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# Impact of Information Disclosure on Consumer Behaviour: Case of AT1 Bonds<sup>1</sup>

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## Abstract

Mis-selling by financial service providers poses a grave threat to consumer protection. This can adversely affect the financial well-being of consumers. Mandating information disclosures in order to bridge the information asymmetry between financial service providers and consumers is one concrete way to curb mis-sale and improve consumer outcomes. This paper report results from an experimental study that examines the impact of information disclosure on consumers' purchase decision of a high-risk financial product. We randomly assign two variations of information disclosure among the study respondents- one that is accurate, highlighting both the risks and returns of the product and the other that is inaccurate, focusing prominently on the potential gains from the product. We then examine the differences in purchase decision based on the disclosure type the respondents received and find that the odds of buying the high-risk financial product are 80 to 90% lower when the disclosure type is switched from inaccurate to accurate. The results of our study indicate the substantial impact disclosures can have in altering consumer's decisions against welfare reducing outcomes.

Dvara Research Working Paper Series No. WP-2021-01

February 2021

Version 1.0

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<sup>1</sup>We wish to thank colleagues from Dvara Research, particularly Indradeep Ghosh and Deepti George, whose continuous feedback helped strengthen the study. We would also like to thank Bindu Ananth and Samir Shah, Chair and Vice-Chair of Dvara Trust, respectively, who encouraged us to pursue this research and move the needle on consumer protection in the Indian financial services industry. Finally, we would like to thank our study respondents who spent their valuable time, being part of this experiment and helped us achieve the objectives of our research study.

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## 1. Introduction

Concerns of consumer protection largely arise out of traditional market failures such as negative externalities, information asymmetries, market power and coordination failures (Campbell et al., 2011; Inderst, 2009). A variety of threats to consumer protection exists in the financial services industry such as mis-selling of unsuitable financial products and services, lack of adequate grievance redressal mechanisms and data protection and privacy concerns due to the rapid rise of digital financial services, among many others. This paper focuses on mis-sale of financial products, a widely prevalent problem, leading to sub-optimal consumer outcomes. Mis-sale as per the economic literature is usually driven by a conflict of interest in the distribution of financial products and information asymmetry due to imperfect disclosure of information (Mullainathan, Noeth, and Schoar, 2012; Beyer, de Meza, and Reyniers, 2013). In addition to these, research in behavioural economics and the field of household finance has uncovered evidence suggesting that individual investors tend to make poor financial choices due to their biased beliefs and behaviour (Benartzi and Thaler, 2001; Campbell, 2006). These biases in addition to consumers' cognitive limitations lead to poor consumer outcomes with large negative consequences on their financial well-being (Campbell et al., 2011). One way to narrow the scope of information asymmetry and encourage informed decision making by the consumer is through transparent, complete and easy-to-understand disclosure of information by the seller. Mandating accurate information disclosure is therefore at the forefront of regulatory efforts, even though, few regulators have articulated clearly the standard of accuracy that is required to improve financial stability and consumer protection. While the academic literature on the effect of information disclosure on a consumer's financial decision is limited, there is consensus that disclosure in financial markets affects market quality, information production and consumer welfare (Goldstein and Yang, 2017).

The proliferation of complex, high-risk-high-return, retail financial product offerings often leave consumers with less than enough information to make a considered financial decision. This problem is aggravated in emerging economies, where there is a greater fraction of the population concentrated in lower-income quintiles with lower levels of financial knowledge (Halan, Sane & Thomas, 2014). In some cases, even high net-worth individuals (HNI) with higher levels of financial knowledge and confidence are not immune to the mis-sale problem. Information asymmetry between consumers and financial service providers can arise due to multiple reasons such as sellers intentionally withholding risk-related information to drive higher sales or designing disclosure documents that are dense and difficult to read or understand. On the other hand, consumers often do not know enough about the product or service even to ask the most relevant questions, encouraging financial service providers to often shroud product attributes in an attempt to deceive the consumer.

In recent times, one such incidence of mis-sale that has come to light in the Indian financial services industry is the case of Additional Tier 1 (AT1) bonds. In this instance, high-net worth individuals and urban retail investors were mis-sold these bonds with partial and inaccurate information about the risks and returns associated with them. As per media reports, some customers claimed these bonds being pitched to them as perpetual bonds offering a safe and relatively high return compared to regular fixed deposits. Investors of AT1 bonds who experienced a complete loss of their investments were left with little

to no opportunity for meaningful grievance redressal<sup>3</sup>. The Reserve Bank of India (RBI) also squarely put the onus of undertaking a high-risk financial decision on the consumer, thereby defaulting to a stance of *caveat emptor* wherein the burden of selecting a suitable product and making an informed choice/decision falls on the consumer<sup>4</sup>.

Given the inadequacy of the current regulatory framework in implementing suitability norms to protect consumers from mis-sale, we study the impact that accurate information disclosures can have in discouraging consumers from making unsuitable choices, i.e., choices that do not align with their financial circumstances, risk capacity and appetite. Thus, our study examines the impact of accurate information disclosure on the consumer's purchase decision of a high-risk financial product. Using an experimental design, we study the purchase decision of our respondents, when they are randomly exposed to accurate and inaccurate types of information disclosure about a hypothetical financial product that mirrors closely the features of the AT1 bond product. We expect that, given the risks involved, a simple and balanced (that we are calling "accurate") disclosure will reduce the likelihood of the purchase of the bond in comparison to an "inaccurate" disclosure that focuses more prominently on the returns of the product and shrouds the risks involved. We find that the odds of buying the high-risk financial product are 80-90% lower when exposed to an accurate disclosure as compared to an inaccurate disclosure.

The remainder of this paper is structured as follows. In section 2, we review the existing literature on the role of information disclosure in addressing information asymmetry in the retail financial industry and its impact on influencing consumers' financial decisions. In section 3, we present the context for our research by describing the features of AT1 bonds and the mis-sale of the product in the Indian financial sector that came to light in March 2020. In section 4, we discuss the study design and the experimental methodology used — we lay out the details of the two versions of online disclosures that were designed to observe and study the final purchase decision by respondents. In sections 5 and 6, we present descriptive statistics from the survey data and discuss the results of the online experiment, respectively. Finally, in section 7, we summarise our findings and discuss the need for further research on the impact of information disclosures in altering consumer behaviour across various settings, that can ultimately move the needle towards better consumer protection.

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<sup>3</sup>RBI is right and wrong on Yes Bank AT1 bonds' mis-selling- <https://www.livemint.com/opinion/columns/opinion-rbi-is-right-and-wrong-on-at1-bonds-mis-selling-11595950301769.html>, retrieved on 5-11-2020

<sup>4</sup>RBI examines mis-selling complaints of Yes Bank's AT1 bondholders; seeks details- <https://www.moneycontrol.com/news/business/rbi-examines-misselling-complaints-of-yes-banks-at1-bondholders-seeks-details-5763981.html>, retrieved on 5-11-2020

## 2. Literature Review

### *Addressing Information Asymmetry through Information Disclosures*

The need for information disclosure stems from overcoming the classical market failure of information asymmetry or adverse selection, where there is an unequal distribution of information between two contracting parties, leading to adverse effects or sub-optimal outcomes for the party that has the lesser amount of information (Milgrom, 2008). In the context of a financial product or service, lesser information may reside on either the seller's side or the buyer's side. For example, a financial service provider (FSP) while selling an investment product might fail to reveal fully or partially the costs, fee structure, risks and other features of the product. Similarly, a consumer while buying health insurance might fail to reveal their true health risks, in an attempt to lower their premiums.

Milgrom (2008) notes that there are two key problems when buyers are less informed. First, sellers report and reveal information selectively to suit their interests and second, buyers don't know enough about the relevant product even to ask the most relevant questions. Gabaix and Laibson (2005) also note that sellers deliberately shroud product attributes if they consider those attributes to have a negative effect on the consumer's purchase decision.

Several research studies have examined these issues. The primary reason for the seller's deceptive behaviour is a conflict of interest between maximising their profits and maximising consumer's welfare (Halan & Sane, 2016; Anagol, Cole & Sarkar, 2015). Anagol et al., (2015), in the context of life insurance in India, note that insurance agents were driven by products that led to high commissions rather than those that provided better coverage to the consumer. In a sub-experiment in the same study, they also noted that mandating information about the commission's agents received on a particular product created a contradictory situation. It reduced the likelihood of agents proposing the sale of that product and instead increased the likelihood of the sale of an alternative product that had higher commissions but no mandatory disclosure.

On the other hand, the problem of lack of information disclosure also stems from poor financial knowledge among consumers, which is especially true for consumers in emerging economies (Halan, Sane & Thomas, 2014). Halan et al., (2014) note that this could lead to mis-selling of financial products, thereby raising concerns of consumer protection and an overall erosion of trust in the financial sector. Milgrom (2008) also notes that a consumer's level of knowledge has a role to play in incentivising a seller's disclosure of information. The incentive to share information is higher for the seller when consumers are more sophisticated.

In this context, mandating complete information disclosure should be adopted as a necessary solution by regulators to overcome sub-optimal outcomes on account of information failures (Milgrom, 2008; George et al., 2013; Halan & Sane, 2016).

### *Impact of Information Disclosure on Consumer Behaviour*

Despite a strong case for accurate information disclosure, the evidence on the impact of information disclosure in altering consumer behaviour remains limited. The limited

literature that does exist in this domain, mostly based on experimental studies, reveals mixed results. On the one hand, Balakina et al. (2020) find that just-in-time disclosures through educational videos describing the features of the product lead to consumers making better financial decisions. Similarly, research conducted by CGAP<sup>5</sup>, based on several lab experiments across emerging economies, have found simplicity, comparability, timeliness and convenience to be the key features of disclosure regimes producing a positive impact on consumer's choice. For example, a study conducted among Mexican consumers in a lab setting found that respondents who were presented with just five key features of the product (compared to respondents presented with 10 key features of the product) made better financial choices (CGAP, 2017). Another study conducted in Kenya to test the impact of disclosures of transaction fees among consumers of digital payment services led to increased awareness and better recall of transaction costs and fees associated with it (CGAP, 2017). On the other hand, studies examining the impact of summary prospectus versus a lengthy statutory prospectus or cheat sheets summarising the main features of an investment product have found the format of the disclosure to have no effect on investor or consumer choices (Beshears et al., 2009; Choi et al., 2009). Finally, substantial evidence exists documenting the role of behavioural biases in influencing consumers' financial decisions (Agarwal et al., 2017). Bertrand and Morse (2011) find that information disclosure that is designed to correct for cognitive biases and limitations of individuals has a substantial effect in altering their decisions towards positive or welfare maximising outcomes.

### *Moving Towards Suitability*

While the focus of this paper is to understand the impact of accurate information disclosure in improving consumer outcomes, it is important to note the limitations of information disclosures per se. Firstly, while a regulator can mandate information disclosure, a seller might still withhold information that is relevant to the product/service, but that consumers or regulators might not be aware of (Milgrom, 2008). Secondly, a regulator can mandate specific significant features that are key to a product or service, but this could prove to be an implementation challenge if there is a heterogeneous pool of consumers such that different features matter to different types of consumers. Milgrom (2008) notes that in such instances, regulation in the form of creating liability for withholding information can help to mitigate the costs of non-disclosure. Moreover, Halan et al., (2014) point to the fact that even if information disclosure is mandated, it is not well implemented across the financial services industry, reflecting the lack of incentive on the part of the seller to reveal necessary information. Mandating information is, therefore, a necessary but not a sufficient condition in protecting consumer rights and interests. "With increasing product customisation and complexity, the information asymmetry between the buyer and seller will increase over time. In such a scenario, it is not clear that mandating information disclosures will lead to improved customer outcomes" (George et al., 2013). It is therefore important to move away from a 'buyer beware' to a 'provider liability' approach, where the onus on assessing the suitability of a product for the consumer is placed on the seller,

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<sup>5</sup>Disclosure and Transparency/Lab Testing Tools- <https://www.cgap.org/research/slide-deck/module-2-disclosure-and-transparencylab-testing-tools>

who is held legally liable<sup>6</sup> for it (George et al., 2013). By adopting a suitability approach, the seller is legally liable to undertake a suitability assessment process<sup>7</sup> and is therefore incentivised to act in consumer's best interest.

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<sup>6</sup>George et al., (2013) note that “in order for a framework of Suitability to have teeth, there is a need for the imposition of legal liability on the financial services provider, as this will mean that it is in the firms' self-interest to ensure suitable recommendations and product sales to consumers.... The combination of ex-ante legal liability and a strong threat of ex-post enforcement provide credible disincentives to financial service providers from acting in ways that promote their own self-interest at the cost of consumers...”

<sup>7</sup>George et al., (2013) note that “Suitability should be seen as a process rather than as an intention of the financial services provider or consumer financial outcomes. Every financial services provider should be required to have a board approved Suitability Policy that the company must follow in all interactions with consumers the policy must lay down the processes for consumer data collection, analysis, communication of recommendations (advice or product sale), and follow-up.”

### 3. Context Setting: Mis-selling- The Case of AT1 Bonds and Role of Disclosures

Mis-selling of financial products is widespread in India. This typically involves a distribution agent recommending or selling a financial product which pays high commissions but is not well suited to the financial needs and requirements of the customer, potentially causing harm to the financial health of the consumer. For instance, consumers wishing to open a fixed deposit are instead mis-sold an investment-linked insurance plan<sup>8</sup>. Thus, instead of getting regular interest on their deposits, these customers are forced to pay annual premiums to ensure their investment-cum-insurance policy remains active. There exists considerable evidence on how widespread and harmful this practise is to consumers of financial products (Sane and Halan, 2016)<sup>9</sup>. The RBI finally took cognisance of this problem in 2017 when it introduced an amendment to the Banking Ombudsmen Scheme<sup>10</sup>. The amendment included a new category of complaint about unsuitable sales of third-party products<sup>11</sup> by banks. This has increased awareness among consumers, as is evident from the rising number of complaints made under this category since its inception<sup>12</sup>. However, the number of such complaints — 1157 for the year 2018-19 — is still minuscule compared to the enormous number of Unit Linked Insurance Plans (ULIPs) that were mis-sold during 2004-2012 (Sane & Halan, 2016). The latest and most egregious instance of mis-selling is illustrated by the events leading up to the write-down of AT1 bonds by a large private sector bank, that came to light in March 2020.<sup>13</sup>

Alternate Tier 1 (AT1) bonds are perpetual debt instruments issued by banks as part of their regulatory capital<sup>14</sup>. These bonds are treated as quasi-equity and have no specified maturity date. However, most such issuances have an option wherein the principal amount can be returned to the bondholders at the discretion of the issuing bank and with the approval of the RBI<sup>15</sup>. The most pertinent feature of these debt instruments is that the interest and the principal on these bonds need not be returned to the investor but can rather be extinguished, partially or fully, at the discretion of the bank and RBI<sup>16</sup>. This is the main reason that these bonds are treated as quasi-equity. This is also the reason that these debt instruments are riskier than plain vanilla bonds, debentures and fixed deposits and consequently they are priced higher than other debt instruments of similar

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<sup>8</sup>The Case of Ali Hussain Arif - <https://thewire.in/business/how-indian-insurance-companies-are-defrauding-the-bottom-of-the-pyramid>, retrieved on 20-10-2020

<sup>9</sup>The menace of mis-selling in insurance and how to curb it- <https://www.livemint.com/insurance/news/the-menace-of-mis-selling-in-insurance-and-how-to-curb-it-11570966082505.html>, retrieved on 24-09-2020

<sup>10</sup>RBI amendment to the Banking Ombudsman Scheme, 2017 - [https://www.rbi.org.in/Scripts/BS\\_PressReleaseDisplay.aspx?prid=40853](https://www.rbi.org.in/Scripts/BS_PressReleaseDisplay.aspx?prid=40853)

<sup>11</sup>Ibid

<sup>12</sup>Annual Report of the Banking and Non-Banking Ombudsman scheme for the year 2018-19 - <https://www.rbi.org.in/Scripts/PublicationsView.aspx?id=19356>

<sup>13</sup>RBI examines mis-selling complaints of Yes Bank's ATI bondholders; seeks details- <https://www.moneycontrol.com/news/business/rbi-examines-misselling-complaints-of-yes-banks-at1-bondholders-seeks-details-5763981.html>, retrieved on 24-09-2020

<sup>14</sup>Section 4.2, RBI's Master Circular on Basel 3 Capital Regulations, 2015 - <https://rbidocs.rbi.org.in/rdocs/content/pdfs/58BS300685FL.pdf>

<sup>15</sup>Section 1.6, Annex 4, Ibid

<sup>16</sup>Section 1.8 and 1.10, Ibid

maturity. In other jurisdictions, there are considerable restrictions on the sale of such bonds to retail consumers<sup>17</sup>. As of March 2020, around Rs 93,000 Cr (roughly 13 billion USD) of AT1 bonds are estimated to be outstanding<sup>18</sup>. While direct retail exposure is difficult to assess<sup>19</sup>, it is thought to be insignificant compared to institutional investors. However, several stories<sup>20</sup> have appeared in the media of retail investors' entire savings getting wiped out on account of losses incurred due to investment in these bonds. At the core of the crisis is the contention of some retail customers that these bonds were sold to them on the assurance that they were as risk free as fixed deposits while offering a higher return<sup>21</sup>. The disclosures made during the sales pitch also reflect this<sup>22</sup>.

In the past, the Indian government and the regulator have taken concrete steps to improve information disclosure by financial service providers. Halan and Sane (2017) note the setting-up of two important Government Committees to improve the disclosure regime in India. The first one, The Committee on "Investor Awareness and Protection" set up in 2010 recommended that investors be disclosed the income that the seller or adviser earns directly or indirectly from the product manufacturer and be given a one-page note, with the most important terms and conditions so that the consumer understands the product and its impactfully. The second one, The Committee set up in 2015 to "Recommend Measures for Curbing Mis-selling and Rationalising Distribution Incentives in Financial Products" recommended specific format and manner in which disclosures must be made for the sale of financial products and services. SEBI has also taken considerable steps over the years to improve the regulation around disclosure requirement as highlighted in the SEBI (Issue of Capital and Disclosure Requirement) Regulations, 2018<sup>23</sup>. The current disclosure regime for AT1 bonds comes under both the RBI and Securities Exchange Board of India (SEBI)'s jurisdictions<sup>24</sup>. The RBI disclosures on Perpetual Debt Instruments (PDI), which includes AT1 bonds, instructs issuing banks to state the difference between such instruments and fixed deposits, and to mention, in particular, that these instruments are not covered by deposit insurance but rather have loss-absorbency features<sup>25</sup>. Despite these guidelines, the cases of mis-selling in the Indian financial services industry reveal that the guidelines have merely remained a de jure norm.

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<sup>17</sup>See UK FCA Handbook, COBS 22.3 - <https://www.handbook.fca.org.uk/handbook/COBS/22/3.html>

<sup>18</sup><https://www.thehindubusinessline.com/money-and-banking/sebi-move-on-at-1-bonds-marginal-impact-expected-on-banks-fund-raising-plans/article32795454.ece> - retrieved on 20-10-2020

<sup>19</sup>However, it should be noted that many retail customers can have indirect exposure to these bonds through their investments in mutual fund schemes.

<sup>20</sup>How Yes Bank's relationship managers sold its AT1 bonds to retail investors- <https://www.livemint.com/money/personal-finance/how-yes-bank-s-relationship-managers-sold-its-at-1-bonds-to-retail-investors-11583672341297.html>, retrieved on 26-11-2020

<sup>21</sup>RBI examines mis-selling complaints of Yes Bank's AT1 bondholders; seeks details- <https://www.moneycontrol.com/news/business/rbi-examines-misselling-complaints-of-yes-banks-at1-bondholders-seeks-details-5763981.html>, retrieved on 24-09-2020

<sup>22</sup>On review of internal documents

<sup>23</sup>SEBI Regulations, 2018 (last amended on September 28, 2020)- [https://www.sebi.gov.in/legal/regulations/jan-2020/securities-and-exchange-board-of-india-issue-of-capital-and-disclosure-requirements-regulations-2018-last-amended-on-september-28-2020-\\_41542.html](https://www.sebi.gov.in/legal/regulations/jan-2020/securities-and-exchange-board-of-india-issue-of-capital-and-disclosure-requirements-regulations-2018-last-amended-on-september-28-2020-_41542.html)

<sup>24</sup>Annex 4, RBI's Master Circular on Basel 3 Capital Regulations, 2015 - <https://rbidocs.rbi.org.in/rdocs/content/pdfs/58BS300685FL.pdf>

<sup>25</sup>Section 1.22, Annex 4, Ibid



Following the mis-selling of AT1 bonds that came to light with a large private bank writing down its entire AT1 bond portfolio, the Securities Exchange Board of India (SEBI) brought about changes in the eligibility criteria for investment into these products. Based on a circular by SEBI, dated 6<sup>th</sup> October 2020, these bonds can now be sold only to qualified institutional buyers over an electronic platform and with a minimum allotment and trading lot size of Rs. 1 crore ( 135,925 USD). Presumably, this is intended to protect retail investors from these products, yet there remains no directive to limit the exposures of retail investors to them via indirect channels (such as mutual funds).

While the key motivation for conducting this study emerged in the context of mis-selling of AT1 bonds, the applicability of this study extends to a wider array of financial products and services, as also do its implications for the role of simple, effective and easy to understand (i.e., accurate) disclosure in ensuring the sale of suitable products and services. In the absence of an accountability regime that requires financial service providers to provide only suitable products to consumers, the role of accurate disclosures in ensuring consumer protection becomes critical. The rationale for this study is thus situated in the important role that accurate information disclosures play in ensuring consumer protection.

## 4. Experimental Design

An online experiment was conducted to study the impact of information disclosure on consumer behaviour with respect to the final purchase decision of a financial product. It must be noted that similar methods (online/offline) have been used previously to understand the impact of information disclosure (Beshears et al., 2009; Choi et al., 2009; Cain et al., 2005; Meza et al., 2010). The experiment involved an online survey that presented the respondents with a hypothetical scenario wherein they had savings worth Rs 5 lakh INR ( 6700 USD), that had to be invested in a long-term investment product. The product in question was a hypothetical ‘high-return bond’ from a hypothetical ‘OCOC bank’. In order to assess the impact of information disclosure on the purchase decision, two variations of information disclosure for the same product were created and respondents were randomly assigned to one of them. We refer to these two variations of information disclosure as the accurate form and the inaccurate form. The accurate form is called ‘accurate as it provides information both on the returns as well as the costs and risks associated with the purchase of the product, while the ‘inaccurate’ form closely mirrors the existing disclosure type for AT1 bonds<sup>26</sup> (based on which the ‘hypothetical’ product for this experiment was created) that was used by one of the leading private sector banks in India. There was an equal probability of receiving either type of disclosure form. The questionnaires administered to the respondents were identical except for the type of disclosure and the question on *reasons for buying the product*, as the reasons could differ depending on the disclosure form that the respondents were presented. The two questionnaires are laid out in the appendix of this paper.

At the start of the experiment, consent from each respondent was taken before proceeding with the survey, and confidentiality of the respondents was maintained<sup>27</sup>. After reviewing the features of the product, respondents were asked if they wanted to buy the product. The respondents who chose to buy the product, were asked about the reasons for buying the product and those who decided against it, were asked the reasons for not buying the product, in order to understand the factors that influenced consumers’ decisions. Further, demographic information of respondents such as age, gender, marital status, occupation, income tax bracket, level of confidence with respect to investing, and risk preferences, was also asked and recorded.

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<sup>26</sup>Background research on this study revealed that there were instances of a large commercial bank mis-selling the AT1 bond product by not revealing the risks associated with the product and comparing its return to a risk-free product such as Fixed Deposits (FD).

<sup>27</sup>Personally identifiable information such as name, phone number, address, etc. was not collected from the study respondent.

## 5. Data and Descriptive Statistics

Responses from 303 respondents were collected through the online survey, of which 171 received the inaccurate form of disclosure, and 132 received the accurate form. To evaluate if the two groups are comparable, a balance test was conducted between the two groups (Table 1). To do this, we look at the distribution of gender, age, marital status, occupation, income tax bracket, level of confidence, and risk preference of individuals across the two groups and run a test of difference in proportions, as all independent variables are either binary or categorical. We find that there is a significant difference between the proportions of respondents that received each disclosure, but the two groups were largely comparable across the demographic dimensions, thus ensuring the integrity of the research method used for this study. The outreach for the survey was conducted through social media platforms and other offline networks, wherein respondents were requested to fill out the online survey.

Further, the descriptive statistics on the purchase decision, both overall and disaggregated by respondent demographics, are given in Table 2 and Table 3, respectively. In Table 3, we find that out of those who received the accurate form of the disclosure, only 14% chose to buy the product as opposed to 50% of the individuals who received the inaccurate form. This suggests a correlation between the type of disclosure presented to the respondent and the purchase decision. Table A.1 provides further bifurcation of the sample on the basis of demographic characteristics of respondents and their decision to purchase the product depending on the type of disclosure received by them.

Respondents who chose to buy the product were asked to choose the reasons for their decision. This question allowed the respondents to choose multiple options from the choices presented to them. As this was a mandatory question, all the 104 respondents who chose to buy the product, regardless of the type of disclosure presented to them, answered this question. The reasons behind the decision to buy the product are presented in Figure 1.(a) and Figure 1.(b). It shows that the top two reasons for buying the product are ‘attractive’ and ‘continued returns’ for both types of respondents, i.e., those who received the accurate form and those who received the inaccurate form. The third most commonly cited reason for buying in response to the accurate form is ‘like the risk involved’, which indicates that when presented with a neutral view of the product, some respondents still chose to buy the product, potentially because they found it to be suitable to their financial circumstances, risk capacity and appetite. In contrast, the third most commonly cited reason for buying the product in response to the inaccurate form is ‘safety of a bank bond’. One might argue, therefore, that the inaccurate form instils a false sense of security in individuals, thereby inducing them to buy the product. Moreover, from the reasons given for not buying the product, it can be observed that the uncertainty in returns and tenure of the product play a larger role for those respondents who received the accurate form compared to those who received the inaccurate form.

Finally, to assess financial literacy, a self-declared level of confidence was used as a proxy. The assumption that has been made here is that a greater degree of investor confidence signals a greater degree of investor financial literacy.

TABLE 1: Results of the test for difference in proportions across the two forms of disclosures — Inaccurate and Accurate

	Variables	Inaccurate	Accurate	Proportion (Inaccurate)	Proportion (Accurate)	Difference	p-value
Gender	All observations	171	132	0.56	0.44	0.1288**	0.026
	Male	89	72	0.55	0.45	0.11	0.183
	Female	82	60	0.58	0.42	0.155*	0.068
Age	18 - up to 24 years	4	4	0.50	0.50	0.00	1.000
	24 - up to 34 years	42	30	0.58	0.42	0.17	0.163
	34 - up to 44 years	45	40	0.53	0.47	0.06	0.588
	44 - up to 54 years	53	39	0.58	0.42	0.15	0.149
	54 - up to 60 years	18	10	0.64	0.36	0.29	0.146
	60 - up to 70 years	9	8	0.53	0.47	0.06	0.809
	70 and above	0	1	0.00	1.00	-1.00	
	Marital Status	Married	134	108	0.55	0.45	0.1074*
	Unmarried	31	21	0.60	0.40	0.19	0.173
	Divorced	4	0	1.00	0.00	1.00	
	Separated	1	2	0.33	0.67	-0.33	
	Widow/Widower	1	1	0.50	0.50	0.00	
Occupation	Private Sector, salaried	62	54	0.53	0.47	0.07	0.459
	Public Sector, salaried	7	4	0.64	0.36	0.27	0.383
	Self-employed						
	professional	21	18	0.54	0.46	0.08	0.632
	Business	22	18	0.55	0.45	0.10	0.529
	Freelancer/Consultant	5	5	0.50	0.50	0.00	1.000
	Homemaker	40	27	0.60	0.40	0.19	0.119
	Retired	5	2	0.71	0.29	0.43	0.297
	Retired and partly working again	5	0	1.00	0.00	1.00	
	Others	4	4	0.50	0.50	0.00	1.000
	Income Tax Bracket	₹0 - ₹2,50,000	17	17	0.50	0.50	0.00
	₹2,50,001 - ₹5,00,000	17	9	0.65	0.35	0.31	0.134
	₹5,00,001 - ₹7,50,000	14	9	0.61	0.39	0.22	0.308
	₹7,50,001 - ₹10,00,000	28	12	0.70	0.30	0.4**	0.019
	₹10,00,001 - ₹12,50,000	11	8	0.58	0.42	0.16	0.497
	₹12,50,001 - ₹15,00,000	7	10	0.41	0.59	-0.18	0.474
	Above ₹15,00,000	38	36	0.51	0.49	0.03	0.816
	Do not want to mention	39	31	0.56	0.44	0.11	0.343
Risk	Low risk	19	20	0.49	0.51	-0.03	0.873
	Medium Risk	66	59	0.53	0.47	0.06	0.532
	High Risk	86	53	0.62	0.38	0.2374***	0.007

Total Observations - Confidence Level	171	128	0.57	0.43	0.1483**	0.014	
Confidence Level	Not confident at all	6	4	0.60	0.40	0.20	0.535
	Not confident	26	11	0.70	0.30	0.4054**	0.022
	I take help but manage	55	43	0.56	0.44	0.12	0.229
	Confident	54	52	0.51	0.49	0.02	0.847
	Very confident	30	18	0.63	0.38	0.25*	0.093

\*\*\* p < 0.01, \*\* p < 0.05, \* p < 0.1

TABLE 2: Distribution of responses across the two types of disclosure formats

	Freq.	Percent	Cum.
Inaccurate Version	171	56.44	56.44
Accurate Version	132	43.56	100.00
Total	303	100.00	

TABLE 3: Overall purchase decision by disclosure type

Disclosure Type	Decision to Buy		
	Not Buy	Buy	Total
Inaccurate	85	86	171
	49.71	50.29	100.00
Accurate	114	18	132
	86.36	13.64	100.00
Total	199	104	303
	65.68	34.32	100.00

(The first row has frequencies and the second row has row percentages)

FIGURE 1(a): Reasons for buying this product (Accurate form)

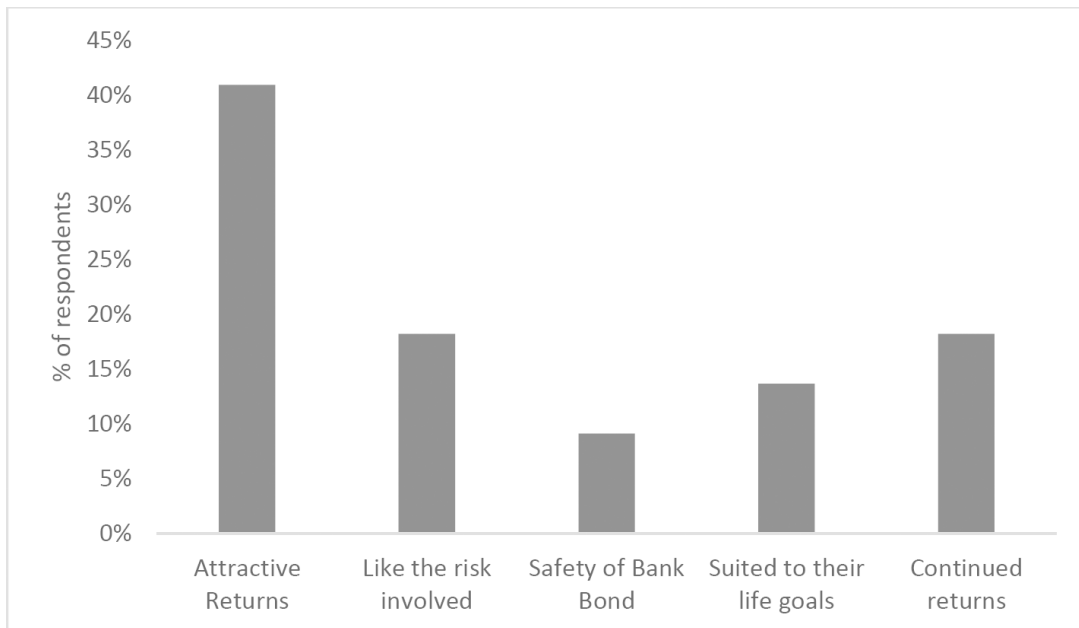
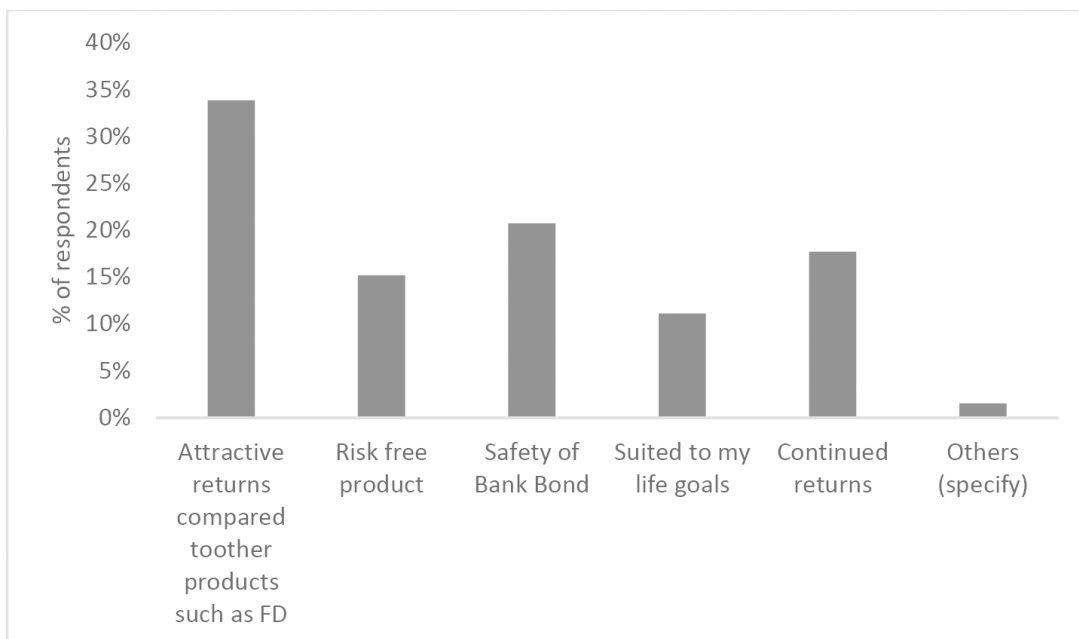


FIGURE 2(b): Reasons for buying this product (Inaccurate form)





inaccurate form, is 50.3%<sup>29</sup>, while a beta of -1.858 means that the probability of purchasing the product, upon being exposed to the accurate form, is 13.6%<sup>30</sup>. Therefore, there is a 37-percentage point drop in the conditional probability of purchasing the product, when the form is switched from an inaccurate to accurate. Alternatively, it can also be said that the odds of buying the product when exposed to the accurate form are about 84% lower than the odds of buying when exposed to the inaccurate form<sup>31</sup>.

Next, we control for individual characteristics such as age, gender, marital status, occupation, income tax bracket, confidence about investing, and risk preferences. To do this, we run two separate regressions, one without the income tax bracket of the respondent (Column 2 of Table 4) and the other with the income tax bracket of the respondent (Column 3 of Table 4). We do this to remove the responses where the respondents have chosen to “not mention” their income tax brackets<sup>32</sup>.

The results of the regression without including the income tax bracket as a control are captured by column 2 of Table 4. In this case, we get a beta coefficient of -2.242. This translates to an odds ratio of 0.106<sup>33</sup>, implying that the odds of buying the product when exposed to the accurate form are about 90% lower than the odds of buying when exposed to the inaccurate form.

Finally, we include the tax bracket variable for all respondents as a control variable to the regression equation, the results of which are captured by column 3 of Table 4. Adding income tax bracket as a control variable to the equation doesn't change the significance of the coefficient of disclosure type. The beta coefficient is now -2.49. This translates to an odds ratio of 0.08<sup>34</sup>, implying that the odds of buying the product when exposed to the accurate form are about 92% lower than the odds of buying when exposed to the inaccurate form. Finally, we also run regressions to check for any heterogeneous effect of disclosure<sup>35</sup> based on the attributes of the respondents, but we do not find any statistically significant heterogeneous effects of disclosure type on the purchase decision of the product.

**To summarise, the odds of buying the product are about 80 to 90% lower when the disclosure type is switched from inaccurate to accurate.**

<sup>29</sup> $P = \exp(0.012) / (1 + \exp(0.012)) = 0.503$

<sup>30</sup> $P = \exp(0.012 - 1.858) / (1 + \exp(0.012 - 1.858)) = 0.136$

<sup>31</sup>Odds ratio =  $\exp(-1.858) = 0.155$ ; In percentage terms,  $1 - 0.155 = 84.5\%$

<sup>32</sup>70 respondents chose “do not want to mention” in the question about their respective income tax bracket

<sup>33</sup>Odds ratio =  $\exp(-2.242) = 0.106$ ; In percentage terms,  $1 - 0.106 = 89.4\%$

<sup>34</sup>Odds ratio =  $\exp(-2.49) = 0.08$ ; In percentage terms,  $1 - 0.08 = 92\%$

<sup>35</sup>Two regressions were run to test for heterogeneous effects. In the first regression, we included an interaction term between disclosure type and risk preference. In the second regression, we included an interaction term between disclosure type and age. In both the cases, the coefficients of the interaction terms were not statistically significant.



TABLE 4: Regression results. Column 1 presents the results of the regression of the decision to buy on the type of disclosure. Column 2 adds control variables, excluding income tax brackets. Column 3 also controls for income tax brackets of the respondents.

Variables	(1) Buy	(2) Buy	(3) Buy
Disclosure type	-1.858*** (0.296)	-2.242*** (0.358)	-2.490*** (0.451)
Age- 24 — up to 34 years		-3.491** (1.364)	-3.445** (1.407)
Age- 34 — up to 44 years		-3.254** (1.409)	-3.565** (1.512)
Age- 44 — up to 54 years		-3.414** (1.441)	-3.727** (1.55)
Age- 54 — up to 60 years		-3.474** (1.544)	-3.498** (1.655)
Age- 60 — up to 70 years		-4.811*** (1.708)	-4.288** (1.779)
Age- 70 and above		-	-
Gender - Female		0.378 (0.437)	0.1 (0.551)
Marital Status - Unmarried		0.574 (0.517)	0.064 (0.617)
Marital Status - Divorced		0.482 (1.217)	-0.619 (1.569)
Marital Status - Separated		0.311 (1.771)	0.464 (1.936)
Marital Status - Widow/Widower		-	-
Occupation - Public sector, salaried		-0.307 (0.829)	-0.412 (0.889)
Occupation - Self-employed professional		-0.335 (0.519)	-0.434 (0.614)
Occupation - Business		-0.013 (0.541)	0.292 (0.705)
Occupation - Freelancer/ Consultant		-0.967 (0.919)	-0.684 (0.976)
Occupation - Homemaker		0.113 (0.553)	-0.066 (0.74)
Occupation - Retired		-1.122 (1.354)	-1.352 (1.522)
Occupation - Retired and partly working again		0.361 (1.255)	-0.862 (1.511)
Occupation — Others		-	-
Tax Bracket: ₹2,50,001 - ₹5,00,000			-0.868 (0.714)

Tax Bracket: ₹5,00,001 - ₹7,50,000			- 1.250*
			(0.75)
Tax Bracket: ₹7,50,001 - ₹10,00,000			-0.216
			(0.671)
Tax Bracket: ₹10,00,001 - ₹12,50,000			-1.611*
			(0.875)
Tax Bracket: ₹12,50,001 - ₹15,00,000			-0.905
			(0.85)
Tax Bracket: Above ₹15,00,000			-1.167*
			(0.653)
Confidence level: Not confident	1.046		1.798
	(1.057)		(1.228)
Confidence level: I take help but manage	1.850*		2.775**
	(1.029)		(1.169)
Confidence level: Confident	1.024		1.978*
	(1.042)		(1.177)
Confidence level: Very confident	1.151		2.338*
	(1.107)		(1.235)
Risk Preference: Medium Risk Investment	-0.699		-1.372*
	(0.511)		(0.71)
Risk Preference: High Risk Investment	-1.260**		-2.115***
	(0.554)		(0.737)
Constant	0.012	2.523	3.947**
	(0.153)	(1.675)	(1.86)
Controls	No	Yes	Yes (including Tax Brackets)
Observations	303	290	222

Standard errors in parentheses \*\*\* p < 0.01, \*\* p < 0.05, \* p < 0.1

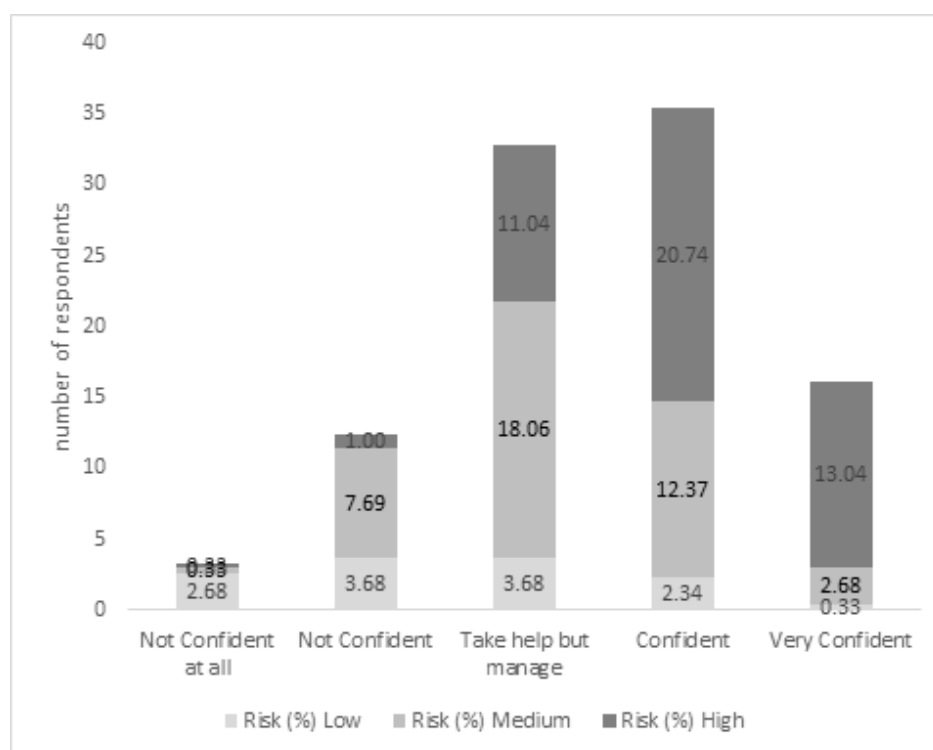
## 6.2 Relationship between risk preference and financial literacy

Taking a closer look at the results of Table 4, another interesting observation can be made about the control variables. The coefficient of high-risk preference is negative and statistically significant, in both column 2 and 3 of Table 4. This indicates that a high-risk individual is less likely to buy the product, irrespective of the type of disclosure. This is counter-intuitive as the product presented to the respondents was a high-risk product and might have been preferred by respondents who prefer high-risk while investing. We explored this further by running a regression with only the disclosure type and risk preference. This was done to exclude any effect of correlation between risk preference and other control variables. We found that the coefficient of high-risk preference remained negative and statistically significant (Table A.4<sup>36</sup>), thus confirming that respondents with

<sup>36</sup>Table A.4 also presents results of the regression of the decision to buy the product on the type of disclosure including control variables, except for the level of confidence. We find that the coefficient on the decision to buy remains statistically significant and negative.

high-risk preference are less likely to buy the product. One explanation for this could be that high-risk individuals are more financially literate than others and hence understand the product better. To test this hypothesis, we ran a chi-square test between different levels of risk preferences and the proxy for financial literacy, i.e., level of confidence in making a financial investment. It was found that the two variables are highly correlated as the p-value of the chi-square test was 0.00. This relationship has also been demonstrated graphically in Figure 2.

FIGURE 2: Graph showing a correlation between the level of confidence and risk preference (n=299). The graph is slightly skewed towards the right for the high-risk individuals indicating that individuals who prefer high-risk also consider themselves to be more confident. Similarly, the graph peaks in the middle for individuals with medium risk preference. Finally, the graph is concentrated towards the left for the individuals with low-risk preference, indicating that they are also less confident about investing.



### 6.3 Testing for Specification

Finally, to test if the relationship between the logit of outcome variable with that of independent variables is linear and to check if all the relevant variables have been included, we conducted the link test for specification (Table A.2.(a) and A.2.(b)). We find that the outcome of the link test is statistically insignificant, indicating that our model is not mis-specified. Further, to check how well our model fits the data, we perform the Hosmer and Lemeshow's goodness-of-fit test (Table A.3.(a) and A.3.(b)). We find that the model fits the data well.

## **6.4 Testing for Robustness**

To test the accuracy of the model and to check for model robustness across datasets, the Leave One Out Cross Validation (LOOCV) method was used. This method trains the model, as defined by equation (ii), overall the responses except one. The trained model is then used to predict the one response that was left out. This process is then repeated till all responses are covered. This ensures that the model is trained over many datasets, albeit differing from each other by only one data point, and thus serves as a test of how robust the model is. It was found that the disclosure variable was significant in all the model runs and the accuracy of the model in predicting the purchase decision was 75.6%.

## 7. Conclusion

This paper examines the impact of information disclosure on consumer behaviour in the context of a high-risk financial product. The study attempts to understand if an ‘accurate’ information disclosure that equally highlights both the risks and returns of the product alters the purchase decision of retail investors. Given the high-risk associated with the product, we argue that this product might not be suitable for an average retail investor and an accurate disclosure of information about the product can decrease the probability of purchase of this product, thereby improving consumer welfare outcomes. The primary motivation for this paper is the mis-sale of AT1 bonds that came to light in March 2020, turning the spotlight more broadly on the mis-sale of financial products in the Indian financial sector. Using an experimental design, we study the purchase decision of our respondents, when exposed to two variations of information disclosure about a hypothetical financial product- a ‘high-return bond’ (issued by a hypothetical ‘OCOC Bank’), that mirrors closely the features of the AT1 bond product. We expect that given the risks involved, an accurate disclosure of information will reduce the probability of purchase in comparison to an inaccurate disclosure that focuses more prominently on the returns of the product and shrouds the risks involved. We find that the type of disclosure has a large and statistically significant impact on the purchase decision of our study respondents. The results from our empirical analysis indicate that the odds of buying the product are roughly 80-90% lower when the disclosure type is switched from inaccurate to accurate. This result leads us to a simple yet powerful conclusion, namely that when informed of the real risks of a financial product, the consumer is more mindful and cautious and chooses to reject the product. This is in contrast with consumers decision when only the positive aspects of the product are showcased, and the real risks are glossed over. The magnitude of the decrease in the odds of purchase identified by our experiment is an indication of the powerful impact that accurate disclosures can have on consumers’ financial behaviour, thereby leading to positive outcomes for the consumer.

Our study on the role of information disclosure is a contribution to the literature that studies financial market failures arising from asymmetric information. In this context, mandating information disclosure is seen as a first but extremely important step in improving consumer outcomes and thereby protecting consumers’ rights and interests. However, as we have pointed out in our paper, the research in this domain remains limited. We propose that this line of research should be further explored across different markets, consumer segments and financial products to understand the impact of disclosures in different settings. Additionally, while our study experimented only with two types of disclosures, there is merit in further nuancing the disclosure quality in order to understand the elements of disclosure that prove effective in inducing consumers to make choices that work best in their interest. Some of the other design elements of disclosure format that could be experimented with are highlighting the risks and returns in different colours, fonts and formats to see if the design of the format per se has a meaningful effect on consumer behaviour. Research in this direction could lead to important insights for regulators about the manner (both content and format) in which disclosures could be mandated. Finally, our paper acknowledges that mandating information disclosure, particularly in the Indian context comes with its own set of limitations, as it is difficult to monitor the implementation of such a mandate. In such a scenario, regulators need to

think of creative and simple ways in which this requirement is complied with across the financial services industry. This can only be achieved if incentives for both consumers and financial service providers are aligned, eventually leading to maximisation of consumer welfare outcomes.

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## Appendix

FIGURE A.1: Questionnaires for the experiment, along with the two disclosure formats.

### Dvara Research Online Experiment

Hi there! Thank you for agreeing to participate in this online experiment that will take no more than 10 minutes of your time. In this experiment, we will share with you the features of a financial product after which you will be asked to decide about the purchase of the product.

Please note that this is just a hypothetical exercise. We are not actually selling a product. Therefore, your final answer regarding your decision about the purchase of the product is just restricted to this online experiment and does not have any implications on your financials.

The data collected in this experiment will be kept confidential and will be used only for research purposes.

**Can we continue with this experiment?**

- Yes
- No

**Imagine that you have Rs. 5 lakh set aside for a long term/multi-year investment and you are looking to make a financial investment. You are considering a special high return bond issued by OCOC Bank for your investment.**

Below are the features of the product. Upon reading the features, you have to make a decision about whether you want to buy this product or not.

**Disclosure Type - Accurate**

<b>Tenure of the Bond</b>	The bond is perpetual, which means exact maturity date is not defined. However, OCOC BANK can call back the bond after the minimum committed period of 5 years starting 18 <sup>th</sup> June 2020. To call back the bond, the bank would have to return the principal to the investors and thus cancel the debt owed to them. Hence earliest maturity date (Call Option Exercise) is 18 <sup>th</sup> June 2025 (5 Years). This would also mean there would be no more future interest payments.
<b>Return, Frequency of Interest Payment and Payment Dates</b>	<p>The interest of 9% will be paid out annually with the First Interest Payment date as 18<sup>th</sup> June 2021.</p> <p style="text-align: center;"><i>1st Interest Payment date 18 – Jun – 2021</i>  <i>2nd Interest Payment date 18 – Jun – 2022</i>  <i>3rd Interest Payment date 18 – Jun – 2023</i>  <i>And so on</i></p> <p>However, it should be noted that in the event of the option, described above, being exercised, or if the bank is under financial distress, the interest payments may be partly or fully stopped.</p>
<b>Minimum Subscription Size</b>	The minimum subscription size is Rs. 1 Lac. The face value of one bond is Rs. RS 25,000.
<b>Tradability in the Secondary Market</b>	The investor can approach his/her broker to sell the bond in the secondary market. However, these bonds are not traded frequently. Hence it might be difficult to find a buyer in the secondary market for these bonds.
<b>Credit Rating</b>	ICRA - AA with Positive Outlook India Ratings - AA with Stable Outlook. These ratings imply that the bonds have a very low probability of default.
<b>Interest Risk</b>	The bank has full discretion to cancel the interest payment in any year(s) if the bank comes under financial stress.
<b>Principal Risk</b>	There is no guarantee of return of principal. In the event that the call option, referred to above, is not exercised, there will be no return of the principal. Also, the bank can, if under financial distress, choose not to return the principal, either partly or fully.

**Disclosure Type - Inaccurate**

<b>Tenure of the Bond</b>	The bond is perpetual, which means exact maturity date is not defined. However, OCOC BANK can call back the bond after the minimum committed period of 5 years starting 18 <sup>th</sup> June 2020. To call back the bond, the bank would have to return the principal to the investors and thus cancel the debt owed to them. Hence earliest maturity date (Call Option Exercise) is 18 <sup>th</sup> June 2025 (5 Years). General market practice is that all such bonds are called back at the first option. Usually, such bonds are called back at the earliest maturity.
<b>Return, Frequency of Interest Payment and Payment Dates</b>	The interest of 9% will be paid out annually with the First Interest Payment date as 18 <sup>th</sup> June 2021.  <i>1st Interest Payment date 18 – June – 2021</i> <i>2nd Interest Payment date 18 – June – 2022</i> <i>3rd Interest Payment date 18 – June – 2023</i> <i>And so on</i>
<b>Minimum Subscription Size</b>	The minimum subscription size is Rs. 1 Lac. The face value of one bond is Rs. RS 25,000
<b>Tradability in the Secondary Market</b>	These bonds are expected to have reasonable liquidity in the secondary market and thus it will be relatively easy to sell these bonds.
<b>Credit Rating</b>	ICRA - AA with Positive Outlook India Ratings - AA with Stable Outlook. These ratings imply that the bonds have almost no possibility of defaulting.
<b>Security of the Bond</b>	Bank bonds are always unsecured as per the regulatory environment. This is irrespective of the Issuing bank. Hence, all banks can only issue unsecured bonds. However, despite being unsecured, the bonds enjoy high creditworthiness due to sound financial system in the country.
<b>Comparability with other products</b>	At 9% interest per annum, these bonds pay more than traditional products such as Fixed Deposits that currently are giving 6%.

1. Based on your understanding of these product features, are you inclined to buy this product?

- Yes
- No (skip to Q4)

2. How much amount would you like to invest in this product?

- Less than 1 lakh rupees

- 1 lakh to less than 2 lakh rupees
- 2 lakh to less than 3 lakh rupees
- 3 lakh to less than 4 lakh rupees
- 4 lakh to less than 5 lakh rupees

3. **Why did you decide to buy this product?** (This question was different for different forms, the options are written in parenthesis signify the options given to respondents who received the Inaccurate form of disclosure, whereas the options not in parenthesis were presented to respondents who received the Accurate form of disclosure)

- Attractive returns (Attractive returns compared to other products such as FD in Inaccurate Form)
- Like the risk involved (Risk Free Product)
- Safety of Bank Bond (Same in both)
- Suited to my life goals (Same in both)
- Continued returns (Same in both)
- Others (specify) (Same in both)

4. **Why did you decide not to buy this product?**

- High risk involved
- Investment amount too large
- Not suited to my life goals
- Don't like the uncertainty attached to the tenure of the product
- Don't understand the product
- Low guarantee of returns
- Others (specify)

5. **Select the age category applicable to you.**

- 18 — up to 24 years
- 24 — up to 34 years
- 34 — up to 44 years
- 44 — up to 54 years
- 54 — up to 60 years
- 60 — up to 70 years
- 70 and above

**6. Select the gender category applicable to you.**

- Male
- Female
- Others

**7. Select the marital category applicable to you.**

- Married
- Unmarried
- Divorced
- Separated
- Widow/Widower
- Others

**8. Select the occupation category applicable to you.**

- Private Sector, salaried
- Public Sector, salaried
- Self-employed professional
- Business
- Freelancer/ Consultant
- Homemaker
- Retired
- Retired and partly working again
- Others (specify)

**9. Select the tax bracket applicable to you.**

Income Tax Slabs
₹0 - ₹2,50,000
₹2,50,001 - ₹5,00,000
₹5,00,001 - ₹7,50,000
₹7,50,001 - ₹10,00,000
₹10,00,001 - ₹12,50,000
₹12,50,001 - ₹15,00,000
Above ₹15,00,000
Do not want to mention

10. **How confident are you about investing in equity on your own?**

- Not Confident at all
- Not confident
- I take help but manage
- Confident
- Very Confident

11. **As an individual investor when I think of my money, I like to take**

- Low risk investment:  
*fixed income products like FD, PPF, Post Office Deposits and so on*
- Medium risk investment:  
*Up to 20-30% in non-fixed income investments, such as debt and equity mutual funds*
- High risk investment:  
*More than 50% in equity mutual funds and stocks*

Thank you. That was the end of the survey. We thank you for your time. Please get in touch with us at [householdfinance@dvara.com](mailto:householdfinance@dvara.com) if you have any questions.

FIGURE A.2(a): Reasons given for not buying the financial product by respondents who received the Accurate form of disclosure.

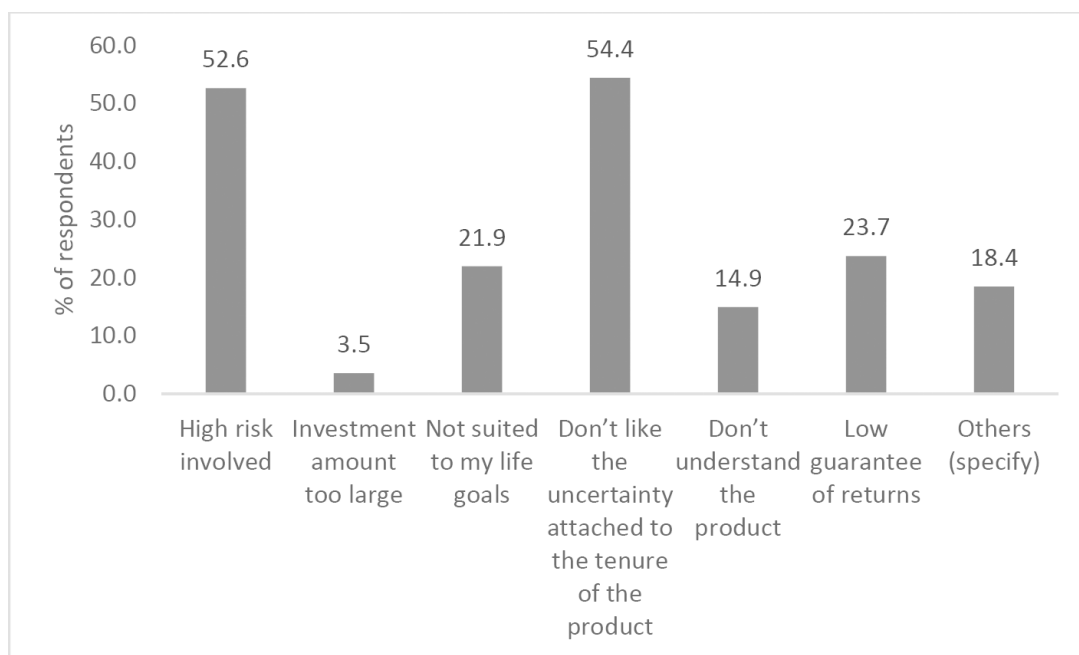


FIGURE A.2(b): Reasons given for not buying the financial product by respondents who received the Inaccurate form of disclosure.

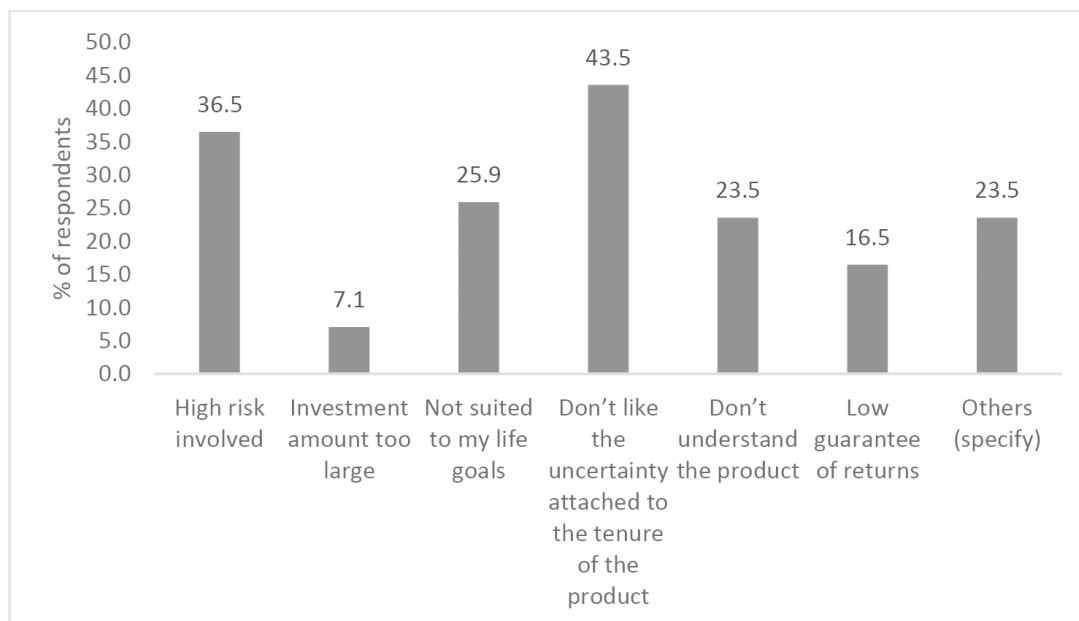


TABLE A.1: Composition of the sample across the two groups.

Variables	Inaccurate		Accurate	
	Not willing to purchase (%)	Willing to purchase (%)	Not willing to purchase (%)	Willing to purchase (%)
<b>Age composition</b>				
18 — up to 24 years	50	50	25	75
24 — up to 34 years	52.38	47.62	83.33	16.67
34 — up to 44 years	46.67	53.33	90	10
44 — up to 54 years	49.06	50.94	84.62	15.38
54 — up to 60 years	44.44	55.56	100	0
60 — up to 70 years	66.67	33.33	100	0
70 and above	-	-	100	0
<b>Gender</b>				
Male	56.18	43.82	87.5	12.5
Female	42.68	57.32	85	15
<b>Tax Brackets</b>				
₹0 - ₹2,50,000	29.41	70.59	76.47	23.53
₹2,50,001 - ₹5,00,000	47.06	52.94	88.89	11.11
₹5,00,001 - ₹7,50,000	50	50	88.89	11.11
₹7,50,001 - ₹10,00,000	35.71	64.29	91.67	8.33
₹10,00,001 - ₹12,50,000	72.73	27.27	87.5	12.5
₹12,50,001 - ₹15,00,000	57.14	42.86	70	30
Above ₹15,00,000	60.53	39.47	91.67	8.33
97 Do not want to mention	51.28	48.72	87.1	12.9
<b>Risk Preference</b>				
Low Risk Investment	31.58	68.42	80	20
Medium Risk Investment	40.91	59.09	84.75	15.25
High Risk Investment	60.47	39.53	90.57	9.43
<b>Occupational composition</b>				
Private Sector, salaried	48.39	51.61	85.19	14.81
Public sector, salaried	42.86	57.14	100	0
Self-employed professional	57.14	42.86	94.44	5.56
Business	54.55	45.45	83.33	16.67
Freelancer/ Consultant	60	40	80	20
Homemaker	35	65	81.48	18.52
Retired	80	20	100	0
Retired and partly working again	60	40	0	0
Others	100	0	100	0
<b>Marital Status</b>				
Married	52.24	47.76	87.96296	12.03704
Unmarried	41.94	58.06	76.19048	23.80952
Divorced	50	50		
Separated	0	100	100	0
Widow/Widower	0	100	100	0
Others				



<b>Confidence Level</b>				
Not Confident at all	50	50	100	0
Not Confident	46.15	53.85	81.81818	18.18182
I take help but manage	36.36	63.64	76.74419	23.25581
Confident	59.26	40.74	88.46154	11.53846
Very Confident	60	40	100	0

TABLE A.2(a): Link Test as a test for specification (without adding tax bracket as a control variable).

Logistic regression      Number of obs = 290  
 LR chi2(2) = 85.87  
 Prob > chi2 = 0.0000  
 Log likelihood = -146.32248      Pseudo R2 = 0.2269

q_1_buy	Coef.	Std.Err.	z	P>z	[95%Conf.	Interval]
_hat	0.891	0.141	6.300	0.000	0.613	1.168
_hatsq	-0.116	0.072	-1.620	0.106	-0.257	0.025
_cons	0.102	0.165	0.620	0.536	-0.221	0.425

TABLE A.2(b): Link Test as a test for specification (including tax bracket as a control variable)

Logistic regression      Number of obs = 222  
 LR chi2(2) = 75.94  
 Prob > chi2 = 0.0000  
 Log likelihood = -107.13233      Pseudo R2 = 0.2617

q_1_buy	Coef.	Std.Err.	z	P>z	[95%Conf.	Interval]
_hat	0.947	0.159	5.950	0.000	0.635	1.259
_hatsq	-0.056	0.077	-0.730	0.465	-0.208	0.095
_cons	0.058	0.195	0.300	0.765	-0.323	0.440

TABLE A.3(a): Hosmer Lemeshow's test for goodness-of-fit. This is for the model that excludes tax brackets as control.  
(Table collapsed on quantiles of estimated probabilities)

Group	Prob	Obs_1	Exp_1	Obs_0	Exp_0	Total
1	0.056	0	1.3	31	29.7	31
2	0.097	3	2.1	24	24.9	27
3	0.147	5	3.7	25	26.3	30
4	0.255	5	5.7	23	22.3	28
5	0.346	6	8.8	23	20.2	29
6	0.398	14	11.2	16	18.8	30
7	0.522	13	12.7	15	15.3	28
8	0.614	17	16.5	12	12.5	29
9	0.702	19	19	10	10	29
10	0.987	22	22.9	7	6.1	29
number of observations				=	290	
number of groups				=	10	
Hosmer-Lemeshow chi2(8)				=	5.02	
Prob > chi2				=	0.7554	

TABLE A.3(b): Hosmer Lemeshow's test for goodness-of-fit. This is for the model that includes tax brackets as control. (Table collapsed on quantiles of estimated probabilities)

Group	Prob	Obs_1	Exp_1	Obs_0	Exp_0	Total
1	0.045	0	0.8	23	22.2	23
2	0.073	3	1.4	19	20.6	22
3	0.15	1	2.4	21	19.6	22
4	0.235	5	4.2	17	17.8	22
5	0.333	5	6.3	17	15.7	22
6	0.413	8	8.4	15	14.6	23
7	0.526	12	10.9	11	12.1	23
8	0.614	13	12	8	9	21
9	0.731	12	14.7	10	7.3	22
10	0.993	21	18.9	1	3.1	22
number of observations				=	222	
number of groups				=	10	
Hosmer-Lemeshow chi2(8)				=	7.9	
Prob > chi2				=	0.4432	

TABLE A.4: Column 1 shows the results of the regression of the decision to buy on the type of disclosure and risk preferences of the respondents. Column 2 gives the results of regression, including the control variables except the level of confidence.

Variables	(1) Buy	(2) Buy
Disclosure Type	-2.014*** (0.309)	-2.392*** (0.416)
24 - upto 34 years		-2.885** (1.379)
34 - upto 44 years		-2.900** (1.464)
44 - upto 54 years		-3.049** (1.495)
54 - upto 60 years		-2.849* (1.578)
60 - upto 70 years		-3.499** (1.733)
70 years and above		-
Gender - Female		0.0261 (0.522)
Marital Status - Unmarried		0.246 (0.591)
Marital Status - Divorced		-0.366 (1.504)
Marital Status - Separated		0.0873 (1.600)
Marital Status - Widow/Widower		-
Occupation - Public Sector, salaried		-0.530 (0.843)
Occupation - Self-employed professional		-0.490 (0.597)
Occupation - Business		0.254 (0.670)
Occupation - Freelancer/Consultant		-0.624 (0.969)
Occupation - Home Maker		0.128 (0.715)
Occupation - Retired		-1.442 (1.408)
Occupation - Retired and partly working again		-1.047 (1.467)

Occupation - Others		-
Risk Preference - Medium Risk Investment	-0.364	-0.557
	(0.419)	(0.591)
Risk Preference - High Risk Investment	-1.103***	-1.381**
	(0.425)	(0.601)
Tax Bracket: ₹2,50,001 - ₹5,00,000		-0.861
		(0.696)
Tax Bracket: ₹5,00,001 - ₹7,50,000		-1.193*
		(0.723)
Tax Bracket: ₹7,50,001 - ₹10,00,000		-0.340
		(0.643)
Tax Bracket: ₹10,00,001 - ₹12,50,000		-1.583*
		(0.826)
Tax Bracket: ₹12,50,001 - ₹15,00,000		-0.628
		(0.804)
Tax Bracket: Above ₹15,00,000		-1.161*
		(0.638)
Constant	0.709*	4.859***
	(0.389)	(1.730)
Controls	No	Yes
Observations	303	226

Standard errors in parentheses \*\*\* p < 0.01, \*\* p < 0.05, \* p < 0.1