A study on behavioural biases affecting investmentdecisions in life insurance in Gujarat

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Abstract

In essence, life insurance serves as a tool for protecting lives from unforeseen events or fatalities. It offers financial defense against such dangers. Every person may have a different reason for purchasing life insurance. At present the 152 respondents of life insurance company investments. Investors are confused about which product to buy and which company to use because there are so many life insurance companies and a wide variety of products available. Therefore, in order to develop their marketing strategies, marketers are curious about the investment behaviour of life insurance investors. We are using eight behaviour biases for developing structured model leads to investment decision making in life insurance. The statistical tools PLS (SEM) evaluate boost strapping, factor loading, internal consistency and HTMT analysis. The goal of the current study is to understand how people behave when it comes to life insurance as well as the issues they encounter. According to the survey, life insurance investors heavily rely on their insurance advisors and they are their primary source of financial advice.

Keywords: Life Insurance, Investment Decision, behaviour biases.

1. Introduction

A speculative resource is purchased month-to-month basis with the expectation that it will provide income in the future(Babajide & Adetiloye, 2012). Time, money, effort, and other resources are all part of speculation. For example, saving money gives it something to do to start or expand activity(D Sidhardha, 2017). A project used to generate future compensation. Different types of speculation include growth enterprises, shares, real estate, defensive ventures, cash, fixed income, and others(Mr. Sandeep Deshmukh, 2017). There are several sorts of financial speculation, including the acquisition of bonds, stocks, real estate, Etc.

Speculation is also used to advance our nation's financial situation. Utilising interest in the business community, financial development may be re-energised. It might boost the nation's Gross Domestic Product (GDP)(Sheth & Bhatt, 2019). A specific area of banking known as interest in banking involves creating capital for various organizations and governments(Apple, 2016). Some people consider the endeavour to be gambling. However, some experts provide complete security about their venture techniques. In opinion, each person needs to invest money in various areas for their future(K. Kavyashree, 2016).

1.1 Life Insurance

An agreement for life coverage exists between the owner of an insurance policy and the supplier of a safety net(DESHPANDE, 2017). Where the guarantor promises to pay the receiver of the benefit (amount of money) in exchange for a premium following the death of a protected person. The Amicable Society for a Perpetual Assurance Office, founded in London in 1706, was the first company to provide catastrophe insurance in a long time.

The most valuable resource in the world is human life. The most significant sort of insurance is thus life insurance. It offers an individual and his family financial security against unforeseeable hazards. In India, LIC contributes significantly to the well-being of people by offering them insurance against life hazards. Life insurance in India was a monopoly for LIC up until 1999. Customers make up the bulk of the life insurance market.

2. Development Hypothesis considering Literature Review

A predisposition is referred to as an incorrect inclination or foolish belief. Humans tend to rationalise away any data that contradicts their convictions(Dr. C Selvarani, 2017). It is a human flaw, and since financial supporters are also humans, they are accountable for it. Any dynamic interaction requires the appropriate use of intellectual and financial resources to collect and manage data(Moran Ofir, December 23, 2012). People often stray from discernment or utilise intellectual or close-by domestic commerce pathways to decide quickly on choices to get quick results. Predispositions dictate these types of choices.

Confirmation Bias

According to Parmley (October 2006), affirmation bias occurs when people hunt for or interpret evidence using techniques that may be biased toward their current beliefs, expectations, or conjecture. Many people investigate affirmation bias, but social psychologists are the ones that focus on it the most. (Parmley, October, 2006) designed a project in which participants are required to find out a rule that determines which of a chain of three-variety strings is accurate and which may be incorrect(Dr. C Selvarani, 2017).The variety string "2-4-6" was handed to the subjects, who were informed that it had been changed to "right." After that, they were given a chance to create string variations.

H1: Confirmation bias has a substantial effect on the funding choice of existing insurance

Familiarity Bias

a method of thinking that values well-known things above those unfamiliar (Home inclination). Putting resources into, for example, the values of nearby organisations. People have a natural tendency to gravitate toward things that they may recognise(Jain., 2018). For instance, financial supporters prefer to invest resources in well-known security measures rather than those they are unfamiliar with(Subash, 2011/2012). This is predicated on the understanding that a powerful demon is preferable to a convoluted divine messenger. In light of this heuristic, we are told that "like produces like" and "look methods reality." For instance, familiarity creates conjecture(Mohapatra & Samal, 2020).

H2: Familiarity significantly affects the funding choice of life insurance.

Cognitive Dissonance

When an investor must choose between choices, there is a significant chance that a disagreement may also emerge after the decision has been made. The drawbacks of the option he chose will almost certainly stand out, while the advantages of the missed chance will make the battle harder(Guru.P, 2019). The investor's faith in the decision he just made is therefore weakened. "Psychologists contend that people constantly engage in lofty rationalisations to maintain mental equilibrium and coordinate their cognitions." As a result, there are aspects of cognitive dissonance that might influence decision-making(Subash, 2011/2012). That occurs because the investor's steadfast adherence to the original decision drives him to justify actions to keep hold of it, even when they are no longer the best ones.

H3: Cognitive Dissonance Bias has a massive effect on the funding choice of life insurance.

Self-Attribution bias

A key concept in psychology is self-attribution bias, which refers to people's propensity to take credit for their successes while attributing failures to factors outside their control(Y.V.Reddy, 2010). However, self-attribution bias is becoming more well-known in the context of subjective financial judgments. For example, keeping a profitable inventory is preferable to maintaining a losing inventory(Ms. Babita Yadav, 2012). Furthermore, research has shown that the self-attribution bias impacts financial decisions made by Australian corporate treasures and those of male and female investors(Sachin Dev, 2017).

H4: Self-attribution has a sizeable effect on the funding choice of life insurance.

Loss Aversion bias

Loss aversion is the tendency for individuals to prioritise preventing losses above increasing their revenue(Babajide & Adetiloye, 2012). The study of decision-making under Neath uncertainty by ((Buzatu, 2013)) found that the best explanation is to expect that the leading carriers of application are not states of wealth but changes relative to an unbiased reference point, including the status quo. In their paradigm, income and losses are given value instead of the last possessions(Muhammad Atif Sattar, 2020). While losses have a

convex price characteristic, gains have a concave price feature. Gains have a more gradual price characteristic than losses. According to empirical estimates of loss aversion, the perceived disutility of a loss is twice as great as the application of gain(Sandeep Chaudhary, 2016).

H5: Loss Aversion has a sizeable effect on the funding choice of life insurance.

Herding impact

The herding effect refers to the pattern of copying the actions of others in terms of money and decision-making when it comes to purchasing and selling real estate(D Sidhardha, 2017). Experts carefully examine the herd effect since, in the market, most traders rely on collective information rather than private sources, which may significantly deviate costs from fair value and reduce the cap potential for profits or losses(Navarathinam, 2016). Researchers respect the herd effect because it influences the risk and returns principle, which significantly impacts actual property and inventory expenditures. In general, herding merchants behave more like prehistoric people, who had limited knowledge of their surroundings and formed organisations to help one another and find safety(Sandeep Chaudhary, 2016).

H6: Herd conduct bias might impact the overall funding performance of Indian traders

Availability Bias

The supply heuristic, also known as the availability bias, occurs when judgement heuristics are combined with easily remembered information in humans. As a consequence, traders rely on their assessment of the stock market risk only on information that is easily accessible to them when they choose to make an investment(Charles, 2016). Simple to get from various sources, including ads, friends, and financial experts. Decisions are based on the accessibility and availability of the statistics(Apple, 2016). Investors choose their inventory based on what presently has their attention. Events that are easier to recall, conceive, or sense may have a higher probability than events that are more difficult to do.

H7: Availability Bias has a sizeable effect on the funding selection of existence insurance.

Anchoring

"People develop estimates in various circumstances by starting with a preliminary range and adjusting it to get the conclusion. The difficulty specification or the results of a partial calculation may be used to identify the starting value, also known as the beginning factor. In each scenario, adjustments are often insufficient(Anuradha Samal, 2020). In other words, estimates that are entirely based on different starting points are biased in favour of the initial values. "In negotiations, counteroffers are created through an anchoring-and-adjustment process that results in the impact of the anchor factor(Sachin Dev, 2017). These counteroffers are stimulated by changes in the reference factor, which determine whether the anchor factor is perceived as an advantage or a loss.

H8: Anchoring has a sizeable effect on the funding selection of existing insurance.

Hypothetical Model
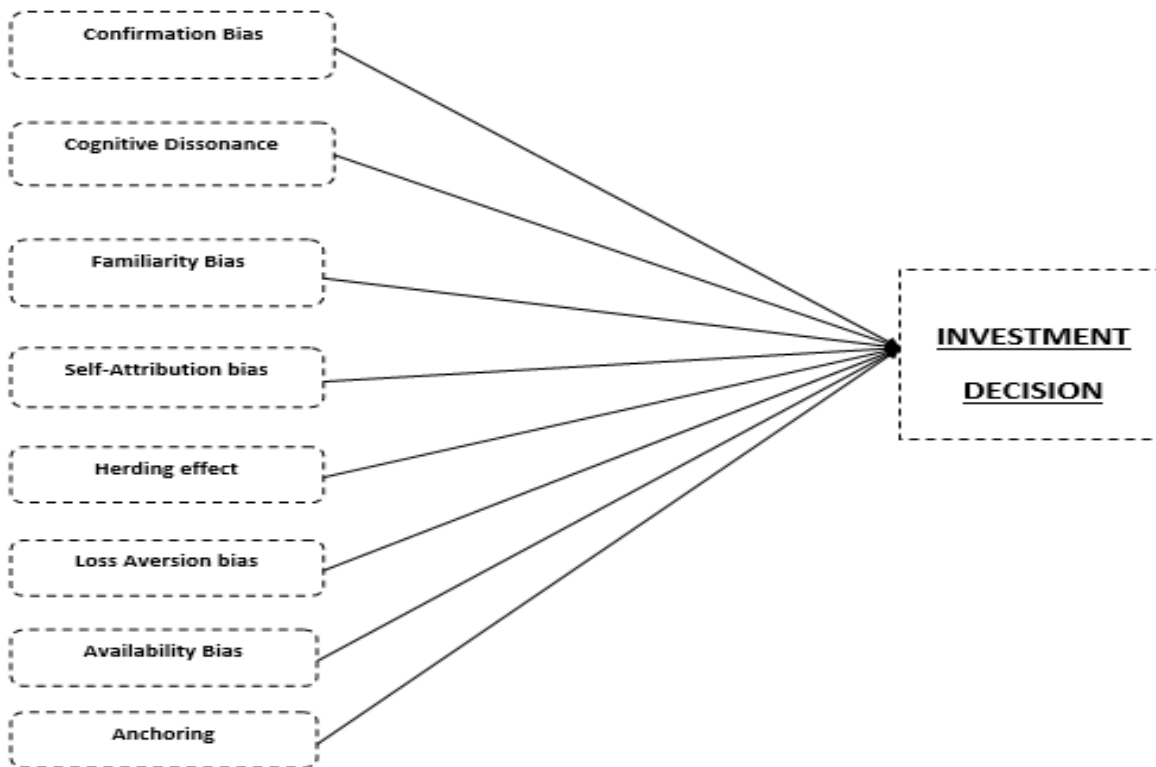
3. Methodology

Both primary data—such as surveys, questionnaires, and the like—and secondary data—such as a comprehensive assessment of previous work—were used in the study to gather insights. The secondary data were gathered via an analysis of the literature, which helped to identify the independent factors that impact investor behaviour, portfolio choice, and performance. An online survey with a sample group of people with an investment portfolio was used to gather the primary data. The graphic below depicts the connection between the determined dependent and independent variables.

The respondents' answers to 152 self-administered questions were utilised to compile the statistics. All of the variables in the study model were measured using a questionnaire on a 5-point Likert scale, with 1 denoting "strong disagreement" and five denoting "strong agreement." All of the tools were modified from earlier works of literature in order to assess performance. For this investigation, 152 questionnaires in total were employed. The evaluation of the validity and reliability of these constructs' measurements within the context of the study framework is presented in the next section.

The table below shows how detailed the respondents' attributes and investment goals were distributed.

Item	Measure	Frequency	Percentage
	19-30	71	47
Age	31-40	61	40

	41-50	16	10
	51-60	04	03
	>60	0	0
Occupation	Agricultural	04	03
	Salaried	106	66
	Business	40	26
	Other	07	05
Income	5000-9999	13	09
	10000-14999	16	10
	15000-19999	30	20
	20000-24999	54	35
	>25000	39	26
Preferred Life insurance Company	LIC	60	40
	SBI life insurance	17	11
	ICICI Prudential life insurance	17	11
	HDFC Standard life insurance	11	07
	Bajaj Allianz life insurance	14	09
	Max life insurance	08	05
	Birla Sun life insurance	00	00
	Kotak life insurance	09	06
	Edelweiss Tokio Life Insurance	16	11

4. Data analysis

Through online polls, primary data were gathered and simulated. Smart PLS (PL-SEM), a structural equation modelling tool that aids in modelling variance-based structural equations for posing hypotheses and subsequently creating the research framework, was used for data modelling (D Sidhardha, 2017). Two stages

were used in doing the analysis. The structural model was the first step, which required an estimate via modelling, and the reliability and validity were used to assess the best model fit in the second phase (Dijkstra and Wilson, 2012). The PLS (partial least square) approach was used using the Smart PLS 2.0M3 software (Ringle, Wende, and Will, 2005) to verify the observations and test the hypotheses. Model estimation is done using a component-based strategy using the PLS method. It works well for testing intricate structural models. The PLS approach was used since it does not impose normalcy criteria on the data. Path modelling with latent variables was performed using the SmartPLS 2.0 M3 programme, available at http://smartpls.com (Ringle et al., 2005). The instrument is most well-known for evaluating the reliability and validity of constructs. Additionally, 207 examples (sample size) were used in bootstrapping to get the standard error of the estimate and t-values. The PLS approach is used by the Smart PLS programme to analyse theory and measurements (Hulland, 1999) concurrently.

Inner model

Factor	FL	Tolerance	VIF
Confirmation bias	0.8235	0.2047	4.8847
	0.8477	0.2286	4.3731
	0.8015	0.2191	4.5627
	0.8300	0.2196	4.5229
	0.8479	0.2308	4.3327
	0.8103	0.2322	4.3049
	0.9235	0.2161	4.6273
Cognitive dissonance	0.8122	0.2742	3.6466
	0.8357	0.2817	3.5496
	0.8011	0.3317	3.0147
	0.8217	0.3362	2.9736
Familiarity Bias	0.9160	0.2266	4.4123
	0.9148	0.2673	3.7408
	0.8354	0.3341	2.9930
	0.9190	0.2558	3.9091

Self-Attribution bias	0.8720	0.4916	2.0340
	0.8321	0.5459	1.8317
	0.8215	0.5481	1.8243
Herding effect	0.8741	0.3105	3.2202
	0.8219	0.3978	2.5134
	0.8326	0.2806	3.5633
	0.7121	0.3028	3.3020
	0.7425	0.3326	3.0063
	0.7653	0.2923	3.4203
Loss Aversion bias	0.8231	0.2862	3.4934
	0.8569	0.3148	3.1766
	0.8145	0.3102	3.2237
	0.8476	0.2753	3.6318
	0.9416	0.2810	3.5584
Availability Bias	0.9367	0.3886	2.5732
	0.8232	0.4033	2.4793
	0.8051	0.4761	2.1003

Internal Consistency:

Internal consistency quantifies the degree to which survey or test questions designed to assess the same idea do so consistently. A construct is an underlying idea, quality, or skill, such as customer satisfaction or reading comprehension. The outcomes are comparable when items created to assess the same idea have a high internal consistency. There are many different approaches to gauging internal consistency. Typically, they include figuring out how closely and accurately connected various components are. A popular statistic is Cronbach's alpha. When employing internal consistency measurements, items should typically be on a single measuring instrument and given to a group of individuals on a single occasion to remove confounding influences.

Factor	Cronbach's Alpha	Rho_A
Confirmation Bias	0.9547	0.9550
Cognitive Dissonance	0.9278	0.9354
Familiarity Bias	0.9344	0.9353
Self-Attribution bias	0.8271	0.8295
Herding effect	0.8888	0.9152
Loss Aversion bias	0.9382	0.9385
Availability Bias	0.9382	0.9385
Anchoring	0.8421	0.8654

The acceptable value of alpha in reliability analysis for IQ testing is 0.8, but it is 0.7 for ability tests, according to Rasool & Ullah (2019). A well-liked technique for figuring out composite dependability in SEM is Jöreskog's rhô. Reliability indicators include RHO and composite validity (CR). They are quickly identified based on various variables (unstandardised or standardised). An unstandardised loading-based dependability indicator is the "Joreskogrhô." Two well-known methods for achieving this may be used to assess internal consistency(Shah & Bhatt, 2022).

H.T.M.T Ratio:

For behavioural scientists, latent variables' discriminant validity is essential. The statistical distinctions between two latent variables representing various theoretical concepts are called discriminant validity. A popular technique for assessing discriminant validity is the Fornell-Larcker criterion (Fornell & Larcker, 1981). The Fornell-Larcker criterion, however, lacks specificity when combined with consistent estimates and sensitivity when combined with results from variance-based structural equation modelling, such as conventional partial least squares path modelling and generalised structured component analysis (Charles, 2016).

Table: HTMT								
HTMT	Confirmation Bias	Cognitive Dissonance	Familiarity Bias	Self-Attribution bias	Herding effect	Loss Aversion bias	Confirmation bias	Availability Bias
Investment decision	0.8259							
Confirmation Bias	0.5361							
Cognitive Dissonance	0.5233	0.5158						
Familiarity Bias	0.5350	0.4680	0.4329					
Self-Attribution bias	0.5246	0.4329	0.4104	0.4237				
Herding effect	0.4142	0.4102	0.3148	0.4256	0.2929			
Loss Aversion bias	0.1844	0.1411	0.17300	0.1285	0.2011	0.0825		
Availability Bias	0.4232	0.0521	0.4521	0.1423	0.1210	0.089	0.8412	
Anchoring	0.2145	0.3210	0.2011	0.1415	0.0854	0.0321	0.1425	0.2415

Boot-strapping:

A statistical bootstrapping method may generate many simulated samples from a single dataset. Standard errors, confidence intervals, and hypothesis testing may all be determined (Fazil, 2016). A bootstrapping strategy for hypothesis testing is a suitable replacement for the traditional approach since it is simple to use and does not have some drawbacks, which will be discussed later. The sample distribution and

the interest feature's standard error are often employed in statistical inference. The traditional method, commonly referred to as the "large sample approach," employs a size-n random sample taken from the population to provide estimates of the population from which conclusions may be drawn. In actuality, just one sample has been seen. On the other hand, a sampling distribution is a hypothetical collection of all possible estimates if the population were to be resampled.

Bootstrapping and effect size:

Effect	β	t	Significance	Decision	F^2	Decision
CB -> ID	0.2898	10.8528	0.0267	*Support*	0.2307	*Strong*
CD -> ID	0.1585	5.6099	0.0283	*Support*	0.0812	*Medium*
FB -> ID	0.1546	5.7268	0.0270	*Support*	0.0830	*Medium*
SAB -> ID	0.2773	13.3344	0.0208	*Support*	0.2767	*Strong*
HE -> ID	0.2079	10.0056	0.0208	*Support*	0.1459	*Medium*
LA -> ID	0.1728	7.6906	0.0225	*Support*	0.1153	*Medium*
AB -> ID	0.0260	1.5199	0.0171	*Support*	0.0032	*Negligible*
ANC->ID	0.0140	2.3210	0.0012	*Support*	0.1021	*Medium*

Table 1: Bootstrapping and effect size

4.1 Suggestions

Insurance firms should educate the public about the value of life insurance by publishing booklets and disseminating information. Broker or advisor. This will make it easier for the insurance firm to penetrate the fabric of society. Insurance businesses should use new Customer Relationship Management strategies to attract new policyholders. The insurance industry should include ethical standards in its policies and uphold consumers' information rights. Insurance firms should improve their online facilities and security. It is always preferable for life insurance firms to comprehend consumer needs and offer them the goods or services they want. Investors should gather all available information on the benefits and drawbacks of life insurance coverage. The investor's choice to purchase a life insurance policy should be sensible and based on the state of the market. They should not base their investments on their prior performance. Investors should abandon their misconceptions and strive to invest in fresh, more advantageous strategies. Before purchasing, investors unfamiliar with life insurance products should speak with a professional agent or adviser.

5. Conclusion

The most recent global financial crisis highlights the significance of pinpointing the variables affecting investors' behaviour while assessing their investment decision-making process. Everybody needs life insurance since it is a crucial kind of insurance. The proper support system for the life insurance industry is its customers. It is always preferable for life insurance firms to comprehend consumer needs and offer them the goods or services they want. We deduced from the survey that most investors firmly believe they should invest in term insurance to protect their families' risks (DESHPANDE, 2017). We conclude the research that all behavioural biases impact an investor's choice to purchase a life insurance policy. We categorised these biases into three primary categories using the data from the factor analysis, which are: 1.) Get affected by other people's decisions 2.) Potentially profitable investments 3.) Investments based on prior performance.

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