment by retirement concerns of the respondents. We choose this variable because it is likely that people who think and worry about retirement have also thought more carefully about the different savings products. Results are presented in Table 8. Column (1)resents the results of the group that had not thought about retirement, Column (2) of the group that was not particularly worried about retirement and Column (3) of the group that was either worried, or very worried about financing retirement.

Table 8 Effects by retirement concerns

	<i>Dependent variable: Product is a good product</i>		
	Not thought	Not worried	Worried
	(1)	(2)	(3)
Treatment 2	-0.082 (0.054)	0.045 (0.037)	-0.032** (0.014)
Treatment 3	0.034 (0.055)	0.007 (0.038)	-0.008 (0.015)
Treatment 4	-0.025 (0.053)	0.028 (0.039)	-0.012 (0.015)
Constant	0.706*** (0.137)	0.994*** (0.085)	0.887*** (0.035)
Observations	448	591	1,973
R ²	0.159	0.188	0.062
<i>Note:</i>	*p<0.1; **p<0.05; ***p<0.01		

Here again, we find that Treatment 2 has an impact only on the group that is very worried about retirement. Those who saw the disclosures in this group are 3.2 percentage points less likely to say that the product is a good product relative to those who saw the ad without any additional disclosures. Treatments 3 and 4 had no differential impact on product perception.

7 Conclusion

In this paper, we evaluate the effectiveness of disclosures in the context of the insurance market in India. We present product advertisements to customers with the following sets of disclosures: a) a baseline product with no additional disclosure, b) disclosure of the actual rate of return on the product, c) disclosure of the rate of return and a benchmark return of a similar product, and d) the rate of return, benchmark return and product features of a more cost-effective competing product. We test if these incremental disclosures affect customer views of the product, and the intention to purchase.

We find the treatment which disclosed the rate of return on the insurance product, were 2.6 percentage points less likely to think that the product on offer was a “good” product. Treatments which show additional data such as a comparison rate of return, or the price of a term insurance plan were not statistically significant from Treatment 1, which made none of these disclosures. None of the treatments

had any impact on the intention to purchase the product.

These results suggest the following. First, when respondents are given more than one piece of information, such as the rate of return plus benchmark, or the rate of return plus the benchmark plus the price of a pure risk product, they seem to have tuned out. Second, disclosure appears to work only when it is about a product feature customers know and understand. The concept of returns has been a part of the decision making calculus of Indians since products prior to liberalisation only ever disclosed the returns, and this perhaps allows customers to understand the disclosure. Third, basic financial numeracy and retirement preparedness help towards recognising the returns disclosure but not much else.

The results of this experiment were contrary to our expectations that clear disclosures will change investor perception about the clearly inferior product on basic metrics of finance. For disclosures to have any effect, customers need to have a minimal understanding of the product features that are being disclosed. It would be insightful to evaluate if after some basic financial literacy training on what makes a good financial product, buyers are better able to understand disclosures, and make more informed choices.

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Appendix

Figure A Treatment 1: Baseline



**REGULAR RETURNS. YOUR MONEY BACK + BONUS!
RISK COVER 10 TIMES PREMIUM
SECTION 80 C BENEFITS AND TAX-FREE RETURNS
SECURE YOUR FAMILY AND CREATE WEALTH
WHY ARE YOU STILL WAITING?**

Premium:
Rs 50,000 per annum for the first 5 years
Agent commission on 1st year's premium: Rs 7,500
Policy cover and benefits continue over 15 years

Death Benefit:
Rs 5 lakh on death of life assured
Cover continues for FULL 15 years

Regular Return:
Rs 15,000 after 7 years | Rs 15,000 after 10 years
Rs 3.8 lakh as Return of Premium | BONUS after 15 years

Surrender Value:
Buying a life insurance contract is a long-term commitment
Surrender value available on earlier termination of the contract as applicable

Insurance is the subject matter of collateralization. For more details on risk factors, terms and conditions please read sales brochure carefully before concluding a sale.

Figure B Treatment 2: Returns



**REGULAR RETURNS. YOUR MONEY BACK + BONUS!
RISK COVER 10 TIMES PREMIUM
SECTION 80 C BENEFITS AND TAX-FREE RETURNS
SECURE YOUR FAMILY AND CREATE WEALTH
WHY ARE YOU STILL WAITING?**

Premium:
Rs 50,000 per annum for the first 5 years
Agent commission on 1st year's premium: Rs 7,500
Policy cover and benefits continue over 15 years

Death Benefit:
Rs 5 lakh on death of life assured
Cover continues for FULL 15 years

Regular Return:
Rs 15,000 after 7 years | Rs 15,000 after 10 years
Rs 3.8 lakh as Return of Premium | BONUS after 15 years

Surrender Value:
Buying a life insurance contract is a long-term commitment
Surrender value available on earlier termination of the contract as applicable

Note: The annual rate of return for these benefits is tax free at 4.04%

Insurance is the subject matter of solicitation. For more details on risk factors, terms and conditions please read sales brochure carefully before concluding a sale.

Figure C Treatment 3: Returns benchmark



**REGULAR RETURNS. YOUR MONEY BACK + BONUS!
RISK COVER 10 TIMES PREMIUM
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SECURE YOUR FAMILY AND CREATE WEALTH
WHY ARE YOU STILL WAITING?**

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Rs 50,000 per annum for the first 5 years
Agent commission on 1st year's premium: Rs 7,500
Policy cover and benefits continue over 15 years

Death Benefit:
Rs 5 lakh on death of life assured
Cover continues for FULL 15 years

Regular Return:
Rs 15,000 after 7 years | Rs 15,000 after 10 years
Rs 3.8 lakh as Return of Premium | BONUS after 15 years

Surrender Value:
Buying a life insurance contract is a long-term commitment
Surrender value available on earlier termination of the contract as applicable

Note: The annual rate of return for these benefits is tax free at 4.04%
PPF returns a tax-free 8.1%

Insurance is the subject matter of solicitation. For more details on risk factors, terms and conditions please read sales brochure carefully before concluding a sale.

Figure D Treatment 3: Cost of term insurance



**REGULAR RETURNS. YOUR MONEY BACK + BONUS!
RISK COVER 10 TIMES PREMIUM
SECTION 80 C BENEFITS AND TAX-FREE RETURNS
SECURE YOUR FAMILY AND CREATE WEALTH
WHY ARE YOU STILL WAITING?**

Premium:
Rs 50,000 per annum for the first 5 years
Agent commission on 1st year's premium: Rs 7,500
Policy cover and benefits continue over 15 years

Death Benefit:
Rs 5 lakh on death of life assured
Cover continues for FULL 15 years

Regular Return:
Rs 15,000 after 7 years | Rs 15,000 after 10 years
Rs 3.8 lakh as Return of Premium | BONUS after 15 years

Surrender Value:
Buying a life insurance contract is a long-term commitment
Surrender value available on earlier termination of the contract as applicable

Note: The annual rate of return for these benefits is tax free at 4.04%
PPF returns a tax-free 8.1%
A pure term policy for Rs 5 lakh sum assured for 15 years costs Rs 1,000 a year

Insurance is the subject matter of solicitation. For more details on risk factors, terms and conditions please read sales brochure carefully before concluding a sale.

Table A.1 Regression: Do you think this is a good product?

	<i>Dependent variable: Product is good</i>				
	(1)	(2)	(3)	(4)	(5)
Intercept	0.907*** (0.012)	0.879*** (0.014)	0.820*** (0.018)	0.811*** (0.018)	0.799*** (0.036)
Treatment 2	-0.027* (0.015)	-0.028* (0.015)	-0.026* (0.015)	-0.027* (0.015)	-0.025* (0.015)
Treatment 3	-0.004 (0.015)	-0.007 (0.015)	-0.008 (0.015)	-0.008 (0.015)	-0.003 (0.015)
Treatment 4	-0.003 (0.015)	-0.004 (0.015)	-0.003 (0.015)	-0.004 (0.015)	-0.001 (0.015)
In English: Yes		0.042*** (0.011)	0.047*** (0.011)	0.042*** (0.011)	0.012 (0.012)
Fin lit score			0.034*** (0.007)	0.031*** (0.007)	0.034*** (0.007)
Life insurance: Yes				0.050*** (0.011)	0.028** (0.012)
HH Income					
Less3L					-0.030 (0.022)
Between3-6L					-0.011 (0.021)
Between6-10L					-0.042* (0.023)
Age					
Age: Less than 20					-0.224***
Age: 30-39					0.001 (0.017)
Age: 40-49					-0.017 (0.018)
Age: 50 or more					-0.057*** (0.020)
Male					-0.033*** (0.012)
Married					-0.046*** (0.016)
Education					
No answer					-0.048** (0.021)
Std. XII					-0.020 (0.013)
Undergraduate					0.012 (0.019)
Risk appetite					
Above average					0.062*** (0.014)
Average					0.037** (0.016)
Substantial					0.071*** (0.017)
Finance decisions					
In Consultation with family					-0.036*** (0.014)
Family entirely					0.032 (0.024)
Family consults me					-0.032* (0.017)
Retirement					
Not worried					0.067*** (0.019)
Very worried					0.133*** (0.019)
Worried					0.163*** (0.016)
Additional controls	NO	28	NO	NO	YES
Observations	3,012	3,012	3,012	3,012	3,012
R ²	0.001	0.006	0.015	0.021	0.096

Note:

Note:

* p<0.1; ** p<0.05; *** p<0.01

Controls for city of respondent

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