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Behavioural Insights in Insurance – A Background Note

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With a cumulative global premium collection of USD 4,641 billion,[1] insurance is one of the key financial industries of the world. It is also a highly technical sector, since insurance product design and management involves sophisticated statistical and financial modelling. Still, it is a widely held belief amongst experts and industry players that, "Insurance is never bought, it is always sold". This anomaly of demand and apathy of users towards insurance is probably one of the great mysteries of the financial world. Numerous research studies on insurance have focused on the preference and willingness of consumers, but have failed to predict the real triggers of insurance demand.

In this Note, we highlight some of the behavioural explanations for insurance purchase and use decisions. Through the lenses of both academic and business understanding, we explain the rationale of consumer behaviour and delineate some probable behavioural triggers for positive decisions.

Behavioural Barriers to Insurance Adoption

The conventional wisdom in insurance industry is built on the assumptions of expected utility and optimum deductible, based on the following assumptions:
- People can fully and accurately assess the likelihood/probabilities of risks in their lives and assess the associated costs;
- Risk averse individuals are willing to pay and purchase insurance at a price greater than their expected loss; and
- There is an optimum equilibrium of the price-sum assured combination, at which people are willing to purchase insurance.

In real world, however, insurers often face anomalies of insurance demand, which results in:
- People not buying insurance voluntarily; or
- People resist buying insurance, even if the insurance premium is partly subsidised (e.g. government subsidised insurance or lot of microinsurance products that are priced lower than optimum and yet suffer low demand); or

- People buying costly insurance products, in cases even where the likelihood of the event is minimal (e.g. purchase of warranties in electronics items).

While information asymmetry and search costs explain part of the phenomena, a more in-depth research reveals behavioural factors contributing to such demand anomalies. Research suggests the following behavioural factors and biases govern insurance purchase decisions of individuals.[2]

Loss Aversion: Individuals are more sensitive to small losses than large gains. In insurance, the premium expenditure is a certain and near term expense, while the claim benefit is uncertain and distant, hence perceived as a potential loss. Unlike the expected utility theory assumption, individuals are found to be loss averse relative to the deductible offered. Hence, often they choose the highest deductible, i.e. not buying any insurance.

Mental Accounting: Insurance is often found not to reflect individuals' own assessment of risk as much as it reflects their current expenditure patterns. People mentally allocate their planned expenditures into different accounts, so that they feel constrained in spending on other activities. In *MicroSave*'s research on household money management metaphors, we came across the tendency of low income households to *create balance* between their income and expenditure by segregating their expenses according to certainty and negotiability of the expense item.[3] In the context of insurance, people often refrain from commitments to paying premiums, either because:
- They do not have a risk protection account in their mental model; or
- They have already exhausted the account through other measures/commitments; or
- Insurance premiums are an uncertain and negotiable type of the expense, which is mentally not mapped to be met through routine income.

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[1] Swiss Re Sigma Study on World Insurance 2013
[2] Kunreuther Howard, Pauly Mark and McMorrow Stacey; Insurance and Behavioral Economics- Improving Decisions in the Most Misunderstood Industry; Cambridge Publication; 2013
[3] Mas Ignacio and Mukherjee Premasis; Musings on Money: The Household Money Management Model of Mass Market, *MicroSave*, 2013

Status Quo Bias: Individuals are reluctant to depart from the status quo, even though there might be substantial benefit in doing so. Since insurance is a new product category for low income households, people tend to resist commitments to insurance and instead continue to focus on current risk coping mechanisms including credit from friends and relatives, informal savings and (to some extent) on risk minimisation efforts.

Goal Based Motivations: People often make decisions on the basis of the multiple goals the decision meets. A decision maker focuses on fulfilling these goals through the decision, rather than maximising its utility. When the goals in favour of insurance purchase are weighed more by an individual over the goals of not purchasing, the purchase happens. Some of the common goals in insurance purchase decisions are:

- *Satisfying Requirements*: Many insurance products are sold as mandatory requirements for some other products, e.g. credit-life insurance for loans; homeowners' insurance for mortgages; motor insurance etc. In such cases, purchasing insurance is perceived as a sub-goal for meeting the end goal.
- *Investment Goals*: Many view insurance as an investment that can and would be redeemed at an appropriate time, i.e. when the claim happens. Any unclaimed year/period, therefore, is seen by them as a waste of the investment.
- *Emotion Related Goals*: Insurance is often purchased in anticipation to:
  o Reduce the anxiety of experiencing a financial loss; and/or
  o Avoid the regret of not purchasing insurance, should the event occur; and/or
  o Console themselves in case the underlying asset is lost.

  The severity of the outcome (as opposed to probability) takes centre stage in such cases, since the individual has a strong emotional feeling attached to the event.
- *Satisfying social and/or cognitive norms*: Many insurance purchase decisions are based on what the individual's immediate social circle is doing or expect her/him to do. Insurance purchase, in such cases is to fulfil the social proof or act according to predetermined/ socially acceptable information.

Weighting Function: Individuals generally assign relatively high weightage to low probability events, and low weightage to high probability events. Hence, impact of insurable events is often ignored by them. However, in rare cases when loss probability is considered in the insurance purchase decision, it is mostly affected by primacy and/or recency effect, rather than actuarial probability. In such cases, there is an increased readiness to purchase insurance even at a higher than optimum premium.

Availability Bias: In the real world of imperfect information, individuals depend on heuristic judgement of risk, probability and impact, based on their awareness and exposure. More often than not, such a judgement is distant from the actuarial calculations and creates an anomaly in demand.

Behavioural Biases of Insurance Suppliers

While most of the behavioural anomalies have been analysed around consumer behaviour, a close look at the industry reveals that even the insurance suppliers – insurers and re-insurers - are not able to overcome their behavioural biases, particularly *recency* and *availability bias*. Some evidence of such supplier led behavioural biases include:

- Significant increase in terrorism coverage premiums immediately after the 9/11 attack on United States;
- Insurers become reluctant to offer property insurance to areas where an earthquake/disaster has hit recently;
- Re-insurance are found to reduce their price, if disasters have not occurred in recent times.

In India, newly entering private insurance companies (and their agents) mis-sold market linked insurance policies (ULIPs) as short term investment products, even at the cost of very high distribution expenses (and associated loss) to maintain their top-line growth and market share. This phenomenon cost Indian insurance consumers USD28 billion and resulted in the exodus of many foreign insurance investors. *(Source: Estimating Losses to Customers on Account of Mis-selling Life Insurance Policies in India, Halan Mi et.al., Indira Gandhi Institute of Development Research, April 2013).*

Conclusion

It is clear that probability modelling alone is insufficient to motivate consumer decisions around insurance purchase. Insurers must employ the right set of behavioural triggers in the product and process design. Only such user centric design approaches can unlock the full potential of consumers' insurance need and demand.

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4 The Construction of Preference, Paul Slovic and Sarah Lichtenstein, Cambridge Publication, 2006